Full wwPDB X-ray Structure Validation Report ⓘ

May 15, 2020 – 07:34 pm BST

PDB ID	:	4V8F
Title	:	Crystal structure analysis of ribosomal decoding (near-cognate tRNA-ttyr complex with paromomycin).
Authors	:	Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2011-12-07
Resolution	:	3.30 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The following versions of software and data (see references ⓘ) were used in the production of this report:

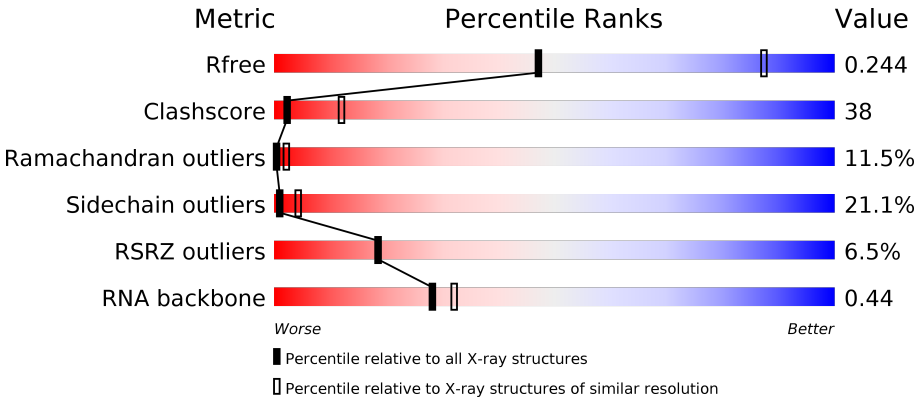
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)
RNA backbone	3102	1117 (3.70-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	2912	% 28% 49% 21% ·
1	DA	2912	2% 27% 50% 21% ·
2	AB	122	% 24% 55% 19% ·
2	DB	122	% 23% 55% 21% ·

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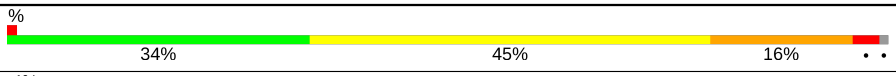
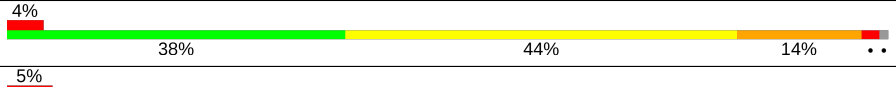
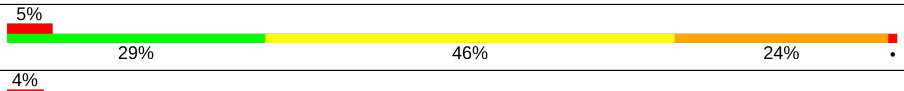
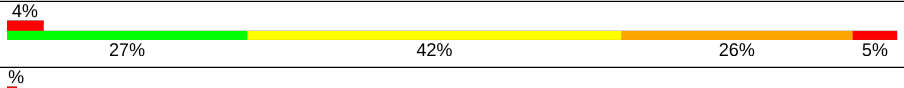
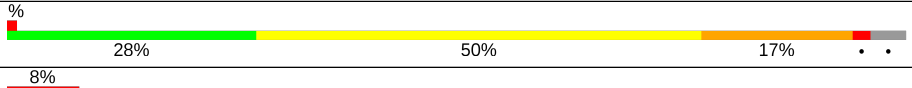
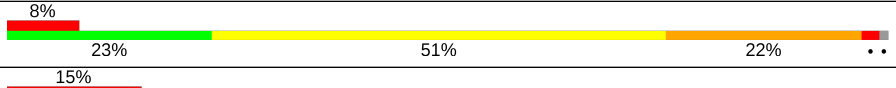
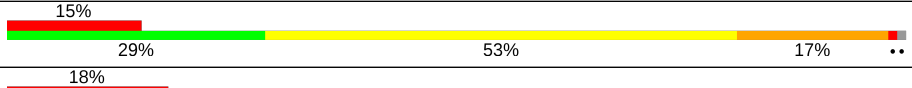
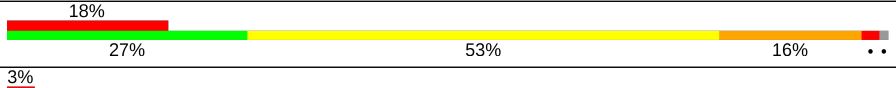
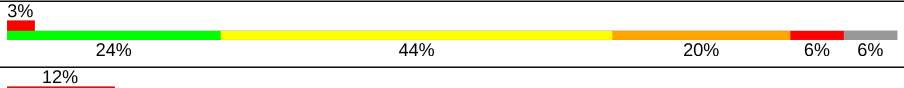
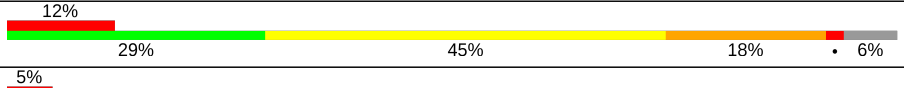
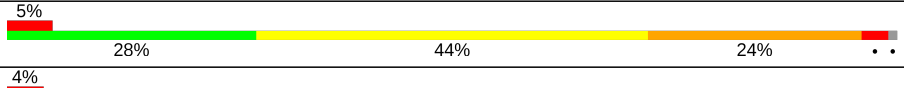
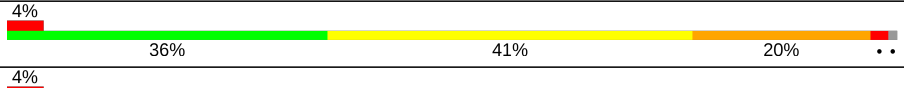
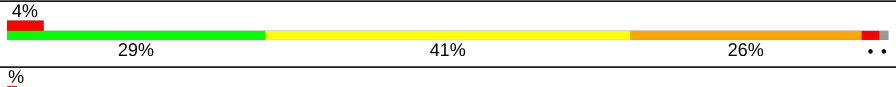
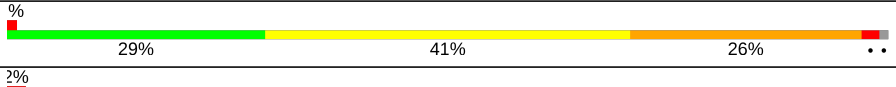
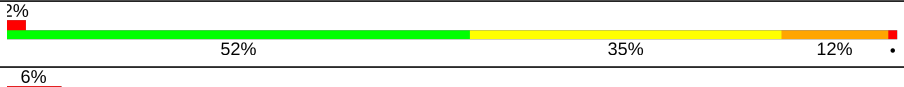
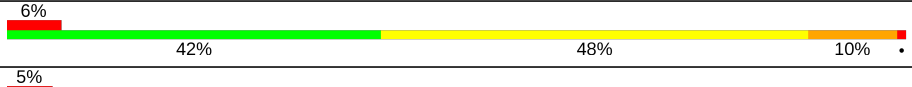
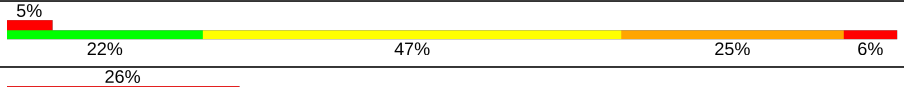
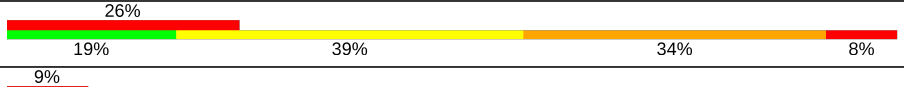
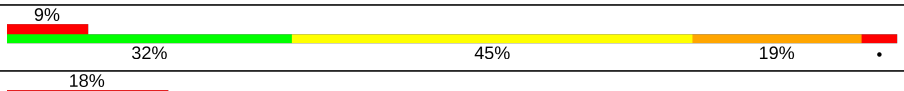
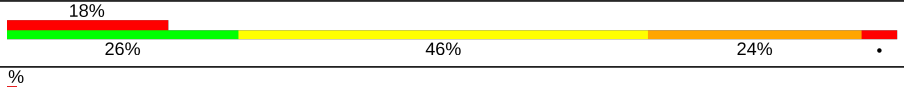
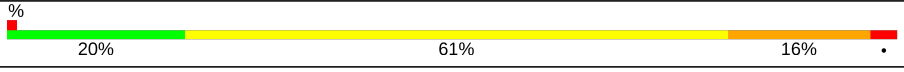
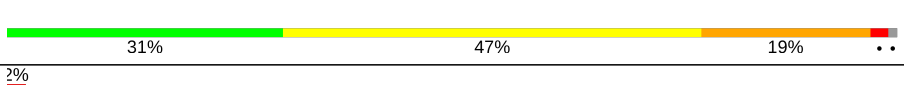
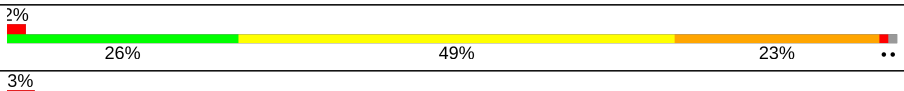
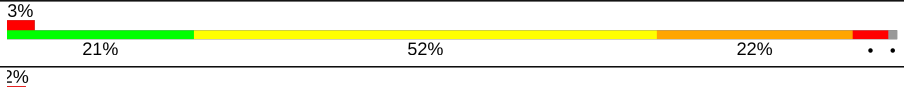
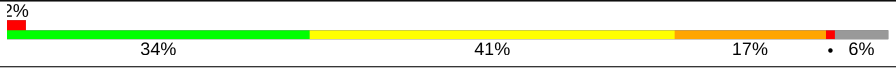
Mol	Chain	Length	Quality of chain
3	AD	276	
3	DD	276	
4	AE	206	
4	DE	206	
5	AF	210	
5	DF	210	
6	AG	182	
6	DG	182	
7	AH	180	
7	DH	180	
8	AK	148	
8	DK	148	
9	AM	140	
9	DM	140	
10	AN	122	
10	DN	122	
11	AO	150	
11	DO	150	
12	AP	141	
12	DP	141	
13	A0	118	
13	D0	118	
14	AQ	112	
14	DQ	112	
15	AR	146	

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Mol	Chain	Length	Quality of chain
15	DR	146	8% 28% 45% 21% 6%
16	A1	118	2% 33% 44% 19%
16	D1	118	8% 29% 53% 16%
17	A2	101	5% 33% 46% 18%
17	D2	101	24% 27% 39% 26% 9%
18	AS	113	2% 28% 57% 15%
18	DS	113	3% 39% 42% 19%
19	AT	96	1% 43% 36% 16%
19	DT	96	5% 31% 45% 19%
20	AU	110	7% 33% 37% 20% 7%
20	DU	110	16% 21% 32% 36% 7%
21	AV	206	40% 21% 44% 17% 15%
21	DV	206	41% 21% 39% 26% 13%
22	A3	85	2% 31% 40% 19% 11%
22	D3	85	4% 27% 53% 11% 9%
23	AZ	98	1% 43% 40% 15%
23	DZ	98	2% 43% 39% 17%
24	AW	72	1% 36% 36% 14% 6% 8%
24	DW	72	3% 24% 49% 17% 8%
25	AX	60	35% 52% 10%
25	DX	60	18% 28% 55% 15%
26	A4	71	45% 18% 45% 27% 7%
26	D4	71	68% 13% 41% 30% 6% 11%
27	A5	60	12% 30% 43% 20% 5%
27	D5	60	10% 37% 48% 13%

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Mol	Chain	Length	Quality of chain
28	A6	54	83% 22% 28% 30% 17%
28	D6	54	72% 19% 37% 28% 17%
29	A7	49	33% 49% 10% 8%
29	D7	49	35% 45% 12% 8%
30	A8	65	5% 23% 43% 18% 8% 8%
30	D8	65	8% 29% 31% 28% 5% 8%
31	BA	1506	20% 58% 21%
31	CA	1506	24% 55% 20%
32	BE	256	11% 23% 46% 22% 7%
32	CE	256	25% 23% 48% 19% 7%
33	BF	239	10% 28% 44% 13% 14%
33	CF	239	13% 24% 45% 16% 14%
34	BG	208	% 38% 41% 20%
34	CG	208	2% 35% 43% 20%
35	BH	162	2% 31% 44% 17% 7%
35	CH	162	2% 29% 48% 16% 7%
36	BI	101	25% 36% 51% 12%
36	CI	101	2% 41% 51% 8%
37	BJ	156	5% 35% 47% 17%
37	CJ	156	3% 38% 48% 12%
38	BK	138	% 30% 54% 16%
38	CK	138	% 40% 48% 12%
39	BL	128	3% 32% 47% 20%
39	CL	128	2% 26% 48% 22%
40	BM	105	10% 32% 50% 12% 6%

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Mol	Chain	Length	Quality of chain
40	CM	105	4% 22% 55% 17% 6%
41	BN	129	10% 37% 41% 14% 8%
41	CN	129	35% 43% 42% 8% 8%
42	BO	132	6% 39% 42% 13% 5%
42	CO	132	17% 30% 45% 19% 5%
43	BP	126	2% 29% 42% 20% 8%
43	CP	126	9% 13% 58% 20% 7%
44	BQ	61	21% 48% 18% 8% 5%
44	CQ	61	18% 20% 51% 18% 7% 5%
45	BR	89	48% 37% 13%
45	CR	89	% 42% 43% 13%
46	BS	88	24% 56% 13% 5%
46	CS	88	% 41% 44% 10% 5%
47	BT	105	2% 31% 48% 14% 5%
47	CT	105	3% 41% 46% 6% 5%
48	BU	88	25% 26% 41% 14% 18%
48	CU	88	20% 44% 30% 7% 18%
49	BV	93	5% 27% 39% 15% 16%
49	CV	93	18% 24% 39% 18% 16%
50	BW	106	20% 58% 14% 7%
50	CW	106	% 26% 47% 19% 7%
51	BX	27	37% 52% 7%
51	CX	27	7% 26% 56% 7% 7%
52	BB	85	69% 13% 40% 46%
52	BD	85	8% 14% 46% 39%

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Mol	Chain	Length	Quality of chain
52	CB	85	85% 6% 34% 56%
52	CD	85	% 7% 54% 36%
53	BC	77	% 40% 40% 19%
53	CC	77	% 34% 43% 23%
54	B1	16	19% 25% 38% 38%
54	C1	16	13% 13% 38% 50%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	A3	101	-	-	-	X
55	MG	AA	3096	-	-	-	X
55	MG	AA	3142	-	-	-	X
55	MG	AA	3215	-	-	-	X
55	MG	AA	3222	-	-	-	X
55	MG	AA	3236	-	-	-	X
55	MG	AA	3245	-	-	-	X
55	MG	AA	3277	-	-	-	X
55	MG	AA	3279	-	-	-	X
55	MG	AA	3291	-	-	-	X
55	MG	AA	3305	-	-	-	X
55	MG	AA	3337	-	-	-	X
55	MG	BA	1615	-	-	-	X
55	MG	BA	1624	-	-	-	X
55	MG	BA	1675	-	-	-	X
55	MG	BA	1699	-	-	-	X
55	MG	BA	1714	-	-	-	X
55	MG	BB	104	-	-	-	X
55	MG	BB	106	-	-	-	X
55	MG	CA	1629	-	-	-	X
55	MG	CA	1641	-	-	-	X
55	MG	CA	1668	-	-	-	X
55	MG	CA	1672	-	-	-	X
55	MG	CA	1674	-	-	-	X
55	MG	CA	1685	-	-	-	X
55	MG	CA	1686	-	-	-	X
55	MG	CA	1699	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	CA	1720	-	-	-	X
55	MG	CB	101	-	-	-	X
55	MG	CC	103	-	-	-	X
55	MG	CC	104	-	-	-	X
55	MG	DA	3048	-	-	-	X
55	MG	DA	3053	-	-	-	X
55	MG	DA	3112	-	-	-	X
55	MG	DA	3145	-	-	-	X
55	MG	DA	3158	-	-	-	X
55	MG	DA	3196	-	-	-	X
55	MG	DA	3201	-	-	-	X
55	MG	DA	3203	-	-	-	X
55	MG	DA	3252	-	-	-	X
55	MG	DA	3295	-	-	-	X
55	MG	DA	3307	-	-	-	X
55	MG	DA	3311	-	-	-	X
55	MG	DA	3320	-	-	-	X
55	MG	DA	3330	-	-	-	X
55	MG	DA	3331	-	-	-	X
55	MG	DB	206	-	-	-	X
56	OHX	AA	3330	-	-	X	-
56	OHX	AA	3365	-	-	X	-
56	OHX	AA	3504	-	-	X	-
56	OHX	AA	3547	-	-	X	-
56	OHX	BA	1785	-	-	X	-
56	OHX	BA	1802	-	-	X	-
56	OHX	CA	1762	-	-	X	-
56	OHX	CA	1798	-	-	X	-
56	OHX	CC	108	-	-	X	-
56	OHX	D8	101	-	-	X	-

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 304031 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called RNA (2912-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
1	DA	2907	Total	C	N	O	P	0	0	0
			62607	27866	11712	20123	2906			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	161	U	-	INSERTION	GB AP008226.1
AA	654A	A	G	CONFLICT	GB AP008226.1
AA	654E	C	G	CONFLICT	GB AP008226.1
AA	654P	G	C	CONFLICT	GB AP008226.1
AA	654T	A	C	CONFLICT	GB AP008226.1
AA	1058	U	G	CONFLICT	GB AP008226.1
AA	1080	A	C	CONFLICT	GB AP008226.1
DA	168	U	-	insertion	GB AP008226.1
DA	654A	A	G	CONFLICT	GB AP008226.1
DA	654E	C	G	CONFLICT	GB AP008226.1
DA	654P	G	C	CONFLICT	GB AP008226.1
DA	654T	A	C	CONFLICT	GB AP008226.1
DA	1058	U	G	CONFLICT	GB AP008226.1
DA	1080	A	C	CONFLICT	GB AP008226.1

- Molecule 2 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
2	DB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
3	DD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
4	DE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
5	DF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
6	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
7	DH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	DK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
9	DM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
10	DN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
11	DO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	DP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	A0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	D0	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	AQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
14	DQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
15	DR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	A1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
16	D1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	A2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
17	D2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
18	DS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
19	AT	92	Total 725	C 471	N 131	O 123	0	0	0
19	DT	92	Total 725	C 471	N 131	O 123	0	0	0

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AU	102	Total 785	C 505	N 150	O 125	S 5	0	0	0
20	DU	102	Total 785	C 505	N 150	O 125	S 5	0	0	0

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AV	175	Total 1397	C 892	N 251	O 251	S 3	0	0	0
21	DV	179	Total 1428	C 911	N 255	O 259	S 3	0	0	0

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	A3	76	Total 607	C 376	N 128	O 102	S 1	0	0	0
22	D3	77	Total 613	C 379	N 129	O 104	S 1	0	0	0

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AZ	97	Total 763	C 481	N 150	O 131	S 1	0	0	0
23	DZ	97	Total 763	C 481	N 150	O 131	S 1	0	0	0

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AW	66	Total 558	C 346	N 113	O 98	S 1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	DW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	AX	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	DX	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	A4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
26	D4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	A6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
28	D6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			
29	D7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
30	D8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			

- Molecule 31 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	1502	Total	C	N	O	P	0	0	0
			32284	14370	5982	10431	1501			
31	CA	1502	Total	C	N	O	P	0	0	0
			32287	14370	5982	10433	1502			

- Molecule 32 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
32	CE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 33 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
33	CF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 34 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
34	CG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 35 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
35	CH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 36 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
36	CI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 37 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
37	CJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 38 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
38	CK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 39 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BL	127	Total	C	N	O	0	0	0
			1010	639	197	174			
39	CL	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 40 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	CM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 41 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
41	CN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 42 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
42	CO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 43 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BP	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
43	CP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 44 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			
44	CQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			

- Molecule 45 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
45	CR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 46 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
46	CS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 47 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
47	CT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 48 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BU	72	Total	C	N	O	0	0	0
			591	376	117	98			
48	CU	72	Total	C	N	O	0	0	0
			591	376	117	98			

- Molecule 49 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			
49	CV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 50 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
50	CW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 51 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	BX	25	Total 217	C 134	N 52	O 31	0	0	0
51	CX	25	Total 217	C 134	N 52	O 31	0	0	0

- Molecule 52 is a RNA chain called TRNA-TYR.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
52	BB	85	Total 1814	C 813	N 323	O 592	P 85	S 1	0	0	0
52	BD	85	Total 1814	C 813	N 323	O 592	P 85	S 1	0	0	0
52	CB	85	Total 1814	C 813	N 323	O 592	P 85	S 1	0	0	0
52	CD	85	Total 1814	C 813	N 323	O 592	P 85	S 1	0	0	0

- Molecule 53 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BC	77	Total 1643	C 732	N 298	O 536	P 77	0	0	0
53	CC	77	Total 1643	C 732	N 298	O 536	P 77	0	0	0

- Molecule 54 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B1	16	Total 347	C 156	N 69	O 106	P 16	0	0	0
54	C1	16	Total 347	C 156	N 69	O 106	P 16	0	0	0

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	BA	114	Total 114	Mg 114	0	0
55	CA	121	Total 121	Mg 121	0	0
55	AB	6	Total 6	Mg 6	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	B1	1	Total Mg 1 1	0	0
55	C1	2	Total Mg 2 2	0	0
55	BB	13	Total Mg 13 13	0	0
55	AE	3	Total Mg 3 3	0	0
55	BF	1	Total Mg 1 1	0	0
55	AA	332	Total Mg 332 332	0	0
55	A5	1	Total Mg 1 1	0	0
55	D7	1	Total Mg 1 1	0	0
55	BC	4	Total Mg 4 4	0	0
55	A1	2	Total Mg 2 2	0	0
55	CN	1	Total Mg 1 1	0	0
55	D0	1	Total Mg 1 1	0	0
55	CC	7	Total Mg 7 7	0	0
55	DA	272	Total Mg 272 272	0	0
55	A0	1	Total Mg 1 1	0	0
55	DE	1	Total Mg 1 1	0	0
55	CB	3	Total Mg 3 3	0	0
55	BS	1	Total Mg 1 1	0	0
55	A7	1	Total Mg 1 1	0	0
55	D5	1	Total Mg 1 1	0	0
55	BD	1	Total Mg 1 1	0	0

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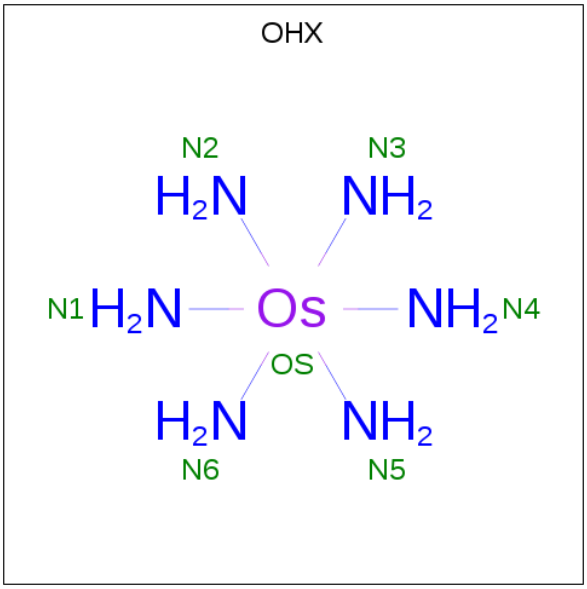
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AO	1	Total Mg 1 1	0	0
55	BW	1	Total Mg 1 1	0	0
55	A3	1	Total Mg 1 1	0	0
55	AF	2	Total Mg 2 2	0	0
55	DB	7	Total Mg 7 7	0	0

- Molecule 56 is osmium (III) hexammine (three-letter code: OHX) (formula: $H_{12}N_6Os$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
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56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0
56	AA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AB	1	Total N Os 7 6 1	0	0
56	AE	1	Total N Os 7 6 1	0	0
56	AF	1	Total N Os 7 6 1	0	0
56	AO	1	Total N Os 7 6 1	0	0
56	AO	1	Total N Os 7 6 1	0	0
56	A1	1	Total N Os 7 6 1	0	0
56	A1	1	Total N Os 7 6 1	0	0
56	A3	1	Total N Os 7 6 1	0	0
56	AW	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	A6	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
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56	BA	1	Total N Os 7 6 1	0	0
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56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
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56	BA	1	Total N Os 7 6 1	0	0
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56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
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56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BA	1	Total N Os 7 6 1	0	0
56	BG	1	Total N Os 7 6 1	0	0
56	BL	1	Total N Os 7 6 1	0	0
56	BR	1	Total N Os 7 6 1	0	0
56	BB	1	Total N Os 7 6 1	0	0
56	BB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BC	1	Total N Os 7 6 1	0	0
56	BC	1	Total N Os 7 6 1	0	0
56	BC	1	Total N Os 7 6 1	0	0
56	BD	1	Total N Os 7 6 1	0	0
56	BD	1	Total N Os 7 6 1	0	0
56	BD	1	Total N Os 7 6 1	1	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
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56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CA	1	Total N Os 7 6 1	0	0
56	CK	1	Total N Os 7 6 1	0	0
56	CR	1	Total N Os 7 6 1	0	0
56	CV	1	Total N Os 7 6 1	0	0
56	CB	1	Total N Os 7 6 1	0	0
56	CB	1	Total N Os 7 6 1	0	0
56	CB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CC	1	Total N Os 7 6 1	0	0
56	CC	1	Total N Os 7 6 1	0	0
56	CC	1	Total N Os 7 6 1	0	0
56	CD	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
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56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DA	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0

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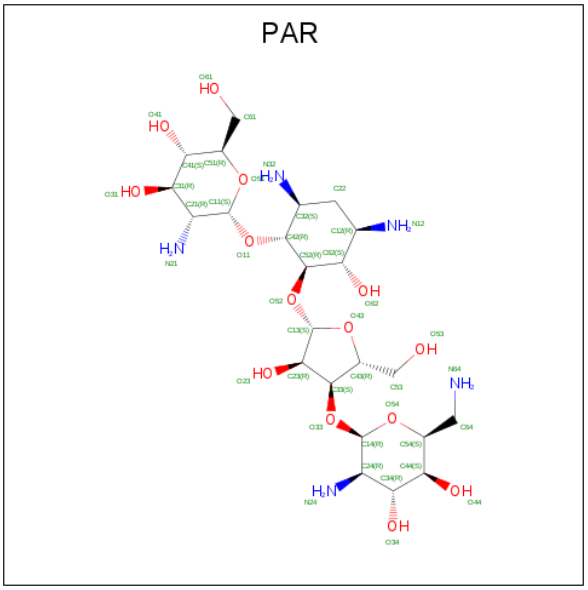
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DB	1	Total N Os 7 6 1	0	0
56	DF	1	Total N Os 7 6 1	0	0
56	DO	1	Total N Os 7 6 1	0	0
56	D1	1	Total N Os 7 6 1	0	0
56	D3	1	Total N Os 7 6 1	0	0
56	D5	1	Total N Os 7 6 1	0	0
56	D8	1	Total N Os 7 6 1	0	0

- Molecule 57 is PAROMOMYCIN (three-letter code: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	BA	1	Total C N O 42 23 5 14	0	0
57	CA	1	Total C N O 42 23 5 14	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

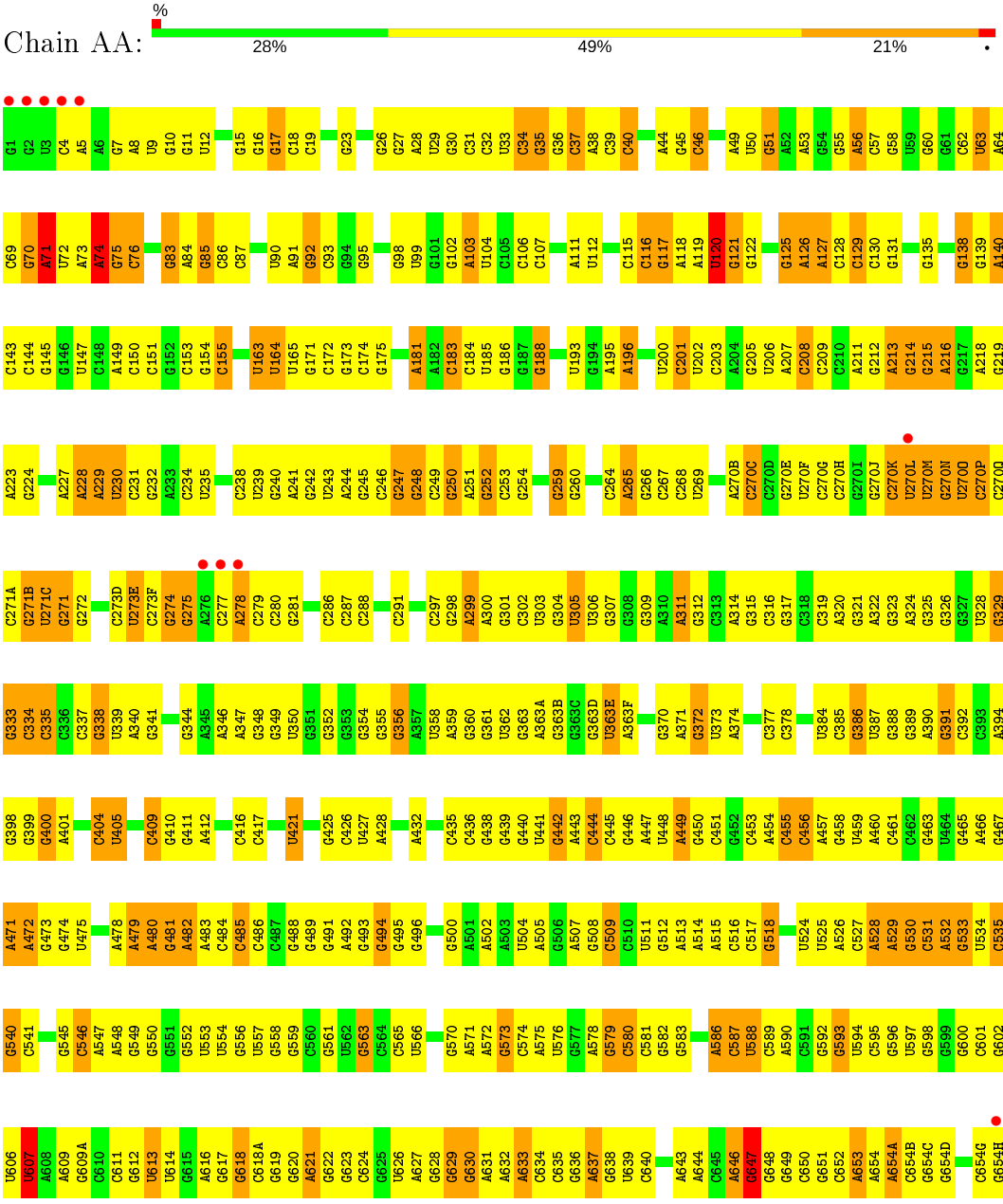
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	BG	1	Total Zn 1 1	0	0
58	BQ	1	Total Zn 1 1	0	0
58	CQ	1	Total Zn 1 1	0	0
58	CG	1	Total Zn 1 1	0	0

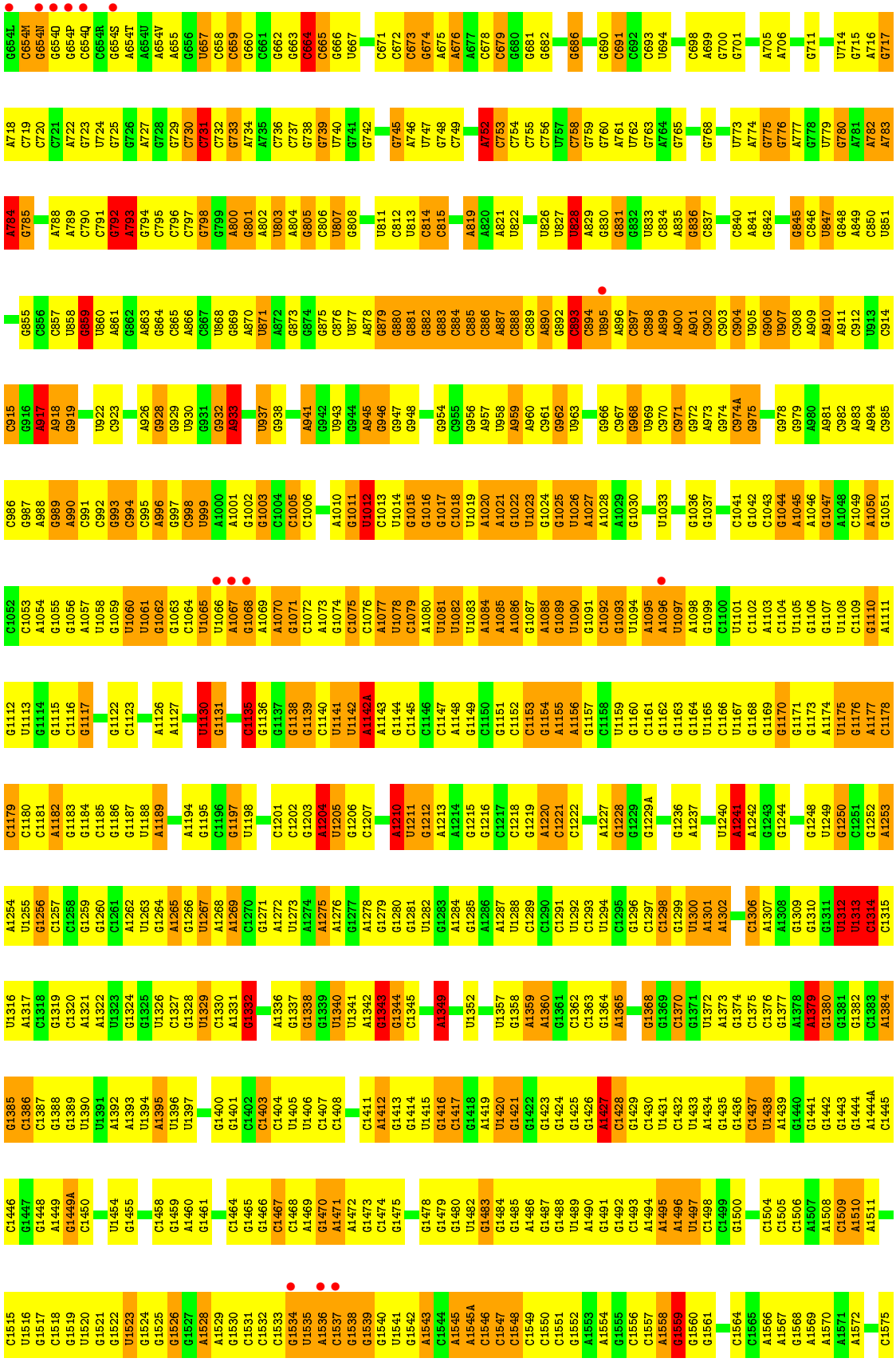
3 Residue-property plots (i)

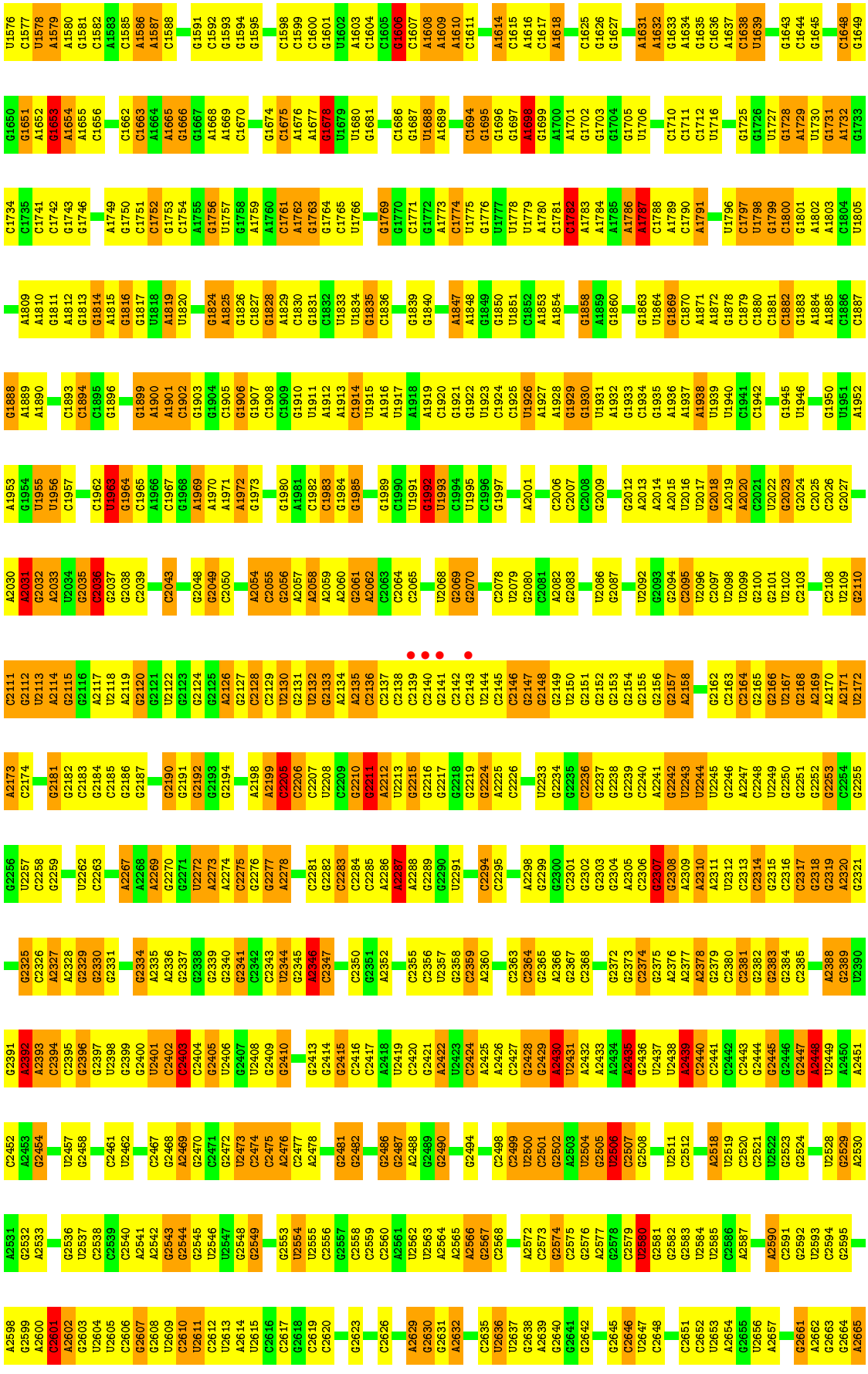
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

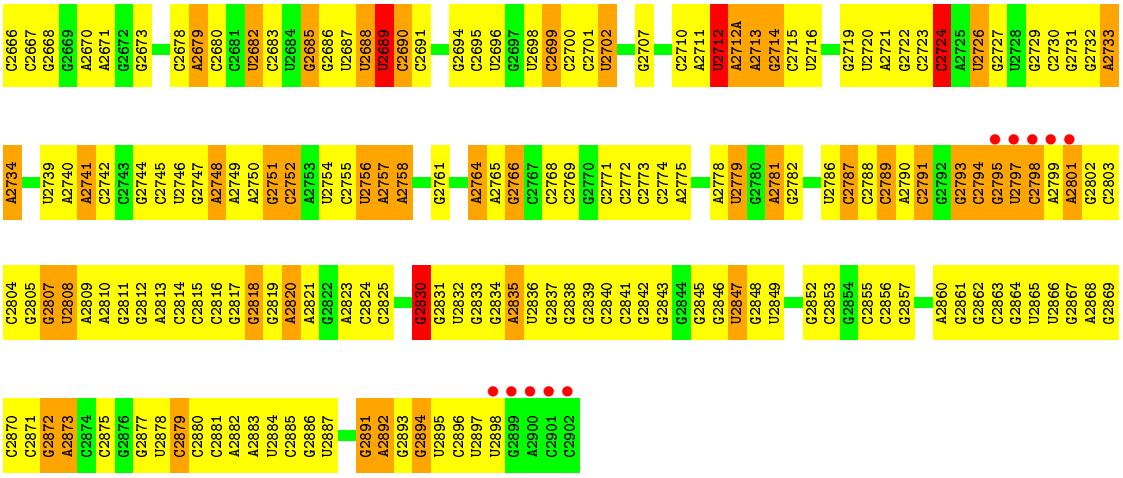
- Molecule 1: RNA (2912-MER)

Chain AA:



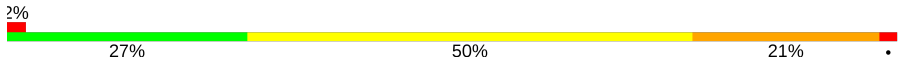


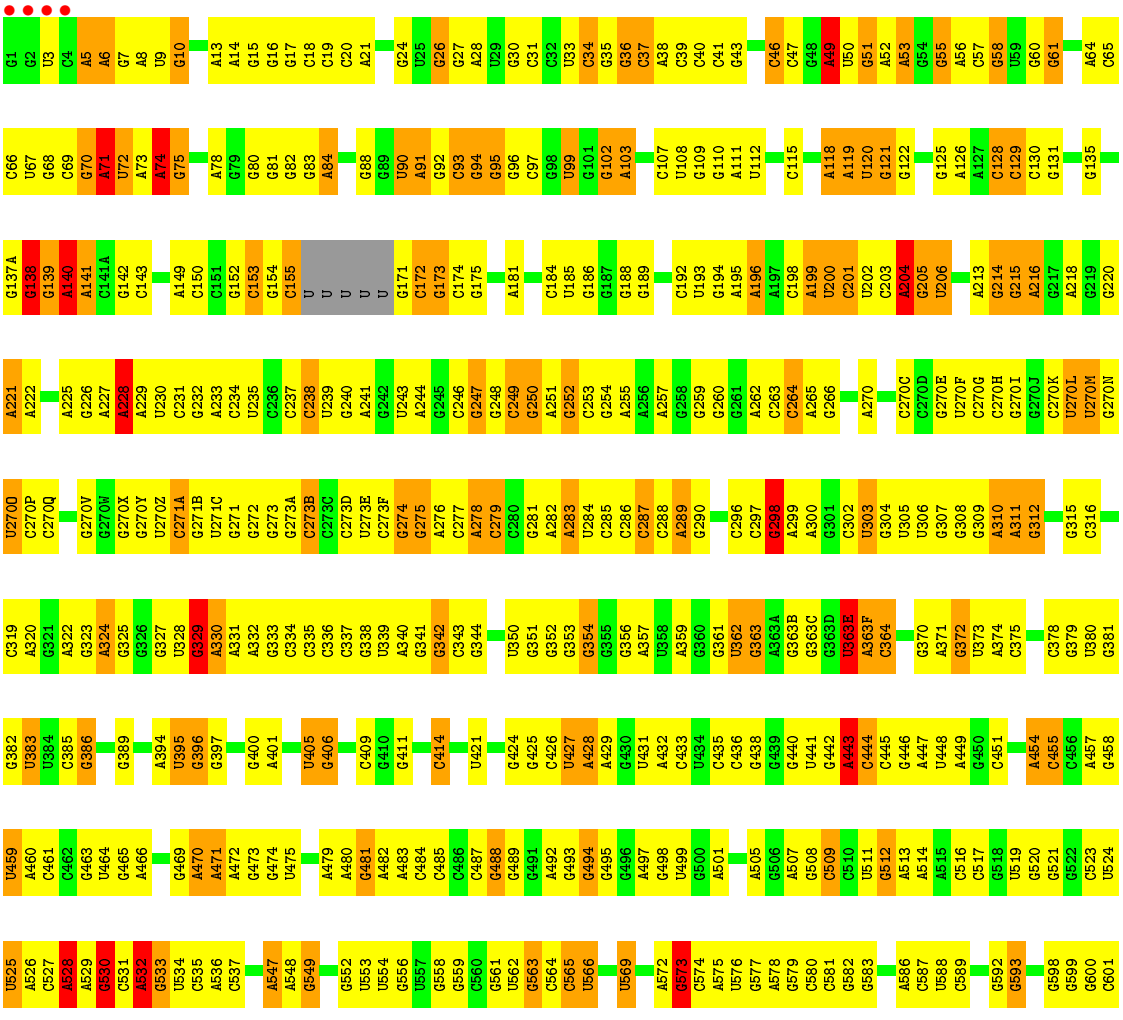


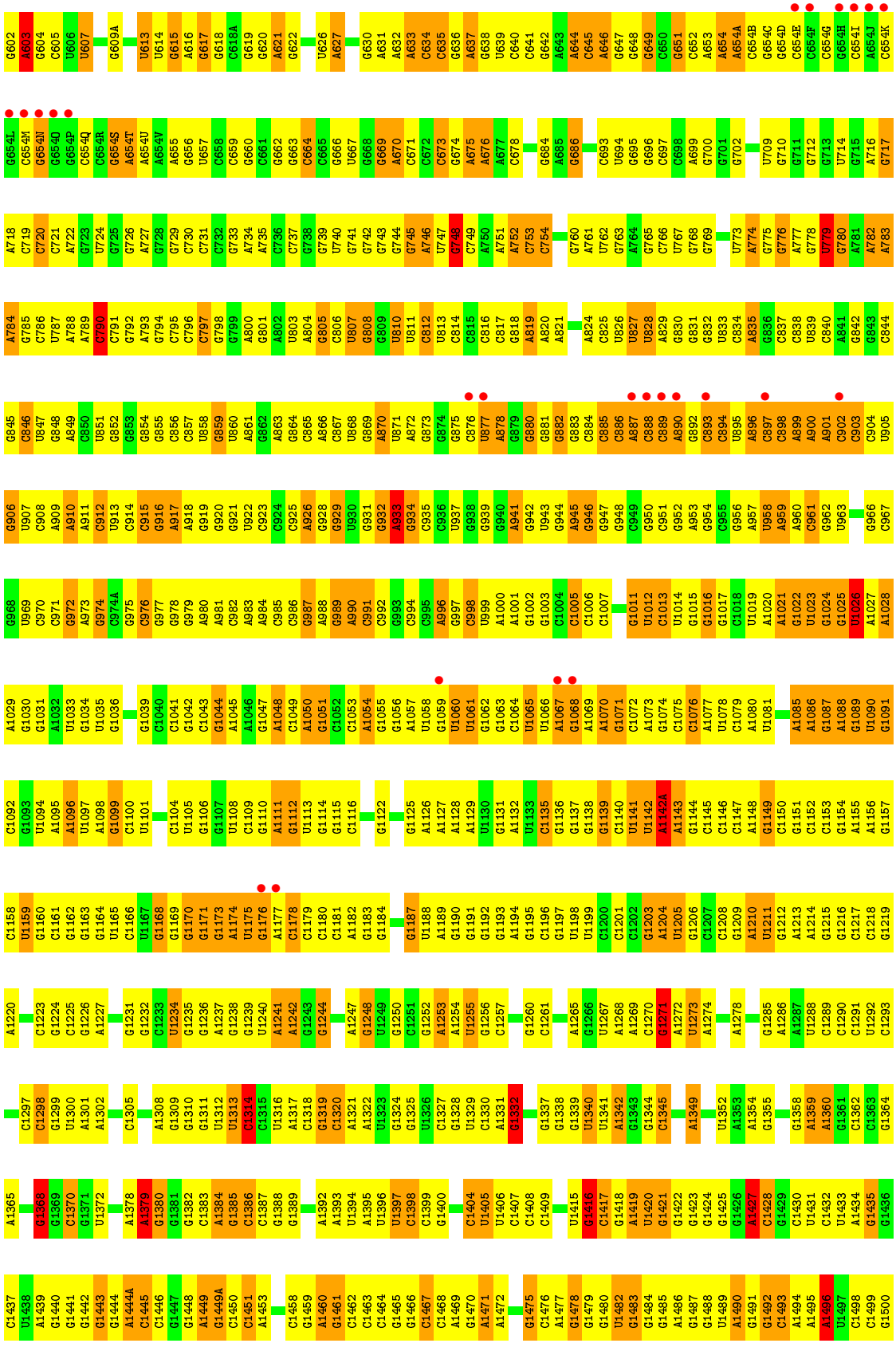


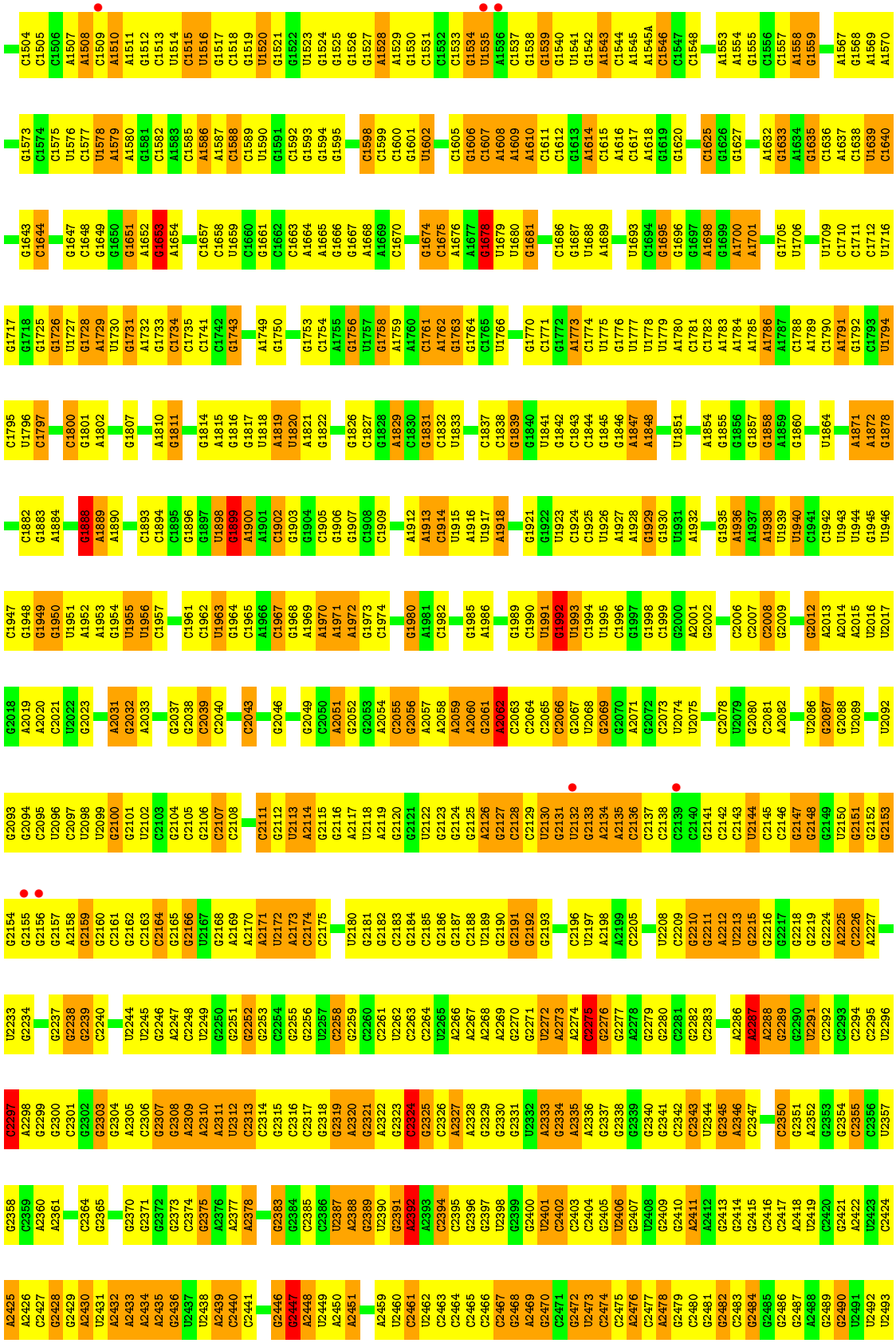
- Molecule 1: RNA (2912-MER)

Chain DA:





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G1573 G1574 C1575 U1576 C1577 U1578 A1579 A1580 G1581 C1582 A1583 C1585 A1586 A1587 C1588 C1589 U1590 G1591 C1592 G1593 G1594 G1595 C1598 C1599 C1600 G1601 U1602 C1605 G1606 C1607 A1608 A1609 A1610 C1611 C1612 G1613 A1614 C1615 A1616 C1617 A1618 G1619 G1620 C1625 G1626 G1627 A1632 G1633 A1634 G1635 C1636 A1637 C1638 U1639 C1640
G1643 C1644 G1647 C1648 G1649 G1650 G1651 A1652 G1653 A1654 C1657 C1658 U1659 C1660 G1661 C1662 C1663 A1664 A1665 G1666 G1667 A1668 A1669 C1670 G1674 C1675 A1676 A1677 G1678 U1679 U1680 G1681 C1686 G1687 U1688 A1689 U1693 C1694 G1695 G1696 G1697 A1698 G1699 A1700 A1701 G1705 U1706 U1709 C1710 C1711 C1712 U1716
G1717 G1718 G1725 G1726 U1727 G1728 A1729 U1730 G1731 A1732 G1733 C1734 C1735 C1741 C1742 G1743 A1749 G1750 G1753 C1754 A1755 G1756 U1757 G1758 A1759 A1760 C1761 A1762 G1763 G1764 C1765 U1766 G1770 C1771 G1772 A1773 C1774 U1775 G1776 U1777 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786 A1787 C1788 A1789 C1790 A1791 G1792 C1793 U1794
C1795 U1796 C1797 C1800 G1801 A1802 G1807 A1810 G1811 G1814 A1815 G1816 G1817 U1818 A1819 U1820 A1821 G1822 G1826 C1827 G1828 A1829 C1830 G1831 C1832 U1833 C1837 C1838 G1839 G1840 U1841 G1842 C1843 C1844 G1845 G1846 A1847 A1848 U1851 A1854 G1855 G1856 G1857 G1858 A1859 G1860 U1864 A1871 A1872 G1878
C1882 G1883 A1884 G1888 A1889 A1890 C1893 C1894 C1895 G1896 G1897 U1898 G1899 A1900 A1901 C1902 G1903 G1904 C1905 G1906 G1907 C1908 C1909 A1912 A1913 C1914 U1915 A1916 U1917 A1918 G1921 G1922 U1923 C1924 C1925 U1926 A1927 A1928 G1929 G1930 U1931 A1932 G1935 A1936 A1937 A1938 U1939 U1940 C1941 C1942 U1943 U1944 G1945 U1946
C1947 G1948 G1949 G1950 U1951 A1952 A1953 G1954 U1955 U1956 C1957 C1961 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 A1971 A1972 G1973 C1974 G1980 A1981 C1982 G1985 A1986 G1989 C1990 U1991 G1992 U1993 C1994 U1995 C1996 G1997 G1998 C1999 G2000 A2001 G2002 C2006 C2007 C2008 G2009 G2012 A2013 A2014 A2015 U2016 U2017
G2018 A2019 A2020 C2021 U2022 G2023 A2031 G2032 A2033 G2037 G2038 C2039 C2040 C2043 G2046 G2049 C2050 A2051 G2052 G2053 A2054 C2055 G2056 A2057 A2058 A2059 A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2067 U2068 G2069 G2070 A2071 G2072 C2073 U2074 U2075 C2078 U2079 G2080 C2081 A2082 U2086 G2087 G2088 U2089 U2092
G2093 G2094 C2095 U2096 C2097 U2098 U2099 G2100 G2101 U2102 C2103 G2104 C2105 G2106 C2107 C2108 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 C2123 G2124 G2125 A2126 G2127 C2128 C2129 U2130 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2140 G2141 C2142 C2143 U2144 C2145 C2146 G2147 G2148 G2149 U2150 G2151 G2152 G2153
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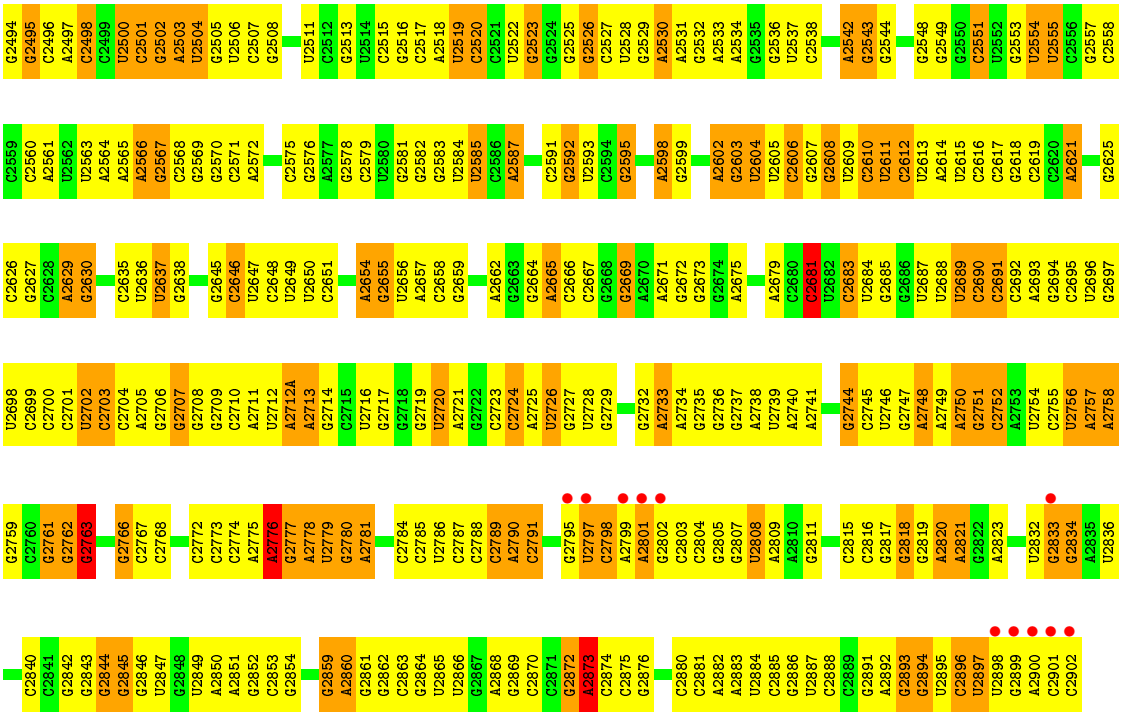

• Molecule 2: 5S RIBOSOMAL RNA

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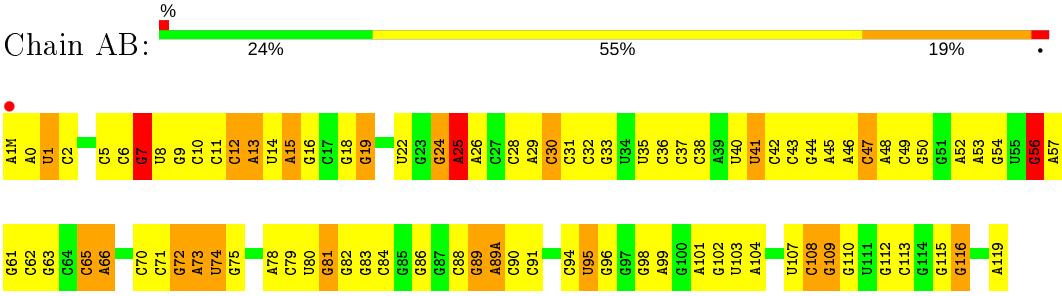

• Molecule 2: 5S RIBOSOMAL RNA

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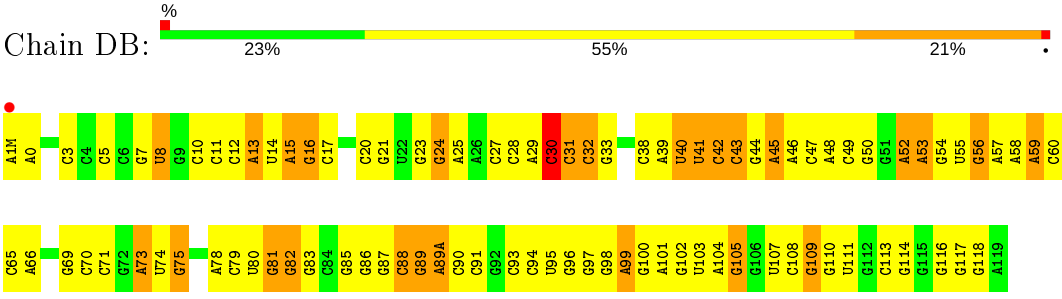
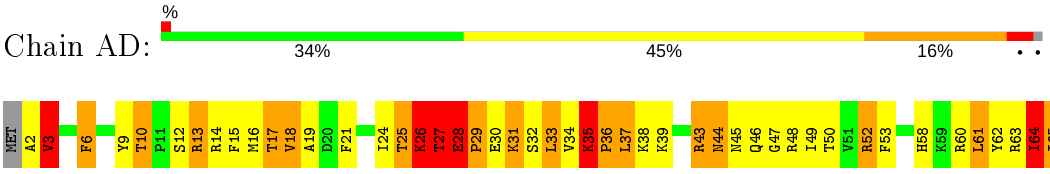
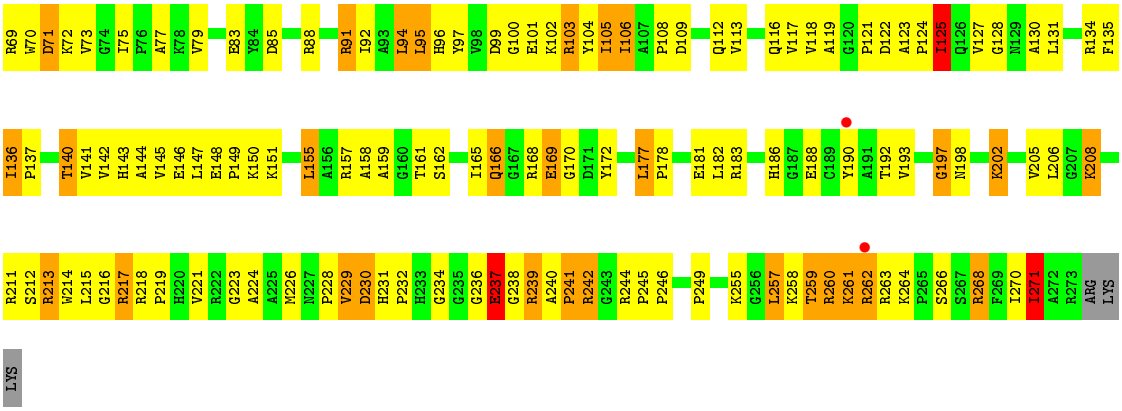


• Molecule 3: 50S ribosomal protein L2

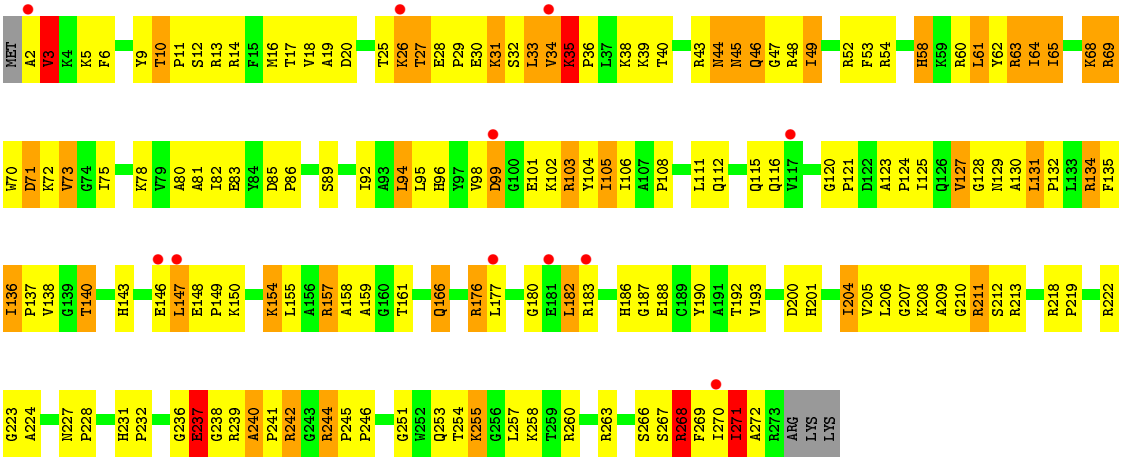
Chain AD:





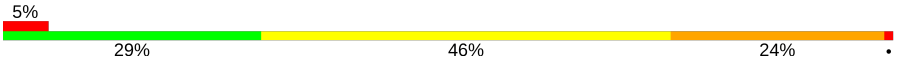
• Molecule 3: 50S ribosomal protein L2

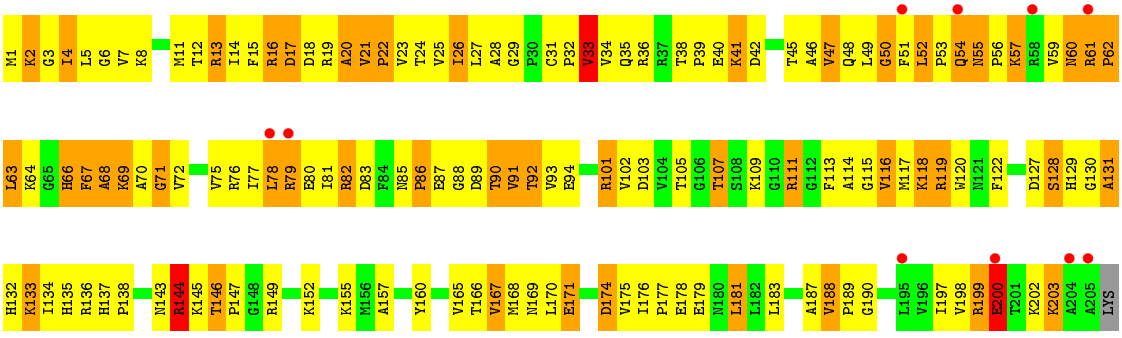
Chain DD:



• Molecule 4: 50S ribosomal protein L3

Chain AE:





• Molecule 4: 50S ribosomal protein L3

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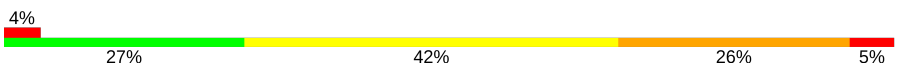
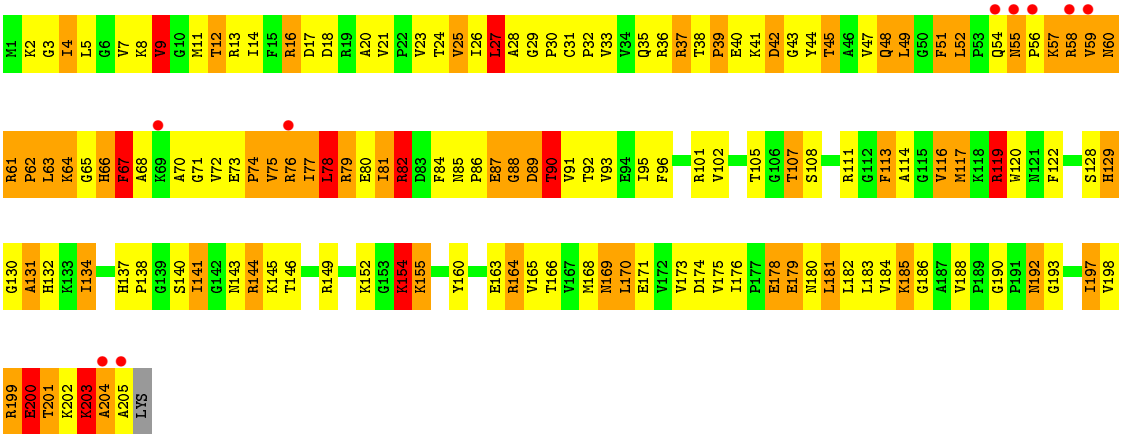
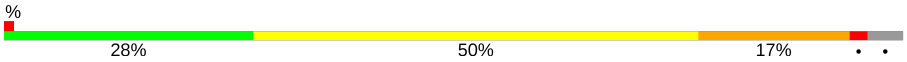
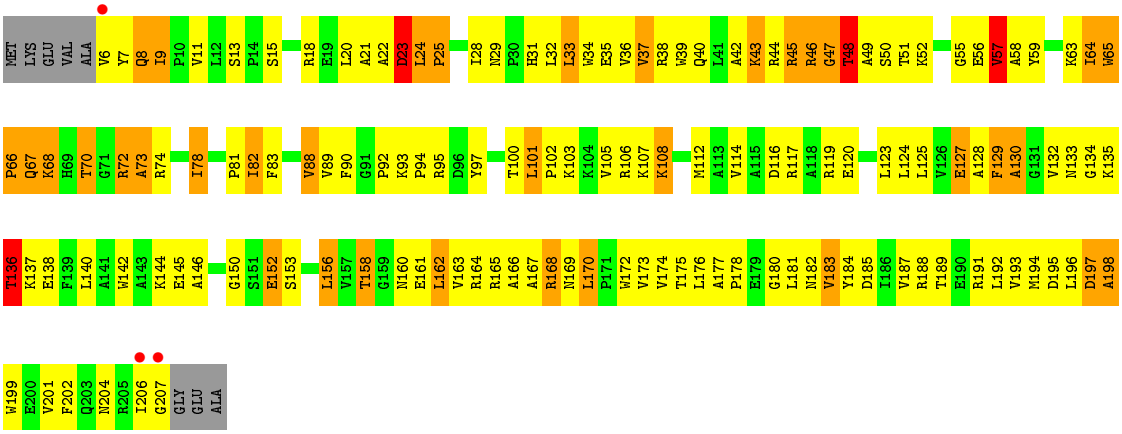




• Molecule 5: 50S ribosomal protein L4

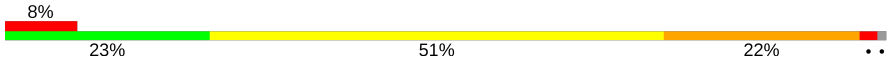
Chain AF:

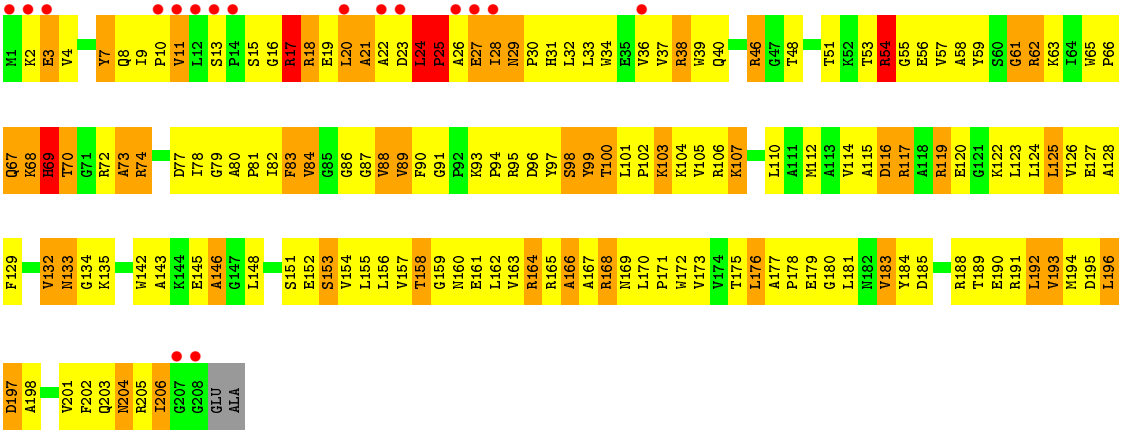




• Molecule 5: 50S ribosomal protein L4

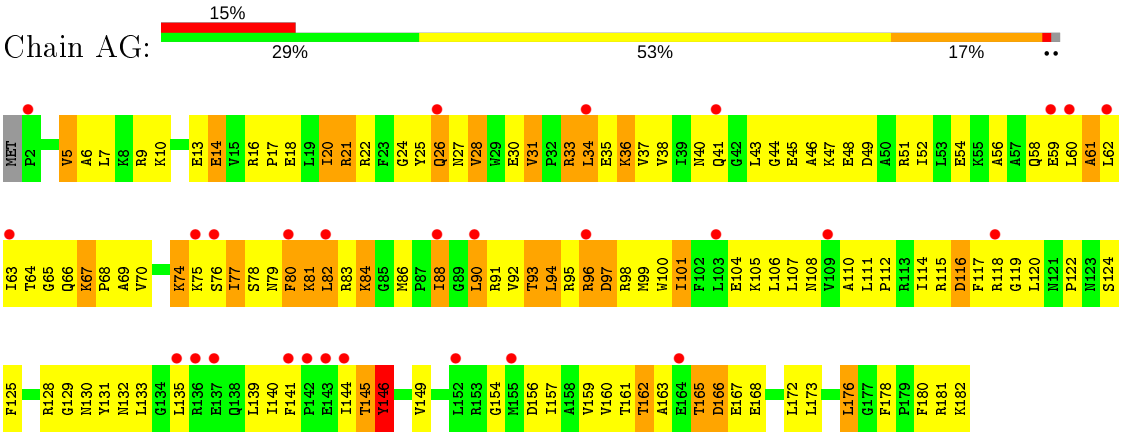
Chain DF:





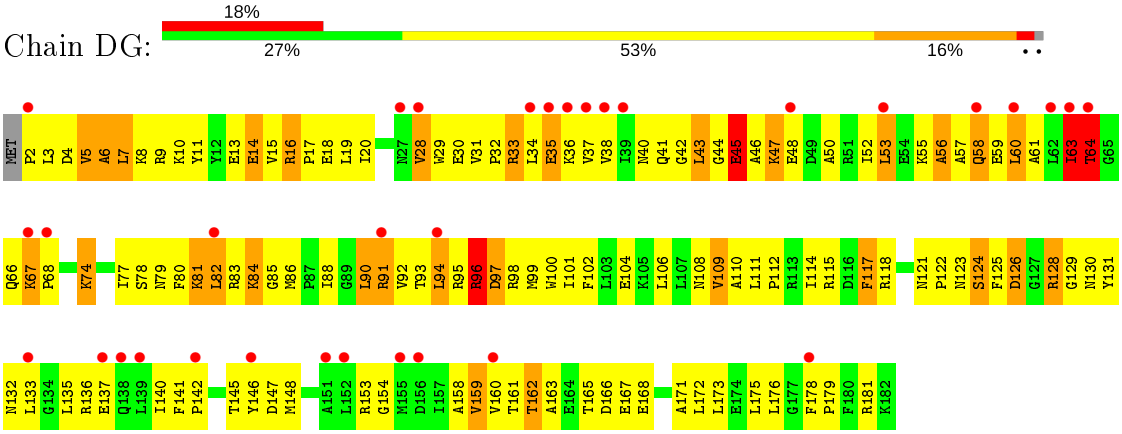
• Molecule 6: 50S ribosomal protein L5

Chain AG:



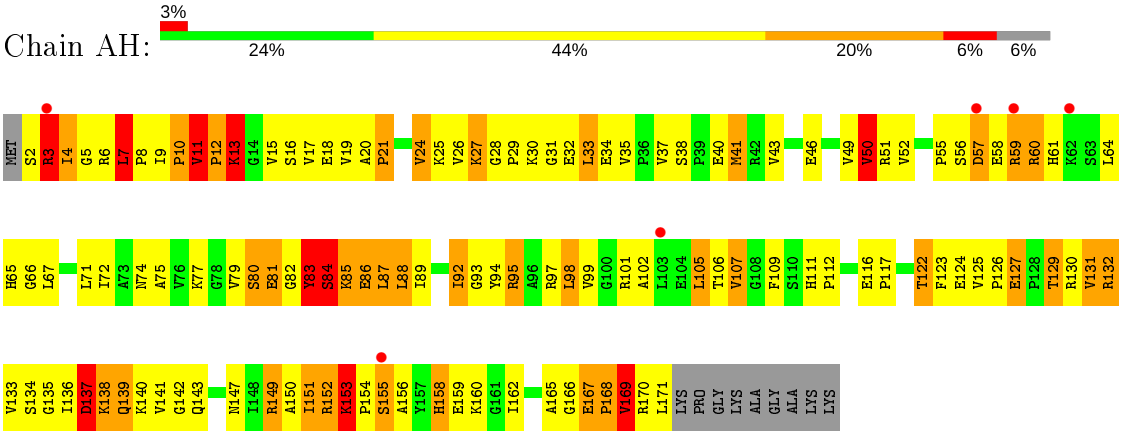
• Molecule 6: 50S ribosomal protein L5

Chain DG:



• Molecule 7: 50S ribosomal protein L6

Chain AH:



• Molecule 7: 50S ribosomal protein L6

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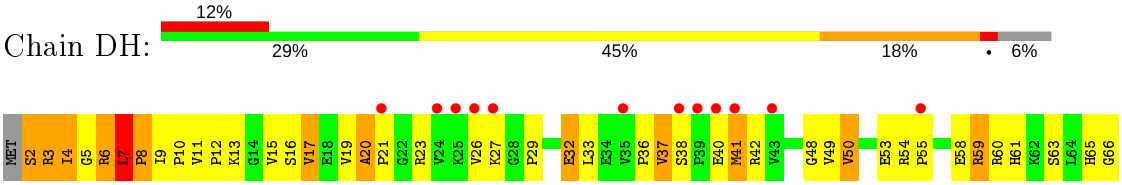
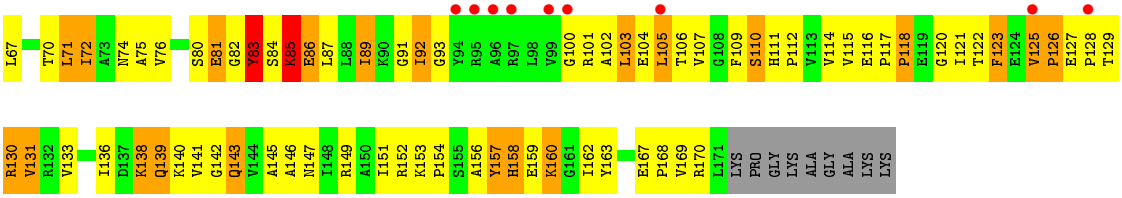
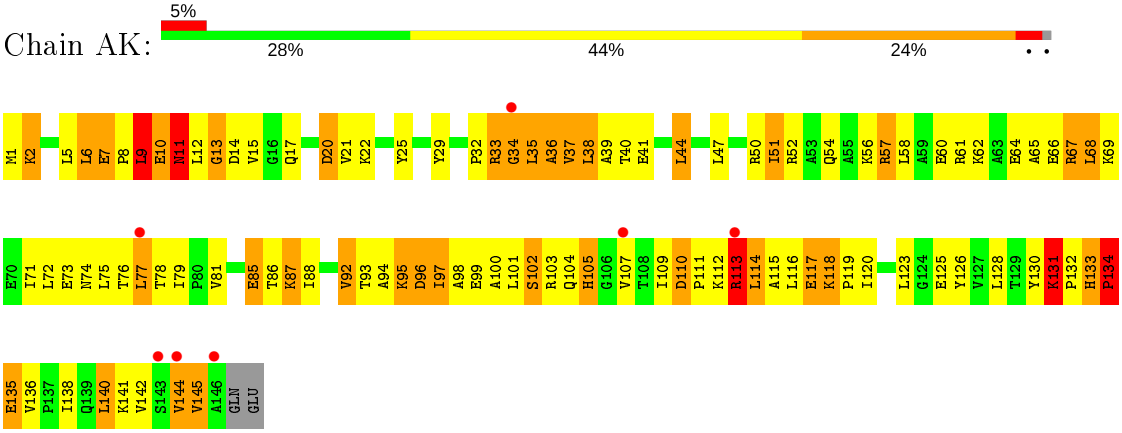
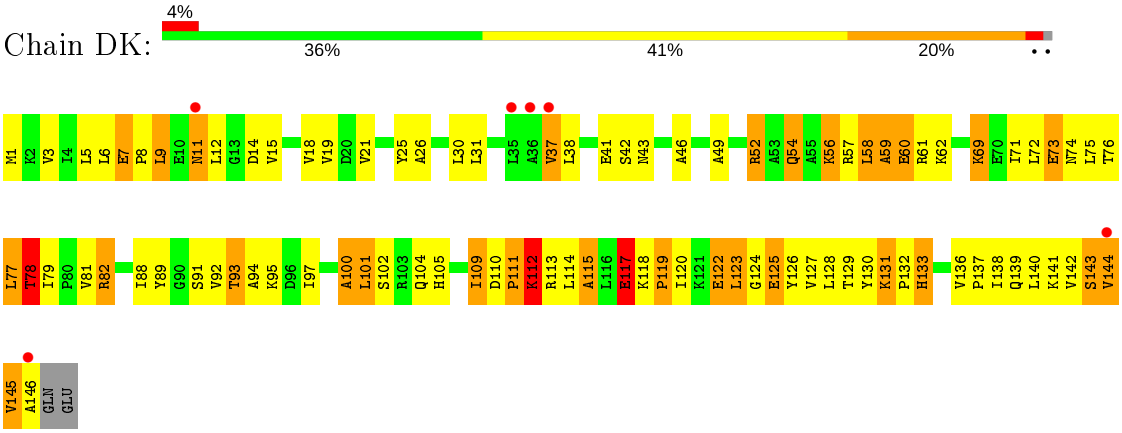




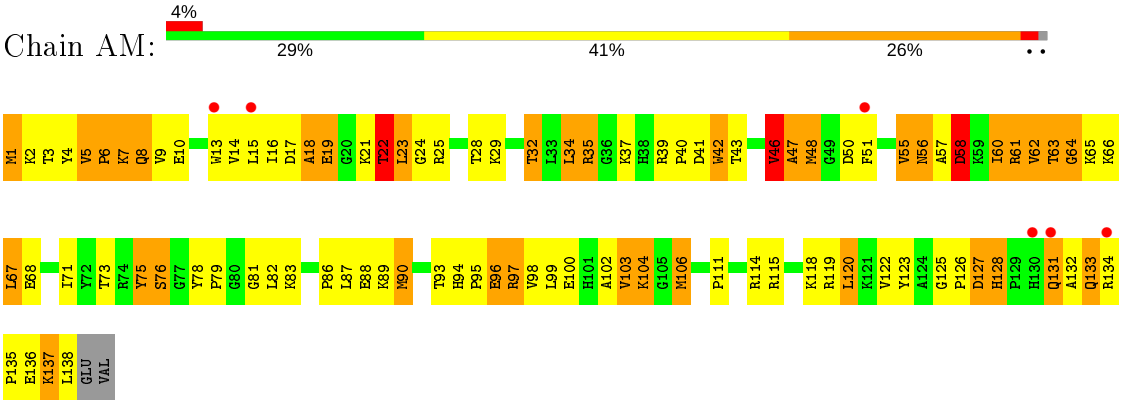
• Molecule 8: 50S ribosomal protein L9



• Molecule 8: 50S ribosomal protein L9

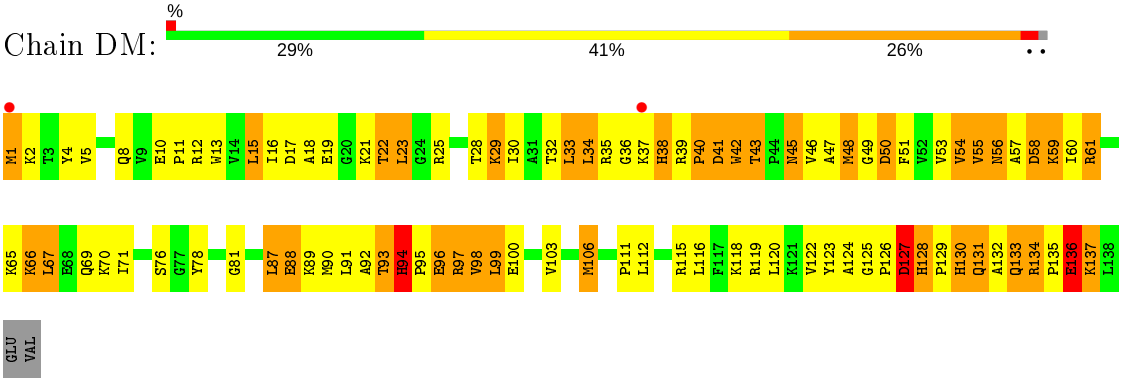


• Molecule 9: 50S ribosomal protein L13



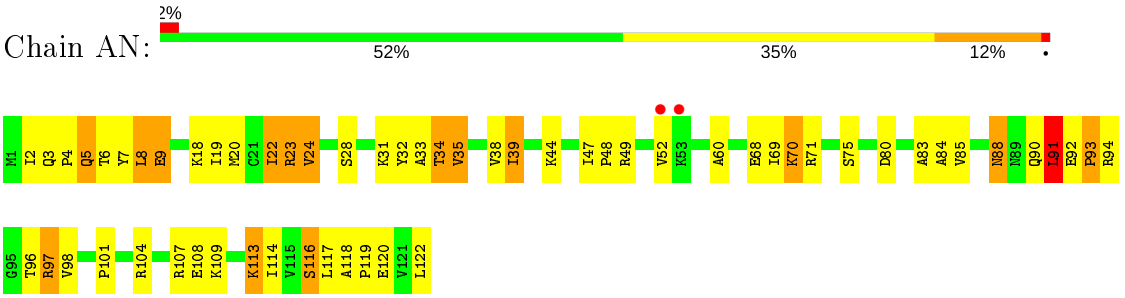
• Molecule 9: 50S ribosomal protein L13

Chain DM:



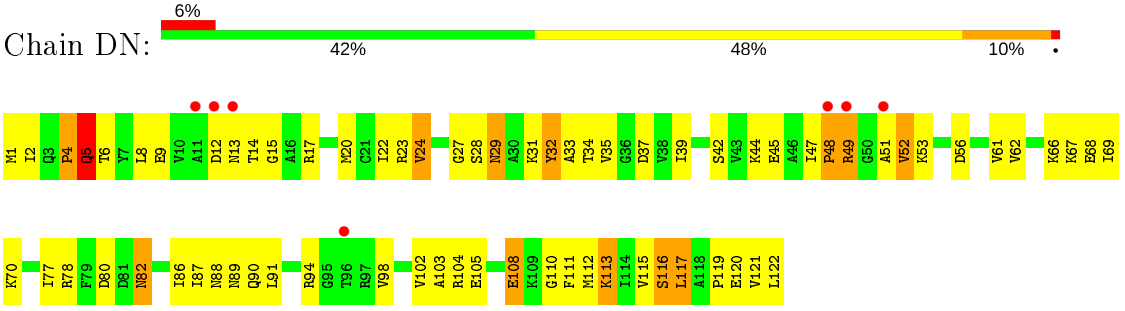
• Molecule 10: 50S ribosomal protein L14

Chain AN:



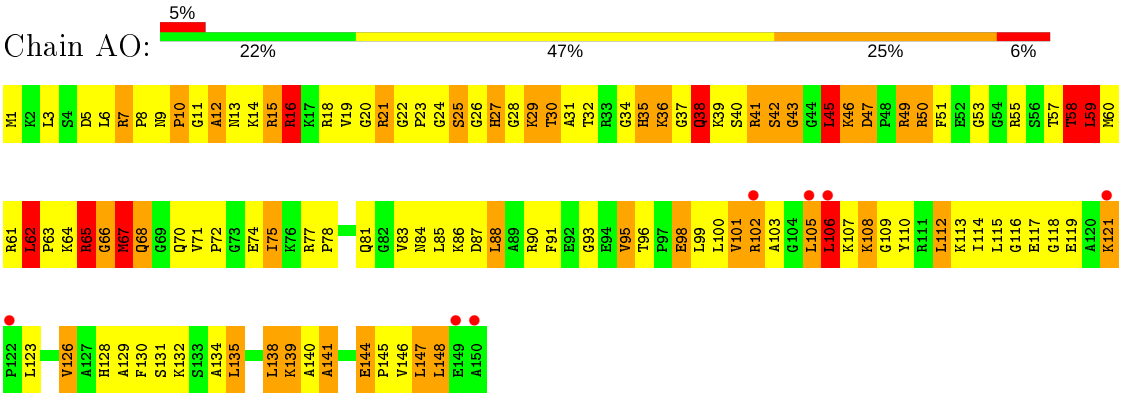
• Molecule 10: 50S ribosomal protein L14

Chain DN:



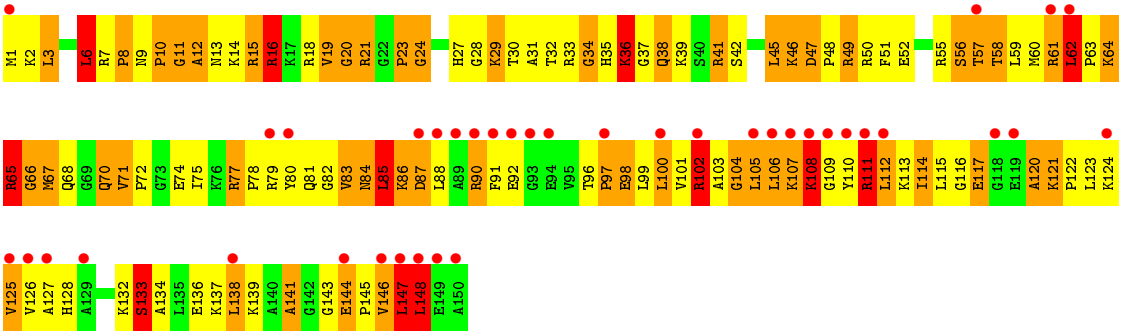
• Molecule 11: 50S ribosomal protein L15

Chain AO:



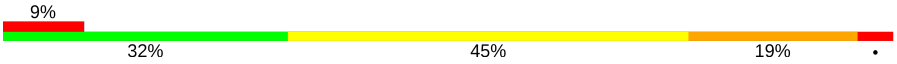
• Molecule 11: 50S ribosomal protein L15

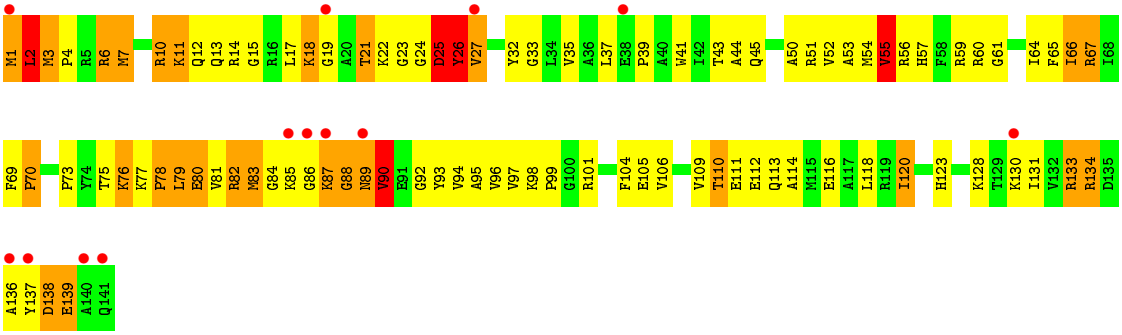
Chain DO:



• Molecule 12: 50S ribosomal protein L16

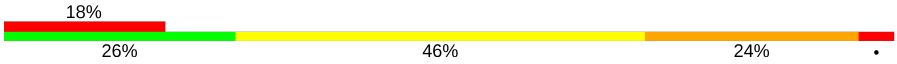
Chain AP:

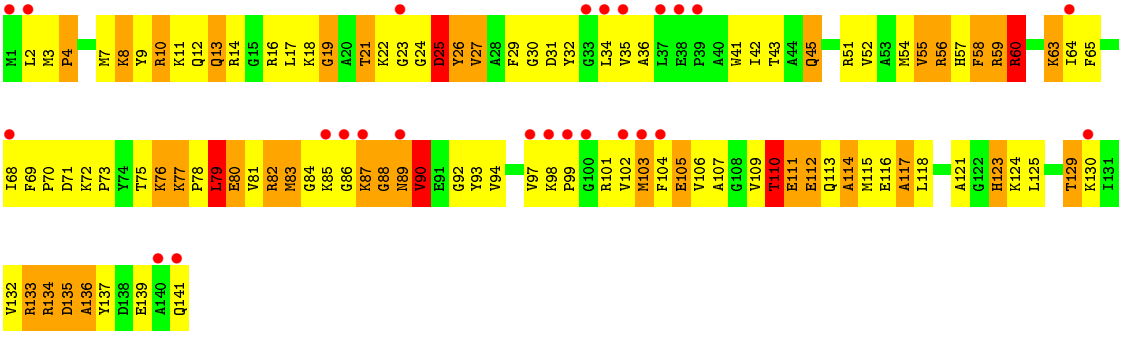




• Molecule 12: 50S ribosomal protein L16

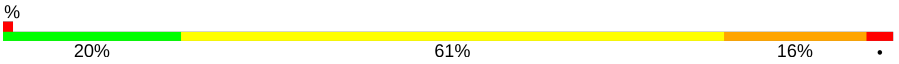
Chain DP:

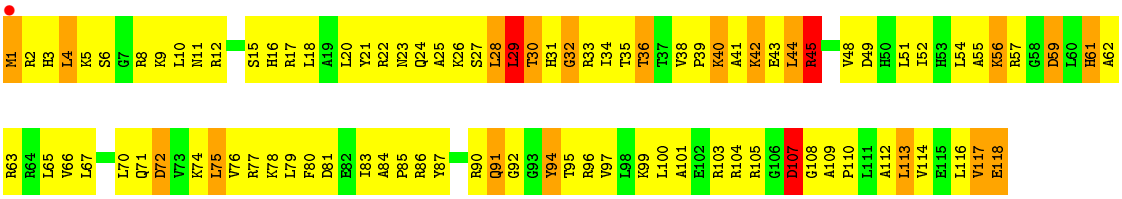




• Molecule 13: 50S ribosomal protein L17

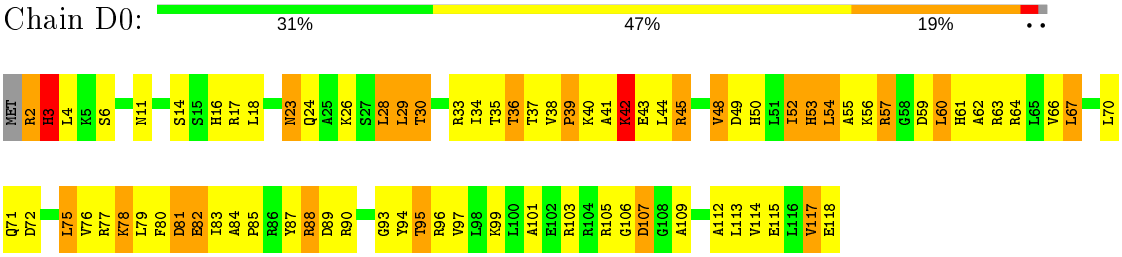
Chain A0:





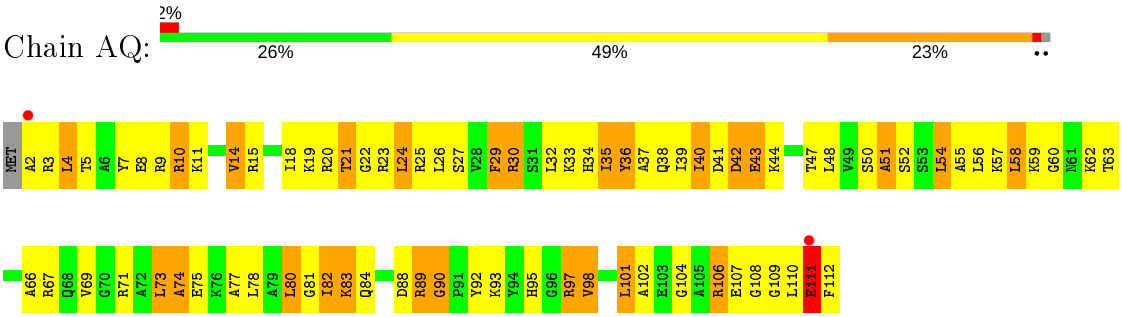
- Molecule 13: 50S ribosomal protein L17

Chain D0:



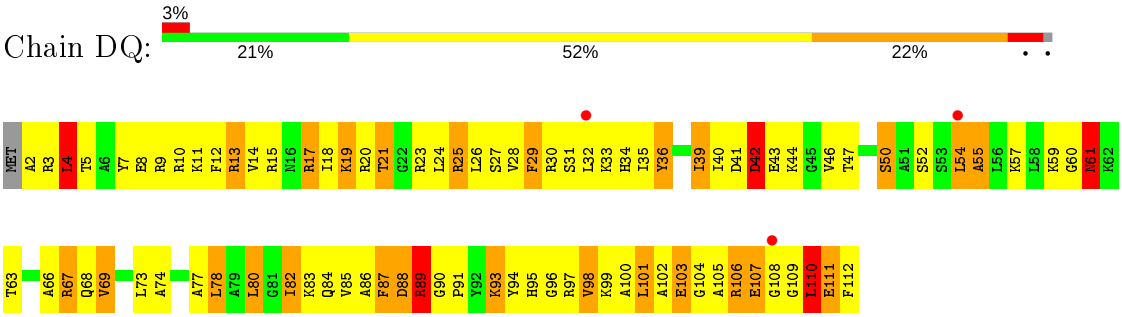
- Molecule 14: 50S ribosomal protein L18

Chain AQ:



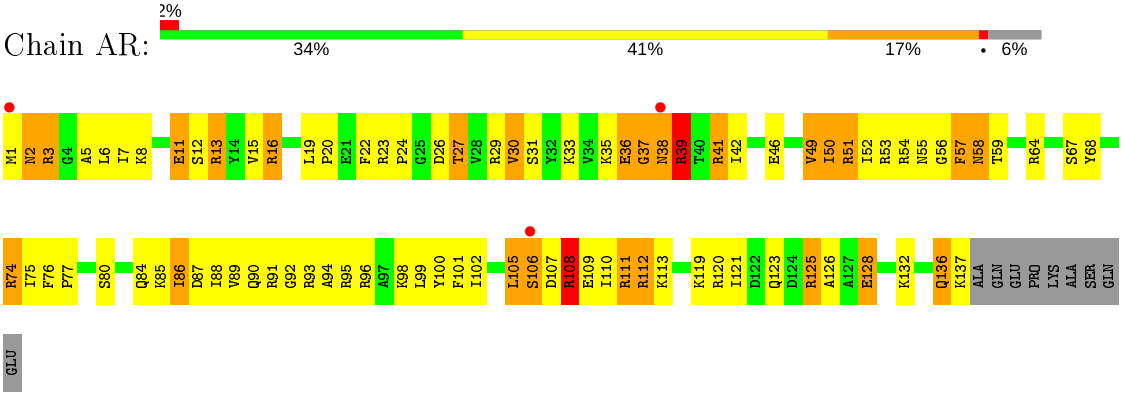
- Molecule 14: 50S ribosomal protein L18

Chain DQ:



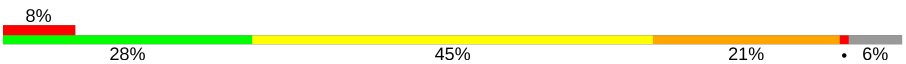
- Molecule 15: 50S ribosomal protein L19

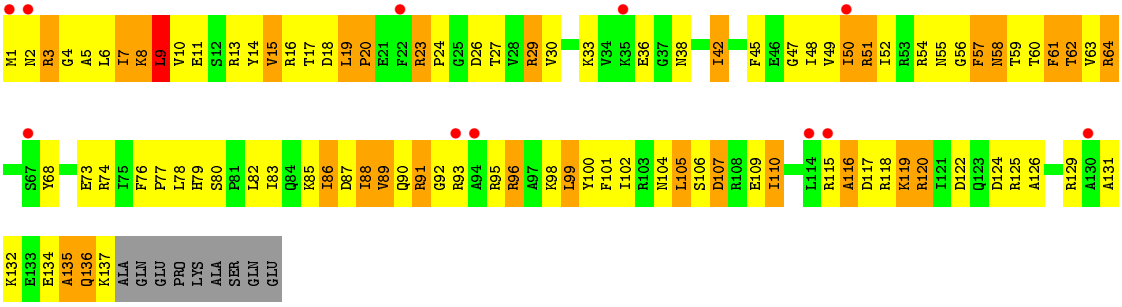
Chain AR:



- Molecule 15: 50S ribosomal protein L19

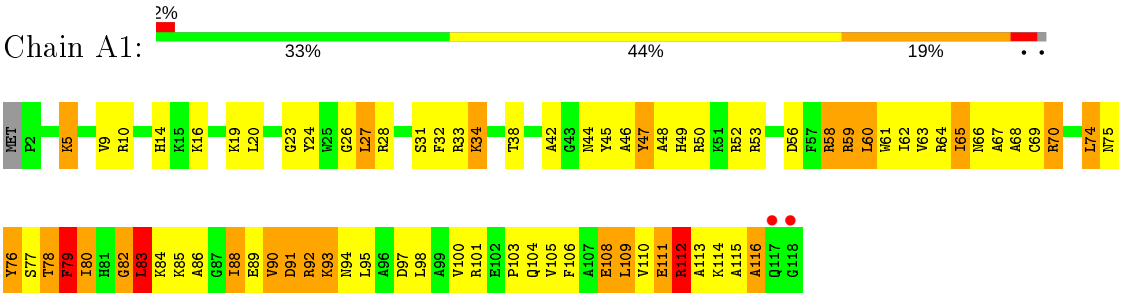
Chain DR:





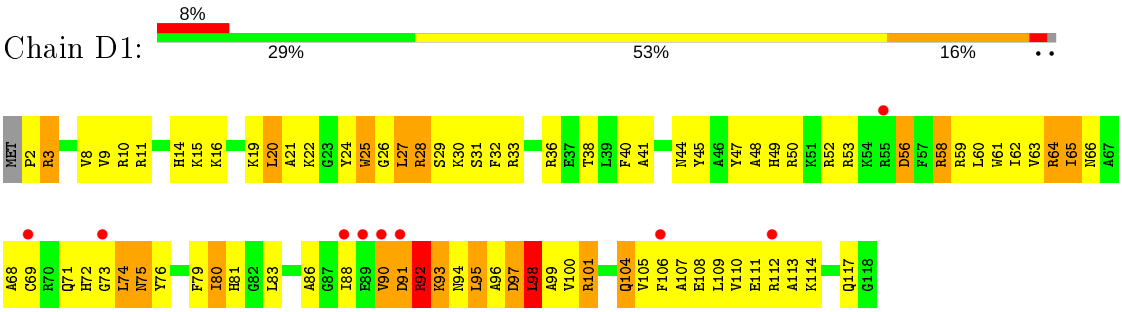
• Molecule 16: 50S ribosomal protein L20

Chain A1:



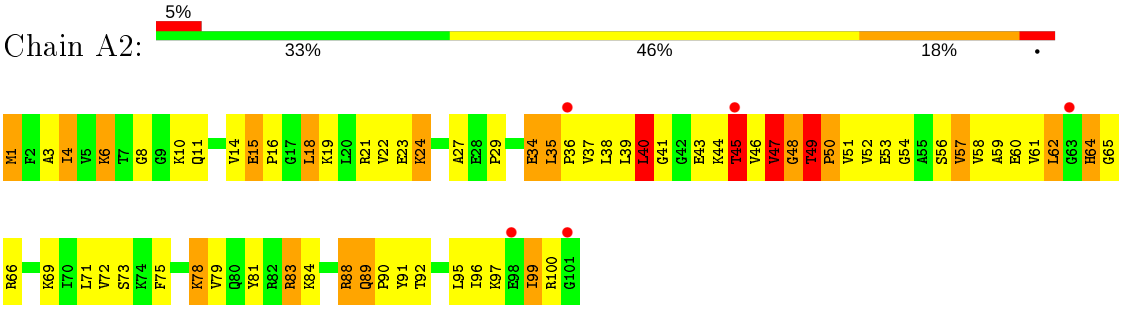
• Molecule 16: 50S ribosomal protein L20

Chain D1:



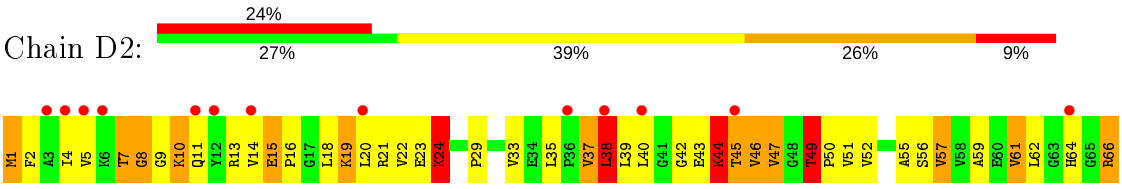
• Molecule 17: 50S ribosomal protein L21

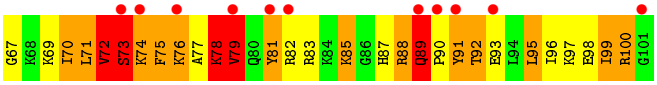
Chain A2:



• Molecule 17: 50S ribosomal protein L21

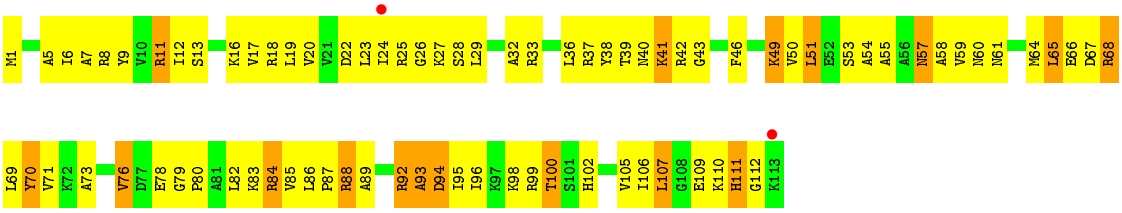
Chain D2:





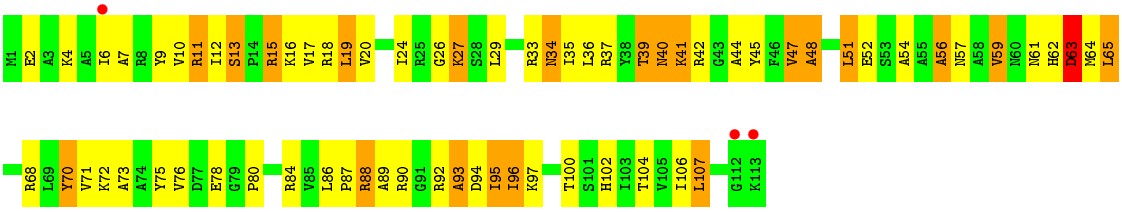
- Molecule 18: 50S ribosomal protein L22

Chain AS:



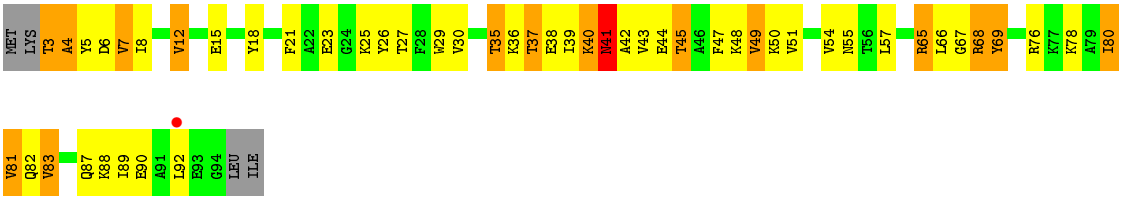
- Molecule 18: 50S ribosomal protein L22

Chain DS:



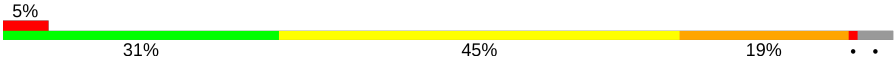
- Molecule 19: 50S ribosomal protein L23

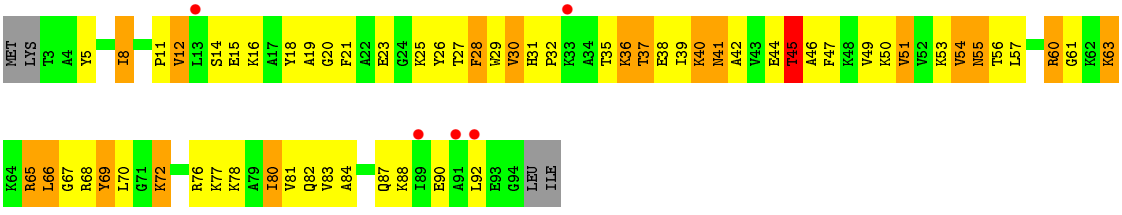
Chain AT:



- Molecule 19: 50S ribosomal protein L23

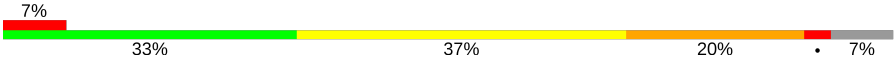
Chain DT:

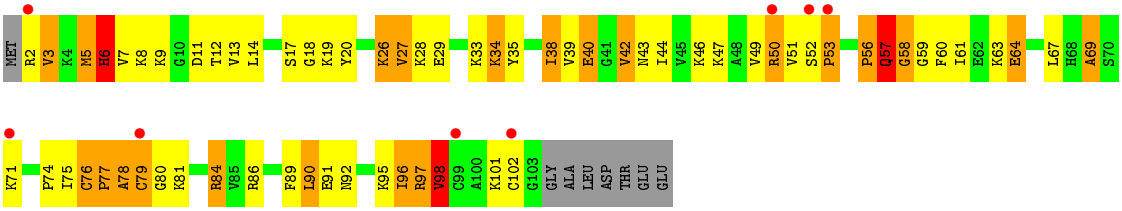




- Molecule 20: 50S ribosomal protein L24

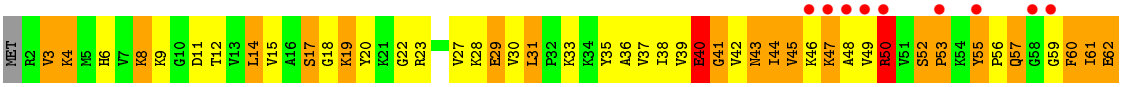
Chain AU:

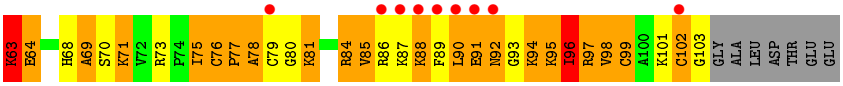




• Molecule 20: 50S ribosomal protein L24

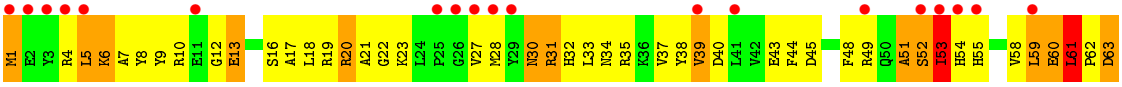
Chain DU:

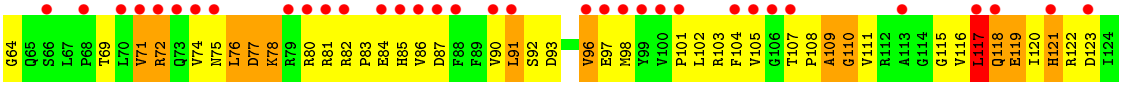


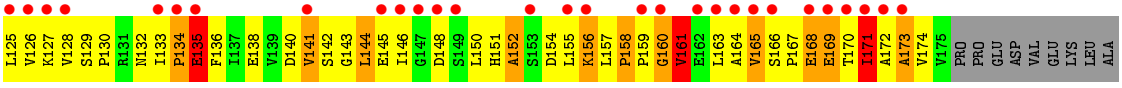


• Molecule 21: 50S ribosomal protein L25

Chain AV:

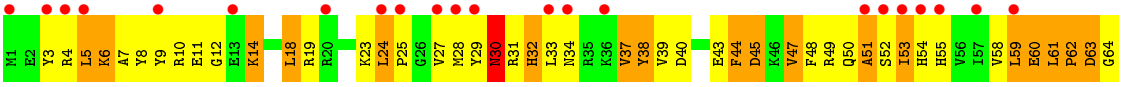


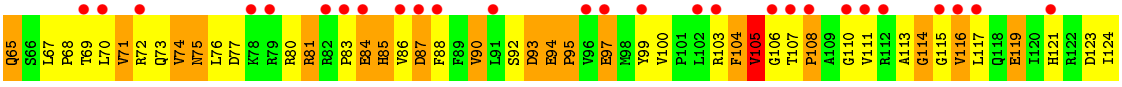


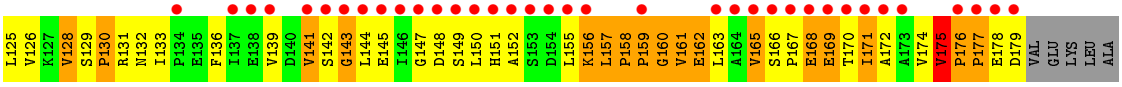


• Molecule 21: 50S ribosomal protein L25

Chain DV:

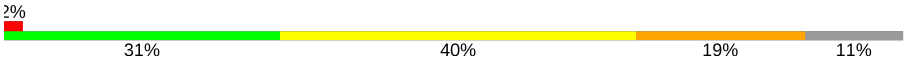


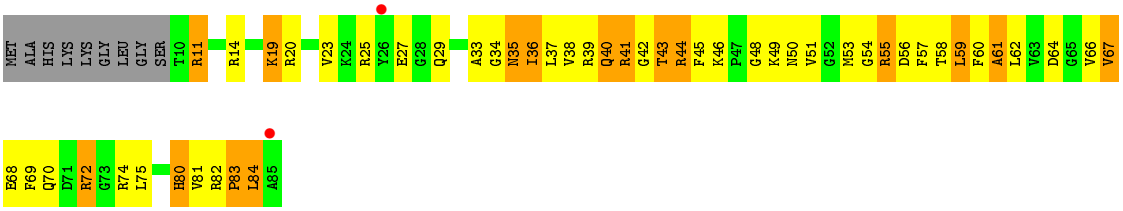




- Molecule 22: 50S ribosomal protein L27

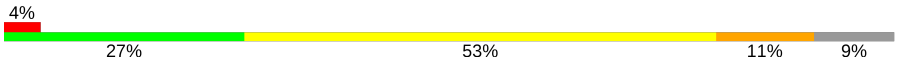
Chain A3:

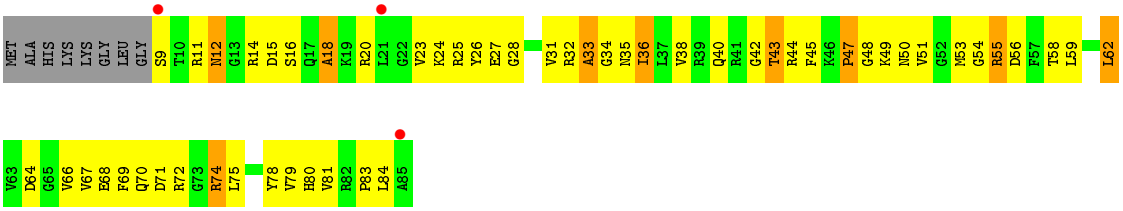




- Molecule 22: 50S ribosomal protein L27

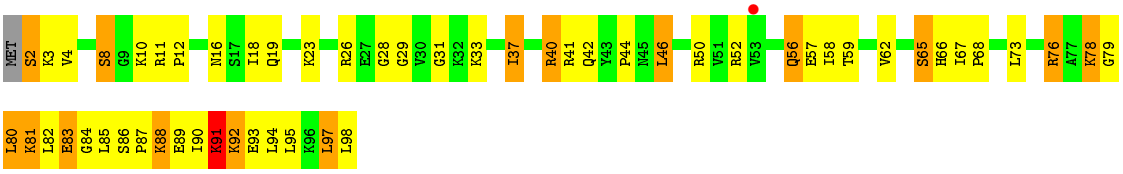
Chain D3:





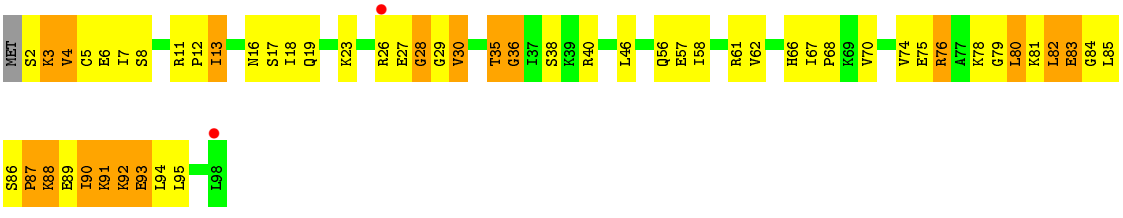
- Molecule 23: 50S ribosomal protein L28

Chain AZ:



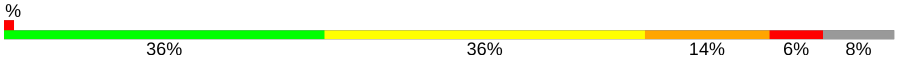
- Molecule 23: 50S ribosomal protein L28

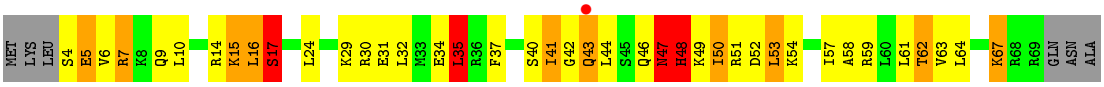
Chain DZ:



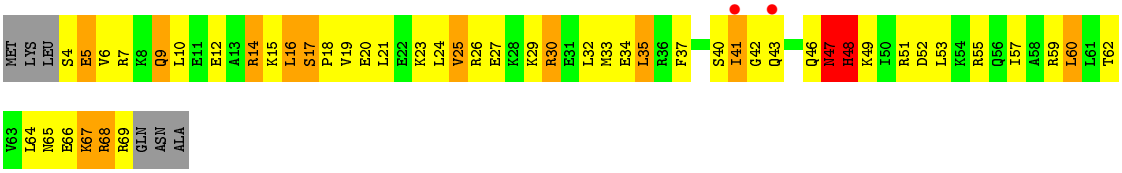
- Molecule 24: 50S ribosomal protein L29

Chain AW:



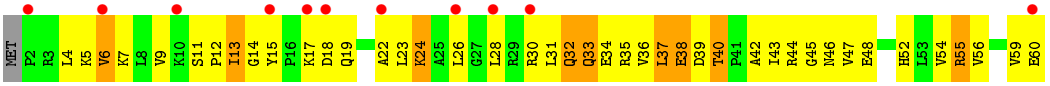


• Molecule 24: 50S ribosomal protein L29

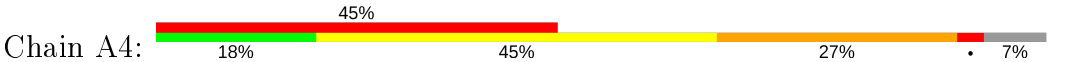


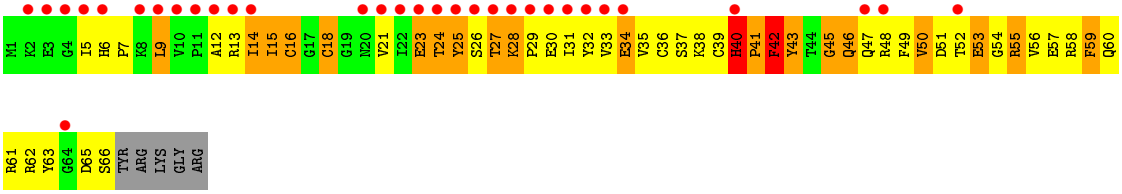
• Molecule 25: 50S ribosomal protein L30

• Molecule 25: 50S ribosomal protein L30

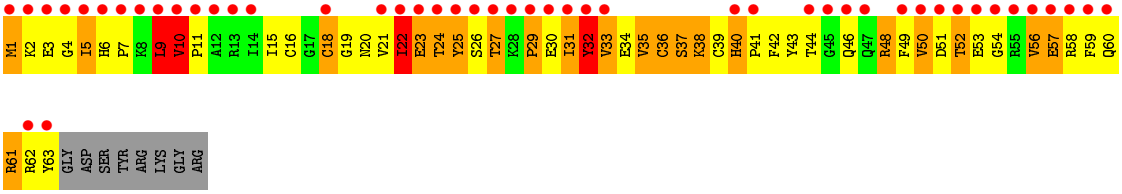


• Molecule 26: 50S ribosomal protein L31



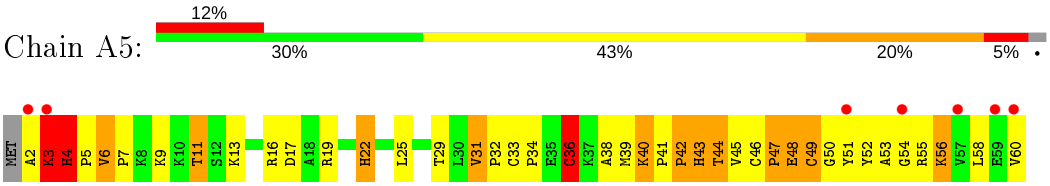


• Molecule 26: 50S ribosomal protein L31



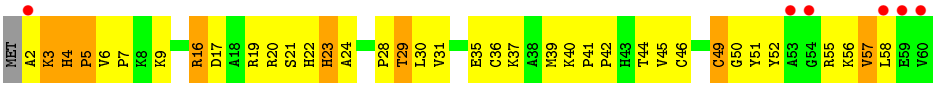
• Molecule 27: 50S ribosomal protein L32

Chain A5:



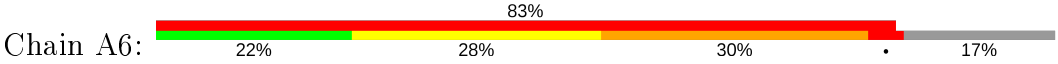
• Molecule 27: 50S ribosomal protein L32

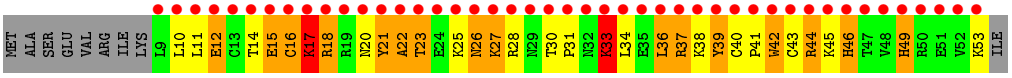
Chain D5:



• Molecule 28: 50S ribosomal protein L33

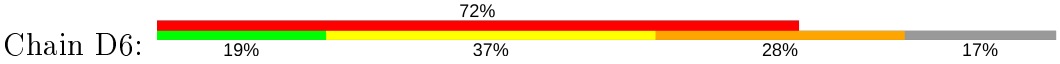
Chain A6:

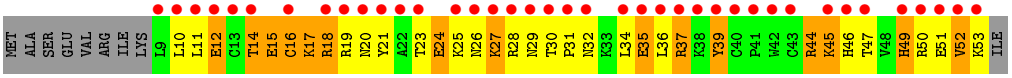




• Molecule 28: 50S ribosomal protein L33

Chain D6:



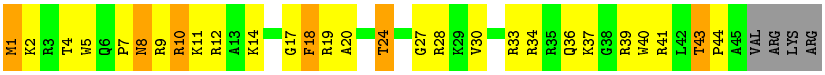


• Molecule 29: 50S ribosomal protein L34

Chain A7:

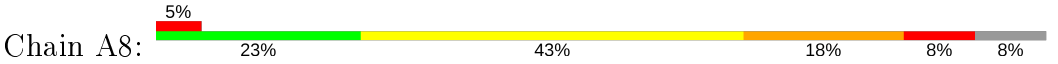
• Molecule 29: 50S ribosomal protein L34

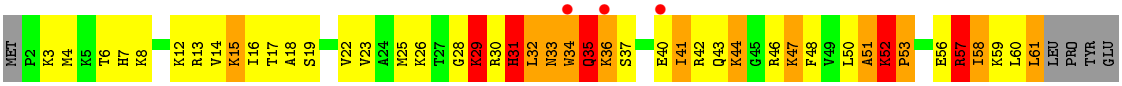
Chain D7:



• Molecule 30: 50S ribosomal protein L35

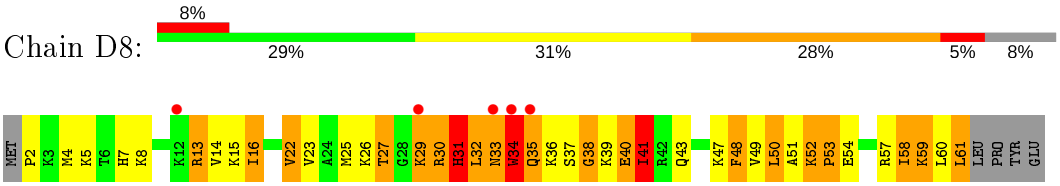
Chain A8:





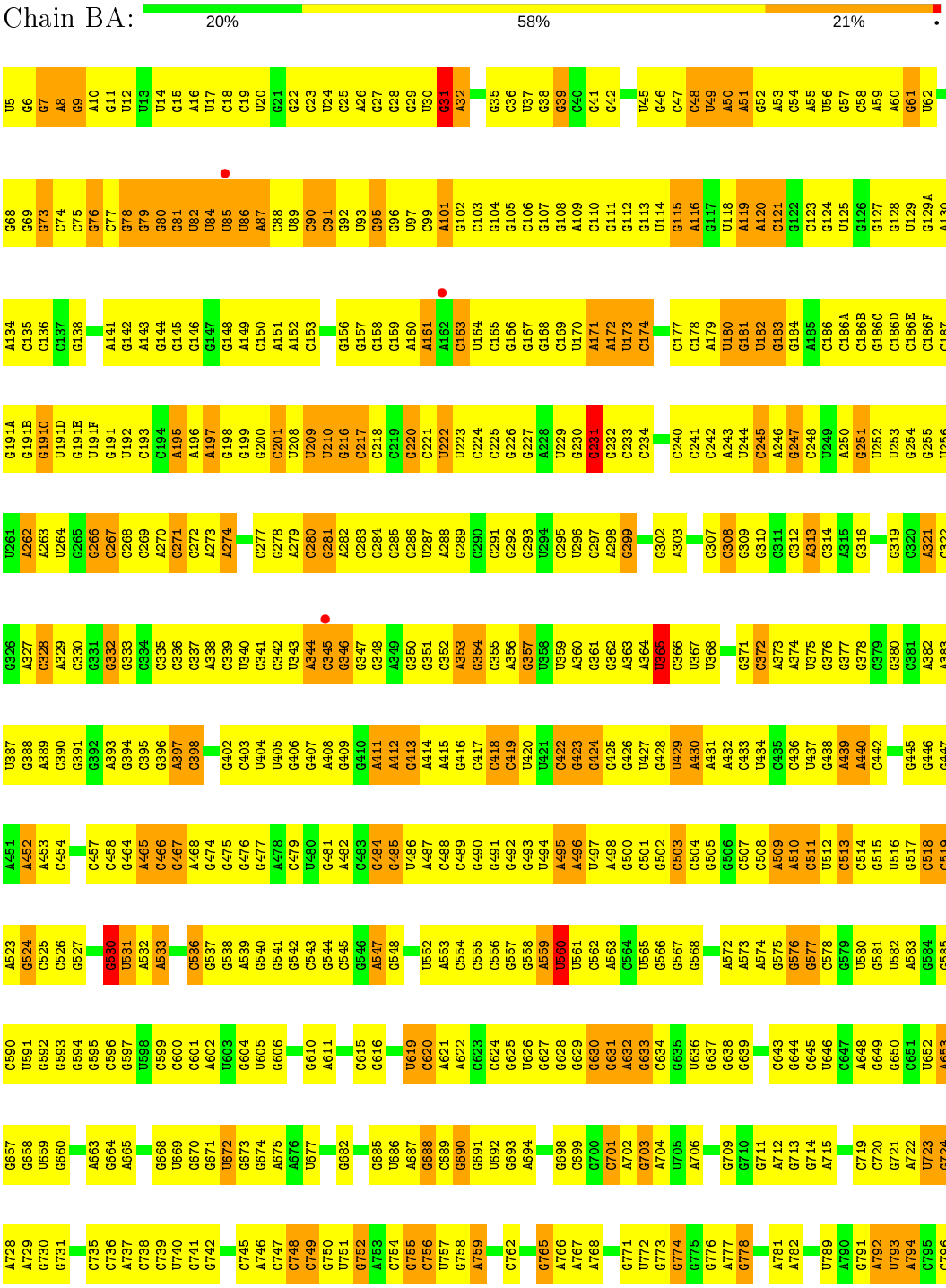
• Molecule 30: 50S ribosomal protein L35

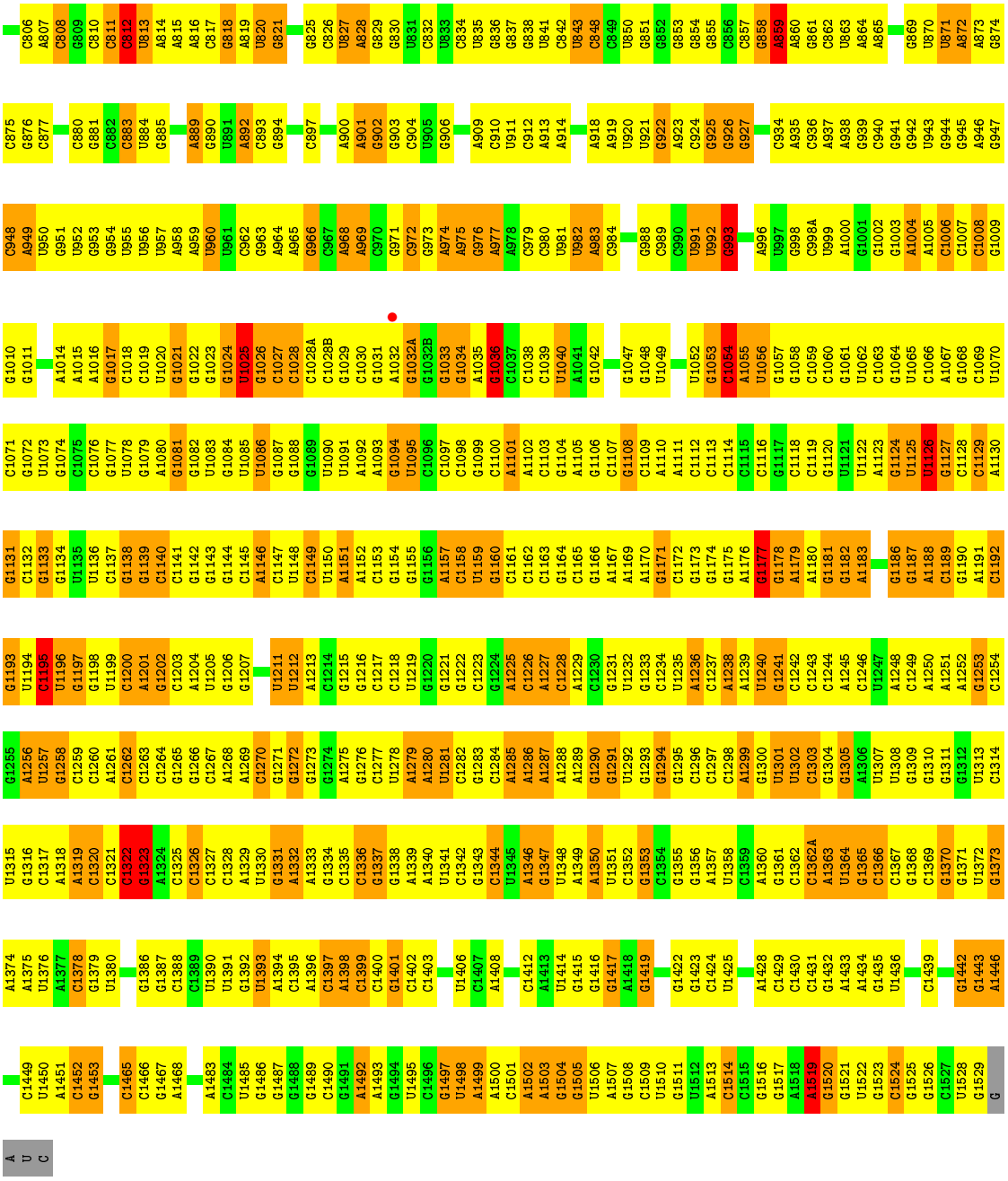
Chain D8:



- Molecule 31: 16S ribosomal RNA

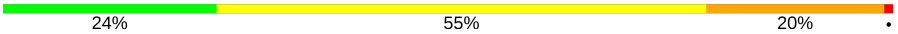
Chain BA:

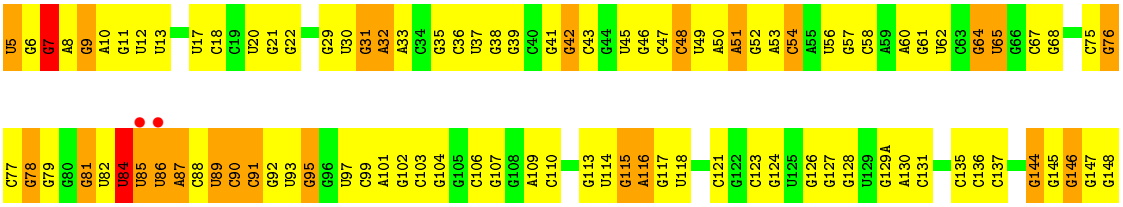


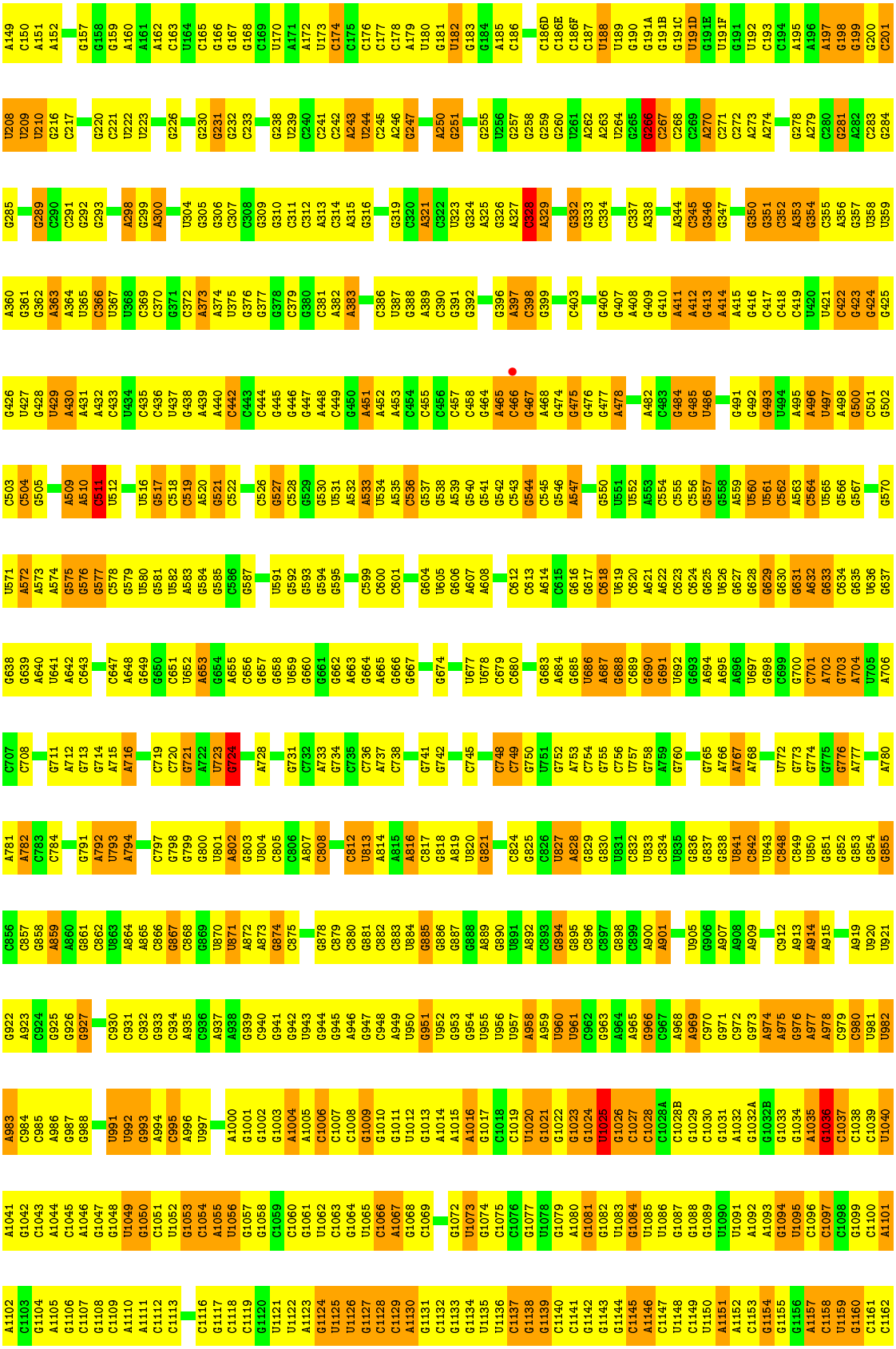


• Molecule 31: 16S ribosomal RNA

Chain CA:



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U208 U209 U210 G216 C217 G220 C221 U222 U223 G226 G230 G231 G232 C233 G238 U239 C240 C241 C242 A243 U244 C245 A246 G247 A250 G251 G255 U256 G257 G258 G259 G260 U261 A262 A263 U264 G265 G266 C267 C268 C269 A270 C271 C272 A273 A274 G278 A279 C280 G281 A282 C283 G284
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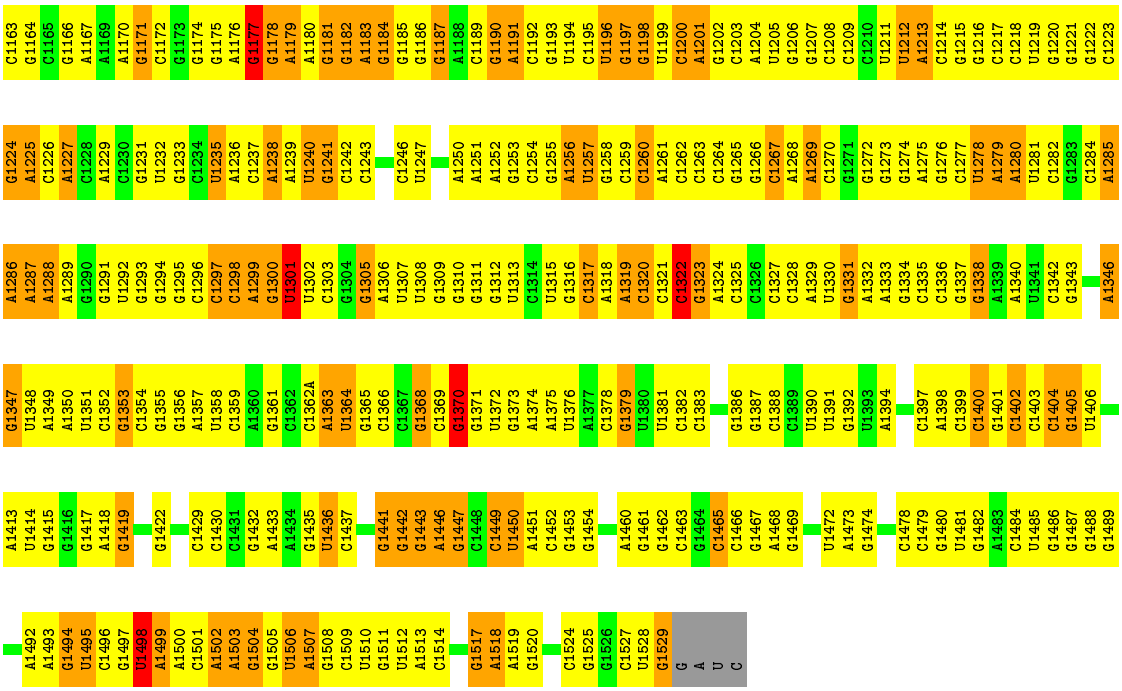
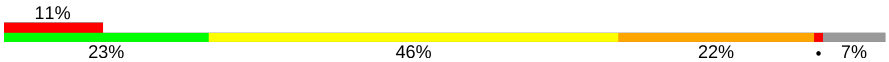
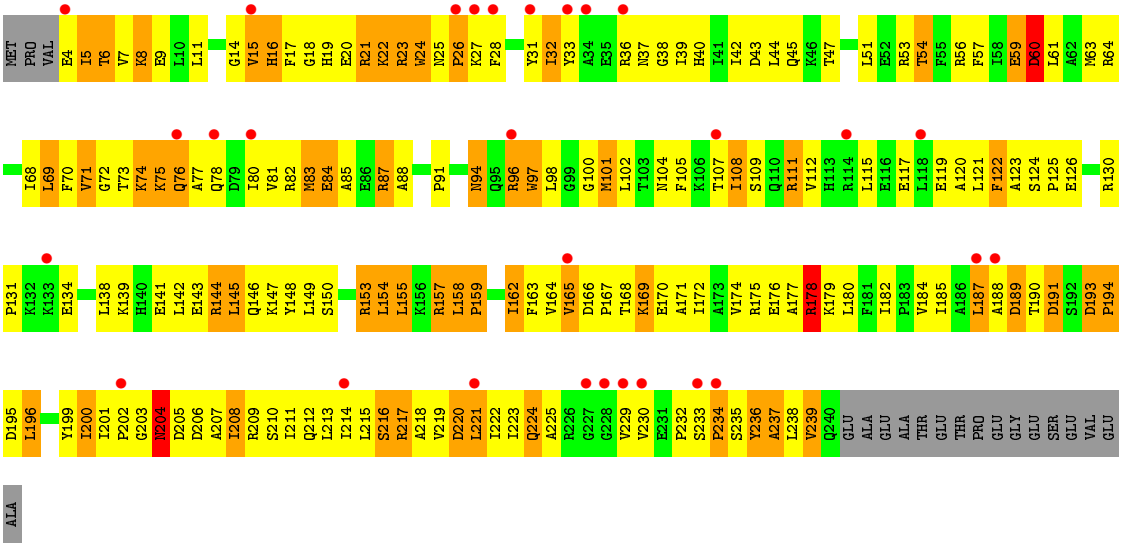


• Molecule 32: 30S RIBOSOMAL PROTEIN S2

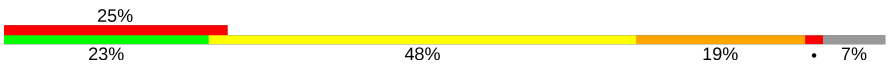
Chain BE:

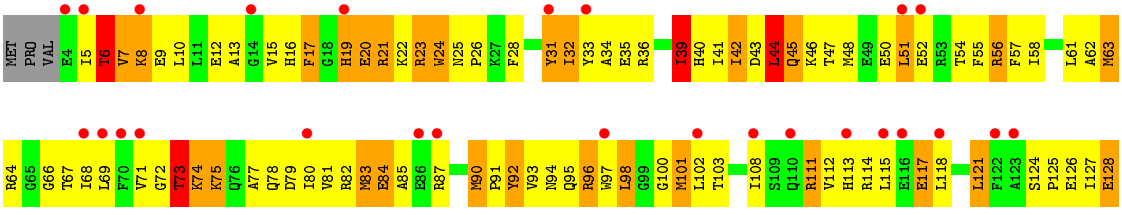


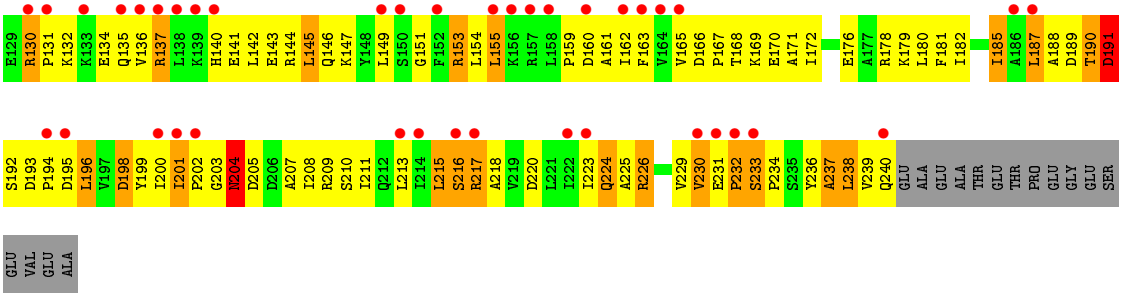


• Molecule 32: 30S RIBOSOMAL PROTEIN S2

Chain CE:

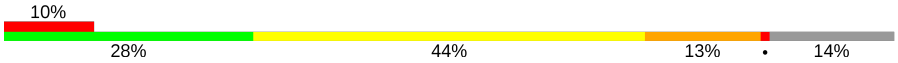


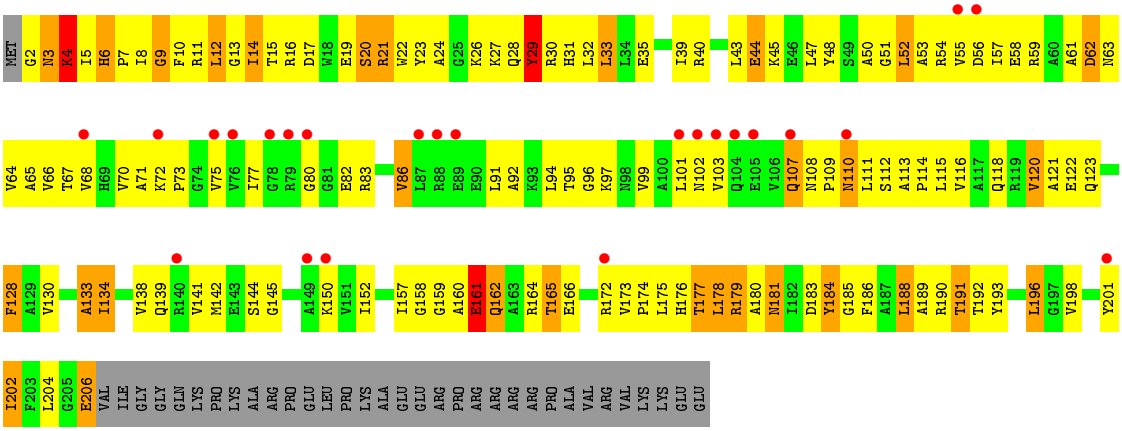




• Molecule 33: 30S RIBOSOMAL PROTEIN S3

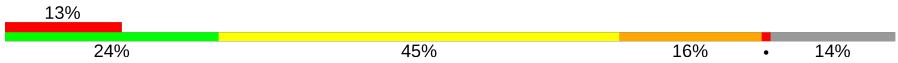
Chain BF:

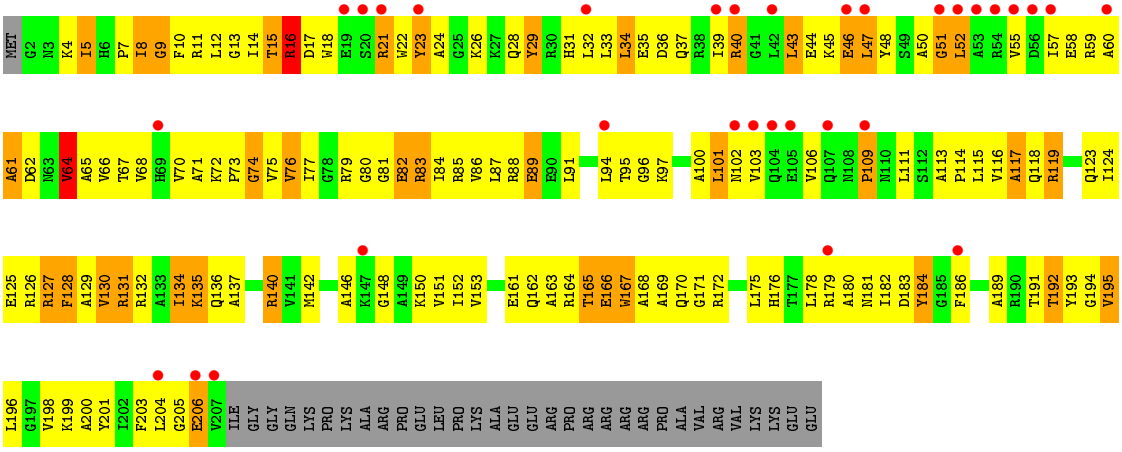




• Molecule 33: 30S RIBOSOMAL PROTEIN S3

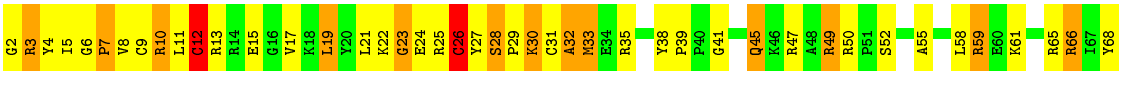
Chain CF:

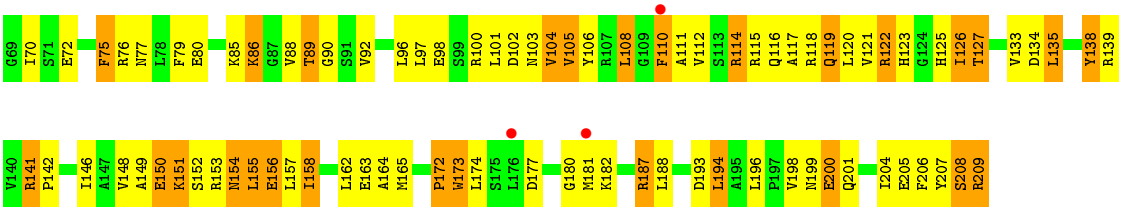


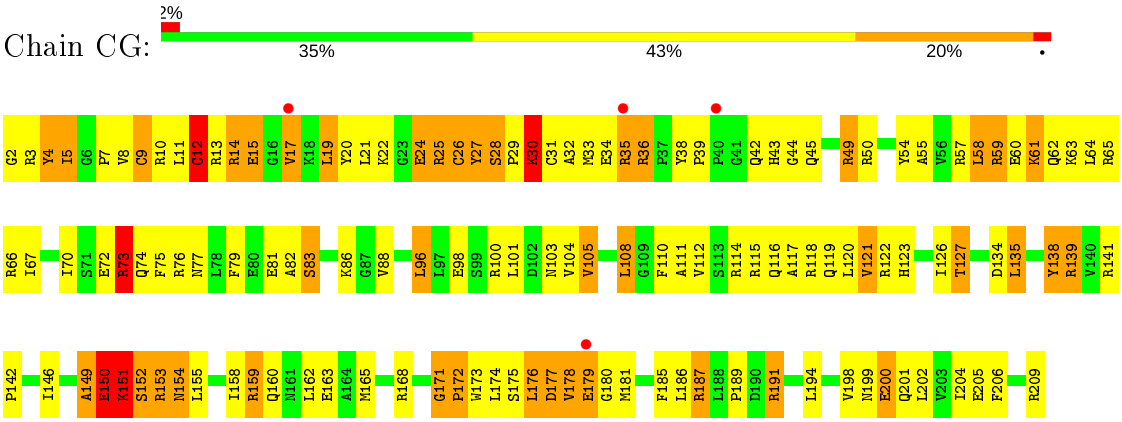


• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain BG:





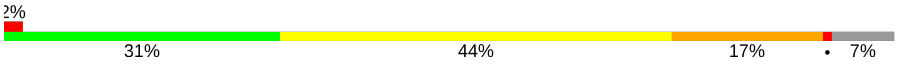


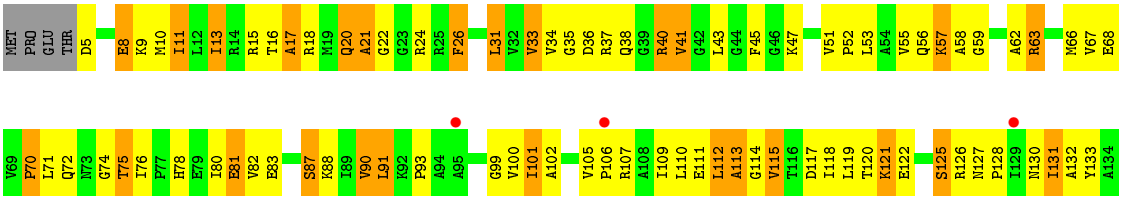
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

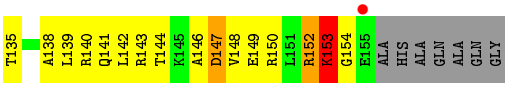
Chain CG:

• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain BH:

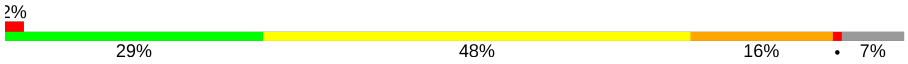


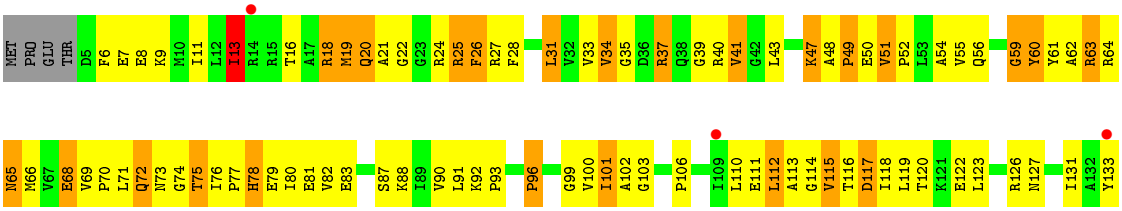


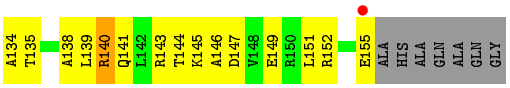


• Molecule 35: 30S RIBOSOMAL PROTEIN S5

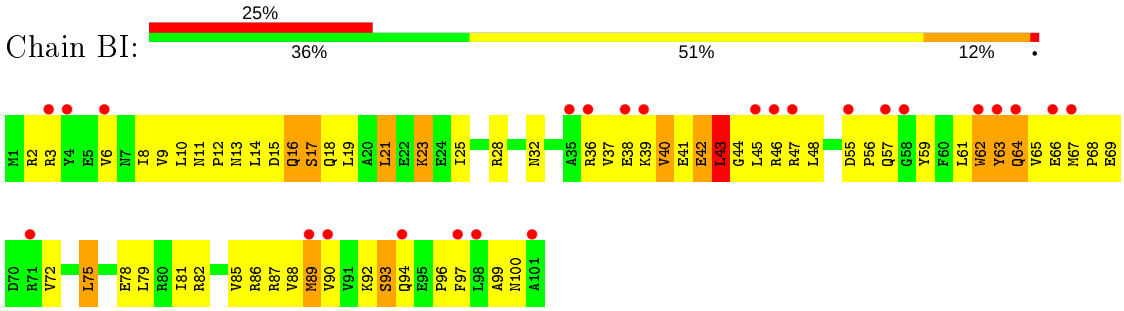
Chain CH:



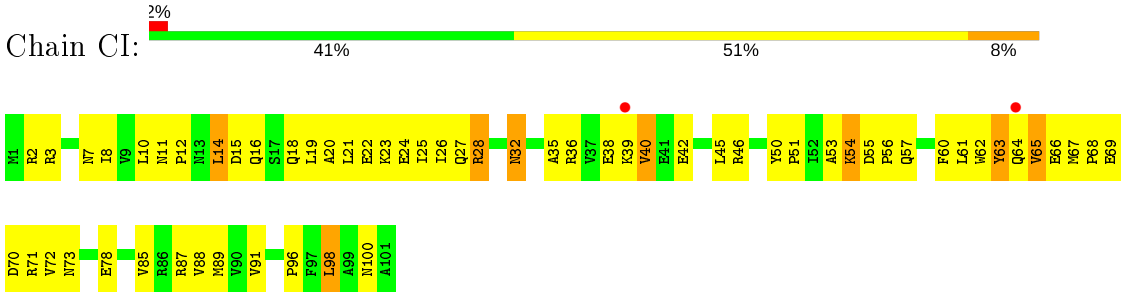




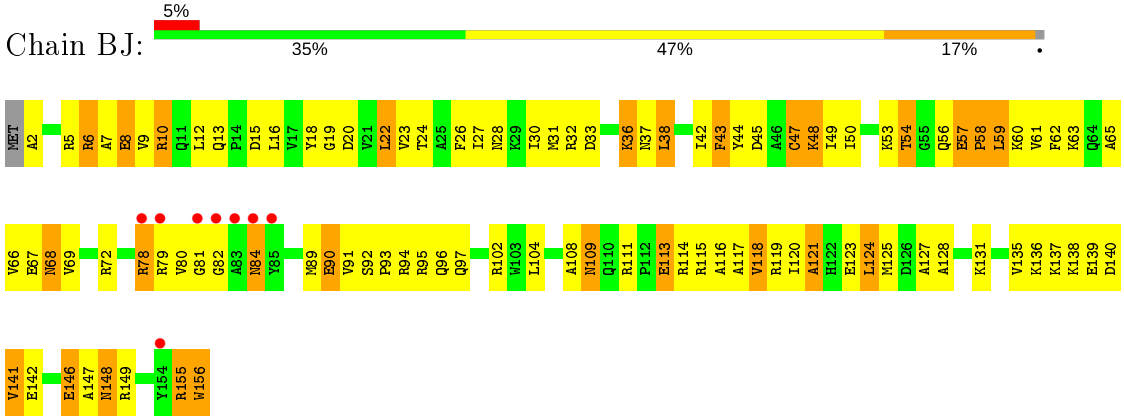
• Molecule 36: 30S RIBOSOMAL PROTEIN S6



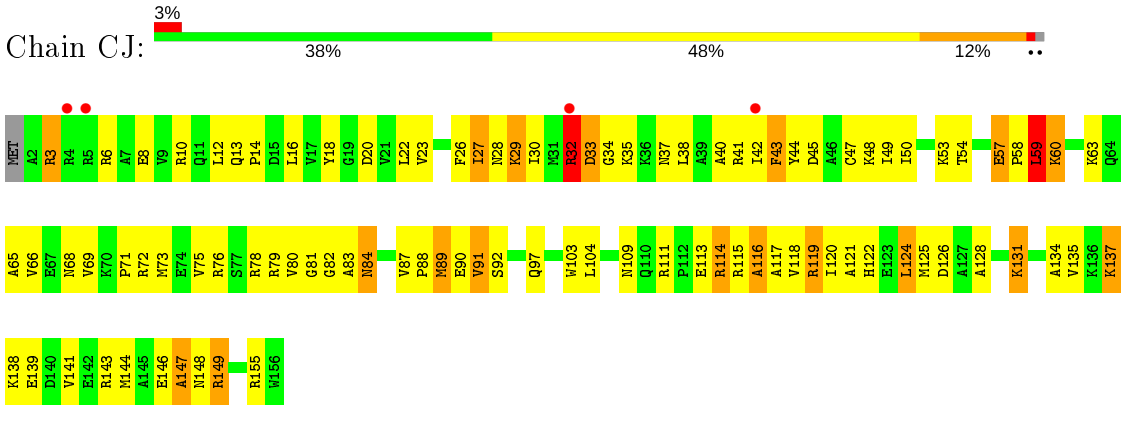
• Molecule 36: 30S RIBOSOMAL PROTEIN S6



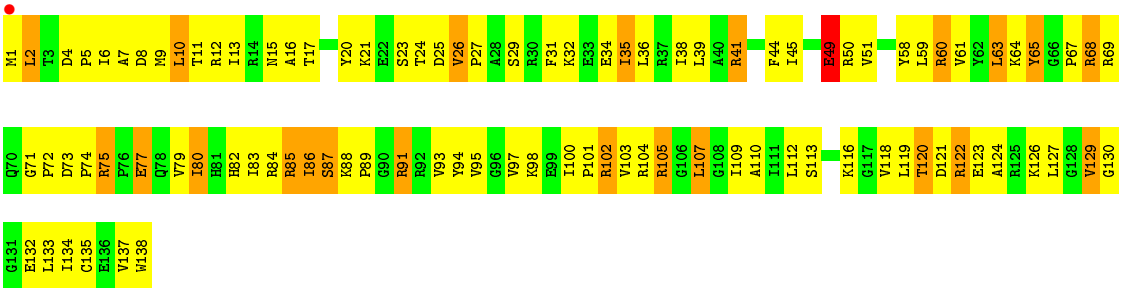
• Molecule 37: 30S RIBOSOMAL PROTEIN S7



• Molecule 37: 30S RIBOSOMAL PROTEIN S7

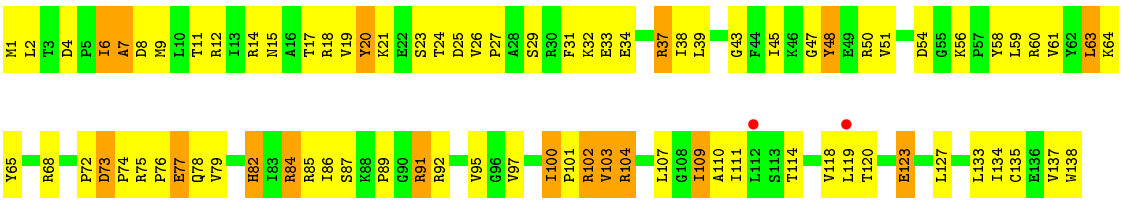


• Molecule 38: 30S RIBOSOMAL PROTEIN S8



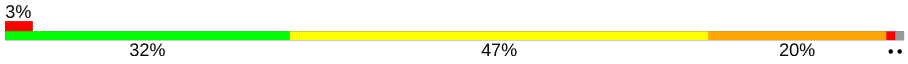
• Molecule 38: 30S RIBOSOMAL PROTEIN S8

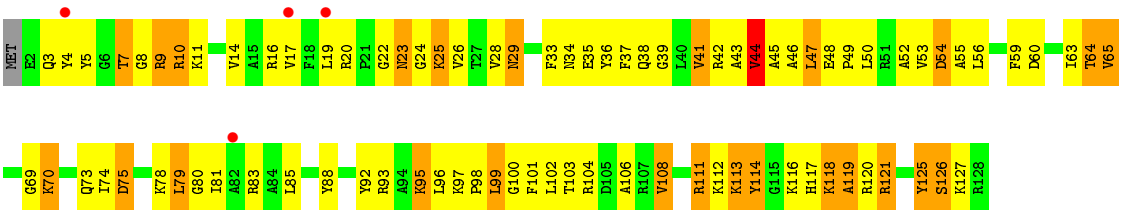
Chain CK:



• Molecule 39: 30S RIBOSOMAL PROTEIN S9

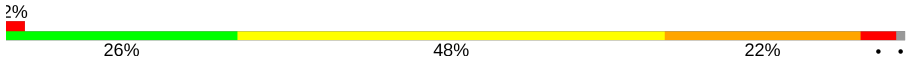
Chain BL:

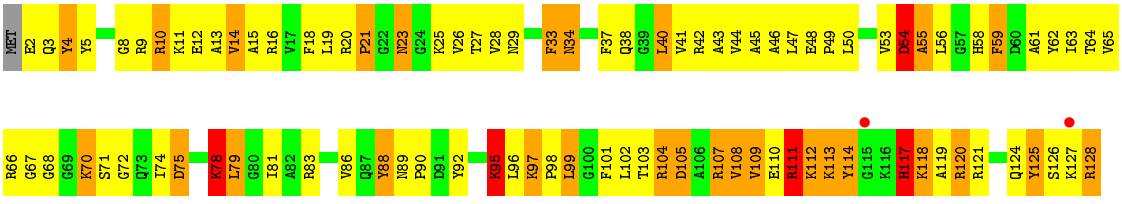




• Molecule 39: 30S RIBOSOMAL PROTEIN S9

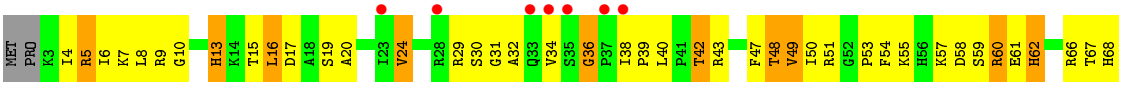
Chain CL:

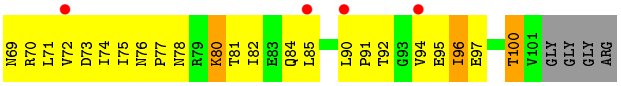




• Molecule 40: 30S RIBOSOMAL PROTEIN S10

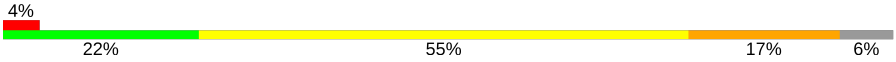
Chain BM:

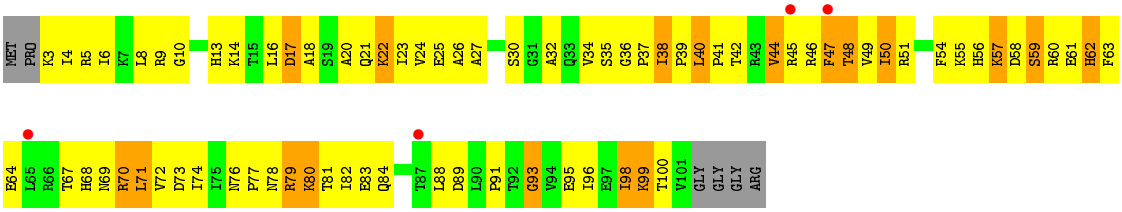




- Molecule 40: 30S RIBOSOMAL PROTEIN S10

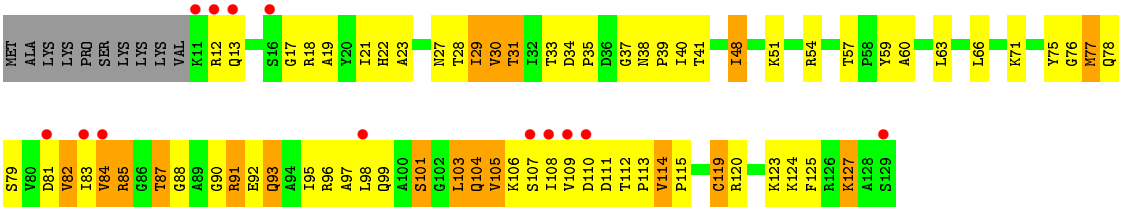
Chain CM:





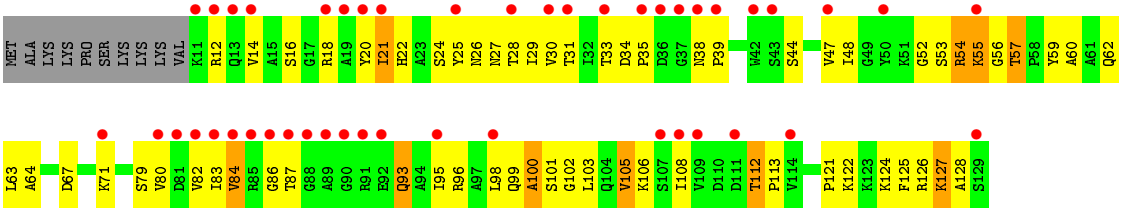
- Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain BN:



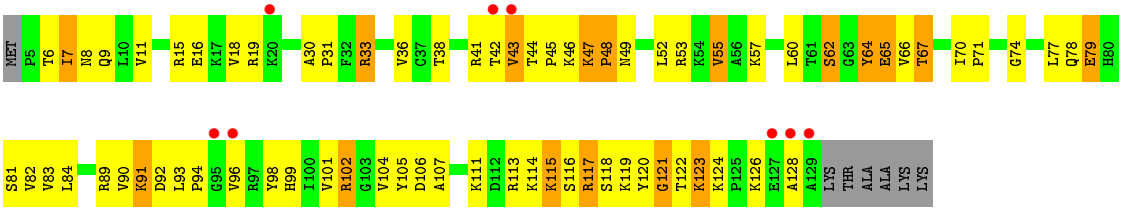
- Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain CN:



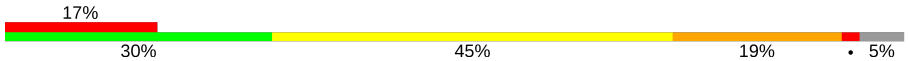
- Molecule 42: 30S RIBOSOMAL PROTEIN S12

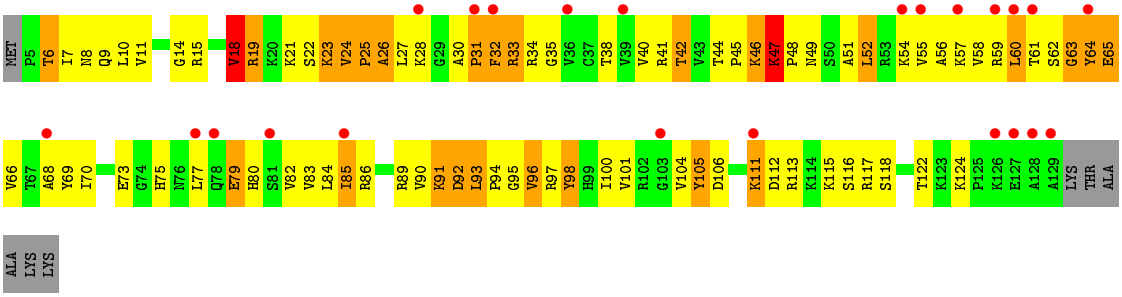
Chain BO:



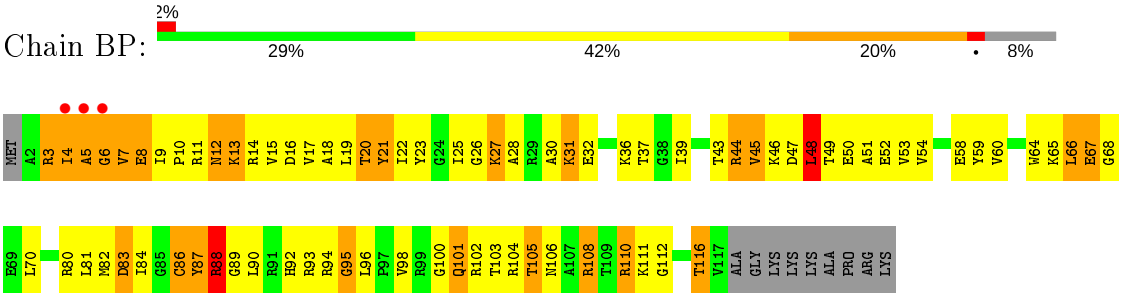
- Molecule 42: 30S RIBOSOMAL PROTEIN S12

Chain CO:

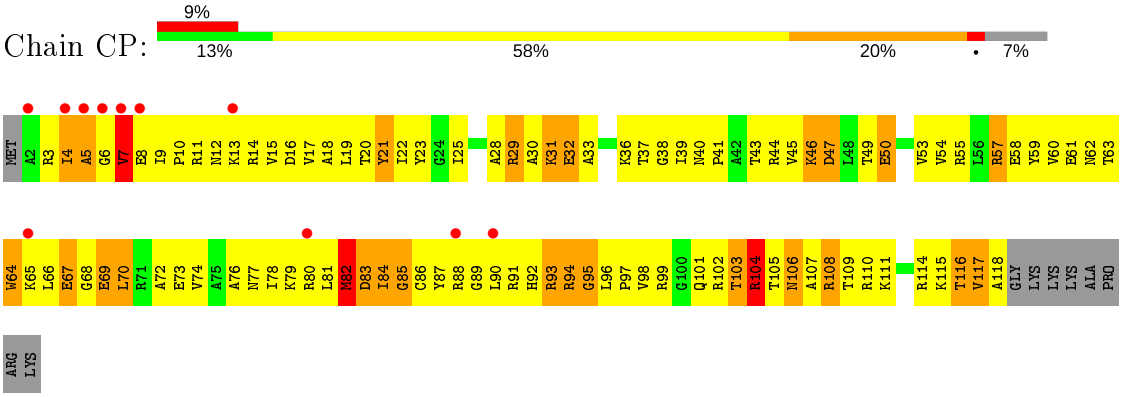




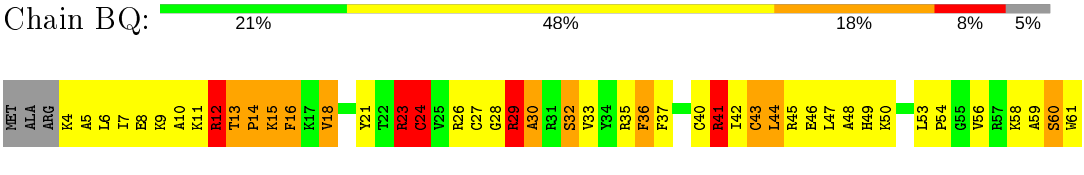
- Molecule 43: 30S RIBOSOMAL PROTEIN S13



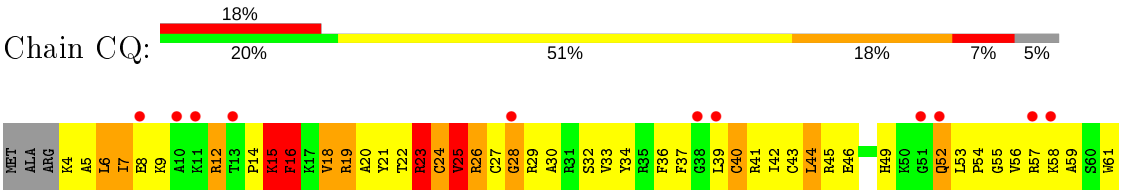
- Molecule 43: 30S RIBOSOMAL PROTEIN S13



- Molecule 44: 30S RIBOSOMAL PROTEIN S14

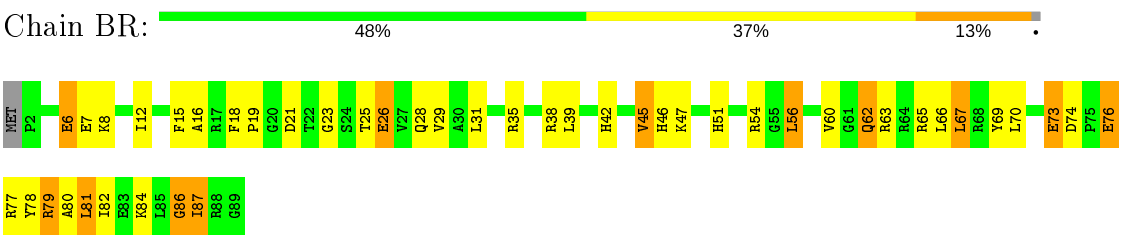


- Molecule 44: 30S RIBOSOMAL PROTEIN S14



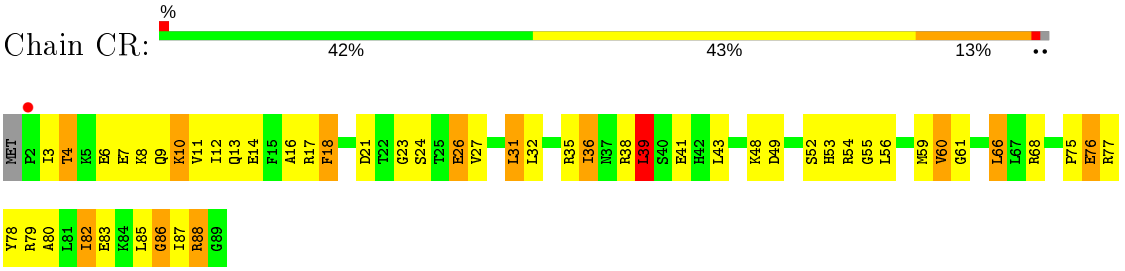
- Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain BR:



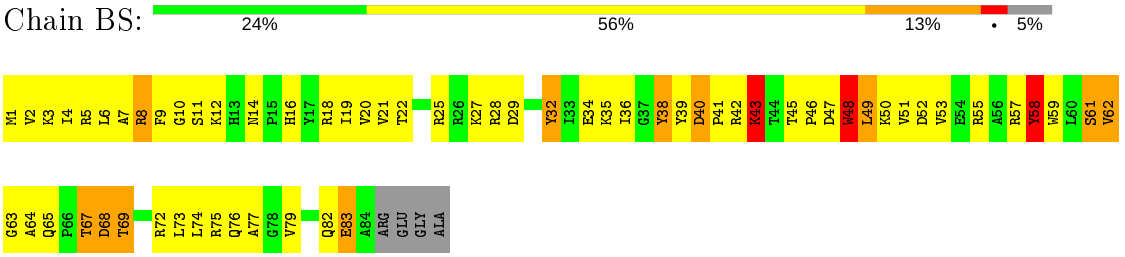
• Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain CR:



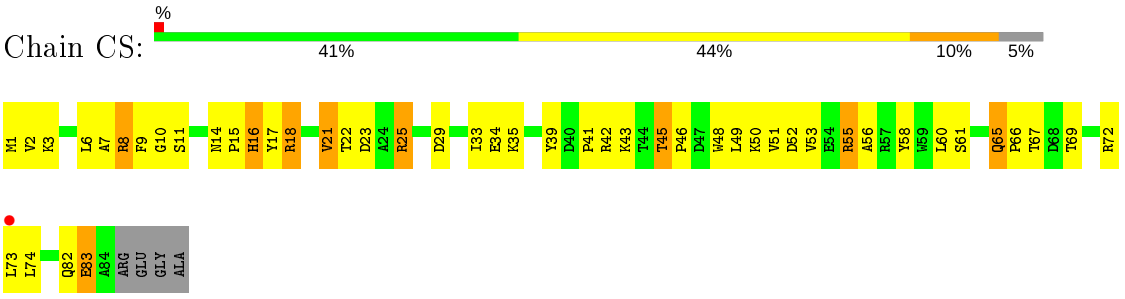
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain BS:



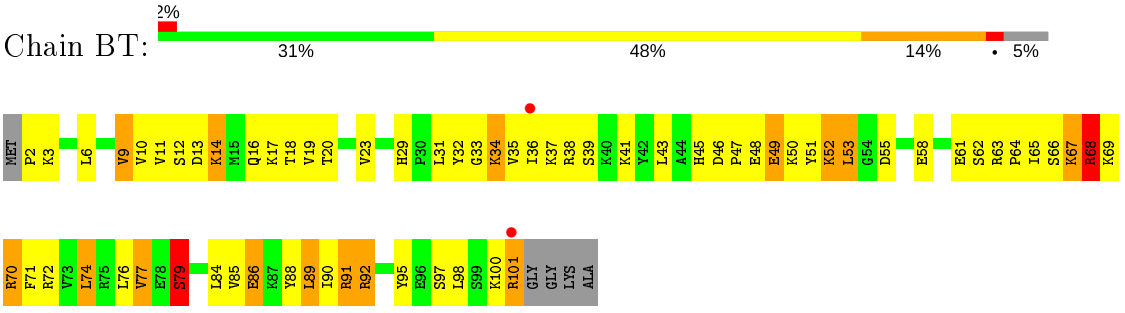
• Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain CS:



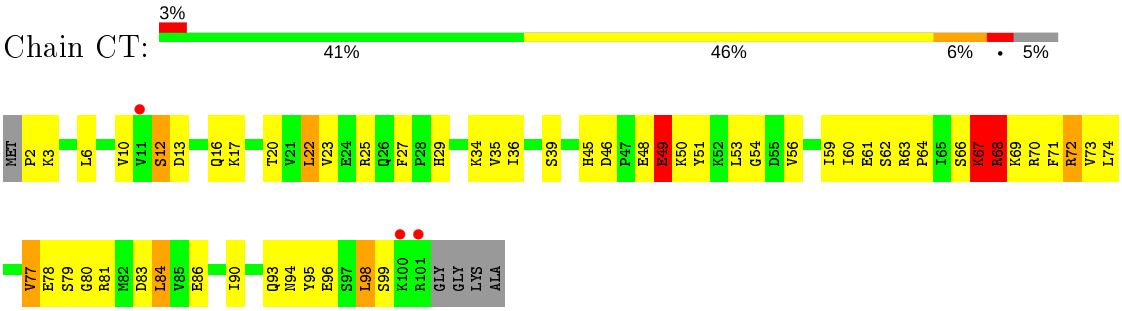
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain BT:



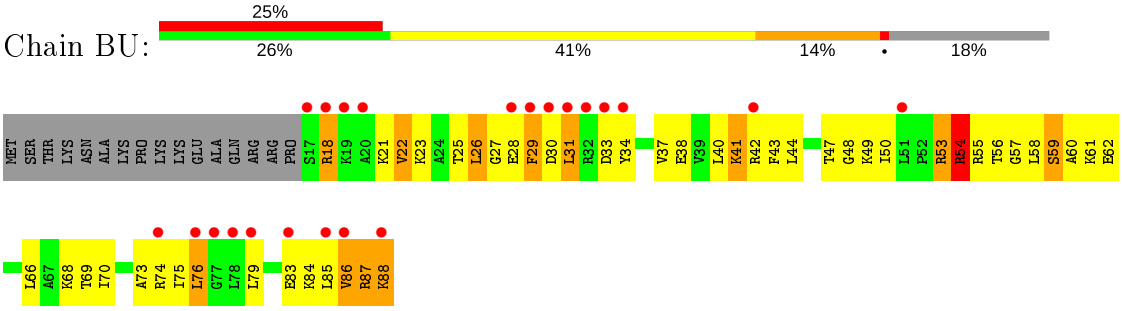
• Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain CT:



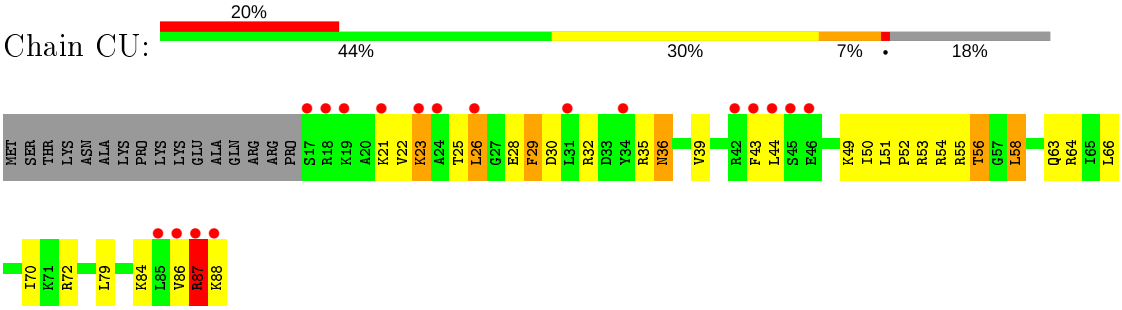
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain BU:



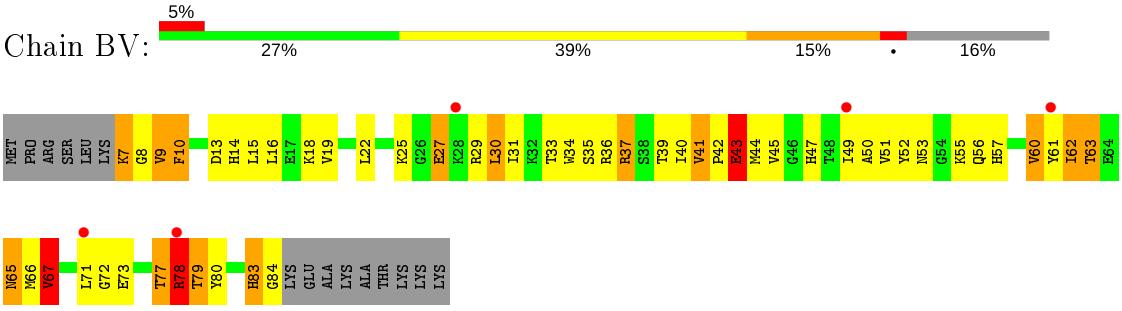
• Molecule 48: 30S RIBOSOMAL PROTEIN S18

Chain CU:



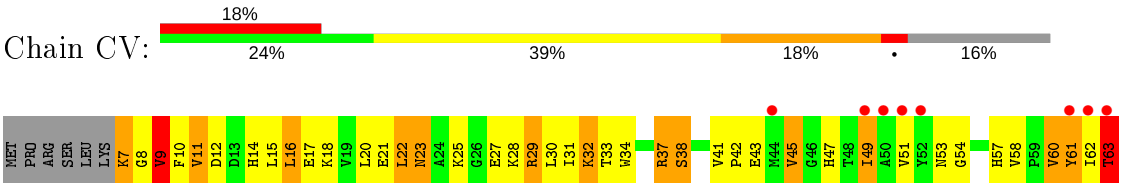
• Molecule 49: 30S RIBOSOMAL PROTEIN S19

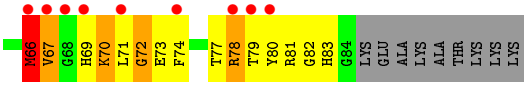
Chain BV:



• Molecule 49: 30S RIBOSOMAL PROTEIN S19

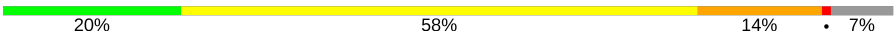
Chain CV:

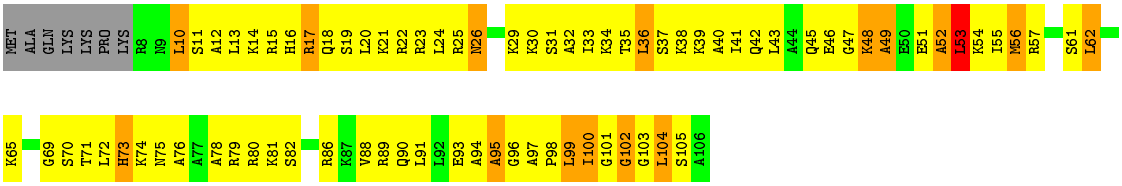




• Molecule 50: 30S RIBOSOMAL PROTEIN S20

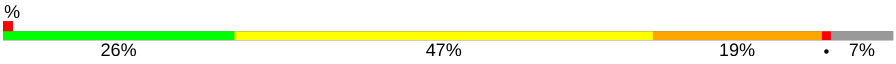
Chain BW:

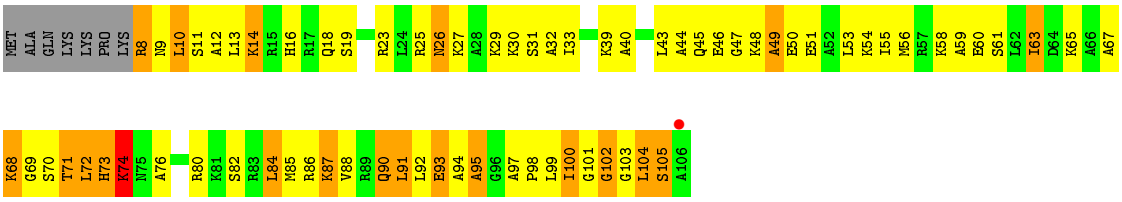




• Molecule 50: 30S RIBOSOMAL PROTEIN S20

Chain CW:



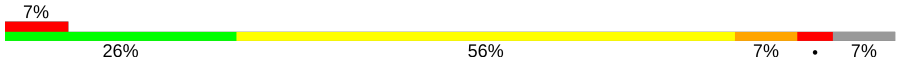


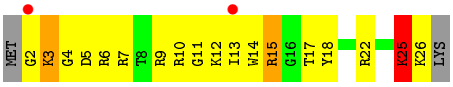
• Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain BX:

• Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain CX:



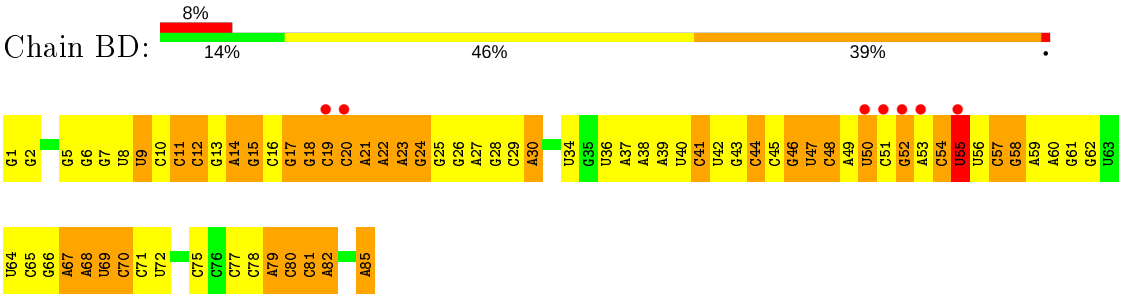


• Molecule 52: TRNA-TYR

Chain BB:

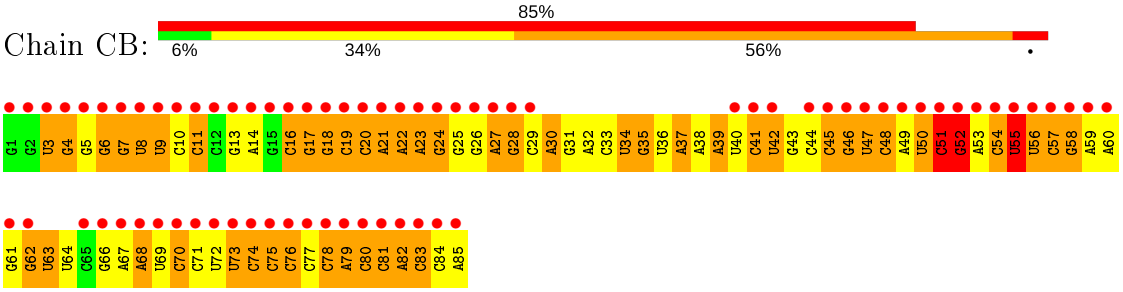
• Molecule 52: TRNA-TYR

Chain BD:



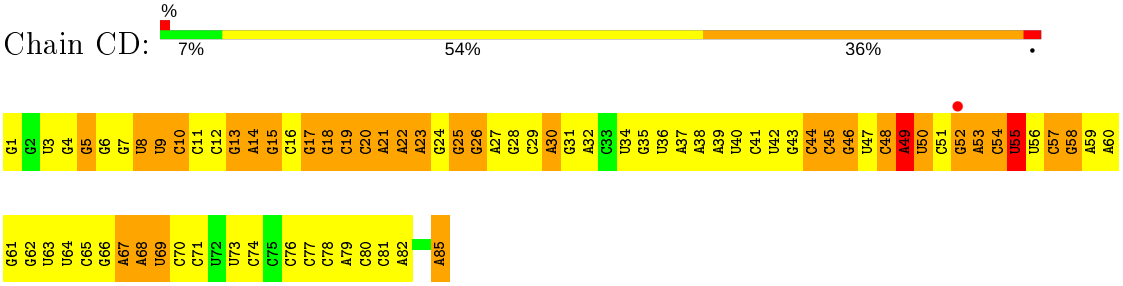
• Molecule 52: TRNA-TYR

Chain CB:



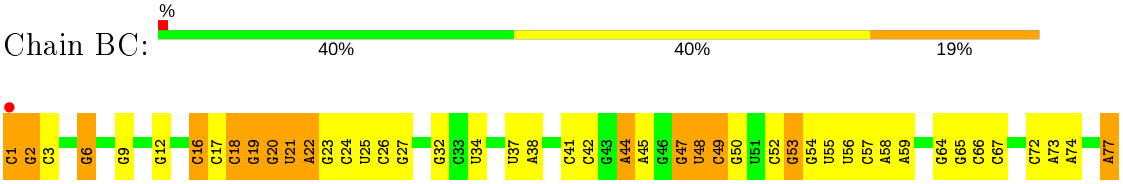
• Molecule 52: TRNA-TYR

Chain CD:



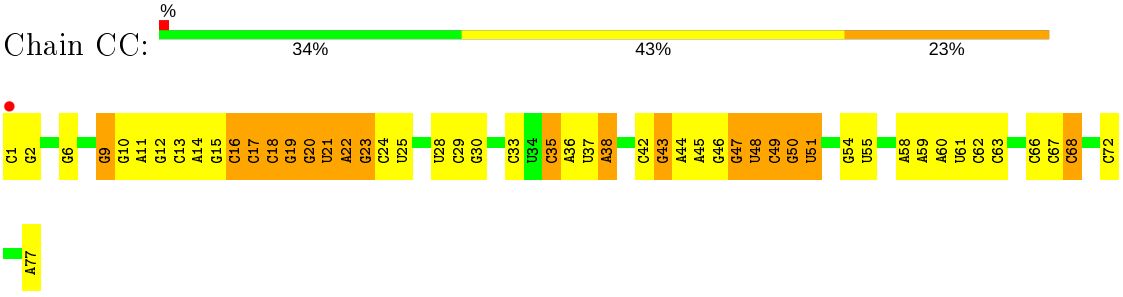
• Molecule 53: TRNA-FMET

Chain BC:



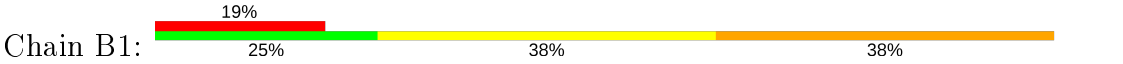
• Molecule 53: TRNA-FMET

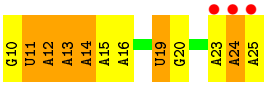
Chain CC:



• Molecule 54: MRNA

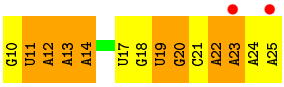
Chain B1:





- Molecule 54: MRNA

Chain C1:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.00Å 450.33Å 622.86Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.64 – 3.30 152.64 – 3.00	Depositor EDS
% Data completeness (in resolution range)	99.8 (152.64-3.30) 89.2 (152.64-3.00)	Depositor EDS
R_{merge}	0.41	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.57 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.7.1_743	Depositor
R, R_{free}	0.196 , 0.247 0.197 , 0.244	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å^2)	76.1	Xtriage
Anisotropy	0.204	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 80.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	304031	wwPDB-VP
Average B, all atoms (Å^2)	112.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.35% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MIA, ZN, MG, OHX, PAR

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	0.73	18/70233 (0.0%)	1.21	496/109643 (0.5%)
1	DA	0.64	9/70122 (0.0%)	1.10	332/109469 (0.3%)
2	AB	0.60	0/2928	1.24	32/4568 (0.7%)
2	DB	0.50	0/2928	1.03	7/4568 (0.2%)
3	AD	0.56	0/2165	0.81	1/2919 (0.0%)
3	DD	0.52	0/2165	0.75	0/2919
4	AE	0.47	0/1601	0.72	0/2160
4	DE	0.45	0/1601	0.67	0/2160
5	AF	0.51	0/1620	0.71	0/2194
5	DF	0.38	0/1662	0.65	0/2249
6	AG	0.36	0/1499	0.60	0/2016
6	DG	0.28	0/1499	0.52	0/2016
7	AH	0.43	0/1332	0.66	0/1802
7	DH	0.29	0/1332	0.53	0/1802
8	AK	0.36	0/1151	0.63	0/1558
8	DK	0.36	0/1151	0.63	0/1558
9	AM	0.43	0/1131	0.66	0/1525
9	DM	0.34	0/1131	0.58	0/1525
10	AN	0.46	0/943	0.65	0/1269
10	DN	0.42	0/943	0.63	1/1269 (0.1%)
11	AO	0.44	0/1162	0.81	1/1544 (0.1%)
11	DO	0.32	0/1162	0.57	1/1544 (0.1%)
12	AP	0.45	0/1143	0.63	0/1527
12	DP	0.33	0/1143	0.54	0/1527
13	A0	0.42	0/982	0.67	0/1312
13	D0	0.40	0/974	0.66	0/1302
14	AQ	0.45	0/892	0.72	0/1187
14	DQ	0.33	0/892	0.60	0/1187
15	AR	0.46	0/1155	0.66	0/1542
15	DR	0.41	0/1155	0.61	0/1542
16	A1	0.47	0/982	0.72	0/1306
16	D1	0.37	0/982	0.57	0/1306

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	A2	0.41	0/790	0.71	1/1057 (0.1%)
17	D2	0.32	0/790	0.60	1/1057 (0.1%)
18	AS	0.46	0/911	0.68	0/1220
18	DS	0.44	0/911	0.62	0/1220
19	AT	0.60	1/739 (0.1%)	0.69	0/993
19	DT	0.48	0/739	0.63	0/993
20	AU	0.50	0/798	0.69	0/1064
20	DU	0.42	0/798	0.65	0/1064
21	AV	0.37	0/1427	0.62	1/1935 (0.1%)
21	DV	0.29	0/1460	0.53	0/1982
22	A3	0.49	0/615	0.72	0/819
22	D3	0.41	0/621	0.66	0/827
23	AZ	0.46	0/770	0.70	0/1022
23	DZ	0.44	0/770	0.69	0/1022
24	AW	0.52	0/560	0.75	1/741 (0.1%)
24	DW	0.40	0/560	0.59	0/741
25	AX	0.41	0/474	0.57	0/635
25	DX	0.33	0/474	0.55	0/635
26	A4	0.39	0/545	0.61	1/733 (0.1%)
26	D4	0.34	0/527	0.62	0/709
27	A5	0.44	0/473	0.65	0/639
27	D5	0.41	0/473	0.65	0/639
28	A6	0.48	0/396	0.64	0/529
28	D6	0.45	0/396	0.67	0/529
29	A7	0.57	0/399	0.76	0/526
29	D7	0.50	0/399	0.69	0/526
30	A8	0.55	0/486	0.81	0/638
30	D8	0.42	0/486	0.65	1/638 (0.2%)
31	BA	0.54	0/36139	1.02	97/56406 (0.2%)
31	CA	0.50	0/36142	0.96	59/56410 (0.1%)
32	BE	0.30	0/1959	0.53	0/2642
32	CE	0.28	0/1959	0.52	0/2642
33	BF	0.34	0/1629	0.53	0/2195
33	CF	0.29	0/1636	0.51	0/2205
34	BG	0.44	2/1733 (0.1%)	0.60	1/2318 (0.0%)
34	CG	0.38	0/1733	0.59	1/2318 (0.0%)
35	BH	0.39	0/1171	0.60	0/1576
35	CH	0.36	0/1171	0.58	0/1576
36	BI	0.37	0/856	0.56	0/1154
36	CI	0.36	0/856	0.56	0/1154
37	BJ	0.33	0/1276	0.52	0/1709
37	CJ	0.30	0/1276	0.50	0/1709
38	BK	0.35	0/1136	0.60	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	CK	0.30	0/1136	0.54	0/1527
39	BL	0.29	0/1029	0.52	0/1379
39	CL	0.30	0/1029	0.53	0/1379
40	BM	0.32	0/814	0.57	0/1095
40	CM	0.30	0/814	0.55	0/1095
41	BN	0.35	0/900	0.58	0/1213
41	CN	0.35	0/900	0.56	0/1213
42	BO	0.46	0/991	0.71	0/1327
42	CO	0.38	0/991	0.65	0/1327
43	BP	0.35	0/938	0.59	0/1258
43	CP	0.28	0/943	0.52	0/1265
44	BQ	0.44	1/485 (0.2%)	0.67	1/643 (0.2%)
44	CQ	0.31	0/485	0.55	0/643
45	BR	0.38	0/745	0.61	0/992
45	CR	0.36	0/745	0.56	1/992 (0.1%)
46	BS	0.31	0/721	0.56	0/970
46	CS	0.34	0/721	0.58	0/970
47	BT	0.38	0/847	0.57	0/1131
47	CT	0.35	0/847	0.53	0/1131
48	BU	0.36	0/596	0.63	0/790
48	CU	0.36	0/596	0.57	0/790
49	BV	0.32	0/638	0.56	0/860
49	CV	0.31	0/638	0.56	0/860
50	BW	0.30	0/765	0.57	0/1007
50	CW	0.33	0/765	0.58	0/1007
51	BX	0.32	0/221	0.52	0/288
51	CX	0.33	0/221	0.53	0/288
52	BB	0.76	0/1992	0.98	2/3099 (0.1%)
52	BD	0.65	0/1992	0.90	3/3099 (0.1%)
52	CB	0.85	0/1992	0.94	6/3099 (0.2%)
52	CD	0.67	0/1992	0.88	6/3099 (0.2%)
53	BC	0.50	0/1835	0.94	6/2859 (0.2%)
53	CC	0.46	0/1835	0.91	1/2859 (0.0%)
54	B1	0.72	0/390	0.91	1/606 (0.2%)
54	C1	0.71	0/390	0.89	0/606
All	All	0.58	31/324159 (0.0%)	0.99	1062/485455 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
3	AD	0	3
3	DD	0	1
4	AE	0	1
5	AF	0	1
5	DF	0	1
7	AH	0	1
8	AK	0	1
8	DK	0	1
11	AO	0	1
11	DO	0	1
24	AW	0	1
30	A8	0	1
30	D8	0	1
42	BO	0	1
All	All	0	16

All (31) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	774	A	N9-C4	-9.44	1.32	1.37
1	DA	1342	A	N7-C5	-8.92	1.33	1.39
1	DA	783	A	N9-C4	-8.89	1.32	1.37
1	DA	2873	A	N7-C5	-8.61	1.34	1.39
34	BG	12	CYS	CB-SG	7.57	1.95	1.82
1	AA	1899	G	N9-C4	-7.03	1.32	1.38
1	AA	1142(A)	A	N9-C4	-7.00	1.33	1.37
1	AA	1021	A	N9-C4	-6.92	1.33	1.37
1	AA	2287	A	N9-C4	-6.83	1.33	1.37
1	DA	1899	G	N9-C4	-6.80	1.32	1.38
1	AA	783	A	N9-C4	-6.75	1.33	1.37
19	AT	3	THR	CA-CB	6.40	1.70	1.53
1	AA	783	A	C5-C6	-6.15	1.35	1.41
44	BQ	24	CYS	CB-SG	6.01	1.92	1.82
1	AA	676	A	N3-C4	-5.99	1.31	1.34
1	AA	1332	G	N9-C4	-5.93	1.33	1.38
1	DA	676	A	N9-C4	-5.91	1.34	1.37
1	DA	1142(A)	A	N9-C4	-5.77	1.34	1.37
1	AA	2401	U	N1-C2	5.72	1.43	1.38
1	AA	2346	A	N9-C4	-5.66	1.34	1.37
1	AA	807	U	C2-N3	5.61	1.41	1.37
1	AA	676	A	N9-C4	-5.40	1.34	1.37
1	DA	528	A	N3-C4	-5.39	1.31	1.34
34	BG	26	CYS	CB-SG	5.38	1.91	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1332	G	N3-C4	-5.32	1.31	1.35
1	AA	2451	A	N9-C4	-5.23	1.34	1.37
1	AA	673	C	C2-N3	5.22	1.40	1.35
1	AA	140	A	N7-C5	-5.10	1.36	1.39
1	AA	528	A	N9-C4	-5.09	1.34	1.37
1	DA	2720	U	C2-N3	5.09	1.41	1.37
1	DA	528	A	N9-C4	-5.03	1.34	1.37

All (1062) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	1899	G	N3-C4-N9	-16.88	115.87	126.00
1	AA	1899	G	N3-C4-N9	-14.54	117.28	126.00
1	AA	774	A	C2-N3-C4	-14.31	103.44	110.60
2	AB	81	G	C6-C5-N7	-14.19	121.89	130.40
1	AA	783	A	C5-N7-C8	-13.92	96.94	103.90
1	AA	1899	G	N3-C4-C5	13.62	135.41	128.60
2	AB	81	G	C5-C6-O6	-13.43	120.54	128.60
1	DA	1899	G	C8-N9-C1'	13.03	143.94	127.00
1	DA	1899	G	N3-C4-C5	12.99	135.09	128.60
2	AB	81	G	C4-C5-N7	12.70	115.88	110.80
31	BA	690	G	C6-C5-N7	-12.68	122.79	130.40
31	BA	690	G	C4-N9-C1'	12.61	142.90	126.50
1	DA	1899	G	C4-N9-C1'	-12.57	110.16	126.50
1	DA	783	A	C5-N7-C8	-12.43	97.68	103.90
1	AA	1899	G	C2-N3-C4	-12.37	105.72	111.90
1	AA	676	A	C8-N9-C4	-12.30	100.88	105.80
1	DA	933	A	C6-C5-N7	-12.29	123.70	132.30
1	AA	676	A	N7-C8-N9	12.25	119.92	113.80
2	AB	81	G	C4-N9-C1'	12.07	142.20	126.50
31	BA	1495	U	N1-C2-O2	11.90	131.13	122.80
1	AA	676	A	C5-N7-C8	-11.79	98.00	103.90
1	AA	1332	G	C2-N3-C4	-11.60	106.10	111.90
31	BA	690	G	C8-N9-C1'	-11.47	112.09	127.00
1	DA	933	A	C4-N9-C1'	11.33	146.69	126.30
2	AB	81	G	N3-C4-N9	11.09	132.65	126.00
2	AB	81	G	C8-N9-C1'	-10.97	112.74	127.00
31	CA	898	G	C8-N9-C4	10.94	110.77	106.40
1	AA	783	A	C4-C5-N7	10.91	116.16	110.70
1	DA	2598	A	N1-C6-N6	10.86	125.11	118.60
1	AA	2401	U	N1-C2-O2	10.83	130.38	122.80
1	DA	933	A	C8-N9-C1'	-10.73	108.39	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	1602	U	C2-N3-C4	-10.61	120.63	127.00
1	AA	1678	G	C6-C5-N7	-10.55	124.07	130.40
1	DA	1342	A	N1-C6-N6	10.55	124.93	118.60
2	AB	81	G	N1-C6-O6	10.52	126.21	119.90
1	AA	774	A	N3-C4-C5	10.49	134.15	126.80
1	DA	2720	U	C2-N3-C4	-10.47	120.72	127.00
1	AA	140	A	N7-C8-N9	10.44	119.02	113.80
1	AA	201	C	C6-N1-C2	10.42	124.47	120.30
1	AA	2447	G	C6-N1-C2	-10.40	118.86	125.10
31	CA	1529	G	C4-N9-C1'	10.23	139.79	126.50
1	AA	2401	U	N3-C2-O2	-10.19	115.07	122.20
1	AA	906	G	C5-C6-O6	10.02	134.61	128.60
1	AA	1332	G	N3-C4-C5	10.02	133.61	128.60
1	DA	1950	G	C4-N9-C1'	9.95	139.44	126.50
31	CA	1529	G	N3-C4-C5	-9.94	123.63	128.60
1	AA	2544	G	N1-C6-O6	9.84	125.81	119.90
1	AA	140	A	C8-N9-C4	-9.84	101.86	105.80
1	AA	201	C	C2-N3-C4	-9.81	114.99	119.90
1	AA	1678	G	C4-C5-N7	9.76	114.70	110.80
1	AA	633	A	N1-C6-N6	9.72	124.43	118.60
31	CA	1529	G	C8-N9-C4	-9.71	102.52	106.40
1	AA	1332	G	N3-C4-N9	-9.68	120.19	126.00
31	CA	1495	U	N1-C2-O2	9.68	129.58	122.80
1	AA	807	U	C2-N3-C4	-9.64	121.22	127.00
1	DA	933	A	C4-C5-C6	9.61	121.81	117.00
1	AA	2448	A	N1-C6-N6	9.60	124.36	118.60
52	BD	55	U	C2-N1-C1'	9.59	129.21	117.70
1	AA	774	A	N3-C4-N9	-9.56	119.75	127.40
1	AA	807	U	C5-C4-O4	-9.55	120.17	125.90
1	DA	783	A	C4-C5-N7	9.50	115.45	110.70
1	AA	783	A	N7-C8-N9	9.49	118.55	113.80
1	DA	2873	A	N1-C6-N6	9.46	124.28	118.60
1	DA	2451	A	C8-N9-C4	-9.39	102.04	105.80
1	AA	1021	A	C5-N7-C8	-9.37	99.22	103.90
1	DA	2451	A	C5-N7-C8	-9.37	99.22	103.90
1	DA	774	A	C2-N3-C4	-9.34	105.93	110.60
31	BA	1495	U	N3-C2-O2	-9.32	115.68	122.20
1	AA	676	A	C2-N3-C4	-9.28	105.96	110.60
1	DA	807	U	C2-N3-C4	-9.27	121.44	127.00
31	BA	1054	C	C2-N1-C1'	9.18	128.89	118.80
31	BA	1465	C	C2-N3-C4	-9.16	115.32	119.90
1	DA	676	A	C2-N3-C4	-9.15	106.02	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	2378	A	N1-C6-N6	9.15	124.09	118.60
1	AA	673	C	C2-N3-C4	-9.11	115.34	119.90
1	AA	1786	A	N7-C8-N9	9.10	118.35	113.80
1	AA	1825	A	N1-C6-N6	-9.10	113.14	118.60
1	DA	1899	G	N9-C4-C5	9.08	109.03	105.40
1	DA	676	A	C5-N7-C8	-9.05	99.38	103.90
1	AA	2401	U	C2-N1-C1'	8.99	128.49	117.70
1	AA	783	A	C2-N3-C4	-8.97	106.11	110.60
2	AB	95	U	C5-C4-O4	8.97	131.28	125.90
1	AA	783	A	N1-C6-N6	8.93	123.96	118.60
1	DA	1332	G	C6-C5-N7	-8.91	125.05	130.40
1	AA	1312	U	C5-C4-O4	8.82	131.19	125.90
2	AB	81	G	N9-C4-C5	-8.80	101.88	105.40
1	AA	246	C	C6-N1-C2	8.78	123.81	120.30
1	DA	1312	U	C5-C4-O4	8.77	131.16	125.90
1	DA	2451	A	N7-C8-N9	8.76	118.18	113.80
1	AA	1786	A	C2-N3-C4	-8.73	106.24	110.60
1	AA	807	U	N1-C2-O2	-8.72	116.69	122.80
1	AA	1678	G	C5-N7-C8	-8.68	99.96	104.30
31	CA	898	G	N3-C4-C5	8.67	132.93	128.60
31	CA	898	G	C2-N3-C4	-8.66	107.57	111.90
1	AA	1992	G	C8-N9-C4	-8.61	102.96	106.40
1	DA	906	G	C5-C6-O6	8.57	133.74	128.60
1	AA	1786	A	C5-N7-C8	-8.56	99.62	103.90
1	DA	933	A	N3-C4-N9	8.56	134.24	127.40
1	AA	673	C	C5-C4-N4	-8.54	114.22	120.20
1	DA	630	G	C2-N3-C4	-8.55	107.63	111.90
1	DA	933	A	N9-C4-C5	-8.54	102.39	105.80
1	AA	2287	A	C2-N3-C4	-8.53	106.33	110.60
2	AB	81	G	C5-N7-C8	-8.52	100.04	104.30
1	DA	673	C	C2-N3-C4	-8.48	115.66	119.90
1	AA	247	G	C8-N9-C4	8.48	109.79	106.40
1	DA	1899	G	C2-N3-C4	-8.48	107.66	111.90
31	CA	1025	U	C5-C4-O4	-8.46	120.82	125.90
1	DA	1342	A	C6-C5-N7	-8.46	126.38	132.30
1	AA	2712	U	N3-C4-O4	-8.45	113.48	119.40
2	DB	95	U	C5-C4-O4	8.45	130.97	125.90
1	AA	1437	C	C6-N1-C2	-8.38	116.95	120.30
1	DA	1950	G	C8-N9-C1'	-8.37	116.12	127.00
1	AA	917	A	N1-C6-N6	8.34	123.60	118.60
1	AA	140	A	C6-C5-N7	-8.34	126.47	132.30
1	DA	1332	G	C2-N3-C4	-8.32	107.74	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	81	G	N7-C8-N9	8.31	117.26	113.10
31	BA	1436	U	C2-N3-C4	-8.29	122.02	127.00
1	AA	783	A	C6-C5-N7	-8.27	126.51	132.30
1	DA	786	C	C6-N1-C2	8.24	123.59	120.30
1	DA	633	A	N1-C6-N6	8.23	123.54	118.60
1	DA	1602	U	N1-C2-O2	-8.20	117.06	122.80
1	AA	530	G	N3-C4-N9	-8.18	121.09	126.00
1	AA	1962	C	N1-C2-O2	8.15	123.79	118.90
1	AA	201	C	N3-C4-C5	8.15	125.16	121.90
1	DA	906	G	N1-C6-O6	-8.15	115.01	119.90
1	AA	621	A	C2-N3-C4	-8.13	106.54	110.60
1	AA	120	U	C5-C4-O4	8.11	130.77	125.90
1	AA	140	A	C5-N7-C8	-8.11	99.85	103.90
1	AA	2447	G	C5-C6-N1	8.11	115.55	111.50
1	AA	141	A	C5-N7-C8	-8.10	99.85	103.90
1	AA	2447	G	N3-C4-C5	-8.10	124.55	128.60
1	AA	201	C	C5-C6-N1	-8.09	116.95	121.00
1	AA	664	C	C6-N1-C2	8.09	123.53	120.30
1	AA	1141	U	N1-C2-O2	-8.07	117.15	122.80
31	BA	690	G	C4-C5-N7	8.07	114.03	110.80
1	DA	1342	A	C4-C5-C6	8.06	121.03	117.00
1	AA	2712	U	C5-C4-O4	8.03	130.72	125.90
1	AA	2346	A	C2-N3-C4	-8.01	106.60	110.60
1	AA	1142(A)	A	C5-N7-C8	-8.00	99.90	103.90
1	AA	2595	G	N1-C6-O6	7.98	124.69	119.90
1	DA	1602	U	N1-C2-N3	7.97	119.68	114.90
1	DA	74	A	C2-N3-C4	-7.96	106.62	110.60
1	AA	1786	A	C6-C5-N7	-7.95	126.73	132.30
2	AB	59	A	C6-N1-C2	-7.94	113.84	118.60
31	BA	1053	G	C4-N9-C1'	-7.93	116.19	126.50
1	DA	2447	G	C6-N1-C2	-7.93	120.34	125.10
1	AA	1614	A	N1-C6-N6	7.91	123.35	118.60
1	DA	2598	A	N9-C4-C5	-7.89	102.64	105.80
1	DA	1992	G	C8-N9-C4	-7.83	103.27	106.40
1	AA	1962	C	N3-C2-O2	-7.82	116.43	121.90
1	DA	140	A	N7-C8-N9	7.79	117.69	113.80
1	AA	71	A	C5-N7-C8	-7.76	100.02	103.90
1	DA	1678	G	C6-C5-N7	-7.76	125.75	130.40
1	AA	2595	G	C5-C6-O6	-7.75	123.95	128.60
1	AA	1786	A	C8-N9-C4	-7.75	102.70	105.80
1	AA	2490	G	N3-C4-C5	7.74	132.47	128.60
31	BA	690	G	N3-C4-N9	7.74	130.65	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	CA	898	G	N9-C4-C5	-7.72	102.31	105.40
1	DA	250	G	N3-C2-N2	7.71	125.30	119.90
1	AA	1332	G	C5-N7-C8	-7.71	100.45	104.30
1	DA	1340	U	C2-N3-C4	-7.69	122.39	127.00
1	DA	2873	A	C6-C5-N7	-7.65	126.95	132.30
1	DA	1332	G	C4-C5-N7	7.64	113.86	110.80
1	AA	250	G	N3-C2-N2	7.64	125.25	119.90
1	DA	783	A	C2-N3-C4	-7.64	106.78	110.60
1	AA	1141	U	C2-N3-C4	-7.63	122.42	127.00
52	BD	55	U	C6-N1-C1'	-7.63	110.52	121.20
1	AA	2330	G	C8-N9-C4	7.62	109.45	106.40
1	DA	780	G	C5-C6-O6	-7.59	124.05	128.60
1	DA	933	A	C4-C5-N7	7.59	114.49	110.70
1	DA	2275	C	C6-N1-C2	-7.57	117.27	120.30
31	BA	1406	U	C2-N3-C4	-7.57	122.46	127.00
1	DA	906	G	N9-C4-C5	7.57	108.43	105.40
31	BA	1495	U	C2-N1-C1'	7.55	126.76	117.70
1	DA	1496	A	C8-N9-C4	-7.53	102.79	105.80
1	AA	1616	A	N1-C6-N6	7.53	123.12	118.60
1	AA	2689	U	C5-C4-O4	7.52	130.41	125.90
1	DA	1786	A	N1-C6-N6	7.51	123.11	118.60
1	AA	140	A	N1-C6-N6	7.50	123.10	118.60
1	DA	271(A)	C	C2-N1-C1'	7.50	127.05	118.80
31	BA	1465	C	N3-C4-C5	7.50	124.90	121.90
1	DA	779	U	C5-C6-N1	-7.49	118.95	122.70
1	AA	1570	A	C8-N9-C4	7.49	108.79	105.80
1	DA	676	A	N7-C8-N9	7.48	117.54	113.80
53	BC	1	C	C2-N1-C1'	7.48	127.03	118.80
1	AA	2595	G	C2-N3-C4	-7.47	108.16	111.90
1	AA	2595	G	N9-C4-C5	-7.46	102.42	105.40
31	BA	892	A	N1-C6-N6	7.46	123.08	118.60
1	AA	587	C	C6-N1-C2	-7.46	117.32	120.30
1	AA	2598	A	N1-C6-N6	7.44	123.07	118.60
1	AA	1616	A	C5-N7-C8	-7.44	100.18	103.90
1	AA	1340	U	C2-N3-C4	-7.42	122.55	127.00
1	DA	140	A	C8-N9-C4	-7.40	102.84	105.80
1	DA	383	U	N1-C2-O2	7.40	127.98	122.80
1	DA	933	A	N7-C8-N9	7.40	117.50	113.80
1	DA	2447	G	C4-C5-C6	7.40	123.24	118.80
1	AA	2451	A	C5-N7-C8	-7.38	100.21	103.90
1	AA	127	A	N1-C6-N6	7.35	123.01	118.60
1	DA	1899	G	C6-C5-N7	7.34	134.80	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BA	690	G	C4-C5-C6	7.30	123.18	118.80
1	AA	1678	G	C2-N3-C4	-7.29	108.25	111.90
1	AA	2287	A	C5-N7-C8	-7.29	100.25	103.90
1	DA	1332	G	C5-N7-C8	-7.29	100.66	104.30
1	AA	2031	A	C5-C6-N6	-7.29	117.87	123.70
1	DA	933	A	N1-C2-N3	7.28	132.94	129.30
1	DA	1950	G	C6-C5-N7	-7.28	126.03	130.40
1	DA	1332	G	N1-C6-O6	7.28	124.27	119.90
1	AA	906	G	N1-C6-O6	-7.27	115.54	119.90
1	DA	933	A	N1-C6-N6	7.27	122.96	118.60
1	AA	783	A	C8-N9-C4	-7.27	102.89	105.80
31	BA	1036	G	N1-C6-O6	-7.27	115.54	119.90
1	DA	630	G	C8-N9-C4	7.26	109.31	106.40
1	DA	1899	G	N3-C2-N2	-7.26	114.82	119.90
1	AA	752	A	C8-N9-C4	-7.25	102.90	105.80
1	AA	535	C	C6-N1-C2	7.24	123.20	120.30
1	AA	2689	U	N3-C4-O4	-7.24	114.33	119.40
1	DA	1950	G	N7-C8-N9	7.24	116.72	113.10
1	DA	201	C	C2-N3-C4	-7.23	116.28	119.90
1	AA	2430	A	C2-N3-C4	-7.23	106.98	110.60
1	DA	1950	G	N3-C4-N9	7.22	130.33	126.00
1	DA	1786	A	C6-C5-N7	-7.21	127.25	132.30
1	DA	2595	G	C2-N3-C4	-7.21	108.30	111.90
1	AA	530	G	N3-C4-C5	7.21	132.21	128.60
1	AA	679	C	N1-C2-O2	-7.21	114.58	118.90
1	AA	828	U	N1-C2-O2	7.20	127.84	122.80
1	DA	201	C	C6-N1-C2	7.19	123.18	120.30
31	CA	1529	G	C8-N9-C1'	-7.16	117.69	127.00
1	DA	783	A	N7-C8-N9	7.15	117.38	113.80
1	AA	480	A	C8-N9-C4	-7.13	102.95	105.80
31	BA	1054	C	C5-C6-N1	7.13	124.56	121.00
1	AA	933	A	C6-N1-C2	-7.13	114.32	118.60
1	AA	1786	A	N1-C6-N6	7.11	122.86	118.60
1	AA	1653	G	N3-C4-N9	7.10	130.26	126.00
1	DA	329	G	N1-C6-O6	-7.08	115.65	119.90
1	AA	633	A	C6-C5-N7	-7.08	127.34	132.30
1	DA	1496	A	N7-C8-N9	7.07	117.34	113.80
1	DA	383	U	N3-C2-O2	-7.07	117.25	122.20
1	AA	103	A	N1-C6-N6	7.06	122.84	118.60
1	AA	774	A	C5-N7-C8	-7.06	100.37	103.90
31	CA	1529	G	N7-C8-N9	7.04	116.62	113.10
1	AA	141	A	C4-C5-N7	7.04	114.22	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	455	C	C6-N1-C2	7.04	123.11	120.30
1	AA	127	A	C2-N3-C4	-7.04	107.08	110.60
1	DA	1142(A)	A	C5-N7-C8	-7.03	100.38	103.90
1	AA	2490	G	N3-C4-N9	-7.03	121.78	126.00
1	AA	2490	G	C5-N7-C8	-7.02	100.79	104.30
31	CA	1036	G	C5-C6-O6	7.02	132.81	128.60
1	AA	456	C	C5-C6-N1	-7.01	117.49	121.00
31	BA	1036	G	C5-C6-O6	7.01	132.81	128.60
1	AA	1496	A	N7-C8-N9	6.99	117.30	113.80
1	AA	1678	G	N7-C8-N9	6.98	116.59	113.10
1	AA	780	G	C5-C6-O6	-6.98	124.41	128.60
1	AA	2392	A	N7-C8-N9	6.96	117.28	113.80
1	DA	2720	U	N1-C2-N3	6.96	119.07	114.90
1	DA	2401	U	C2-N1-C1'	6.95	126.04	117.70
31	BA	690	G	N1-C6-O6	6.92	124.05	119.90
1	AA	992	C	C6-N1-C2	-6.90	117.54	120.30
2	AB	7	G	N1-C6-O6	6.90	124.04	119.90
1	DA	83	G	C2-N3-C4	-6.90	108.45	111.90
1	DA	2375	G	N9-C4-C5	-6.90	102.64	105.40
1	DA	2378	A	N9-C4-C5	-6.90	103.04	105.80
1	AA	736	C	N3-C2-O2	6.90	126.73	121.90
1	AA	1899	G	C5-C6-N1	-6.89	108.06	111.50
1	AA	83	G	C2-N3-C4	-6.89	108.46	111.90
1	AA	1950	G	N7-C8-N9	6.89	116.54	113.10
1	AA	446	G	N1-C6-O6	6.88	124.03	119.90
1	AA	1021	A	C2-N3-C4	-6.88	107.16	110.60
1	DA	774	A	N1-C6-N6	6.88	122.72	118.60
1	DA	2873	A	C4-C5-C6	6.86	120.43	117.00
2	DB	59	A	C6-N1-C2	-6.86	114.49	118.60
1	DA	1786	A	C5-N7-C8	-6.84	100.48	103.90
31	CA	383	A	N1-C6-N6	6.83	122.70	118.60
1	AA	193	U	N1-C2-O2	-6.83	118.02	122.80
1	DA	103	A	N1-C6-N6	6.82	122.69	118.60
1	AA	906	G	N9-C4-C5	6.82	108.13	105.40
1	AA	461	C	N1-C2-O2	-6.81	114.81	118.90
1	AA	1564	C	C6-N1-C2	-6.81	117.58	120.30
31	CA	1465	C	C2-N3-C4	-6.81	116.50	119.90
1	AA	201	C	C5-C4-N4	-6.81	115.44	120.20
1	AA	676	A	C6-C5-N7	-6.81	127.54	132.30
1	DA	1786	A	N7-C8-N9	6.80	117.20	113.80
1	DA	906	G	C4-C5-N7	-6.79	108.08	110.80
1	DA	2447	G	N3-C4-C5	-6.78	125.21	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	CA	1177	G	C5-C6-O6	6.77	132.66	128.60
1	AA	673	C	N3-C4-C5	6.77	124.61	121.90
1	DA	530	G	C8-N9-C4	6.77	109.11	106.40
1	AA	633	A	C4-C5-C6	6.76	120.38	117.00
1	AA	449	A	C8-N9-C4	-6.75	103.10	105.80
11	DO	147	LEU	CA-CB-CG	6.75	130.82	115.30
1	AA	446	G	N9-C4-C5	-6.75	102.70	105.40
31	BA	756	C	C6-N1-C2	6.74	123.00	120.30
1	AA	2392	A	C8-N9-C4	-6.73	103.11	105.80
31	BA	1195	C	C6-N1-C2	-6.73	117.61	120.30
1	AA	737	C	C6-N1-C2	6.73	122.99	120.30
1	AA	1306	C	C6-N1-C2	6.71	122.98	120.30
1	DA	201	C	C5-C6-N1	-6.71	117.65	121.00
1	DA	2447	G	N1-C6-O6	6.69	123.92	119.90
2	AB	47	C	C6-N1-C2	6.66	122.96	120.30
52	CB	48	C	C6-N1-C2	-6.66	117.64	120.30
1	AA	1496	A	C8-N9-C4	-6.65	103.14	105.80
31	BA	690	G	N7-C8-N9	6.65	116.42	113.10
1	AA	1648	C	C6-N1-C2	6.64	122.96	120.30
1	AA	1142(A)	A	C2-N3-C4	-6.64	107.28	110.60
1	AA	1786	A	N1-C2-N3	6.63	132.61	129.30
1	AA	71	A	N1-C6-N6	6.62	122.57	118.60
31	BA	1053	G	C8-N9-C1'	6.61	135.60	127.00
1	AA	793	A	N1-C2-N3	6.61	132.60	129.30
1	AA	917	A	N9-C4-C5	-6.61	103.16	105.80
1	DA	783	A	N1-C6-N6	6.60	122.56	118.60
1	AA	1653	G	N3-C4-C5	-6.60	125.30	128.60
1	DA	633	A	C4-C5-C6	6.60	120.30	117.00
1	AA	1141	U	N1-C2-N3	6.59	118.86	114.90
1	AA	142	G	C4-N9-C1'	-6.59	117.94	126.50
31	BA	1465	C	C5-C4-N4	-6.59	115.59	120.20
31	BA	1417	G	N1-C6-O6	6.59	123.85	119.90
1	AA	676	A	C5-C6-N1	-6.58	114.41	117.70
1	AA	1142(A)	A	N3-C4-N9	-6.57	122.14	127.40
1	DA	2598	A	C6-C5-N7	-6.57	127.70	132.30
1	AA	1653	G	C4-N9-C1'	6.57	135.03	126.50
1	AA	2518	A	N1-C6-N6	6.56	122.53	118.60
1	AA	76	C	C6-N1-C2	6.55	122.92	120.30
1	AA	2211	G	C6-C5-N7	-6.55	126.47	130.40
1	DA	528	A	N1-C2-N3	6.55	132.58	129.30
52	BB	55	U	N1-C2-O2	6.55	127.39	122.80
1	AA	83	G	N9-C4-C5	-6.55	102.78	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	790	C	C2-N1-C1'	6.54	126.00	118.80
1	DA	676	A	N3-C4-N9	-6.54	122.17	127.40
1	AA	2518	A	C5-N7-C8	-6.54	100.63	103.90
1	DA	676	A	N3-C4-C5	6.54	131.38	126.80
1	DA	1379	A	N1-C6-N6	6.53	122.52	118.60
1	AA	1616	A	C4-C5-N7	6.53	113.97	110.70
1	DA	1786	A	C2-N3-C4	-6.53	107.34	110.60
1	AA	1021	A	C4-C5-N7	6.52	113.96	110.70
31	CA	266	G	C4-N9-C1'	6.51	134.97	126.50
1	AA	1559	G	N1-C6-O6	6.48	123.79	119.90
1	DA	2447	G	C5-C6-O6	-6.48	124.71	128.60
2	AB	7	G	C4-C5-N7	6.46	113.39	110.80
1	DA	140	A	C5-N7-C8	-6.46	100.67	103.90
1	DA	2062	A	N1-C6-N6	6.45	122.47	118.60
1	AA	1204	A	N7-C8-N9	6.45	117.02	113.80
1	AA	141	A	N1-C6-N6	6.44	122.47	118.60
31	BA	1054	C	N1-C2-O2	6.44	122.76	118.90
1	AA	1983	C	C6-N1-C2	6.42	122.87	120.30
1	AA	659	C	C6-N1-C2	6.42	122.87	120.30
31	BA	31	G	N1-C6-O6	6.42	123.75	119.90
1	DA	2720	U	C5-C4-O4	-6.42	122.05	125.90
31	BA	1378	C	C6-N1-C2	-6.42	117.73	120.30
1	AA	1633	G	N1-C6-O6	6.41	123.74	119.90
1	DA	1340	U	C5-C4-O4	-6.40	122.06	125.90
1	AA	676	A	C4-C5-N7	6.39	113.90	110.70
1	AA	1332	G	C5-C6-N1	-6.39	108.31	111.50
1	DA	1616	A	N7-C8-N9	6.39	116.99	113.80
44	BQ	24	CYS	CA-CB-SG	6.38	125.48	114.00
1	DA	1271	G	C5-C6-N1	-6.37	108.32	111.50
1	AA	587	C	C2-N1-C1'	6.36	125.79	118.80
31	BA	1406	U	N1-C2-N3	6.36	118.71	114.90
1	DA	141	A	C5-N7-C8	-6.36	100.72	103.90
1	AA	621	A	N1-C6-N6	6.34	122.41	118.60
1	AA	1950	G	C4-N9-C1'	6.34	134.74	126.50
1	AA	2490	G	C4-C5-N7	6.34	113.34	110.80
31	BA	1126	U	N3-C2-O2	-6.33	117.77	122.20
1	AA	1204	A	C6-C5-N7	-6.33	127.87	132.30
1	DA	783	A	N3-C4-C5	6.33	131.23	126.80
1	AA	209	C	C5-C6-N1	-6.32	117.84	121.00
1	DA	807	U	N1-C2-N3	6.32	118.69	114.90
1	AA	246	C	C2-N1-C1'	-6.31	111.86	118.80
1	AA	2448	A	C6-C5-N7	-6.31	127.88	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	81	G	N3-C4-C5	-6.30	125.45	128.60
31	BA	1054	C	C6-N1-C2	-6.30	117.78	120.30
31	BA	1192	C	C6-N1-C2	-6.30	117.78	120.30
1	AA	141	A	N7-C8-N9	6.30	116.95	113.80
1	AA	1698	A	C2-N3-C4	-6.30	107.45	110.60
1	DA	1992	G	N3-C4-C5	-6.29	125.45	128.60
1	AA	647	G	C4-N9-C1'	6.29	134.67	126.50
1	DA	2681	C	C5-C4-N4	6.29	124.60	120.20
52	CD	49	A	C3'-C2'-C1'	-6.28	96.47	101.50
31	BA	1025	U	C5-C4-O4	-6.28	122.13	125.90
31	BA	73	G	C4-N9-C1'	6.27	134.66	126.50
1	DA	1362	C	C6-N1-C2	6.27	122.81	120.30
1	AA	2031	A	N1-C6-N6	6.27	122.36	118.60
1	AA	2712	U	C5-C6-N1	-6.27	119.57	122.70
1	DA	2776	A	C8-N9-C4	-6.26	103.29	105.80
2	AB	89(A)	A	N1-C6-N6	6.26	122.36	118.60
1	AA	2381	C	C5-C6-N1	-6.26	117.87	121.00
1	AA	630	G	C2-N3-C4	-6.25	108.77	111.90
1	DA	194	G	C8-N9-C4	6.25	108.90	106.40
1	AA	1752	C	N1-C2-O2	-6.24	115.16	118.90
1	AA	2448	A	C5-C6-N6	-6.24	118.71	123.70
52	BB	49	A	C3'-C2'-C1'	-6.24	96.51	101.50
31	CA	1436	U	C2-N3-C4	-6.23	123.26	127.00
31	BA	1054	C	C6-N1-C1'	-6.23	113.33	120.80
1	AA	1797	C	N1-C2-O2	-6.23	115.16	118.90
1	AA	1130	U	N3-C2-O2	-6.22	117.84	122.20
1	AA	2544	G	C5-C6-N1	-6.22	108.39	111.50
1	AA	2375	G	N1-C6-O6	6.22	123.63	119.90
1	DA	83	G	N9-C4-C5	-6.21	102.92	105.40
1	DA	630	G	N9-C4-C5	-6.21	102.92	105.40
1	DA	933	A	C5-N7-C8	-6.21	100.80	103.90
1	DA	2763	G	N3-C4-C5	-6.20	125.50	128.60
1	AA	784	A	N1-C6-N6	-6.19	114.89	118.60
1	AA	1781	C	C5-C6-N1	-6.19	117.91	121.00
34	BG	12	CYS	CA-CB-SG	6.19	125.13	114.00
31	CA	1322	C	N1-C2-O2	6.18	122.61	118.90
1	DA	2401	U	N1-C2-O2	6.18	127.13	122.80
1	AA	893	C	C2-N1-C1'	6.18	125.60	118.80
2	AB	7	G	C6-C5-N7	-6.18	126.69	130.40
1	AA	446	G	C6-C5-N7	-6.18	126.69	130.40
1	AA	2211	G	N1-C6-O6	6.17	123.60	119.90
1	AA	2392	A	C2-N3-C4	-6.17	107.52	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	528	A	C2-N3-C4	-6.16	107.52	110.60
1	AA	906	G	C4-C5-N7	-6.16	108.34	110.80
31	BA	858	G	C4-N9-C1'	6.16	134.50	126.50
31	BA	1036	G	C4-C5-N7	-6.16	108.34	110.80
31	BA	1419	G	N3-C4-C5	6.15	131.68	128.60
1	AA	1825	A	C5-C6-N1	6.15	120.77	117.70
3	AD	28	GLU	N-CA-C	-6.14	94.43	111.00
1	AA	2375	G	N3-C4-C5	6.13	131.67	128.60
1	AA	1349	A	N1-C6-N6	6.13	122.28	118.60
1	DA	985	C	N1-C2-O2	6.13	122.58	118.90
1	AA	2392	A	C5-N7-C8	-6.13	100.84	103.90
1	AA	1614	A	C5-N7-C8	-6.12	100.84	103.90
52	CD	55	U	C2-N1-C1'	6.11	125.03	117.70
1	AA	188	G	C8-N9-C4	6.11	108.84	106.40
1	AA	1614	A	C6-C5-N7	-6.11	128.03	132.30
1	AA	1653	G	C8-N9-C1'	-6.11	119.06	127.00
1	AA	2344	U	C2-N3-C4	-6.11	123.33	127.00
1	AA	1992	G	N7-C8-N9	6.11	116.15	113.10
1	DA	1241	A	C2-N3-C4	-6.11	107.55	110.60
1	AA	2447	G	N3-C4-N9	6.10	129.66	126.00
1	AA	621	A	C5-C6-N1	-6.10	114.65	117.70
31	BA	1519	A	C8-N9-C4	-6.10	103.36	105.80
1	DA	2873	A	C5-C6-N1	-6.09	114.65	117.70
1	DA	1950	G	N3-C2-N2	6.09	124.16	119.90
53	BC	1	C	N1-C2-O2	6.09	122.55	118.90
1	AA	859	G	N1-C6-O6	6.08	123.55	119.90
1	AA	1950	G	C8-N9-C4	-6.08	103.97	106.40
1	AA	1782	C	N1-C2-O2	-6.08	115.25	118.90
1	DA	1314	C	C6-N1-C1'	-6.08	113.51	120.80
31	CA	1177	G	C4-C5-N7	-6.08	108.37	110.80
1	AA	140	A	C4-C5-N7	6.07	113.74	110.70
1	AA	1678	G	N1-C2-N2	-6.06	110.75	116.20
1	AA	630	G	N9-C4-C5	-6.06	102.98	105.40
1	DA	2490	G	C4-C5-N7	6.05	113.22	110.80
31	BA	1417	G	C6-C5-N7	-6.05	126.77	130.40
31	CA	300	A	N1-C6-N6	6.05	122.23	118.60
1	DA	2012	G	N1-C6-O6	6.03	123.52	119.90
1	AA	1427	A	N1-C6-N6	-6.03	114.98	118.60
1	AA	247	G	N7-C8-N9	-6.03	110.08	113.10
1	DA	2032	G	C6-C5-N7	-6.03	126.78	130.40
1	AA	842	G	N3-C4-C5	6.02	131.61	128.60
1	AA	1248	G	N1-C6-O6	6.02	123.51	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1962	C	C2-N1-C1'	6.02	125.42	118.80
1	DA	1026	U	C2-N1-C1'	6.02	124.92	117.70
1	DA	2500	U	C5-C6-N1	-6.02	119.69	122.70
1	DA	2430	A	C2-N3-C4	-6.01	107.59	110.60
1	AA	807	U	N3-C4-O4	6.01	123.61	119.40
1	AA	679	C	N3-C2-O2	6.00	126.10	121.90
31	CA	5	U	C2-N1-C1'	6.00	124.90	117.70
31	CA	328	C	C6-N1-C2	-6.00	117.90	120.30
31	CA	691	G	C2-N3-C4	-5.99	108.90	111.90
1	AA	733	G	C8-N9-C4	-5.99	104.00	106.40
1	AA	815	C	C6-N1-C2	5.99	122.70	120.30
1	AA	793	A	C6-N1-C2	-5.98	115.01	118.60
1	AA	1616	A	C6-C5-N7	-5.98	128.12	132.30
1	AA	2699	C	C6-N1-C2	5.97	122.69	120.30
1	DA	2447	G	N1-C2-N3	5.97	127.48	123.90
1	AA	2598	A	N9-C4-C5	-5.97	103.41	105.80
2	AB	95	U	C6-N1-C1'	5.97	129.56	121.20
1	AA	2401	U	C5-C6-N1	5.97	125.69	122.70
1	DA	1612	C	C6-N1-C2	5.97	122.69	120.30
1	AA	530	G	C8-N9-C1'	5.97	134.76	127.00
1	DA	790	C	C6-N1-C1'	-5.97	113.64	120.80
1	DA	1914	C	C6-N1-C2	-5.95	117.92	120.30
1	DA	1786	A	C4-C5-N7	5.95	113.67	110.70
1	AA	1950	G	C5-N7-C8	-5.95	101.33	104.30
52	CB	52	G	N3-C4-C5	-5.94	125.63	128.60
52	CD	55	U	N1-C2-O2	5.94	126.96	122.80
1	AA	941	A	N1-C6-N6	5.94	122.16	118.60
1	AA	121	G	C4-N9-C1'	5.93	134.21	126.50
1	AA	1614	A	C4-C5-N7	5.93	113.67	110.70
1	AA	2374	C	C6-N1-C2	5.93	122.67	120.30
1	AA	2595	G	C4-C5-N7	5.93	113.17	110.80
31	CA	1036	G	C4-C5-N7	-5.92	108.43	110.80
1	DA	780	G	C2-N3-C4	5.92	114.86	111.90
1	AA	1365	A	C4-C5-C6	5.92	119.96	117.00
1	DA	1841	U	N3-C4-C5	-5.92	111.05	114.60
1	AA	305	U	C6-N1-C2	-5.92	117.45	121.00
1	AA	2451	A	N9-C4-C5	5.92	108.17	105.80
31	BA	1412	C	C6-N1-C2	5.92	122.67	120.30
1	AA	792	G	C8-N9-C4	-5.91	104.03	106.40
1	AA	1787	A	N1-C6-N6	5.91	122.15	118.60
1	AA	2058	A	C8-N9-C4	-5.91	103.44	105.80
1	AA	183	C	C6-N1-C2	-5.90	117.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1379	A	C2-N3-C4	-5.90	107.65	110.60
1	AA	2473	U	C2-N1-C1'	5.90	124.78	117.70
1	DA	1950	G	N3-C4-C5	-5.90	125.65	128.60
1	AA	1665	A	N1-C6-N6	5.89	122.14	118.60
31	BA	690	G	N9-C4-C5	-5.89	103.04	105.40
30	D8	41	ILE	N-CA-C	-5.89	95.10	111.00
1	DA	633	A	C6-C5-N7	-5.88	128.18	132.30
52	CB	51	C	C5-C6-N1	5.88	123.94	121.00
1	AA	788	A	N1-C6-N6	5.88	122.13	118.60
1	AA	71	A	C4-C5-N7	5.88	113.64	110.70
1	AA	733	G	N7-C8-N9	5.88	116.04	113.10
1	AA	2378	A	N1-C6-N6	5.88	122.13	118.60
1	AA	2475	C	C2-N1-C1'	5.87	125.26	118.80
31	BA	1036	G	N9-C4-C5	5.87	107.75	105.40
1	AA	1403	C	C6-N1-C2	-5.87	117.95	120.30
31	BA	1483	A	N1-C6-N6	5.87	122.12	118.60
31	CA	1529	G	N3-C4-N9	5.87	129.52	126.00
31	CA	1406	U	C2-N3-C4	-5.86	123.48	127.00
31	CA	1495	U	C2-N1-C1'	5.86	124.73	117.70
1	AA	774	A	C8-N9-C1'	5.86	138.24	127.70
1	AA	803	U	C5-C6-N1	-5.86	119.77	122.70
1	AA	912	C	C6-N1-C2	-5.86	117.96	120.30
1	AA	74	A	C2-N3-C4	-5.86	107.67	110.60
1	AA	2601	C	C6-N1-C2	-5.85	117.96	120.30
1	AA	1123	C	N1-C2-O2	-5.85	115.39	118.90
1	DA	673	C	C5-C4-N4	-5.84	116.11	120.20
1	AA	446	G	C2-N3-C4	-5.84	108.98	111.90
53	CC	35	C	C2-N1-C1'	5.84	125.22	118.80
1	DA	2049	G	N3-C4-C5	5.84	131.52	128.60
31	CA	1036	G	N9-C4-C5	5.84	107.73	105.40
1	AA	673	C	N1-C2-O2	-5.83	115.40	118.90
1	AA	737	C	N3-C2-O2	5.83	125.98	121.90
1	DA	443	A	C8-N9-C4	-5.83	103.47	105.80
2	AB	95	U	C2-N1-C1'	-5.83	110.71	117.70
1	DA	2461	C	C6-N1-C2	-5.83	117.97	120.30
31	CA	1495	U	N3-C2-O2	-5.82	118.12	122.20
1	DA	2012	G	C5-C6-O6	-5.82	125.11	128.60
1	AA	201	C	N1-C2-O2	-5.82	115.41	118.90
1	AA	1811	G	N3-C4-N9	-5.82	122.51	126.00
31	BA	1149	C	C6-N1-C2	-5.82	117.97	120.30
1	DA	906	G	C6-C5-N7	5.81	133.89	130.40
1	DA	1888	G	C8-N9-C4	-5.81	104.08	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2447	G	N1-C2-N3	5.81	127.39	123.90
1	DA	2587	A	N1-C6-N6	5.81	122.09	118.60
1	AA	1810	A	C4-C5-C6	5.81	119.90	117.00
1	AA	1678	G	N1-C6-O6	5.80	123.38	119.90
1	DA	2500	U	C2-N1-C1'	-5.80	110.73	117.70
1	DA	2598	A	C8-N9-C4	5.80	108.12	105.80
1	DA	1368	G	C8-N9-C4	-5.80	104.08	106.40
31	BA	73	G	C8-N9-C1'	-5.79	119.47	127.00
1	DA	1653	G	N3-C4-N9	5.79	129.48	126.00
1	DA	2490	G	C5-N7-C8	-5.79	101.40	104.30
1	AA	774	A	N1-C6-N6	5.79	122.08	118.60
1	DA	49	A	C8-N9-C4	-5.79	103.48	105.80
1	DA	271(A)	C	C6-N1-C1'	-5.79	113.86	120.80
1	AA	1633	G	C5-C6-O6	-5.78	125.13	128.60
1	AA	465	G	C5-C6-O6	5.77	132.06	128.60
1	DA	530	G	N9-C4-C5	-5.77	103.09	105.40
1	AA	847	U	C5-C4-O4	5.76	129.36	125.90
1	DA	141	A	N7-C8-N9	5.76	116.68	113.80
31	CA	186	C	C6-N1-C2	-5.76	118.00	120.30
31	CA	1036	G	N1-C6-O6	-5.76	116.44	119.90
1	AA	259	G	N1-C6-O6	5.76	123.36	119.90
1	AA	202	U	N1-C2-N3	-5.76	111.45	114.90
17	D2	49	THR	C-N-CD	5.75	140.48	128.40
1	AA	120	U	N3-C4-O4	-5.75	115.38	119.40
1	AA	1786	A	C4-C5-N7	5.75	113.57	110.70
1	AA	138	G	N7-C8-N9	5.75	115.97	113.10
1	AA	674	G	C5-C6-O6	-5.74	125.15	128.60
1	AA	2035	G	N3-C4-C5	5.74	131.47	128.60
1	AA	442	G	C8-N9-C4	-5.74	104.11	106.40
1	DA	2392	A	C5-C6-N1	-5.74	114.83	117.70
1	AA	1779	U	C5-C6-N1	-5.73	119.83	122.70
1	DA	2378	A	C8-N9-C4	5.73	108.09	105.80
1	DA	774	A	N1-C2-N3	5.73	132.16	129.30
1	DA	828	U	C5-C4-O4	5.73	129.34	125.90
1	DA	933	A	C6-N1-C2	-5.73	115.16	118.60
1	AA	2501	C	C2-N1-C1'	-5.73	112.50	118.80
2	AB	81	G	C4-C5-C6	5.73	122.24	118.80
1	DA	1314	C	C2-N1-C1'	5.72	125.09	118.80
1	AA	2277	G	C8-N9-C4	-5.72	104.11	106.40
31	BA	1322	C	C5-C6-N1	5.72	123.86	121.00
1	AA	246	C	C5-C6-N1	-5.71	118.14	121.00
1	DA	1612	C	N1-C2-O2	-5.71	115.47	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2435	A	N7-C8-N9	5.71	116.65	113.80
1	AA	1021	A	N7-C8-N9	5.71	116.65	113.80
1	AA	2050	C	N1-C2-O2	-5.71	115.48	118.90
1	DA	204	A	C8-N9-C4	-5.71	103.52	105.80
1	AA	2236	C	N3-C4-C5	-5.70	119.62	121.90
1	AA	2451	A	N3-C4-N9	-5.70	122.84	127.40
1	DA	2763	G	C4-N9-C1'	5.70	133.91	126.50
1	DA	1950	G	C4-C5-N7	5.70	113.08	110.80
1	AA	1616	A	N7-C8-N9	5.69	116.65	113.80
1	AA	1314	C	C6-N1-C1'	-5.68	113.98	120.80
1	DA	2724	C	C2-N1-C1'	-5.68	112.55	118.80
1	DA	929	G	N1-C6-O6	5.68	123.31	119.90
1	AA	774	A	C4-N9-C1'	-5.68	116.08	126.30
1	AA	2435	A	C8-N9-C4	-5.68	103.53	105.80
1	AA	2439	A	C6-C5-N7	-5.68	128.32	132.30
1	AA	1204	A	C4-N9-C1'	5.68	136.52	126.30
1	AA	1769	G	N3-C4-C5	-5.68	125.76	128.60
31	BA	1086	U	C5-C6-N1	5.67	125.54	122.70
1	DA	71	A	C5-N7-C8	-5.67	101.06	103.90
1	AA	917	A	C2-N3-C4	-5.67	107.76	110.60
1	DA	676	A	C8-N9-C4	-5.67	103.53	105.80
1	AA	2607	G	C6-C5-N7	-5.67	127.00	130.40
1	DA	1427	A	N1-C6-N6	-5.66	115.20	118.60
1	DA	1332	G	N7-C8-N9	5.66	115.93	113.10
1	DA	1678	G	C4-C5-N7	5.65	113.06	110.80
1	DA	2032	G	C4-C5-N7	5.65	113.06	110.80
2	AB	47	C	N3-C2-O2	5.65	125.85	121.90
17	A2	40	LEU	CA-CB-CG	5.64	128.28	115.30
1	AA	2506	U	N3-C2-O2	-5.64	118.25	122.20
1	DA	754	C	C6-N1-C2	-5.64	118.04	120.30
1	DA	1653	G	C4-N9-C1'	5.64	133.83	126.50
31	CA	912	C	C6-N1-C2	5.64	122.56	120.30
31	BA	1053	G	C6-C5-N7	5.64	133.78	130.40
1	DA	271(A)	C	N1-C2-O2	5.64	122.28	118.90
1	AA	2490	G	C2-N3-C4	-5.63	109.08	111.90
1	AA	2577	A	C8-N9-C4	-5.63	103.55	105.80
1	AA	2506	U	C6-N1-C2	-5.63	117.62	121.00
1	AA	2329	G	C8-N9-C4	5.63	108.65	106.40
1	AA	1698	A	C5-N7-C8	-5.63	101.08	103.90
11	AO	59	LEU	N-CA-C	-5.63	95.80	111.00
1	AA	1633	G	N3-C4-N9	5.63	129.38	126.00
1	DA	774	A	C5-N7-C8	-5.62	101.09	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	2681	C	N3-C4-N4	-5.62	114.06	118.00
31	BA	299	G	C5-C6-O6	5.62	131.97	128.60
1	AA	2401	U	C6-N1-C2	-5.62	117.63	121.00
31	CA	724	G	C5-C6-O6	-5.62	125.23	128.60
1	DA	1011	G	C4-N9-C1'	-5.62	119.20	126.50
1	DA	1992	G	N1-C6-O6	-5.61	116.53	119.90
1	AA	1678	G	C4-N9-C1'	5.61	133.79	126.50
31	CA	1177	G	N1-C6-O6	-5.61	116.54	119.90
1	DA	1653	G	N3-C4-C5	-5.61	125.80	128.60
31	BA	1436	U	N3-C4-C5	5.60	117.96	114.60
1	DA	779	U	C6-N1-C2	5.60	124.36	121.00
1	AA	140	A	C4-C5-C6	5.60	119.80	117.00
1	DA	201	C	N3-C4-C5	5.60	124.14	121.90
1	DA	1616	A	C8-N9-C4	-5.60	103.56	105.80
31	BA	1514	C	N1-C2-O2	-5.59	115.54	118.90
1	DA	2447	G	N3-C4-N9	5.59	129.36	126.00
1	AA	528	A	C2-N3-C4	-5.59	107.81	110.60
1	AA	1314	C	C2-N1-C1'	5.59	124.95	118.80
31	CA	266	G	C8-N9-C4	-5.58	104.17	106.40
1	DA	2598	A	C5-C6-N6	-5.58	119.23	123.70
1	AA	2830	G	C8-N9-C4	-5.58	104.17	106.40
1	AA	208	C	C6-N1-C2	5.58	122.53	120.30
31	BA	690	G	C5-N7-C8	-5.58	101.51	104.30
1	DA	565	C	C6-N1-C2	5.58	122.53	120.30
1	AA	780	G	N1-C2-N3	-5.58	120.55	123.90
31	BA	530	G	C4-N9-C1'	5.57	133.74	126.50
1	AA	937	U	C5-C6-N1	-5.56	119.92	122.70
1	AA	2375	G	C2-N3-C4	-5.56	109.12	111.90
1	AA	2688	U	C5-C4-O4	5.56	129.24	125.90
1	AA	1496	A	C6-C5-N7	-5.56	128.41	132.30
1	AA	140	A	C4-N9-C1'	5.55	136.30	126.30
1	DA	1142(A)	A	C2-N3-C4	-5.55	107.82	110.60
1	DA	1332	G	C4-N9-C1'	5.55	133.72	126.50
1	AA	2344	U	N1-C2-O2	-5.55	118.91	122.80
31	CA	511	C	C2-N1-C1'	-5.55	112.69	118.80
1	AA	208	C	N3-C4-C5	5.55	124.12	121.90
1	AA	265	A	N7-C8-N9	5.55	116.57	113.80
31	CA	898	G	N7-C8-N9	-5.55	110.33	113.10
1	DA	1312	U	C2-N3-C4	5.55	130.33	127.00
1	DA	1011	G	C8-N9-C1'	5.54	134.21	127.00
1	DA	1026	U	N1-C2-O2	5.54	126.68	122.80
1	AA	127	A	N9-C4-C5	-5.54	103.58	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1572	A	C8-N9-C4	5.54	108.02	105.80
31	BA	1366	C	C6-N1-C2	-5.54	118.08	120.30
1	AA	580	C	C6-N1-C2	-5.54	118.08	120.30
2	AB	30	C	C6-N1-C2	-5.54	118.08	120.30
31	BA	1495	U	C5-C6-N1	5.54	125.47	122.70
1	AA	1142(A)	A	N3-C4-C5	5.54	130.68	126.80
1	DA	1811	G	N3-C4-C5	5.53	131.37	128.60
1	DA	1842	G	C8-N9-C4	5.53	108.61	106.40
1	DA	138	G	C8-N9-C4	-5.53	104.19	106.40
1	DA	2598	A	C4-C5-C6	5.53	119.77	117.00
1	AA	2346	A	C5-C6-N1	-5.53	114.94	117.70
1	DA	780	G	N1-C2-N3	-5.52	120.59	123.90
1	DA	2430	A	C5-C6-N1	-5.52	114.94	117.70
1	AA	2685	G	N3-C4-N9	-5.52	122.69	126.00
1	AA	654(I)	C	C2-N1-C1'	5.52	124.87	118.80
31	BA	901	A	N1-C2-N3	5.52	132.06	129.30
1	DA	1611	C	N1-C2-O2	-5.52	115.59	118.90
1	AA	40	C	N1-C2-O2	-5.51	115.59	118.90
1	DA	2447	G	N3-C2-N2	-5.51	116.04	119.90
1	AA	1496	A	N1-C6-N6	5.51	121.91	118.60
1	DA	2724	C	N1-C2-O2	-5.51	115.59	118.90
1	AA	2318	G	N3-C4-N9	-5.51	122.69	126.00
1	DA	2324	C	C6-N1-C2	5.51	122.50	120.30
31	BA	1323	G	N3-C4-N9	5.51	129.31	126.00
1	DA	1898	U	C5-C4-O4	5.51	129.21	125.90
31	BA	690	G	N1-C2-N2	-5.51	111.24	116.20
31	CA	1436	U	C5-C4-O4	-5.50	122.60	125.90
31	BA	1419	G	N3-C4-N9	-5.50	122.70	126.00
1	DA	566	U	C5-C6-N1	-5.50	119.95	122.70
31	CA	84	U	C2-N1-C1'	5.50	124.30	117.70
31	CA	1370	G	C5-C6-N1	-5.50	108.75	111.50
1	AA	2580	U	C2-N1-C1'	5.50	124.29	117.70
2	AB	24	G	C4-N9-C1'	5.50	133.64	126.50
1	AA	1189	A	N1-C6-N6	5.49	121.89	118.60
1	DA	459	U	N3-C2-O2	-5.49	118.36	122.20
1	AA	141	A	C6-C5-N7	-5.49	128.46	132.30
1	AA	188	G	C5-C6-O6	-5.48	125.31	128.60
2	AB	47	C	N1-C2-O2	-5.48	115.61	118.90
31	BA	1519	A	C5-C6-N1	-5.48	114.96	117.70
31	BA	811	C	C2-N1-C1'	5.48	124.83	118.80
1	DA	103	A	N9-C4-C5	-5.48	103.61	105.80
1	AA	971	C	N1-C2-O2	-5.48	115.61	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	1678	G	C4-N9-C1'	5.48	133.62	126.50
1	AA	250	G	C4-N9-C1'	5.47	133.62	126.50
1	AA	676	A	N3-C4-N9	-5.47	123.02	127.40
1	DA	2430	A	N1-C6-N6	5.47	121.89	118.60
1	DA	835	A	C8-N9-C4	5.47	107.99	105.80
1	AA	1633	G	C6-C5-N7	-5.47	127.12	130.40
1	AA	1648	C	N3-C2-O2	5.47	125.73	121.90
31	BA	560	U	C2-N1-C1'	5.47	124.26	117.70
1	AA	2475	C	C5-C6-N1	5.47	123.73	121.00
1	AA	780	G	N1-C6-O6	5.46	123.18	119.90
1	AA	941	A	N9-C4-C5	-5.46	103.62	105.80
1	AA	906	G	N3-C4-N9	-5.45	122.73	126.00
1	AA	1142(A)	A	N7-C8-N9	5.45	116.53	113.80
1	DA	140	A	C6-C5-N7	-5.45	128.49	132.30
1	AA	1021	A	N1-C6-N6	5.45	121.87	118.60
31	CA	808	C	C2-N1-C1'	-5.45	112.81	118.80
1	DA	1807	G	N9-C4-C5	-5.45	103.22	105.40
1	AA	391	G	C6-C5-N7	-5.44	127.13	130.40
1	AA	2518	A	C4-C5-N7	5.44	113.42	110.70
1	DA	1698	A	N3-C4-C5	5.44	130.61	126.80
31	BA	365	U	C2-N1-C1'	5.44	124.23	117.70
1	DA	1992	G	C2-N3-C4	5.44	114.62	111.90
31	BA	1495	U	C2-N3-C4	5.44	130.26	127.00
1	AA	2451	A	C8-N9-C4	-5.44	103.62	105.80
31	BA	31	G	C5-C6-O6	-5.44	125.34	128.60
1	AA	994	C	C6-N1-C2	-5.44	118.12	120.30
31	CA	898	G	N1-C6-O6	5.43	123.16	119.90
1	AA	2317	C	C6-N1-C2	-5.43	118.13	120.30
31	CA	270	A	C5-N7-C8	-5.43	101.18	103.90
1	DA	141	A	C4-C5-N7	5.43	113.42	110.70
1	AA	1835	G	C4-N9-C1'	5.43	133.56	126.50
2	DB	81	G	C5-C6-O6	-5.43	125.34	128.60
1	AA	391	G	C8-N9-C1'	-5.42	119.95	127.00
1	AA	630	G	C4-C5-N7	5.42	112.97	110.80
1	AA	654(I)	C	C6-N1-C2	-5.42	118.13	120.30
1	AA	2375	G	C4-C5-N7	5.42	112.97	110.80
1	DA	1612	C	N3-C2-O2	5.42	125.69	121.90
31	BA	1524	C	C6-N1-C2	5.42	122.47	120.30
52	CB	52	G	C8-N9-C4	-5.41	104.23	106.40
1	AA	1332	G	N7-C8-N9	5.41	115.81	113.10
1	AA	587	C	C5-C6-N1	5.41	123.70	121.00
45	CR	39	LEU	CA-CB-CG	5.41	127.74	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	DA	1797	C	C6-N1-C2	5.41	122.46	120.30
1	AA	130	C	N3-C2-O2	5.41	125.69	121.90
1	AA	1365	A	N1-C6-N6	5.41	121.84	118.60
2	AB	59	A	N1-C2-N3	5.40	132.00	129.30
1	AA	142	G	C8-N9-C1'	5.40	134.02	127.00
1	AA	1438	U	N3-C4-O4	5.40	123.18	119.40
1	AA	2329	G	C2-N3-C4	-5.40	109.20	111.90
1	DA	1647	G	N3-C4-N9	-5.40	122.76	126.00
1	DA	1663	C	C6-N1-C2	5.39	122.46	120.30
1	DA	1698	A	C5-N7-C8	-5.39	101.20	103.90
1	DA	735	A	N1-C6-N6	5.39	121.83	118.60
1	DA	675	A	N1-C6-N6	5.38	121.83	118.60
1	DA	1678	G	C5-N7-C8	-5.38	101.61	104.30
1	DA	250	G	N3-C4-N9	5.38	129.23	126.00
2	AB	25	A	N1-C6-N6	5.38	121.83	118.60
31	BA	690	G	O4'-C1'-N9	5.38	112.50	108.20
1	AA	1786	A	C4-C5-C6	5.38	119.69	117.00
1	AA	2031	A	C2-N3-C4	5.38	113.29	110.60
1	AA	1983	C	C5-C6-N1	-5.37	118.31	121.00
1	AA	2577	A	N9-C4-C5	5.37	107.95	105.80
31	BA	812	C	C2-N1-C1'	5.37	124.71	118.80
1	AA	130	C	N1-C2-O2	-5.37	115.68	118.90
31	BA	859	A	N1-C6-N6	5.37	121.82	118.60
1	AA	1204	A	C5-N7-C8	-5.37	101.22	103.90
1	DA	228	A	C6-C5-N7	-5.37	128.54	132.30
1	AA	248	G	C6-C5-N7	-5.37	127.18	130.40
31	BA	586	C	C6-N1-C2	5.37	122.45	120.30
31	CA	1267	C	C2-N1-C1'	5.37	124.70	118.80
31	CA	690	G	N7-C8-N9	5.37	115.78	113.10
1	DA	566	U	C6-N1-C2	5.36	124.22	121.00
1	DA	780	G	N1-C6-O6	5.36	123.12	119.90
1	DA	783	A	C6-C5-N7	-5.36	128.55	132.30
1	DA	1011	G	N3-C4-N9	-5.36	122.78	126.00
1	DA	912	C	C2-N1-C1'	5.36	124.70	118.80
1	AA	2031	A	N3-C4-N9	5.36	131.69	127.40
31	BA	1436	U	C5-C4-O4	-5.36	122.69	125.90
1	AA	2318	G	C5-N7-C8	-5.35	101.62	104.30
1	DA	1616	A	C6-C5-N7	-5.35	128.55	132.30
31	BA	897	C	N1-C2-O2	-5.35	115.69	118.90
1	AA	446	G	C5-C6-O6	-5.35	125.39	128.60
1	AA	456	C	C2-N1-C1'	-5.35	112.92	118.80
1	DA	1678	G	N7-C8-N9	5.35	115.77	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	774	A	C5-C6-N1	-5.34	115.03	117.70
31	CA	901	A	N1-C6-N6	5.34	121.81	118.60
1	DA	1187	G	C4-N9-C1'	5.34	133.45	126.50
1	AA	409	C	C6-N1-C2	5.34	122.44	120.30
1	AA	647	G	N3-C4-C5	-5.34	125.93	128.60
1	DA	530	G	C2-N3-C4	-5.34	109.23	111.90
1	AA	814	C	C6-N1-C2	5.34	122.44	120.30
1	AA	1942	C	C6-N1-C2	-5.34	118.17	120.30
1	AA	2590	A	C2-N3-C4	-5.34	107.93	110.60
1	AA	461	C	N3-C2-O2	5.33	125.63	121.90
1	DA	810	U	N3-C4-O4	5.33	123.13	119.40
1	AA	1012	U	C2-N1-C1'	-5.33	111.30	117.70
31	CA	1301	U	C2-N1-C1'	5.33	124.09	117.70
31	BA	190	G	C4-N9-C1'	5.32	133.42	126.50
1	AA	814	C	C5-C6-N1	-5.32	118.34	121.00
1	AA	1899	G	C5-N7-C8	-5.32	101.64	104.30
2	AB	24	G	C6-N1-C2	-5.32	121.91	125.10
1	AA	1963	U	N3-C2-O2	-5.32	118.48	122.20
1	DA	1681	G	N3-C4-N9	-5.32	122.81	126.00
1	AA	248	G	C5-C6-O6	-5.32	125.41	128.60
31	BA	1053	G	N3-C4-C5	5.32	131.26	128.60
1	DA	767	U	C5-C4-O4	5.32	129.09	125.90
1	DA	2763	G	N3-C4-N9	5.32	129.19	126.00
1	AA	2287	A	N3-C4-N9	-5.31	123.15	127.40
52	BD	11	C	C6-N1-C2	-5.31	118.17	120.30
1	DA	807	U	N1-C2-O2	-5.31	119.08	122.80
1	DA	1698	A	C2-N3-C4	-5.31	107.94	110.60
1	AA	807	U	N1-C2-N3	5.31	118.09	114.90
1	DA	74	A	N3-C4-C5	5.31	130.52	126.80
1	AA	783	A	N3-C4-C5	5.30	130.51	126.80
31	BA	73	G	N3-C4-N9	5.30	129.18	126.00
1	AA	1835	G	N3-C4-C5	-5.30	125.95	128.60
1	AA	2205	C	C2-N1-C1'	5.30	124.63	118.80
1	DA	633	A	C5-C6-N1	-5.30	115.05	117.70
1	DA	2378	A	C6-C5-N7	-5.30	128.59	132.30
52	CD	48	C	C5-C6-N1	5.30	123.65	121.00
1	DA	933	A	C5-C6-N6	-5.30	119.46	123.70
1	AA	1697	G	N1-C6-O6	5.30	123.08	119.90
1	DA	569	U	C5-C6-N1	-5.30	120.05	122.70
1	AA	1606	G	C6-C5-N7	-5.30	127.22	130.40
1	DA	2606	C	C5-C6-N1	-5.30	118.35	121.00
1	AA	1343	G	C4-N9-C1'	5.29	133.38	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1964	G	C2-N3-C4	-5.29	109.25	111.90
1	DA	603	A	C4-N9-C1'	5.29	135.82	126.30
1	AA	2544	G	N3-C2-N2	-5.29	116.20	119.90
1	DA	780	G	N1-C2-N2	5.29	120.96	116.20
1	AA	2724	C	N1-C2-O2	-5.28	115.73	118.90
1	AA	188	G	N9-C4-C5	-5.28	103.29	105.40
1	AA	1828	G	C2-N3-C4	-5.28	109.26	111.90
31	CA	266	G	N3-C4-C5	-5.28	125.96	128.60
1	AA	742	G	N3-C4-C5	5.28	131.24	128.60
1	AA	758	C	C6-N1-C2	5.28	122.41	120.30
31	BA	1516	G	C4-N9-C1'	-5.28	119.64	126.50
1	DA	1827	C	N1-C2-O2	-5.28	115.73	118.90
1	AA	530	G	C2-N3-C4	-5.28	109.26	111.90
1	AA	2544	G	C6-C5-N7	-5.28	127.23	130.40
1	DA	1274	A	N1-C6-N6	5.28	121.77	118.60
1	DA	2073	C	N1-C2-O2	-5.28	115.73	118.90
1	AA	122	G	C8-N9-C4	5.27	108.51	106.40
1	AA	1614	A	N7-C8-N9	5.27	116.44	113.80
31	BA	1053	G	N7-C8-N9	-5.27	110.46	113.10
31	BA	1322	C	C2-N1-C1'	5.27	124.60	118.80
1	AA	1197	G	C8-N9-C4	5.27	108.51	106.40
1	AA	247	G	N9-C4-C5	-5.27	103.29	105.40
1	DA	1021	A	C5-N7-C8	-5.27	101.27	103.90
1	DA	1271	G	N1-C6-O6	5.27	123.06	119.90
2	AB	7	G	C5-N7-C8	-5.27	101.67	104.30
31	BA	1053	G	N3-C4-N9	-5.27	122.84	126.00
1	AA	265	A	C8-N9-C4	-5.27	103.69	105.80
26	A4	45	GLY	N-CA-C	-5.26	99.94	113.10
1	AA	2439	A	C4-N9-C1'	5.26	135.77	126.30
31	CA	1529	G	C2-N3-C4	5.26	114.53	111.90
1	AA	1638	C	N1-C2-O2	-5.26	115.74	118.90
10	DN	8	LEU	CA-CB-CG	5.26	127.40	115.30
1	AA	2741	A	C8-N9-C4	5.26	107.90	105.80
1	AA	752	A	N7-C8-N9	5.25	116.43	113.80
1	AA	1312	U	C6-N1-C2	-5.25	117.85	121.00
1	AA	2253	G	C5-C6-O6	-5.25	125.45	128.60
1	DA	1305	C	N3-C2-O2	-5.25	118.22	121.90
1	DA	1614	A	N1-C6-N6	5.25	121.75	118.60
31	BA	858	G	C8-N9-C1'	-5.25	120.17	127.00
1	DA	678	C	C5-C6-N1	-5.25	118.38	121.00
1	DA	837	C	C6-N1-C2	-5.25	118.20	120.30
1	DA	250	G	C4-N9-C1'	5.25	133.32	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	56	G	C4-N9-C1'	5.24	133.31	126.50
1	AA	783	A	C3'-C2'-C1'	-5.24	97.31	101.50
31	BA	1516	G	C8-N9-C1'	5.24	133.81	127.00
1	DA	363(E)	U	C2-N1-C1'	5.24	123.98	117.70
1	AA	1312	U	N3-C4-C5	-5.23	111.46	114.60
53	BC	1	C	C6-N1-C1'	-5.23	114.52	120.80
1	DA	2474	C	C2-N1-C1'	5.23	124.56	118.80
2	DB	59	A	C5-C6-N1	5.23	120.32	117.70
1	AA	2401	U	C6-N1-C1'	-5.23	113.88	121.20
1	DA	532	A	C8-N9-C4	-5.23	103.71	105.80
31	BA	1177	G	N3-C4-C5	-5.23	125.98	128.60
1	DA	140	A	C4-C5-N7	5.23	113.31	110.70
1	DA	912	C	N1-C2-O2	5.23	122.04	118.90
1	AA	203	C	N1-C2-O2	-5.23	115.76	118.90
1	DA	1633	G	N1-C6-O6	5.23	123.04	119.90
1	DA	2071	A	C8-N9-C4	-5.23	103.71	105.80
1	AA	1340	U	N1-C2-O2	-5.22	119.14	122.80
31	BA	811	C	C6-N1-C1'	-5.22	114.53	120.80
1	DA	2873	A	C2-N3-C4	-5.22	107.99	110.60
1	AA	2307	G	N1-C6-O6	5.22	123.03	119.90
53	BC	16	C	C6-N1-C2	-5.22	118.21	120.30
1	AA	871	U	C5-C4-O4	-5.22	122.77	125.90
1	AA	2036	C	C6-N1-C2	-5.22	118.21	120.30
31	BA	1417	G	C4-C5-C6	5.22	121.93	118.80
1	DA	573	G	C4-N9-C1'	5.22	133.28	126.50
1	AA	248	G	N1-C6-O6	5.21	123.03	119.90
1	AA	1992	G	P-O3'-C3'	5.21	125.95	119.70
1	DA	748	G	C6-C5-N7	5.21	133.53	130.40
1	AA	676	A	N1-C2-N3	5.21	131.90	129.30
2	AB	56	G	C8-N9-C4	-5.21	104.32	106.40
31	BA	1378	C	C2-N1-C1'	5.20	124.52	118.80
1	AA	2244	U	N3-C2-O2	-5.20	118.56	122.20
1	DA	1332	G	N1-C2-N3	5.20	127.02	123.90
31	CA	7	G	C4-N9-C1'	-5.20	119.74	126.50
2	DB	59	A	N3-C4-C5	-5.20	123.16	126.80
1	DA	250	G	N1-C2-N2	-5.19	111.53	116.20
1	AA	2595	G	C8-N9-C4	5.19	108.48	106.40
1	DA	2287	A	C5-N7-C8	-5.19	101.30	103.90
1	DA	1616	A	C5-N7-C8	-5.19	101.31	103.90
1	AA	1135	C	C6-N1-C2	-5.19	118.22	120.30
1	DA	1786	A	C5-C6-N1	-5.19	115.11	117.70
1	AA	2439	A	N7-C8-N9	5.19	116.39	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	103	A	C8-N9-C1'	-5.18	118.37	127.70
1	DA	1026	U	N3-C2-O2	-5.18	118.57	122.20
1	AA	138	G	C5-N7-C8	-5.18	101.71	104.30
1	AA	250	G	C6-C5-N7	-5.18	127.29	130.40
1	AA	1306	C	C2-N1-C1'	-5.18	113.10	118.80
1	AA	1983	C	C2-N1-C1'	-5.18	113.10	118.80
1	AA	2318	G	N3-C4-C5	5.18	131.19	128.60
1	AA	630	G	C8-N9-C4	5.18	108.47	106.40
1	AA	2330	G	N3-C4-C5	5.18	131.19	128.60
1	AA	129	C	C6-N1-C2	5.18	122.37	120.30
1	DA	1614	A	N7-C8-N9	5.18	116.39	113.80
1	DA	1797	C	N1-C2-O2	-5.18	115.79	118.90
1	DA	2008	C	N1-C2-O2	-5.18	115.79	118.90
1	AA	814	C	C2-N3-C4	-5.17	117.31	119.90
34	CG	12	CYS	CA-CB-SG	5.17	123.32	114.00
1	AA	777	A	N1-C2-N3	5.17	131.89	129.30
1	DA	1681	G	N3-C4-C5	5.17	131.19	128.60
1	AA	842	G	C4-N9-C1'	-5.17	119.78	126.50
1	DA	26	G	C8-N9-C4	-5.17	104.33	106.40
1	AA	1365	A	C6-C5-N7	-5.17	128.68	132.30
1	DA	2153	G	C8-N9-C1'	5.17	133.72	127.00
1	AA	1787	A	N9-C4-C5	-5.17	103.73	105.80
1	AA	607	U	N3-C2-O2	5.16	125.81	122.20
1	AA	126	A	C8-N9-C4	-5.16	103.74	105.80
1	AA	633	A	C5-C6-N1	-5.16	115.12	117.70
1	AA	2699	C	C5-C6-N1	-5.16	118.42	121.00
31	BA	765	G	C8-N9-C1'	-5.16	120.29	127.00
1	AA	250	G	N1-C2-N2	-5.16	111.56	116.20
1	AA	1611	C	C6-N1-C2	5.16	122.36	120.30
1	DA	1992	G	C5-C6-N1	5.16	114.08	111.50
1	AA	2518	A	C6-C5-N7	-5.15	128.69	132.30
1	DA	2447	G	P-O3'-C3'	5.15	125.88	119.70
1	AA	915	C	N1-C2-O2	5.15	121.99	118.90
1	AA	1496	A	C5-N7-C8	-5.15	101.33	103.90
1	AA	657	U	C6-N1-C2	5.15	124.09	121.00
1	DA	298	G	N1-C6-O6	5.15	122.99	119.90
1	DA	2433	A	N1-C6-N6	5.15	121.69	118.60
1	AA	691	C	C6-N1-C2	5.14	122.36	120.30
52	CB	55	U	N1-C2-O2	5.14	126.40	122.80
1	AA	1899	G	C8-N9-C1'	5.14	133.69	127.00
1	AA	1528	A	N7-C8-N9	5.14	116.37	113.80
1	AA	1824	G	C8-N9-C4	5.14	108.45	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	250	G	N7-C8-N9	5.13	115.67	113.10
1	AA	906	G	C8-N9-C4	-5.13	104.35	106.40
1	AA	1769	G	C4-N9-C1'	5.13	133.17	126.50
1	DA	2873	A	C8-N9-C4	-5.12	103.75	105.80
1	AA	1811	G	N3-C4-C5	5.12	131.16	128.60
1	AA	2403	C	C6-N1-C2	-5.12	118.25	120.30
31	CA	186	C	C2-N1-C1'	5.12	124.44	118.80
53	BC	1	C	N3-C2-O2	-5.12	118.31	121.90
1	DA	71	A	N1-C6-N6	5.12	121.67	118.60
1	DA	103	A	C8-N9-C1'	-5.12	118.48	127.70
53	BC	6	G	N3-C4-C5	5.12	131.16	128.60
1	AA	647	G	C8-N9-C1'	-5.12	120.35	127.00
1	AA	2454	G	N7-C8-N9	-5.11	110.54	113.10
1	DA	247	G	C2-N3-C4	-5.11	109.34	111.90
1	AA	201	C	C2-N1-C1'	-5.11	113.19	118.80
21	AV	117	LEU	CA-CB-CG	5.11	127.04	115.30
1	AA	570	G	C8-N9-C4	-5.10	104.36	106.40
1	AA	1142(A)	A	C8-N9-C4	-5.10	103.76	105.80
24	AW	35	LEU	CA-CB-CG	5.10	127.04	115.30
31	BA	1516	G	N3-C4-N9	-5.10	122.94	126.00
31	BA	1201	A	C6-N1-C2	-5.10	115.54	118.60
1	DA	37	C	C6-N1-C1'	5.10	126.92	120.80
1	DA	2153	G	C4-N9-C1'	-5.10	119.87	126.50
1	DA	573	G	N3-C4-N9	5.10	129.06	126.00
1	DA	1342	A	C5-C6-N6	-5.10	119.62	123.70
1	AA	2018	G	C8-N9-C4	-5.10	104.36	106.40
54	B1	16	A	C8-N9-C4	5.10	107.84	105.80
1	DA	2297	C	C6-N1-C2	-5.09	118.26	120.30
1	DA	250	G	N7-C8-N9	5.09	115.65	113.10
1	DA	1614	A	C6-C5-N7	-5.09	128.74	132.30
1	DA	1653	G	C8-N9-C1'	-5.09	120.38	127.00
1	DA	1950	G	C5-N7-C8	-5.09	101.75	104.30
1	AA	465	G	C8-N9-C4	-5.09	104.36	106.40
1	DA	2087	G	C8-N9-C4	5.09	108.44	106.40
31	BA	808	C	N1-C2-O2	-5.09	115.85	118.90
1	DA	748	G	C4-N9-C1'	-5.09	119.88	126.50
1	DA	1241	A	C5-C6-N1	-5.09	115.16	117.70
31	CA	1498	U	C6-N1-C2	-5.09	117.95	121.00
1	AA	576	U	C5-C4-O4	-5.09	122.85	125.90
52	CD	55	U	C6-N1-C1'	-5.09	114.08	121.20
1	AA	1204	A	C4-C5-C6	5.08	119.54	117.00
2	DB	30	C	C6-N1-C2	-5.08	118.27	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	731	C	C6-N1-C2	-5.08	118.27	120.30
1	AA	759	G	C5-C6-O6	-5.08	125.55	128.60
1	AA	1204	A	C8-N9-C4	-5.08	103.77	105.80
1	DA	1416	G	C4-N9-C1'	-5.08	119.89	126.50
1	AA	1340	U	N1-C2-N3	5.08	117.95	114.90
1	DA	635	C	N1-C2-O2	5.08	121.95	118.90
1	AA	485	C	N1-C2-O2	-5.08	115.85	118.90
1	AA	784	A	C6-C5-N7	5.08	135.85	132.30
1	AA	1018	C	C6-N1-C2	-5.08	118.27	120.30
1	AA	2449	U	N3-C4-O4	5.08	122.95	119.40
52	CD	26	G	C8-N9-C1'	5.08	133.60	127.00
2	DB	95	U	N3-C4-O4	-5.08	115.85	119.40
1	AA	1379	A	N1-C6-N6	5.07	121.64	118.60
1	AA	1615	C	C2-N1-C1'	-5.07	113.22	118.80
31	BA	1201	A	C5-C6-N6	-5.07	119.64	123.70
1	DA	1888	G	N7-C8-N9	5.07	115.64	113.10
1	AA	798	G	N1-C6-O6	5.07	122.94	119.90
52	CB	55	U	C2-N1-C1'	5.07	123.78	117.70
1	AA	933	A	C5-C6-N6	-5.06	119.65	123.70
1	AA	2211	G	C4-N9-C1'	5.06	133.08	126.50
1	DA	83	G	C6-C5-N7	-5.06	127.36	130.40
1	DA	2289	G	C8-N9-C4	5.06	108.42	106.40
31	CA	1177	G	N9-C4-C5	5.06	107.42	105.40
1	DA	786	C	C5-C6-N1	-5.06	118.47	121.00
1	DA	2066	C	N3-C4-C5	-5.06	119.88	121.90
31	CA	768	A	N1-C2-N3	5.06	131.83	129.30
1	DA	2287	A	C2-N3-C4	-5.06	108.07	110.60
1	AA	2451	A	N7-C8-N9	5.06	116.33	113.80
1	AA	1564	C	N3-C2-O2	-5.05	118.36	121.90
1	AA	1905	C	N3-C4-N4	5.05	121.54	118.00
1	AA	2415	G	C6-N1-C2	-5.05	122.07	125.10
1	DA	737	C	C6-N1-C2	5.05	122.32	120.30
1	AA	917	A	C8-N9-C4	5.05	107.82	105.80
31	BA	231	G	C8-N9-C4	-5.05	104.38	106.40
31	CA	266	G	N7-C8-N9	5.05	115.62	113.10
1	AA	2392	A	C6-C5-N7	-5.04	128.77	132.30
31	CA	898	G	C4-N9-C1'	-5.04	119.94	126.50
1	DA	2503	A	N7-C8-N9	5.04	116.32	113.80
1	AA	103	A	N9-C4-C5	-5.04	103.78	105.80
1	DA	695	G	N1-C6-O6	5.04	122.92	119.90
1	AA	1313	U	C5-C4-O4	-5.03	122.88	125.90
1	DA	1318	C	C6-N1-C2	-5.03	118.29	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1438	U	C5-C4-O4	-5.03	122.88	125.90
31	CA	793	U	C5-C6-N1	-5.03	120.18	122.70
2	AB	89(A)	A	N9-C4-C5	-5.03	103.79	105.80
31	BA	31	G	C6-C5-N7	-5.03	127.38	130.40
31	BA	1412	C	C5-C6-N1	-5.03	118.49	121.00
1	AA	1210	A	C6-C5-N7	-5.03	128.78	132.30
31	CA	951	G	C4-N9-C1'	5.03	133.03	126.50
1	DA	1811	G	C2-N3-C4	-5.03	109.39	111.90
1	AA	1992	G	N3-C4-C5	-5.02	126.09	128.60
31	BA	993	G	C4-N9-C1'	5.02	133.03	126.50
1	DA	1379	A	C4-C5-N7	5.02	113.21	110.70
1	AA	1241	A	C2-N3-C4	-5.02	108.09	110.60
1	DA	748	G	N1-C6-O6	-5.02	116.89	119.90
1	DA	1914	C	C2-N1-C1'	5.02	124.32	118.80
1	DA	1312	U	C6-N1-C1'	5.01	128.22	121.20
1	AA	2035	G	C8-N9-C4	5.01	108.40	106.40
1	DA	2447	G	C6-C5-N7	-5.01	127.39	130.40
1	AA	798	G	N3-C4-C5	5.01	131.10	128.60
31	BA	883	C	C6-N1-C2	-5.01	118.30	120.30
1	DA	1332	G	C8-N9-C1'	-5.01	120.49	127.00
1	DA	635	C	N3-C2-O2	-5.01	118.40	121.90
1	DA	1831	G	C8-N9-C4	-5.01	104.40	106.40
31	CA	1529	G	N1-C6-O6	-5.00	116.90	119.90

There are no chirality outliers.

All (16) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	A8	51	ALA	Peptide
3	AD	197	GLY	Peptide
3	AD	27	THR	Peptide
3	AD	47	GLY	Peptide
4	AE	20	ALA	Peptide
5	AF	47	GLY	Peptide
7	AH	153	LYS	Peptide
8	AK	134	PRO	Peptide
11	AO	58	THR	Peptide
24	AW	17	SER	Peptide
42	BO	47	LYS	Peptide
30	D8	53	PRO	Peptide
3	DD	237	GLU	Peptide
5	DF	25	PRO	Peptide

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Mol	Chain	Res	Type	Group
8	DK	112	LYS	Peptide
11	DO	36	LYS	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	62707	0	31614	2894	0
1	DA	62607	0	31564	2901	0
2	AB	2617	0	1328	138	0
2	DB	2617	0	1328	161	0
3	AD	2115	0	2195	271	0
3	DD	2115	0	2195	239	0
4	AE	1568	0	1634	208	0
4	DE	1568	0	1634	214	0
5	AF	1585	0	1632	178	0
5	DF	1627	0	1680	236	0
6	AG	1474	0	1535	158	0
6	DG	1474	0	1535	164	0
7	AH	1307	0	1382	173	0
7	DH	1307	0	1382	136	1
8	AK	1136	0	1223	123	0
8	DK	1136	0	1223	107	0
9	AM	1104	0	1180	134	0
9	DM	1104	0	1180	145	0
10	AN	933	0	996	64	0
10	DN	933	0	996	75	0
11	AO	1145	0	1228	239	0
11	DO	1145	0	1227	311	0
12	AP	1122	0	1179	189	0
12	DP	1122	0	1179	188	0
13	A0	968	0	1033	129	0
13	D0	960	0	1021	94	0
14	AQ	882	0	943	123	0
14	DQ	882	0	943	137	0
15	AR	1141	0	1202	115	0
15	DR	1141	0	1202	128	0
16	A1	964	0	1022	120	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	D1	964	0	1019	158	0
17	A2	779	0	852	101	0
17	D2	779	0	852	135	0
18	AS	900	0	964	95	0
18	DS	900	0	964	72	0
19	AT	725	0	778	65	0
19	DT	725	0	778	99	0
20	AU	785	0	878	101	0
20	DU	785	0	878	133	0
21	AV	1397	0	1430	168	0
21	DV	1428	0	1454	184	0
22	A3	607	0	628	63	0
22	D3	613	0	633	68	0
23	AZ	763	0	848	71	0
23	DZ	763	0	848	53	0
24	AW	558	0	610	39	0
24	DW	558	0	610	55	0
25	AX	469	0	518	37	0
25	DX	469	0	518	39	0
26	A4	533	0	522	88	0
26	D4	515	0	510	90	0
27	A5	459	0	480	87	0
27	D5	459	0	478	52	0
28	A6	389	0	404	56	0
28	D6	389	0	404	64	0
29	A7	391	0	432	41	0
29	D7	391	0	432	37	0
30	A8	480	0	549	131	0
30	D8	480	0	549	130	0
31	BA	32284	0	16296	1832	1
31	CA	32287	0	16295	1769	0
32	BE	1924	0	1975	195	0
32	CE	1924	0	1975	225	0
33	BF	1605	0	1668	134	0
33	CF	1612	0	1677	179	0
34	BG	1703	0	1763	175	0
34	CG	1703	0	1763	186	0
35	BH	1155	0	1213	115	0
35	CH	1155	0	1213	116	0
36	BI	843	0	857	70	0
36	CI	843	0	857	53	0
37	BJ	1257	0	1296	107	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	CJ	1257	0	1296	106	0
38	BK	1116	0	1177	113	0
38	CK	1116	0	1177	79	0
39	BL	1010	0	1037	110	0
39	CL	1010	0	1037	156	0
40	BM	801	0	849	94	0
40	CM	801	0	849	130	0
41	BN	885	0	904	65	0
41	CN	885	0	904	71	0
42	BO	975	0	1062	65	0
42	CO	975	0	1062	123	0
43	BP	928	0	987	106	0
43	CP	933	0	992	134	0
44	BQ	476	0	511	58	0
44	CQ	476	0	512	79	0
45	BR	734	0	771	47	0
45	CR	734	0	771	51	0
46	BS	705	0	725	77	0
46	CS	705	0	725	52	0
47	BT	834	0	904	84	0
47	CT	834	0	904	58	0
48	BU	591	0	662	61	0
48	CU	591	0	662	38	0
49	BV	624	0	636	72	0
49	CV	624	0	636	83	0
50	BW	763	0	861	97	0
50	CW	763	0	861	82	0
51	BX	217	0	234	16	0
51	CX	217	0	234	22	0
52	BB	1814	0	931	140	0
52	BD	1814	0	932	148	0
52	CB	1814	0	931	149	0
52	CD	1814	0	932	156	0
53	BC	1643	0	837	55	0
53	CC	1643	0	837	79	0
54	B1	347	0	174	20	0
54	C1	347	0	174	48	0
55	A0	1	0	0	0	0
55	A1	2	0	0	0	0
55	A3	1	0	0	0	0
55	A5	1	0	0	0	0
55	A7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	AA	332	0	0	0	0
55	AB	6	0	0	0	0
55	AE	3	0	0	0	0
55	AF	2	0	0	0	0
55	AO	1	0	0	0	0
55	B1	1	0	0	0	0
55	BA	114	0	0	0	0
55	BB	13	0	0	0	0
55	BC	4	0	0	0	0
55	BD	1	0	0	0	0
55	BF	1	0	0	0	0
55	BS	1	0	0	0	0
55	BW	1	0	0	0	0
55	C1	2	0	0	0	0
55	CA	121	0	0	0	0
55	CB	3	0	0	0	0
55	CC	7	0	0	0	0
55	CN	1	0	0	0	0
55	D0	1	0	0	0	0
55	D5	1	0	0	0	0
55	D7	1	0	0	0	0
55	DA	272	0	0	0	0
55	DB	7	0	0	0	0
55	DE	1	0	0	0	0
56	A1	14	0	0	0	0
56	A3	7	0	0	1	0
56	A6	7	0	0	1	0
56	AA	1659	0	0	140	0
56	AB	91	0	0	6	0
56	AE	7	0	0	0	0
56	AF	7	0	0	3	0
56	AO	14	0	0	2	0
56	AW	7	0	0	0	0
56	BA	693	0	0	66	0
56	BB	14	0	0	0	0
56	BC	21	0	0	2	0
56	BD	21	0	0	1	0
56	BG	7	0	0	2	0
56	BL	7	0	0	0	0
56	BR	7	0	0	0	0
56	CA	651	0	0	83	0
56	CB	21	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	CC	21	0	0	7	0
56	CD	7	0	0	1	0
56	CK	7	0	0	1	0
56	CR	7	0	0	0	0
56	CV	7	0	0	1	0
56	D1	7	0	0	0	0
56	D3	7	0	0	1	0
56	D5	7	0	0	1	0
56	D8	7	0	0	5	0
56	DA	1533	0	0	128	0
56	DB	91	0	0	6	0
56	DF	7	0	0	1	0
56	DO	7	0	0	0	0
57	BA	42	0	45	3	0
57	CA	42	0	45	1	0
58	BG	1	0	0	0	0
58	BQ	1	0	0	0	0
58	CG	1	0	0	0	0
58	CQ	1	0	0	0	0
All	All	304031	0	201063	19321	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 38.

All (19321) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:71:VAL:CG1	11:DO:72:PRO:HD3	1.34	1.57
30:A8:34:TRP:CB	30:A8:35:GLN:HB2	1.34	1.53
20:DU:89:PHE:CE1	20:DU:90:LEU:HG	1.40	1.50
9:DM:17:ASP:HA	9:DM:55:VAL:CG2	1.36	1.49
27:D5:4:HIS:HB3	27:D5:5:PRO:CD	1.40	1.48
12:AP:24:GLY:HA3	12:AP:25:ASP:CB	1.42	1.44
27:A5:4:HIS:HB3	27:A5:5:PRO:CD	1.43	1.44
1:DA:226:G:H21	1:DA:228:A:N6	1.04	1.43
9:DM:15:LEU:CD1	9:DM:55:VAL:HG13	1.48	1.41
1:DA:226:G:N2	1:DA:228:A:H61	1.17	1.40
1:AA:2255:G:N2	12:AP:85:LYS:HE2	1.05	1.38
1:DA:882:G:H1	1:DA:894:C:N4	1.21	1.37
1:DA:2255:G:N2	12:DP:85:LYS:HE2	1.33	1.37
30:A8:34:TRP:CE3	30:A8:35:GLN:HG2	1.59	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:15:LEU:HD11	9:DM:55:VAL:CG1	1.55	1.35
12:DP:24:GLY:HA3	12:DP:25:ASP:CB	1.42	1.35
27:A5:2:ALA:N	27:A5:3:LYS:HE2	1.42	1.34
11:AO:19:VAL:HG23	11:AO:27:HIS:CB	1.57	1.33
1:DA:811:U:H2'	11:DO:21:ARG:O	1.29	1.33
27:D5:4:HIS:CB	27:D5:5:PRO:HD2	1.50	1.32
4:DE:42:ASP:CB	4:DE:43:GLY:HA2	1.50	1.32
1:DA:847:U:C4	1:DA:933:A:N6	1.98	1.31
11:DO:47:ASP:HB3	11:DO:48:PRO:CA	1.53	1.31
11:AO:62:LEU:CD1	30:A8:30:ARG:NH1	1.93	1.30
11:AO:19:VAL:CG2	11:AO:27:HIS:HB3	1.61	1.29
1:DA:2275:C:O2'	12:DP:84:GLY:CA	1.80	1.28
4:DE:42:ASP:HB2	4:DE:43:GLY:CA	1.57	1.28
1:AA:2015:A:O2'	27:A5:3:LYS:NZ	1.65	1.27
9:DM:16:ILE:O	9:DM:55:VAL:HG22	1.27	1.26
1:AA:2255:G:N2	12:AP:85:LYS:CE	1.97	1.26
1:AA:943:U:OP2	11:AO:36:LYS:HG3	1.12	1.23
1:DA:2143:C:N4	1:DA:2148:G:H1	1.35	1.23
1:AA:2210:G:H3'	1:AA:2211:G:C8	1.73	1.23
1:DA:155:C:N4	1:DA:171:G:H1	1.36	1.23
3:AD:35:LYS:HD2	3:AD:104:TYR:CD1	1.73	1.22
27:A5:4:HIS:CB	27:A5:5:PRO:HD3	1.67	1.22
5:DF:68:LYS:O	5:DF:70:THR:HG23	1.37	1.21
1:DA:946:G:O2'	1:DA:947:G:H5'	1.37	1.21
3:DD:43:ARG:HH11	3:DD:44:ASN:ND2	1.39	1.21
1:DA:885:C:N4	1:DA:890:A:H62	1.37	1.20
11:DO:71:VAL:CG1	11:DO:72:PRO:CD	2.19	1.19
27:D5:3:LYS:CE	27:D5:3:LYS:HA	1.73	1.19
3:DD:35:LYS:HG2	3:DD:64:ILE:N	1.56	1.19
1:DA:885:C:C4	1:DA:890:A:N6	2.11	1.19
1:AA:1533:C:H3'	1:AA:1534:G:H5"	1.19	1.19
11:DO:46:LYS:HB3	11:DO:46:LYS:HZ2	1.06	1.18
12:AP:17:LEU:HD21	12:AP:96:VAL:CG1	1.72	1.18
52:CD:48:C:H3'	52:CD:49:A:C8	1.79	1.17
31:CA:1495:U:O4	57:CA:1722:PAR:N12	1.75	1.17
20:DU:89:PHE:HE1	20:DU:90:LEU:CG	1.57	1.17
9:DM:56:ASN:HA	9:DM:125:GLY:N	1.58	1.17
21:DV:11:GLU:HG3	21:DV:12:GLY:H	1.04	1.17
52:CD:48:C:H3'	52:CD:49:A:H8	1.07	1.16
1:AA:2308:G:N1	1:AA:2311:A:N1	1.92	1.16
1:AA:631:A:OP2	30:A8:46:ARG:NH2	1.78	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:OP2	11:AO:36:LYS:CG	1.92	1.16
12:AP:75:THR:HB	12:AP:88:GLY:HA3	1.26	1.16
30:A8:34:TRP:HB3	30:A8:35:GLN:CB	1.76	1.16
11:AO:58:THR:HG22	11:AO:61:ARG:HG3	1.27	1.16
5:DF:25:PRO:HB2	5:DF:27:GLU:H	1.05	1.16
7:AH:150:ALA:O	7:AH:152:ARG:N	1.79	1.16
11:AO:15:ARG:HG2	11:AO:15:ARG:HH11	1.10	1.16
1:AA:883:G:H1	1:AA:893:C:N4	1.43	1.16
6:DG:104:GLU:HG2	26:D4:23:GLU:HG2	1.28	1.16
1:DA:2020:A:OP1	16:D1:27:LEU:HD23	1.42	1.15
19:DT:12:VAL:HB	19:DT:29:TRP:NE1	1.60	1.15
1:AA:2308:G:N2	1:AA:2311:A:H2	1.45	1.15
3:DD:255:LYS:HE3	3:DD:255:LYS:H	1.05	1.15
33:CF:21:ARG:HH11	33:CF:21:ARG:HB3	1.02	1.14
20:DU:89:PHE:CE1	20:DU:90:LEU:CG	2.30	1.14
30:A8:34:TRP:CA	30:A8:35:GLN:HB2	1.74	1.14
1:AA:1359:A:N1	1:AA:1372:U:N3	1.95	1.14
1:DA:884:C:N4	1:DA:892:G:H1	1.46	1.14
1:AA:1496:A:H8	1:AA:1577:C:O2'	1.30	1.14
30:A8:34:TRP:CE3	30:A8:35:GLN:CG	2.30	1.14
1:DA:226:G:N2	1:DA:228:A:N6	1.80	1.13
21:AV:72:ARG:HH11	21:AV:72:ARG:HG3	1.03	1.13
1:DA:2392:A:C8	11:DO:60:MET:HB2	1.83	1.13
1:DA:2701:C:H3'	1:DA:2702:U:H5"	1.14	1.13
16:D1:50:ARG:HH22	17:D2:72:VAL:HG21	1.05	1.13
24:DW:17:SER:HB2	24:DW:18:PRO:HA	1.17	1.13
31:BA:1003:G:H2'	31:BA:1004:A:H5'	1.30	1.13
9:DM:17:ASP:CA	9:DM:55:VAL:CG2	2.27	1.13
1:AA:2317:C:H2'	1:AA:2318:G:H5'	1.29	1.13
1:AA:864:G:N7	12:AP:22:LYS:NZ	1.95	1.13
1:AA:1061:U:H4'	1:AA:1070:A:H1'	1.20	1.12
1:DA:252:G:OP2	11:DO:50:ARG:NH2	1.83	1.12
34:CG:22:LYS:HB2	34:CG:26:CYS:HB2	1.26	1.12
52:BD:19:C:H2'	52:BD:20:C:H4'	1.27	1.12
31:CA:632:A:H1'	31:CA:633:G:OP2	1.49	1.12
31:BA:1175:G:H2'	31:BA:1176:A:C8	1.85	1.12
1:DA:2275:C:O2'	12:DP:84:GLY:HA3	1.40	1.12
1:AA:620:G:H4'	1:AA:621:A:H5"	1.32	1.11
31:CA:1160:G:O6	31:CA:1181:G:O6	1.67	1.11
4:DE:64:LYS:HB2	4:DE:66:HIS:HD2	1.11	1.11
16:A1:112:ARG:HG3	16:A1:112:ARG:HH11	1.02	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:236:GLY:O	3:AD:237:GLU:HB2	1.45	1.11
27:D5:3:LYS:CA	27:D5:3:LYS:HE3	1.80	1.11
17:D2:87:HIS:CE1	17:D2:89:GLN:HB2	1.85	1.11
1:AA:2287:A:N6	1:AA:2344:U:H3	1.49	1.11
12:AP:24:GLY:CA	12:AP:25:ASP:HB3	1.79	1.11
1:DA:2795:G:H3'	1:DA:2797:U:H5"	1.31	1.11
3:DD:35:LYS:CG	3:DD:64:ILE:H	1.63	1.11
3:AD:28:GLU:HB3	3:AD:29:PRO:HD2	1.29	1.11
43:BP:108:ARG:HH11	43:BP:108:ARG:HG3	1.15	1.11
32:CE:75:LYS:HA	32:CE:78:GLN:HB2	1.33	1.11
15:AR:105:LEU:O	15:AR:107:ASP:N	1.84	1.11
1:AA:654(D):G:H1	1:AA:654(Q):C:N4	1.49	1.10
27:A5:3:LYS:HD2	27:A5:3:LYS:N	1.51	1.10
6:AG:21:ARG:HH11	6:AG:21:ARG:HG2	1.03	1.10
11:DO:61:ARG:C	11:DO:62:LEU:HD22	1.70	1.10
31:CA:686:U:O2'	31:CA:687:A:O5'	1.69	1.10
30:D8:33:ASN:HD21	30:D8:41:ILE:HD11	1.14	1.10
11:DO:61:ARG:CB	11:DO:61:ARG:HH21	1.63	1.10
3:AD:43:ARG:NH1	3:AD:44:ASN:OD1	1.82	1.10
8:AK:131:LYS:HB3	8:AK:132:PRO:HA	1.30	1.10
30:D8:33:ASN:HD21	30:D8:41:ILE:CD1	1.65	1.10
1:AA:2363:C:OP1	56:AA:3551:OHX:N4	1.84	1.10
20:AU:79:CYS:SG	20:AU:80:GLY:N	2.25	1.10
1:DA:885:C:N4	1:DA:890:A:N6	1.96	1.10
11:DO:47:ASP:OD1	11:DO:50:ARG:NH1	1.85	1.10
1:DA:2306:C:H3'	1:DA:2307:G:H5"	1.27	1.09
21:DV:158:PRO:HB2	21:DV:159:PRO:HD2	1.34	1.09
1:DA:90:U:H2'	1:DA:91:A:H5"	1.11	1.09
31:CA:1443:G:H3'	31:CA:1446:A:H5"	1.30	1.09
11:DO:46:LYS:HB3	11:DO:46:LYS:NZ	1.63	1.09
31:BA:1028(B):C:N3	31:BA:1032(A):G:N2	2.01	1.09
9:DM:97:ARG:HH11	9:DM:97:ARG:HG2	1.13	1.09
1:AA:2591:C:OP2	3:AD:238:GLY:O	1.69	1.09
12:AP:24:GLY:CA	12:AP:25:ASP:CB	2.30	1.09
31:CA:1176:A:H2'	31:CA:1177:G:H5'	1.24	1.09
1:AA:784:A:H5'	1:AA:785:G:OP1	1.53	1.09
20:DU:61:ILE:HG22	20:DU:62:GLU:H	1.15	1.09
1:AA:102:G:OP1	24:AW:7:ARG:NH2	1.85	1.09
54:C1:19:U:H2'	54:C1:20:G:H5'	1.32	1.09
11:DO:47:ASP:CB	11:DO:48:PRO:HA	1.79	1.09
27:A5:40:LYS:HG2	27:A5:47:PRO:HD2	1.32	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:97:ARG:HH11	9:AM:97:ARG:HG3	1.00	1.08
45:CR:87:ILE:HG22	45:CR:88:ARG:H	1.12	1.08
1:AA:1210:A:H8	1:AA:1210:A:H5'	1.14	1.08
30:D8:50:LEU:HD22	30:D8:50:LEU:N	1.67	1.08
1:DA:2777:G:H5"	1:DA:2778:A:H5'	1.24	1.08
26:A4:39:CYS:O	26:A4:40:HIS:HB2	1.44	1.08
37:CJ:113:GLU:HB2	37:CJ:119:ARG:HG2	1.35	1.08
12:AP:17:LEU:CD2	12:AP:96:VAL:CG1	2.30	1.08
1:AA:1932:A:OP2	56:AA:3561:OHX:N1	1.87	1.08
31:BA:1299:A:H2'	31:BA:1301:U:H1'	1.24	1.08
53:CC:17:C:H3'	53:CC:18:C:C5'	1.83	1.08
31:BA:1053:G:H5'	31:BA:1054:C:H5'	1.28	1.08
11:DO:15:ARG:HH11	11:DO:15:ARG:CG	1.67	1.08
31:BA:1503:A:O2'	31:BA:1504:G:O5'	1.71	1.07
52:CD:49:A:C2	52:CD:50:U:H5"	1.89	1.07
1:DA:2143:C:N3	1:DA:2148:G:N2	2.01	1.07
31:BA:73:G:O6	31:BA:97:U:O2	1.72	1.07
31:BA:858:G:N7	56:BA:1802:OHX:N3	2.02	1.07
16:D1:29:SER:O	16:D1:30:LYS:HD3	1.54	1.07
1:DA:2392:A:H8	11:DO:60:MET:HB2	0.98	1.07
1:AA:49:A:N7	1:AA:120:U:C5	2.22	1.07
11:DO:47:ASP:HB3	11:DO:48:PRO:HA	1.14	1.07
11:DO:61:ARG:HH21	11:DO:61:ARG:CG	1.66	1.07
1:AA:1728:G:H3'	1:AA:1729:A:H5"	1.37	1.07
1:AA:2391:G:OP2	30:A8:32:LEU:CD1	2.01	1.07
11:AO:62:LEU:HD13	30:A8:30:ARG:HH11	0.94	1.07
31:BA:791:G:H2'	31:BA:792:A:H5'	1.37	1.07
12:DP:24:GLY:CA	12:DP:25:ASP:CB	2.30	1.07
1:AA:2131:G:H5'	1:AA:2132:U:H5"	1.31	1.07
31:BA:792:A:O2'	31:BA:794:A:N7	1.87	1.07
11:DO:21:ARG:HA	11:DO:21:ARG:HE	1.15	1.07
1:DA:2392:A:H8	11:DO:60:MET:CB	1.67	1.07
11:DO:19:VAL:HG23	11:DO:27:HIS:HB3	1.37	1.07
50:BW:100:ILE:HG13	50:BW:102:GLY:H	1.19	1.07
1:DA:2885:C:OP2	56:DA:3390:OHX:N1	1.87	1.07
12:DP:11:LYS:HD3	12:DP:87:LYS:HG2	1.34	1.07
1:AA:805:G:H5"	11:AO:38:GLN:HE22	1.13	1.07
26:A4:40:HIS:N	26:A4:41:PRO:HD3	1.67	1.06
1:AA:2701:C:H3'	1:AA:2702:U:H5"	1.32	1.06
1:DA:155:C:N3	1:DA:171:G:N2	2.03	1.06
9:DM:17:ASP:CA	9:DM:55:VAL:HG21	1.85	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:71:VAL:HG13	11:DO:72:PRO:CD	1.85	1.06
11:AO:62:LEU:HD13	30:A8:30:ARG:NH1	1.58	1.06
7:AH:154:PRO:O	7:AH:156:ALA:N	1.88	1.06
11:AO:65:ARG:HH11	11:AO:65:ARG:HG3	0.94	1.06
1:AA:2781:A:H5"	1:AA:2782:G:H5'	1.31	1.06
3:DD:35:LYS:HG2	3:DD:64:ILE:H	0.95	1.06
11:DO:19:VAL:HG23	11:DO:27:HIS:CB	1.84	1.06
11:DO:79:ARG:HB3	11:DO:110:TYR:CD1	1.89	1.06
30:A8:34:TRP:CB	30:A8:35:GLN:CB	2.30	1.06
11:DO:47:ASP:HB3	11:DO:48:PRO:C	1.76	1.06
11:DO:97:PRO:CG	11:DO:112:LEU:HD12	1.84	1.06
16:D1:92:ARG:HD2	16:D1:95:LEU:HD12	1.34	1.06
11:DO:65:ARG:HG3	11:DO:65:ARG:HH11	0.97	1.06
1:DA:2610:C:H4'	1:DA:2611:U:OP2	1.51	1.06
52:BD:18:G:H1'	52:BD:19:C:OP2	1.54	1.06
52:BB:48:C:H3'	52:BB:49:A:H8	1.13	1.05
11:AO:15:ARG:CG	11:AO:15:ARG:HH11	1.67	1.05
54:B1:13:A:O2'	54:B1:14:A:OP1	1.73	1.05
11:DO:97:PRO:HG3	11:DO:112:LEU:HD12	1.10	1.05
5:DF:116:ASP:OD1	11:DO:1:MET:N	1.89	1.05
45:BR:26:GLU:OE2	45:BR:77:ARG:NH1	1.89	1.05
34:CG:139:ARG:HG3	34:CG:139:ARG:HH11	1.17	1.05
1:DA:1678:G:N2	1:DA:1989:G:H22	1.54	1.05
11:DO:19:VAL:CG2	11:DO:27:HIS:HB3	1.87	1.05
12:AP:19:GLY:HA3	12:AP:98:LYS:NZ	1.71	1.05
11:AO:114:ILE:HD11	11:AO:130:PHE:CD1	1.91	1.05
5:AF:67:GLN:HG3	5:AF:67:GLN:O	1.47	1.05
1:AA:943:U:P	11:AO:36:LYS:HG3	1.95	1.05
49:BV:41:VAL:HB	49:BV:42:PRO:HA	1.35	1.05
1:DA:1936:A:O2'	56:DA:3103:OHX:N4	1.89	1.05
11:DO:71:VAL:HG12	11:DO:72:PRO:CD	1.82	1.05
40:BM:48:THR:HA	40:BM:62:HIS:HB3	1.36	1.05
27:D5:3:LYS:HA	27:D5:3:LYS:HE3	1.33	1.05
12:AP:17:LEU:HD21	12:AP:96:VAL:HG13	1.31	1.04
52:BB:46:G:H2'	52:BB:47:U:C6	1.92	1.04
11:DO:15:ARG:HG2	11:DO:15:ARG:HH11	1.10	1.04
4:AE:41:LYS:HE2	4:AE:41:LYS:HA	1.38	1.04
1:AA:1952:A:N1	10:AN:22:ILE:HD11	1.71	1.04
53:CC:48:U:O2'	53:CC:49:C:OP2	1.73	1.04
30:D8:33:ASN:ND2	30:D8:41:ILE:HD11	1.71	1.04
1:AA:889:C:H3'	1:AA:890:A:H4'	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:24:GLY:HA3	12:AP:25:ASP:HB2	1.36	1.04
31:CA:1160:G:H1	31:CA:1177:G:N2	1.53	1.04
1:AA:1102:C:H2'	1:AA:1103:A:H8	1.21	1.04
12:DP:75:THR:HB	12:DP:88:GLY:HA3	1.30	1.04
31:CA:1256:A:OP2	33:CF:26:LYS:NZ	1.90	1.04
1:DA:1090:U:O4	1:DA:1101:U:O2	1.76	1.04
1:AA:2420:C:OP1	30:A8:33:ASN:O	1.75	1.04
17:A2:15:GLU:HG3	17:A2:16:PRO:HD2	1.36	1.04
2:AB:7:G:H4'	14:AQ:29:PHE:HD1	1.22	1.03
31:CA:862:C:H1'	31:CA:874:G:H5"	1.40	1.03
50:CW:82:SER:OG	50:CW:86:ARG:NH2	1.91	1.03
1:DA:1022:G:O2'	1:DA:1023:U:OP2	1.73	1.03
12:DP:24:GLY:HA3	12:DP:25:ASP:HB2	1.04	1.03
1:DA:2681:C:C5	1:DA:2725:A:N6	2.26	1.03
9:DM:56:ASN:CB	9:DM:125:GLY:C	2.26	1.03
11:DO:52:GLU:HG3	11:DO:57:THR:HA	1.40	1.03
9:DM:56:ASN:HB3	9:DM:126:PRO:N	1.73	1.03
41:CN:54:ARG:HH11	41:CN:54:ARG:HG2	1.19	1.03
1:DA:2136:C:N4	1:DA:2155:G:N1	2.06	1.03
11:DO:71:VAL:HG13	11:DO:72:PRO:HD3	1.37	1.03
52:BD:11:C:H3'	52:BD:12:C:H5"	1.41	1.03
30:D8:29:LYS:HG3	30:D8:29:LYS:O	1.52	1.03
30:D8:33:ASN:HA	30:D8:36:LYS:HD2	1.40	1.03
4:DE:39:PRO:HG3	4:DE:45:THR:HG23	1.40	1.03
39:CL:112:LYS:HA	39:CL:119:ALA:HB2	1.40	1.02
1:AA:602:G:O2'	1:AA:604:G:O2'	1.72	1.02
8:AK:126:TYR:HB2	8:AK:140:LEU:HD21	1.37	1.02
33:BF:19:GLU:O	33:BF:40:ARG:NH2	1.92	1.02
1:DA:631:A:OP2	30:D8:47:LYS:NZ	1.90	1.02
1:DA:882:G:N2	1:DA:894:C:N3	2.07	1.02
11:DO:97:PRO:HG3	11:DO:112:LEU:CD1	1.87	1.02
16:A1:92:ARG:O	16:A1:94:ASN:N	1.93	1.02
30:A8:35:GLN:HA	30:A8:35:GLN:OE1	1.58	1.02
1:AA:1778:U:H2'	1:AA:1784:A:N6	1.73	1.02
1:DA:1088:A:H5'	1:DA:1089:G:H5'	1.41	1.02
4:DE:37:ARG:CA	4:DE:42:ASP:OD2	2.06	1.02
29:A7:12:ARG:HH11	29:A7:12:ARG:HG3	0.86	1.02
19:DT:65:ARG:HG3	19:DT:65:ARG:HH11	1.20	1.02
6:AG:67:LYS:HE2	26:A4:6:HIS:CE1	1.94	1.02
12:AP:24:GLY:HA3	12:AP:25:ASP:HB3	1.02	1.02
1:DA:1899:G:N2	1:DA:1902:C:H5	1.58	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:9:ASN:HB3	11:DO:10:PRO:HD2	1.41	1.02
32:CE:78:GLN:O	32:CE:94:ASN:ND2	1.92	1.01
26:D4:22:ILE:HG12	26:D4:23:GLU:H	1.24	1.01
16:A1:90:VAL:O	16:A1:92:ARG:N	1.92	1.01
1:AA:2467:C:H4'	12:AP:123:HIS:ND1	1.73	1.01
11:AO:75:ILE:HD13	11:AO:75:ILE:H	1.23	1.01
31:BA:1028(B):C:N4	31:BA:1032(A):G:H1	1.58	1.01
31:BA:1346:A:H5"	39:BL:120:ARG:HH12	1.19	1.01
45:BR:63:ARG:HH12	45:BR:87:ILE:HD12	1.21	1.01
27:A5:56:LYS:H	27:A5:56:LYS:HD2	1.21	1.01
31:BA:1149:C:H2'	31:BA:1150:U:H6	1.22	1.01
31:CA:1127:G:N3	31:CA:1147:C:N4	2.09	1.01
1:DA:1309:G:N7	56:DA:3389:OHX:N2	2.09	1.01
12:AP:75:THR:HG22	12:AP:90:VAL:H	1.22	1.01
1:AA:270(O):U:H4'	1:AA:270(P):C:OP2	1.57	1.01
31:BA:1139:G:N2	31:BA:1143:G:O6	1.94	1.01
31:CA:82:U:H3	31:CA:87:A:N6	1.59	1.01
30:A8:34:TRP:HB3	30:A8:35:GLN:HB2	1.04	1.01
50:BW:31:SER:HA	50:BW:34:LYS:HE3	1.40	1.01
5:DF:46:ARG:HH11	5:DF:46:ARG:HG2	1.22	1.01
9:DM:56:ASN:HA	9:DM:125:GLY:CA	1.89	1.01
31:BA:559:A:OP2	35:BH:126:ARG:NH2	1.93	1.01
16:D1:50:ARG:HH12	17:D2:72:VAL:CG2	1.73	1.01
2:DB:14:U:O2'	2:DB:107:U:O2'	1.75	1.01
12:DP:24:GLY:HA3	12:DP:25:ASP:HB3	1.37	1.01
1:AA:1081:U:O2'	1:AA:1082:U:OP1	1.79	1.01
6:AG:101:ILE:HD12	26:A4:25:TYR:HB3	1.40	1.00
1:AA:2689:U:H4'	1:AA:2690:C:H5'	1.41	1.00
31:CA:503:C:OP2	42:CO:116:SER:HB3	1.60	1.00
1:DA:686:G:OP1	29:D7:11:LYS:NZ	1.93	1.00
30:A8:34:TRP:HE3	30:A8:35:GLN:HG2	0.90	1.00
1:AA:49:A:C8	1:AA:120:U:H5	1.79	1.00
1:AA:51:G:O6	56:AA:3546:OHX:N3	1.92	1.00
1:AA:593:G:H4'	30:A8:61:LEU:HD13	1.40	1.00
34:BG:209:ARG:HE	34:BG:209:ARG:HA	1.24	1.00
1:DA:631:A:OP1	11:DO:64:LYS:HE2	1.61	1.00
1:AA:1055:G:H1	1:AA:1104:C:N4	1.59	1.00
1:AA:1798:U:H5"	3:AD:259:THR:HG22	1.43	1.00
3:AD:166:GLN:HE21	3:AD:166:GLN:HA	1.22	1.00
31:BA:1367:C:H5'	40:BM:60:ARG:HH21	1.24	1.00
31:CA:975:A:H4'	31:CA:976:G:H5"	1.43	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CD:18:G:H1'	52:CD:19:C:OP2	1.59	1.00
3:DD:35:LYS:HE2	3:DD:104:TYR:HB2	1.39	1.00
14:DQ:109:GLY:O	14:DQ:111:GLU:N	1.93	1.00
31:BA:1452:C:O2'	31:BA:1453:G:OP2	1.79	1.00
1:AA:1887:C:H2'	1:AA:1888:G:H5"	1.41	1.00
9:DM:56:ASN:HB2	9:DM:125:GLY:O	1.61	1.00
20:AU:49:VAL:O	20:AU:51:VAL:N	1.95	1.00
23:DZ:92:LYS:O	23:DZ:94:LEU:N	1.93	1.00
12:AP:75:THR:CB	12:AP:88:GLY:HA3	1.92	1.00
32:BE:204:ASN:ND2	32:BE:206:ASP:O	1.94	1.00
5:DF:128:ALA:O	5:DF:142:TRP:NE1	1.94	1.00
1:DA:1043:C:N4	1:DA:1112:G:H1	1.60	1.00
1:AA:1952:A:C6	10:AN:22:ILE:HD11	1.97	0.99
11:DO:106:LEU:O	11:DO:107:LYS:HB2	1.61	0.99
1:AA:676:A:H8	1:AA:2069:G:H21	1.04	0.99
3:DD:43:ARG:NH1	3:DD:44:ASN:ND2	2.10	0.99
3:DD:44:ASN:HB3	3:DD:49:ILE:HA	1.40	0.99
31:BA:1028:C:N4	31:BA:1033:G:H1	1.60	0.99
31:CA:1352:C:H42	31:CA:1370:G:H1	1.08	0.99
31:CA:82:U:H3	31:CA:87:A:H61	1.01	0.99
1:DA:2701:C:H3'	1:DA:2702:U:C5'	1.87	0.99
5:DF:132:VAL:HG22	5:DF:133:ASN:H	1.24	0.99
29:A7:12:ARG:CG	29:A7:12:ARG:HH11	1.72	0.99
1:AA:1021:A:H62	1:AA:1141:U:H3	1.06	0.99
34:BG:22:LYS:HB2	34:BG:26:CYS:HB2	1.43	0.99
19:DT:28:PHE:HZ	19:DT:81:VAL:CG2	1.75	0.99
1:AA:1056:G:H21	1:AA:1103:A:N6	1.60	0.99
31:BA:1128:C:O2'	31:BA:1130:A:N7	1.92	0.99
16:D1:50:ARG:NH2	17:D2:72:VAL:HG21	1.78	0.99
31:BA:1129:C:H4'	31:BA:1130:A:H5'	1.42	0.99
18:DS:59:VAL:HG23	18:DS:65:LEU:H	1.24	0.99
16:A1:79:PHE:HE2	16:A1:83:LEU:HD22	1.26	0.99
31:BA:1028(B):C:N4	31:BA:1032(A):G:N1	2.11	0.99
33:BF:70:VAL:HG12	33:BF:72:LYS:H	1.27	0.99
6:DG:135:LEU:HD23	6:DG:140:ILE:HD11	1.44	0.99
31:BA:737:A:H2'	31:BA:738:C:H6	1.24	0.99
47:BT:18:THR:OG1	47:BT:69:LYS:NZ	1.94	0.99
1:DA:1171:G:H1	1:DA:1178:C:N4	1.61	0.99
14:DQ:29:PHE:HD2	14:DQ:30:ARG:N	1.61	0.99
22:D3:53:MET:HG3	22:D3:59:LEU:HD23	1.41	0.98
1:AA:882:G:N2	1:AA:894:C:N3	2.11	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:A7:8:ASN:HD22	29:A7:8:ASN:C	1.65	0.98
1:AA:1678:G:H21	1:AA:1989:G:H22	1.05	0.98
11:AO:9:ASN:HB3	11:AO:10:PRO:HD2	1.45	0.98
54:C1:19:U:C2'	54:C1:20:G:H5'	1.93	0.98
1:DA:2469:A:C8	1:DA:2482:G:C5	2.51	0.98
1:DA:2255:G:H22	12:DP:85:LYS:HE2	1.26	0.98
4:AE:117:MET:HE1	4:AE:136:ARG:HA	1.43	0.98
31:BA:1160:G:O6	31:BA:1181:G:O6	1.81	0.98
52:CB:47:U:H2'	52:CB:48:C:C6	1.97	0.98
1:DA:1054:A:N6	1:DA:1105:U:H3	1.60	0.98
31:BA:1002:G:H2'	31:BA:1003:G:H8	1.27	0.98
31:BA:201:C:N3	31:BA:216:G:N2	2.12	0.98
1:DA:1171:G:H1	1:DA:1178:C:H42	1.09	0.98
31:CA:365:U:H5'	31:CA:366:C:OP1	1.64	0.98
29:A7:12:ARG:NH1	29:A7:12:ARG:HG3	1.65	0.98
52:BB:48:C:H3'	52:BB:49:A:C8	1.98	0.98
36:BI:36:ARG:NH2	36:BI:38:GLU:OE2	1.95	0.98
53:CC:17:C:C3'	53:CC:18:C:H5"	1.94	0.98
1:AA:1900:A:H5'	1:AA:1900:A:H8	1.27	0.98
3:DD:25:THR:O	3:DD:27:THR:N	1.96	0.98
1:AA:2391:G:OP2	30:A8:32:LEU:HD11	1.63	0.98
7:AH:4:ILE:HG13	7:AH:6:ARG:CZ	1.94	0.98
1:AA:654(D):G:N2	1:AA:654(Q):C:N3	2.11	0.97
6:AG:161:THR:HG22	6:AG:163:ALA:H	1.28	0.97
1:DA:2511:U:OP1	56:DA:3172:OHX:N2	1.96	0.97
1:AA:882:G:H1	1:AA:894:C:N4	1.61	0.97
4:AE:77:ILE:O	4:AE:79:ARG:N	1.97	0.97
11:AO:114:ILE:HD11	11:AO:130:PHE:HD1	1.19	0.97
12:AP:51:ARG:HH11	12:AP:51:ARG:HG2	1.29	0.97
31:BA:1004:A:H5"	31:BA:1025:U:O4	1.62	0.97
31:BA:1178:G:N2	31:BA:1181:G:N7	2.12	0.97
31:BA:81:G:N2	31:BA:88:C:C2	2.32	0.97
1:DA:2404:C:H1'	11:DO:67:MET:HE3	1.46	0.97
1:AA:67:U:H3	1:AA:74:A:H2	1.12	0.97
33:BF:95:THR:HG22	33:BF:96:GLY:H	1.29	0.97
31:CA:1145:C:H4'	31:CA:1146:A:OP1	1.63	0.97
31:CA:1286:A:C8	31:CA:1287:A:H4'	1.99	0.97
16:D1:100:VAL:O	16:D1:101:ARG:HG2	1.63	0.97
1:DA:2255:G:N2	12:DP:85:LYS:CE	2.27	0.97
21:DV:115:GLY:HA3	21:DV:174:VAL:HG13	1.43	0.97
1:AA:1264:G:OP1	27:A5:19:ARG:NH2	1.97	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1102:C:H2'	1:AA:1103:A:C8	2.00	0.97
1:AA:2308:G:N2	1:AA:2311:A:C2	2.26	0.97
2:AB:12:C:O2'	22:A3:74:ARG:HB2	1.64	0.97
52:CB:83:C:H2'	52:CB:84:C:H5'	1.46	0.97
1:DA:1762:A:OP1	1:DA:1762:A:H4'	1.64	0.97
1:DA:2107:C:N3	1:DA:2182:G:N2	2.11	0.97
1:DA:811:U:C2'	11:DO:21:ARG:O	2.12	0.97
12:DP:26:TYR:CD1	12:DP:139:GLU:HG2	2.00	0.97
1:AA:2251:G:OP1	12:AP:82:ARG:NH1	1.96	0.97
31:BA:324:G:N7	56:BA:1755:OHX:N3	2.11	0.97
3:DD:166:GLN:HE21	3:DD:166:GLN:HA	1.30	0.97
11:AO:65:ARG:NH1	11:AO:65:ARG:HG3	1.73	0.97
31:BA:749:C:OP1	56:BA:1801:OHX:N3	1.97	0.97
1:AA:993:G:OP1	16:A1:50:ARG:NH2	1.98	0.97
1:DA:2211:G:O2'	1:DA:2212:A:OP1	1.81	0.97
9:DM:15:LEU:CD1	9:DM:55:VAL:CG1	2.25	0.97
4:DE:64:LYS:HB2	4:DE:66:HIS:CD2	2.00	0.97
31:BA:826:C:H2'	31:BA:827:U:O2	1.65	0.97
52:CB:50:U:H2'	52:CB:51:C:C6	2.00	0.97
14:DQ:60:GLY:O	14:DQ:61:ASN:HB2	1.65	0.97
16:A1:79:PHE:CE2	16:A1:83:LEU:HD22	1.99	0.96
1:AA:2317:C:C2'	1:AA:2318:G:H5'	1.95	0.96
31:BA:625:G:H4'	46:BS:16:HIS:CD2	2.00	0.96
21:DV:115:GLY:H	21:DV:177:PRO:HG2	1.26	0.96
1:AA:881:G:O6	1:AA:895:U:O2	1.83	0.96
25:DX:19:GLN:HE22	25:DX:52:HIS:HE1	1.10	0.96
1:AA:2255:G:H21	12:AP:85:LYS:HE2	1.22	0.96
31:BA:1301:U:H3'	31:BA:1302:U:H5'	1.44	0.96
52:CB:51:C:H3'	52:CB:52:G:C8	1.98	0.96
1:DA:1341:U:H2'	1:DA:1397:U:O2	1.64	0.96
12:DP:78:PRO:O	12:DP:79:LEU:HD12	1.64	0.96
3:AD:35:LYS:HD2	3:AD:104:TYR:CE1	1.99	0.96
29:A7:8:ASN:ND2	29:A7:11:LYS:H	1.64	0.96
31:BA:201:C:H42	31:BA:216:G:H1	0.97	0.96
31:CA:992:U:H3	31:CA:1044:A:H62	1.04	0.96
45:CR:82:ILE:HG12	45:CR:87:ILE:HB	1.43	0.96
27:D5:3:LYS:N	27:D5:3:LYS:HE3	1.79	0.96
1:AA:2136:C:N4	1:AA:2155:G:H1	1.62	0.96
54:B1:11:U:O2'	54:B1:12:A:N3	1.98	0.96
35:BH:68:GLU:HG2	35:BH:70:PRO:HD3	1.48	0.96
1:DA:1332:G:N2	1:DA:1609:A:O2'	1.99	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1945:G:OP1	56:DA:3103:OHX:N6	1.99	0.96
1:AA:1464:C:HO2'	1:AA:1528:A:H8	1.12	0.96
31:BA:382:A:H2'	31:BA:383:A:H8	1.31	0.96
50:CW:50:GLU:HA	50:CW:100:ILE:HG21	1.43	0.96
1:AA:2391:G:P	30:A8:32:LEU:HD12	2.06	0.96
32:BE:42:ILE:HD11	32:BE:202:PRO:HB2	1.48	0.95
1:DA:259:G:H21	1:DA:621:A:H8	1.04	0.95
24:DW:17:SER:HB2	24:DW:18:PRO:CA	1.96	0.95
31:CA:1003:G:H1	31:CA:1037:C:N4	1.64	0.95
46:CS:8:ARG:HG2	46:CS:8:ARG:HH11	1.29	0.95
19:DT:28:PHE:CZ	19:DT:81:VAL:HG22	2.01	0.95
31:BA:8:A:H62	34:BG:208:SER:HB2	1.30	0.95
31:CA:574:A:H5"	31:CA:575:G:OP2	1.66	0.95
1:DA:1332:G:N2	1:DA:1609:A:HO2'	1.63	0.95
11:DO:62:LEU:HD22	11:DO:62:LEU:N	1.81	0.95
1:AA:49:A:N7	1:AA:120:U:H5	1.61	0.95
14:AQ:83:LYS:O	14:AQ:109:GLY:HA2	1.66	0.95
32:CE:131:PRO:HG2	32:CE:134:GLU:HB2	1.48	0.95
4:DE:37:ARG:C	4:DE:42:ASP:OD2	2.05	0.95
11:DO:65:ARG:HG3	11:DO:65:ARG:NH1	1.72	0.95
21:DV:11:GLU:CG	21:DV:12:GLY:H	1.79	0.95
1:AA:2142:C:H42	1:AA:2149:G:H1	1.15	0.95
52:CD:52:G:H2'	52:CD:53:A:H8	1.32	0.95
1:DA:2523:G:H8	1:DA:2523:G:H5'	1.30	0.95
1:DA:2843:G:H2'	1:DA:2844:G:H5"	1.45	0.95
5:DF:53:THR:O	5:DF:55:GLY:N	2.00	0.95
28:A6:23:THR:O	56:A6:101:OHX:N6	2.00	0.95
31:BA:1008:C:H42	31:BA:1021:G:H1	1.13	0.95
31:BA:530:G:H4'	31:BA:531:U:OP2	1.67	0.95
10:DN:4:PRO:O	10:DN:5:GLN:HB2	1.66	0.95
21:DV:128:VAL:HG22	21:DV:129:SER:H	1.28	0.95
2:AB:116:G:H5"	14:AQ:55:ALA:HB2	1.45	0.95
31:CA:81:G:H1	31:CA:88:C:N4	1.63	0.95
1:AA:1026:U:H1'	1:AA:1027:A:O5'	1.67	0.95
4:AE:20:ALA:HB1	4:AE:21:VAL:HG13	1.49	0.95
31:CA:279:A:OP2	47:CT:95:TYR:OH	1.82	0.95
12:DP:79:LEU:O	12:DP:79:LEU:HD12	1.67	0.95
20:DU:89:PHE:CD1	20:DU:90:LEU:N	2.34	0.95
30:A8:48:PHE:HE2	30:A8:50:LEU:HD13	1.28	0.95
1:AA:1069:A:H4'	1:AA:1070:A:H5"	1.47	0.95
31:BA:81:G:N2	31:BA:88:C:N3	2.14	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:34:GLU:HG2	26:D4:35:VAL:H	1.29	0.95
24:DW:65:ASN:HD22	24:DW:69:ARG:HH21	1.00	0.94
1:AA:2629:A:O2'	1:AA:2630:G:H5"	1.67	0.94
31:BA:1125:U:OP2	31:BA:1145:C:N4	1.99	0.94
34:BG:22:LYS:HB2	34:BG:26:CYS:CB	1.97	0.94
52:CB:31:G:H1	52:CB:41:C:H42	0.98	0.94
1:DA:205:G:O2'	1:DA:206:U:OP2	1.85	0.94
14:DQ:88:ASP:OD2	14:DQ:90:GLY:N	2.00	0.94
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ2	1.29	0.94
34:CG:178:VAL:HG12	34:CG:179:GLU:H	1.29	0.94
1:DA:1652:A:H62	13:D0:11:ASN:HD21	1.11	0.94
15:DR:91:ARG:HD2	15:DR:124:ASP:OD1	1.67	0.94
1:AA:2056:G:N2	27:A5:4:HIS:O	2.00	0.94
52:BD:22:A:N7	52:BD:57:C:N4	2.14	0.94
1:DA:1678:G:H21	1:DA:1989:G:H22	1.10	0.94
1:AA:2276:G:P	12:AP:84:GLY:HA2	2.06	0.94
1:AA:2701:C:H3'	1:AA:2702:U:C5'	1.96	0.94
23:AZ:76:ARG:HG2	23:AZ:76:ARG:HH11	1.29	0.94
43:BP:82:MET:O	43:BP:84:ILE:N	2.01	0.94
50:BW:47:GLY:O	50:BW:49:ALA:N	2.01	0.94
1:DA:1689:A:H62	1:DA:1698:A:H2	1.06	0.94
11:DO:47:ASP:CB	11:DO:48:PRO:CA	2.38	0.94
52:CD:48:C:C3'	52:CD:49:A:H8	1.80	0.94
52:CD:50:U:H2'	52:CD:51:C:C6	2.03	0.94
51:CX:2:GLY:O	51:CX:4:GLY:N	2.01	0.94
1:DA:2389:G:H5"	1:DA:2390:U:H5'	1.48	0.94
1:AA:1210:A:C8	1:AA:1210:A:H5'	2.03	0.94
11:DO:105:LEU:O	11:DO:105:LEU:HD12	1.67	0.94
1:AA:1359:A:H2'	1:AA:1360:A:H5'	1.49	0.94
31:CA:1056:U:H5'	33:CF:163:ALA:HB2	1.47	0.94
53:CC:17:C:H3'	53:CC:18:C:H5"	0.97	0.94
40:CM:49:VAL:O	40:CM:60:ARG:HB2	1.68	0.94
1:DA:141:A:H8	1:DA:1595:G:H21	1.14	0.94
1:DA:1728:G:N7	1:DA:1731:G:N2	2.14	0.94
4:DE:61:ARG:O	4:DE:63:LEU:N	2.00	0.94
1:AA:2068:U:H3	1:AA:2430:A:H2	0.97	0.94
1:DA:1088:A:H4'	1:DA:1089:G:H8	1.30	0.94
52:BD:11:C:C3'	52:BD:12:C:H5"	1.98	0.94
10:DN:24:VAL:HA	10:DN:39:ILE:HG22	1.49	0.94
10:DN:2:ILE:HD12	10:DN:6:THR:HG21	1.48	0.94
31:BA:1322:C:O2'	31:BA:1323:G:O5'	1.86	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:519:C:O2	56:CA:1728:OHX:N4	2.01	0.94
1:DA:1416:G:HO2'	1:DA:1417:C:H6	0.95	0.94
4:DE:36:ARG:NH1	4:DE:85:ASN:OD1	2.01	0.94
15:DR:24:PRO:HA	15:DR:49:VAL:HG23	1.49	0.94
11:AO:62:LEU:CD1	30:A8:30:ARG:HH12	1.71	0.93
30:A8:34:TRP:N	30:A8:35:GLN:CB	2.30	0.93
1:AA:1014:U:H2'	1:AA:1015:G:H5"	1.50	0.93
2:AB:7:G:H4'	14:AQ:29:PHE:CD1	2.04	0.93
52:CD:52:G:H2'	52:CD:53:A:C8	2.03	0.93
52:CD:61:G:H1	52:CD:71:C:H42	1.16	0.93
16:D1:50:ARG:HH11	17:D2:70:ILE:HG22	1.32	0.93
1:DA:1310:G:OP2	29:D7:9:ARG:NH1	1.99	0.93
11:DO:79:ARG:O	11:DO:111:ARG:N	2.01	0.93
2:AB:43:C:OP1	6:AG:67:LYS:NZ	2.00	0.93
49:CV:11:VAL:HG22	49:CV:12:ASP:H	1.34	0.93
30:D8:50:LEU:N	30:D8:50:LEU:CD2	2.31	0.93
26:A4:40:HIS:N	26:A4:41:PRO:CD	2.30	0.93
24:AW:4:SER:HB2	24:AW:5:GLU:OE2	1.68	0.93
31:BA:382:A:H2'	31:BA:383:A:C8	2.02	0.93
31:BA:484:G:O2'	31:BA:485:G:OP2	1.86	0.93
52:BD:61:G:H1	52:BD:71:C:H42	1.11	0.93
42:CO:83:VAL:HG12	42:CO:84:LEU:H	1.33	0.93
1:DA:2107:C:H42	1:DA:2182:G:H1	1.07	0.93
1:DA:389:G:H1	11:DO:71:VAL:HG12	1.32	0.93
11:DO:38:GLN:OE1	11:DO:45:LEU:CD1	2.16	0.93
35:CH:101:ILE:HD11	35:CH:119:LEU:HD23	1.49	0.93
1:DA:1043:C:N3	1:DA:1112:G:N2	2.17	0.93
1:DA:2123:G:H1	1:DA:2175:C:H42	0.99	0.93
1:DA:1012:U:O4	9:DM:25:ARG:HA	1.66	0.93
14:DQ:88:ASP:O	14:DQ:89:ARG:HB3	1.66	0.93
3:AD:30:GLU:HG3	3:AD:63:ARG:HH21	1.31	0.93
1:DA:2378:A:H4'	14:DQ:23:ARG:HH11	1.31	0.93
1:AA:154:G:H2'	1:AA:155:C:H5"	1.51	0.93
3:AD:35:LYS:HG2	3:AD:64:ILE:N	1.84	0.93
11:AO:62:LEU:O	11:AO:62:LEU:HG	1.67	0.93
41:BN:79:SER:HB2	41:BN:106:LYS:HD2	1.50	0.93
49:CV:20:LEU:O	49:CV:23:ASN:ND2	2.01	0.93
4:DE:179:GLU:HB3	4:DE:181:LEU:HD22	1.51	0.93
9:DM:128:HIS:HB2	9:DM:129:PRO:HD2	1.49	0.93
1:AA:1056:G:N2	1:AA:1103:A:H62	1.66	0.93
4:AE:111:ARG:HG3	4:AE:160:TYR:CD1	2.04	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:68:ALA:O	4:AE:70:ALA:N	2.01	0.93
31:BA:1007:C:H2'	31:BA:1008:C:H5"	1.49	0.93
31:BA:1271:G:H2'	31:BA:1272:G:H5"	1.51	0.93
1:AA:1899:G:N2	1:AA:1902:C:C5	2.37	0.93
16:D1:28:ARG:NH1	16:D1:28:ARG:HG2	1.84	0.93
31:CA:1026:G:N7	31:CA:1036:G:N2	2.17	0.93
31:CA:652:U:O2'	31:CA:653:A:H5"	1.68	0.93
8:DK:131:LYS:HB3	8:DK:132:PRO:HA	1.49	0.93
1:AA:1055:G:N2	1:AA:1104:C:N3	2.14	0.92
1:AA:2135:A:O2'	1:AA:2136:C:OP1	1.86	0.92
11:DO:62:LEU:CD2	11:DO:62:LEU:N	2.30	0.92
1:AA:1965:C:O2	56:AA:3509:OHX:N3	2.02	0.92
3:AD:35:LYS:NZ	3:AD:104:TYR:HB2	1.84	0.92
31:CA:1347:G:C8	39:CL:107:ARG:HB3	2.04	0.92
37:CJ:32:ARG:O	37:CJ:34:GLY:N	2.02	0.92
1:DA:1342:A:C6	1:DA:1397:U:C5	2.57	0.92
12:DP:19:GLY:H	12:DP:98:LYS:HZ3	1.07	0.92
1:AA:2334:G:O6	22:A3:74:ARG:NH2	2.01	0.92
29:A7:8:ASN:HD21	29:A7:11:LYS:H	0.99	0.92
30:A8:48:PHE:CE2	30:A8:50:LEU:HD13	2.04	0.92
1:AA:947:G:O6	56:AA:3547:OHX:N5	2.03	0.92
1:AA:805:G:C4'	11:AO:38:GLN:NE2	2.32	0.92
2:DB:43:C:OP1	26:D4:6:HIS:HE1	1.51	0.92
11:AO:50:ARG:HB2	11:AO:50:ARG:HH21	1.34	0.92
50:CW:8:ARG:HH11	50:CW:8:ARG:HG3	1.32	0.92
3:DD:69:ARG:NH2	3:DD:128:GLY:O	2.03	0.92
52:BB:59:A:H61	52:BB:73:U:H3	1.17	0.92
47:BT:6:LEU:HD23	47:BT:23:VAL:HG11	1.50	0.92
53:CC:16:C:O2'	53:CC:62:C:OP1	1.87	0.92
32:CE:16:HIS:HE2	32:CE:209:ARG:HG2	1.34	0.92
11:DO:62:LEU:HG	30:D8:25:MET:HB2	1.51	0.92
11:AO:15:ARG:NH1	11:AO:15:ARG:HG2	1.77	0.92
42:CO:27:LEU:HD21	42:CO:60:LEU:HG	1.52	0.92
19:DT:28:PHE:HD1	19:DT:28:PHE:N	1.68	0.92
30:A8:34:TRP:CG	30:A8:35:GLN:HB2	2.04	0.92
1:AA:2068:U:N3	1:AA:2430:A:H2	1.68	0.92
1:AA:780:G:N2	1:AA:783:A:H62	1.67	0.92
1:AA:805:G:C5'	11:AO:38:GLN:HE22	1.82	0.92
6:DG:47:LYS:HD3	6:DG:81:LYS:HG3	1.52	0.92
1:DA:2404:C:H1'	11:DO:67:MET:CE	2.00	0.92
15:DR:8:LYS:NZ	15:DR:8:LYS:HB2	1.82	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:580:U:OP2	56:CA:1723:OHX:N5	2.02	0.92
2:DB:39:A:C6	26:D4:1:MET:HB3	2.03	0.92
1:AA:1077:A:H3'	1:AA:1078:U:C5'	2.00	0.92
1:AA:2210:G:H3'	1:AA:2211:G:H8	1.17	0.92
1:AA:2138:C:H42	1:AA:2153:G:H1	1.08	0.92
33:CF:21:ARG:NH1	33:CF:21:ARG:HB3	1.84	0.92
1:DA:2357:U:OP1	22:D3:20:ARG:NH1	2.03	0.92
1:DA:304:G:H2'	1:DA:305:U:H6	1.34	0.92
41:CN:54:ARG:HH11	41:CN:54:ARG:CG	1.82	0.91
11:DO:15:ARG:NH1	11:DO:15:ARG:HG2	1.76	0.91
19:DT:28:PHE:CD1	19:DT:28:PHE:N	2.30	0.91
23:DZ:87:PRO:O	23:DZ:89:GLU:N	2.03	0.91
1:AA:851:U:OP1	25:AX:49:LYS:NZ	2.02	0.91
3:AD:17:THR:HG22	3:AD:205:VAL:H	1.33	0.91
3:AD:35:LYS:HZ1	3:AD:65:ILE:HA	1.36	0.91
17:D2:87:HIS:HE1	17:D2:89:GLN:HB2	1.30	0.91
1:AA:2015:A:HO2'	27:A5:3:LYS:NZ	1.57	0.91
47:CT:63:ARG:HG2	47:CT:64:PRO:HD2	1.52	0.91
5:DF:69:HIS:H	5:DF:69:HIS:CD2	1.87	0.91
19:DT:28:PHE:CZ	19:DT:81:VAL:CG2	2.53	0.91
33:BF:58:GLU:HB2	33:BF:65:ALA:HB3	1.52	0.91
11:AO:101:VAL:HG23	11:AO:106:LEU:HB3	1.51	0.91
48:CU:22:VAL:O	48:CU:23:LYS:HB3	1.70	0.91
1:DA:155:C:N4	1:DA:171:G:N1	2.03	0.91
1:DA:2425:A:H5'	1:DA:2427:C:O4'	1.71	0.91
1:DA:2468:G:O6	1:DA:2481:G:C6	2.24	0.91
10:DN:68:GLU:HB3	10:DN:78:ARG:NH1	1.84	0.91
20:DU:4:LYS:HE3	20:DU:4:LYS:HA	1.51	0.91
1:AA:1533:C:H3'	1:AA:1534:G:C5'	2.01	0.91
1:AA:780:G:H21	1:AA:783:A:N6	1.67	0.91
31:BA:1065:U:O2'	31:BA:1066:C:OP2	1.88	0.91
33:CF:113:ALA:HB3	33:CF:114:PRO:HD3	1.52	0.91
29:D7:8:ASN:HD22	29:D7:11:LYS:H	1.15	0.91
1:DA:1606:G:H5"	1:DA:1607:C:OP1	1.70	0.91
1:DA:2645:G:H3'	1:DA:2646:C:H5'	1.53	0.91
10:DN:35:VAL:HG11	10:DN:103:ALA:HB3	1.53	0.91
30:A8:34:TRP:CE3	30:A8:35:GLN:CD	2.44	0.91
1:AA:2270:G:OP2	56:AA:3374:OHX:N4	2.04	0.91
31:CA:1106:G:H5"	33:CF:172:ARG:HG2	1.50	0.91
1:AA:1689:A:H62	1:AA:1698:A:H2	1.12	0.91
1:AA:76:C:O2'	24:AW:62:THR:HG21	1.70	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:22:LYS:HD2	34:CG:26:CYS:SG	2.11	0.91
1:DA:593:G:H1'	30:D8:4:MET:HE1	1.50	0.91
1:DA:1627:G:OP2	56:DA:3384:OHX:N5	2.04	0.91
6:AG:21:ARG:NH1	6:AG:21:ARG:HG2	1.78	0.91
31:BA:1348:U:H3	31:BA:1374:A:H2	1.19	0.91
5:DF:83:PHE:O	5:DF:84:VAL:HB	1.69	0.91
1:AA:2391:G:P	30:A8:32:LEU:CD1	2.59	0.91
5:AF:65:TRP:CZ3	5:AF:72:ARG:HB3	2.06	0.91
31:BA:1226:C:O2'	43:BP:111:LYS:NZ	2.03	0.91
1:DA:1899:G:N2	1:DA:1902:C:C5	2.34	0.91
1:DA:2136:C:N3	1:DA:2155:G:N2	2.19	0.91
1:DA:67:U:H3	1:DA:74:A:H2	1.19	0.91
3:DD:176:ARG:HH11	3:DD:176:ARG:HG2	1.34	0.91
12:DP:56:ARG:HB2	12:DP:56:ARG:HH11	1.31	0.91
44:BQ:59:ALA:O	44:BQ:60:SER:HB2	1.68	0.90
1:DA:90:U:C2'	1:DA:91:A:H5"	1.98	0.90
3:DD:255:LYS:N	3:DD:255:LYS:HE3	1.85	0.90
5:AF:101:LEU:HD13	5:AF:102:PRO:HD2	1.53	0.90
11:AO:105:LEU:O	11:AO:106:LEU:HB2	1.68	0.90
14:AQ:30:ARG:HG2	14:AQ:30:ARG:HH11	1.35	0.90
52:BB:62:G:H2'	52:BB:63:U:H5'	1.53	0.90
53:BC:1:C:N4	53:BC:74:A:H2	1.69	0.90
29:D7:8:ASN:ND2	29:D7:11:LYS:H	1.69	0.90
11:DO:38:GLN:OE1	11:DO:45:LEU:HD12	1.71	0.90
3:AD:30:GLU:HG3	3:AD:63:ARG:NH2	1.86	0.90
34:BG:172:PRO:O	34:BG:174:LEU:N	2.04	0.90
40:BM:61:GLU:OE2	44:BQ:45:ARG:NH1	2.04	0.90
30:D8:34:TRP:CG	30:D8:35:GLN:N	2.32	0.90
1:DA:676:A:H8	1:DA:2069:G:H21	0.91	0.90
3:DD:26:LYS:H	3:DD:26:LYS:HD2	1.33	0.90
9:DM:33:LEU:HD12	9:DM:38:HIS:HD2	1.35	0.90
1:AA:1364:G:N7	23:AZ:2:SER:HB3	1.87	0.90
21:AV:27:VAL:HG12	21:AV:87:ASP:HB3	1.50	0.90
52:BD:17:G:H1'	52:BD:18:G:OP1	1.71	0.90
40:BM:9:ARG:HH21	40:BM:97:GLU:HG3	1.36	0.90
40:CM:9:ARG:HH21	40:CM:95:GLU:HG2	1.32	0.90
1:DA:848:G:H2'	1:DA:849:A:C8	2.05	0.90
10:DN:47:ILE:HG13	10:DN:48:PRO:HD2	1.52	0.90
30:A8:34:TRP:CA	30:A8:35:GLN:CB	2.46	0.90
35:BH:144:THR:OG1	35:BH:147:ASP:OD2	1.88	0.90
31:CA:1321:C:H3'	31:CA:1322:C:H5"	1.51	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:909:A:OP1	42:CO:21:LYS:HD3	1.70	0.90
16:D1:50:ARG:HH12	17:D2:72:VAL:CB	1.82	0.90
16:D1:98:LEU:C	16:D1:100:VAL:H	1.74	0.90
17:D2:62:LEU:HD22	17:D2:95:LEU:HB2	1.54	0.90
1:DA:1153:C:H2'	1:DA:1154:G:O4'	1.70	0.90
1:AA:968:G:O6	56:AA:3547:OHX:N1	2.04	0.90
31:BA:1256:A:HO2'	31:BA:1257:U:P	1.93	0.90
35:BH:11:ILE:HD11	35:BH:31:LEU:HD13	1.51	0.90
42:CO:47:LYS:HB3	42:CO:48:PRO:HD2	1.53	0.90
16:D1:50:ARG:HH22	17:D2:72:VAL:CG2	1.83	0.90
3:DD:35:LYS:NZ	3:DD:64:ILE:O	2.04	0.90
9:DM:10:GLU:HG3	9:DM:11:PRO:HD2	1.54	0.90
9:DM:17:ASP:HA	9:DM:55:VAL:HG21	0.91	0.90
20:DU:81:LYS:HG2	20:DU:97:ARG:CZ	2.01	0.90
1:AA:2308:G:N1	1:AA:2311:A:C2	2.37	0.90
4:AE:61:ARG:HB2	4:AE:62:PRO:HD3	1.51	0.90
8:AK:67:ARG:HH21	8:AK:68:LEU:HB2	1.34	0.90
27:D5:3:LYS:HA	27:D5:3:LYS:HE2	1.50	0.90
1:DA:34:C:O2'	1:DA:35:G:OP2	1.90	0.90
1:AA:140:A:H8	1:AA:1408:C:O2'	1.54	0.90
1:DA:2150:U:H2'	1:DA:2151:G:C8	2.06	0.90
11:DO:61:ARG:CB	11:DO:61:ARG:NH2	2.34	0.90
20:DU:50:ARG:HB3	20:DU:53:PRO:HG3	1.53	0.90
31:BA:419:C:H42	31:BA:424:G:H1	1.19	0.90
31:CA:468:A:H2'	31:CA:474:G:H5'	1.51	0.90
39:CL:53:VAL:O	39:CL:55:ALA:N	2.05	0.90
1:DA:2748:A:N7	1:DA:2754:U:O4	2.05	0.90
4:DE:101:ARG:HD2	4:DE:169:ASN:ND2	1.87	0.90
1:AA:873:G:H1	1:AA:904:C:N4	1.68	0.90
14:AQ:66:ALA:HA	14:AQ:69:VAL:HG12	1.54	0.90
1:AA:494:G:H21	18:AS:57:ASN:HD21	1.18	0.90
21:AV:72:ARG:NH2	21:AV:97:GLU:O	2.04	0.90
31:CA:412:A:O2'	31:CA:413:G:OP2	1.88	0.90
40:CM:40:LEU:HG	40:CM:41:PRO:HD2	1.53	0.90
1:DA:885:C:C4	1:DA:890:A:C6	2.58	0.90
1:AA:1022:G:H22	1:AA:1142(A):A:H2	1.20	0.89
1:AA:2304:G:H22	1:AA:2312:U:H3	1.20	0.89
1:AA:507:A:H5"	1:AA:508:G:H5'	1.54	0.89
31:CA:1352:C:N4	31:CA:1370:G:H1	1.70	0.89
1:DA:2468:G:H3'	1:DA:2476:A:N1	1.85	0.89
9:DM:17:ASP:HA	9:DM:55:VAL:HG22	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:78:G:H1	31:BA:91:C:H42	1.16	0.89
31:CA:1298:C:H5	37:CJ:114:ARG:HD2	1.36	0.89
42:CO:59:ARG:HH11	42:CO:63:GLY:HA2	1.33	0.89
1:DA:140:A:H8	1:DA:1408:C:HO2'	0.90	0.89
9:DM:15:LEU:HD11	9:DM:55:VAL:HG13	1.04	0.89
11:AO:62:LEU:HD12	30:A8:30:ARG:NH1	1.88	0.89
1:AA:1582:C:O2'	1:AA:1586:A:H8	1.54	0.89
1:AA:1945:G:OP1	56:AA:3555:OHX:N2	2.06	0.89
12:DP:27:VAL:HG13	12:DP:105:GLU:OE2	1.72	0.89
1:DA:2469:A:O2'	12:DP:56:ARG:HG2	1.72	0.89
1:AA:2420:C:P	30:A8:33:ASN:O	2.31	0.89
15:AR:77:PRO:HG2	15:AR:80:SER:HB2	1.54	0.89
52:BD:47:U:H2'	52:BD:48:C:C6	2.07	0.89
16:D1:92:ARG:HD3	16:D1:94:ASN:HB3	1.52	0.89
4:DE:66:HIS:C	4:DE:68:ALA:H	1.76	0.89
1:AA:2438:U:O3'	1:AA:2439:A:H3'	1.72	0.89
52:CD:47:U:H2'	52:CD:48:C:C6	2.08	0.89
40:CM:54:PHE:CD2	40:CM:55:LYS:HD3	2.08	0.89
14:DQ:17:ARG:HH11	14:DQ:17:ARG:CG	1.86	0.89
24:DW:46:GLN:H	24:DW:49:LYS:HZ2	1.14	0.89
31:CA:1374:A:H2'	31:CA:1375:A:H5'	1.55	0.89
31:CA:182:U:H5	31:CA:183:G:H1'	1.36	0.89
12:AP:75:THR:HB	12:AP:88:GLY:CA	2.02	0.89
1:DA:9:U:N3	1:DA:2629:A:N6	2.21	0.89
14:DQ:10:ARG:HH21	14:DQ:91:PRO:HB2	1.36	0.89
1:AA:2875:C:H4'	15:AR:5:ALA:HB2	1.51	0.89
24:AW:42:GLY:O	24:AW:44:LEU:N	2.05	0.89
1:AA:1364:G:OP2	23:AZ:2:SER:OG	1.89	0.89
52:BB:23:A:H2'	52:BB:24:G:H5"	1.53	0.89
32:CE:79:ASP:O	32:CE:82:ARG:N	2.05	0.89
48:CU:56:THR:HB	48:CU:58:LEU:HD11	1.51	0.89
4:AE:26:ILE:HD11	4:AE:198:VAL:HG21	1.54	0.89
8:AK:7:GLU:HA	8:AK:15:VAL:HG22	1.54	0.89
19:AT:67:GLY:O	19:AT:69:TYR:N	2.05	0.89
31:CA:1129:C:N4	31:CA:1142:G:O6	2.06	0.89
31:CA:987:G:H1	31:CA:1218:C:H42	1.21	0.89
32:CE:50:GLU:O	32:CE:54:THR:OG1	1.88	0.89
11:DO:61:ARG:HH21	11:DO:61:ARG:HG2	1.37	0.89
1:AA:860:U:C5	1:AA:917:A:H2	1.91	0.89
15:AR:50:ILE:HD11	15:AR:102:ILE:HD11	1.54	0.89
31:BA:789:U:C5	31:BA:792:A:OP2	2.26	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:87:A:H2'	31:BA:88:C:H6	1.38	0.89
1:DA:517:C:OP1	27:D5:16:ARG:NH2	2.06	0.89
3:AD:125:ILE:HD11	3:AD:131:LEU:HD21	1.53	0.88
31:BA:142:G:H1	31:BA:221:C:H42	1.20	0.88
52:BD:11:C:H3'	52:BD:12:C:C5'	2.03	0.88
45:CR:16:ALA:HB1	45:CR:21:ASP:HB3	1.55	0.88
46:CS:8:ARG:CG	46:CS:8:ARG:HH11	1.86	0.88
1:DA:2392:A:H2	1:DA:2424:C:H42	1.20	0.88
15:DR:64:ARG:HB2	15:DR:73:GLU:HG2	1.53	0.88
30:A8:52:LYS:O	30:A8:52:LYS:HG3	1.73	0.88
20:AU:52:SER:HB2	20:AU:53:PRO:HD3	1.54	0.88
31:BA:411:A:N7	31:BA:413:G:N3	2.21	0.88
3:DD:43:ARG:NH1	3:DD:44:ASN:HD21	1.68	0.88
5:DF:24:LEU:HB3	5:DF:25:PRO:CD	2.03	0.88
6:DG:128:ARG:HG3	6:DG:128:ARG:HH21	1.38	0.88
12:AP:79:LEU:O	12:AP:80:GLU:HB2	1.70	0.88
31:CA:1157:A:O2'	31:CA:1158:C:O5'	1.90	0.88
31:CA:1325:C:H4'	51:CX:17:THR:HG21	1.54	0.88
49:CV:28:LYS:HD3	49:CV:29:ARG:H	1.34	0.88
1:DA:2275:C:O2'	12:DP:84:GLY:HA2	1.70	0.88
1:DA:1088:A:H4'	1:DA:1089:G:C8	2.09	0.88
19:DT:8:ILE:HD12	19:DT:8:ILE:H	1.36	0.88
3:AD:35:LYS:CD	3:AD:104:TYR:CD1	2.56	0.88
52:BB:48:C:H42	52:BB:52:G:H1	1.20	0.88
31:CA:382:A:H2'	31:CA:383:A:C8	2.07	0.88
42:CO:70:ILE:HD13	42:CO:77:LEU:HD12	1.53	0.88
1:AA:507:A:C5'	1:AA:508:G:H5'	2.04	0.88
20:AU:56:PRO:O	20:AU:58:GLY:N	2.07	0.88
31:BA:1023:G:H3'	31:BA:1024:G:H5"	1.55	0.88
40:BM:48:THR:HG23	40:BM:62:HIS:ND1	1.88	0.88
31:CA:979:C:C5	31:CA:980:C:C6	2.62	0.88
17:D2:73:SER:HB2	17:D2:83:ARG:O	1.73	0.88
30:D8:49:VAL:C	30:D8:50:LEU:HD22	1.94	0.88
1:DA:884:C:H42	1:DA:892:G:H1	0.94	0.88
1:AA:1359:A:N6	1:AA:1372:U:O2	2.07	0.88
1:AA:1900:A:H5'	1:AA:1900:A:C8	2.08	0.88
6:AG:37:VAL:O	6:AG:94:LEU:HD23	1.74	0.88
21:AV:72:ARG:HG3	21:AV:72:ARG:NH1	1.82	0.88
32:BE:88:ALA:HB2	32:BE:219:VAL:HG13	1.52	0.88
40:BM:34:VAL:HG22	40:BM:74:ILE:HG22	1.56	0.88
31:CA:359:U:H2'	31:CA:360:A:C8	2.08	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:6:G:O2'	52:CB:7:G:OP1	1.91	0.88
21:DV:11:GLU:HG3	21:DV:12:GLY:N	1.88	0.88
1:AA:547:A:H2'	1:AA:548:A:C8	2.07	0.88
12:AP:51:ARG:HH12	12:AP:55:VAL:HG11	1.38	0.88
31:BA:1128:C:H2'	31:BA:1139:G:O6	1.73	0.88
36:BI:28:ARG:O	36:BI:32:ASN:ND2	2.06	0.88
16:D1:92:ARG:HG2	17:D2:11:GLN:NE2	1.89	0.88
6:DG:129:GLY:O	6:DG:130:ASN:ND2	2.07	0.88
19:DT:26:TYR:O	19:DT:28:PHE:CE1	2.27	0.88
1:AA:315:G:H2'	1:AA:316:C:H6	1.37	0.88
3:AD:35:LYS:HD3	3:AD:63:ARG:CB	2.04	0.88
1:AA:2444:G:OP2	5:AF:68:LYS:HE2	1.74	0.88
31:CA:1392:G:H21	31:CA:1502:A:H8	1.17	0.88
42:CO:83:VAL:HG11	42:CO:100:ILE:HD12	1.56	0.88
16:D1:25:TRP:C	16:D1:25:TRP:CD1	2.47	0.88
1:DA:1470:G:OP2	56:DA:3343:OHX:N5	2.07	0.88
15:DR:51:ARG:HG2	15:DR:98:LYS:HD2	1.53	0.88
17:A2:39:LEU:O	17:A2:40:LEU:HD23	1.74	0.88
1:AA:2404:C:O3'	11:AO:77:ARG:NH2	2.07	0.88
5:AF:46:ARG:HG2	5:AF:46:ARG:HH11	1.38	0.88
1:AA:2394:C:OP1	11:AO:63:PRO:HD2	1.73	0.88
31:CA:1190:G:O6	56:CA:1762:OHX:N3	2.07	0.88
34:CG:8:VAL:O	34:CG:10:ARG:N	2.06	0.88
1:DA:1478:G:N7	56:DA:3415:OHX:N3	2.22	0.88
2:DB:7:G:H4'	14:DQ:29:PHE:CD1	2.09	0.88
3:DD:206:LEU:HD22	3:DD:211:ARG:HG2	1.55	0.88
9:DM:56:ASN:HA	9:DM:125:GLY:H	1.36	0.88
14:DQ:11:LYS:HG3	14:DQ:91:PRO:HD3	1.53	0.88
21:DV:27:VAL:HG12	21:DV:87:ASP:HB3	1.53	0.88
25:DX:19:GLN:NE2	25:DX:52:HIS:HE1	1.72	0.88
7:AH:10:PRO:O	7:AH:11:VAL:HG13	1.74	0.87
34:BG:153:ARG:NH2	34:BG:180:GLY:O	2.06	0.87
35:BH:41:VAL:HG22	35:BH:113:ALA:HB2	1.55	0.87
1:DA:774:A:H2	1:DA:787:U:HO2'	1.22	0.87
4:DE:5:LEU:HD11	4:DE:79:ARG:HB2	1.56	0.87
5:DF:132:VAL:O	5:DF:134:GLY:N	2.06	0.87
16:A1:112:ARG:HG3	16:A1:112:ARG:NH1	1.78	0.87
1:AA:607:U:H3	1:AA:621:A:H2	1.20	0.87
4:AE:20:ALA:O	4:AE:21:VAL:HG22	1.75	0.87
32:BE:100:GLY:N	32:BE:176:GLU:OE2	2.07	0.87
31:CA:81:G:N2	31:CA:88:C:N3	2.21	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:34:ARG:NH1	29:D7:39:ARG:HG3	1.88	0.87
1:DA:2468:G:H3'	1:DA:2476:A:C2	2.10	0.87
1:DA:2762:G:H3'	1:DA:2763:G:H5"	1.56	0.87
11:DO:19:VAL:HG22	11:DO:20:GLY:H	1.37	0.87
23:DZ:86:SER:N	23:DZ:87:PRO:HD2	1.87	0.87
1:AA:1509:C:H3'	1:AA:1510:A:H5"	1.54	0.87
2:AB:15:A:H5'	2:AB:16:G:C8	2.08	0.87
14:AQ:29:PHE:HD2	14:AQ:30:ARG:N	1.72	0.87
32:BE:194:PRO:O	32:BE:196:LEU:N	2.08	0.87
35:BH:78:HIS:HE1	35:BH:143:ARG:H	1.22	0.87
32:CE:72:GLY:O	32:CE:74:LYS:N	2.05	0.87
35:CH:122:GLU:HB3	35:CH:126:ARG:HG2	1.55	0.87
1:DA:1995:U:OP1	56:DA:3172:OHX:N3	2.06	0.87
11:DO:64:LYS:HB2	30:D8:25:MET:CE	1.94	0.87
1:DA:1364:G:OP2	23:DZ:2:SER:N	2.07	0.87
31:BA:210:U:HO2'	31:BA:216:G:H8	1.17	0.87
53:BC:1:C:H42	53:BC:74:A:H2	0.90	0.87
52:BD:18:G:OP1	52:BD:66:G:N2	2.08	0.87
33:BF:16:ARG:NH2	33:BF:183:ASP:OD2	2.07	0.87
43:BP:4:ILE:HG22	43:BP:5:ALA:H	1.39	0.87
27:D5:57:VAL:HG12	27:D5:58:LEU:H	1.39	0.87
1:DA:2607:G:O6	56:DA:3214:OHX:N1	2.06	0.87
1:AA:873:G:H1	1:AA:904:C:H42	0.93	0.87
31:BA:1299:A:C2'	31:BA:1301:U:H1'	2.04	0.87
38:BK:87:SER:HB2	38:BK:93:VAL:HB	1.54	0.87
1:DA:1019:U:H2'	1:DA:1020:A:H8	1.40	0.87
18:DS:64:MET:O	18:DS:65:LEU:HB2	1.75	0.87
21:DV:30:ASN:O	21:DV:32:HIS:N	2.06	0.87
24:DW:16:LEU:O	24:DW:16:LEU:HD12	1.74	0.87
31:BA:1256:A:O2'	31:BA:1257:U:O5'	1.91	0.87
1:DA:2287:A:H62	1:DA:2344:U:H3	1.18	0.87
9:DM:33:LEU:HD12	9:DM:38:HIS:CD2	2.10	0.87
19:DT:36:LYS:HG2	19:DT:54:VAL:HB	1.55	0.87
34:BG:155:LEU:HD12	34:BG:158:ILE:HD11	1.55	0.87
31:CA:1027:C:O2	31:CA:1035:A:N6	2.07	0.87
31:CA:1176:A:C2'	31:CA:1177:G:H5'	2.05	0.87
31:CA:64:G:H4'	31:CA:65:U:O5'	1.74	0.87
39:CL:3:GLN:HE21	39:CL:20:ARG:NH1	1.71	0.87
31:CA:362:G:H4'	42:CO:33:ARG:HH21	1.40	0.87
1:DA:2655:G:N2	1:DA:2665:A:OP2	2.08	0.87
4:DE:119:ARG:HG2	4:DE:160:TYR:HB2	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:17:LEU:HD21	12:AP:96:VAL:HG11	1.53	0.87
31:BA:737:A:H2'	31:BA:738:C:C6	2.09	0.87
32:BE:111:ARG:HG2	32:BE:111:ARG:HH11	1.36	0.87
34:BG:85:LYS:HG2	34:BG:86:LYS:H	1.40	0.87
40:CM:56:HIS:O	40:CM:58:ASP:N	2.06	0.87
42:CO:90:VAL:O	42:CO:92:ASP:N	2.08	0.87
13:D0:78:LYS:O	13:D0:83:ILE:HG13	1.74	0.87
16:D1:50:ARG:HH12	17:D2:72:VAL:HB	1.39	0.87
1:DA:1416:G:O2'	1:DA:1417:C:O5'	1.92	0.87
1:DA:586:A:H5'	5:DF:89:VAL:HG21	1.56	0.87
4:DE:37:ARG:HA	4:DE:42:ASP:OD2	1.73	0.87
1:AA:1197:G:N7	56:AA:3538:OHX:N2	2.22	0.87
5:AF:123:LEU:HD12	5:AF:124:LEU:H	1.37	0.87
5:AF:51:THR:HB	5:AF:88:VAL:HG21	1.55	0.87
23:AZ:65:SER:HB2	23:AZ:66:HIS:HD2	1.40	0.87
33:BF:162:GLN:HG2	54:B1:24:A:H1'	1.54	0.87
31:BA:652:U:O4	31:BA:752:G:O2'	1.91	0.87
31:BA:991:U:O2'	31:BA:992:U:H5'	1.75	0.87
34:BG:126:ILE:HD13	34:BG:127:THR:H	1.39	0.87
21:DV:33:LEU:HD23	21:DV:90:VAL:HG21	1.55	0.87
1:AA:540:G:H8	1:AA:540:G:H5'	1.40	0.86
9:AM:40:PRO:O	16:A1:64:ARG:HG2	1.75	0.86
31:BA:1149:C:H2'	31:BA:1150:U:C6	2.09	0.86
31:BA:411:A:C5	31:BA:413:G:H1'	2.09	0.86
44:BQ:6:LEU:HB3	44:BQ:23:ARG:NH2	1.89	0.86
31:CA:1321:C:N4	31:CA:1322:C:H41	1.72	0.86
31:CA:1352:C:OP1	51:CX:3:LYS:NZ	2.06	0.86
38:CK:64:LYS:HG2	38:CK:79:VAL:HG21	1.57	0.86
28:D6:25:LYS:HB3	30:D8:34:TRP:CH2	2.10	0.86
5:DF:31:HIS:HB2	11:DO:9:ASN:ND2	1.90	0.86
14:AQ:32:LEU:O	14:AQ:62:LYS:NZ	2.08	0.86
32:BE:60:ASP:OD1	32:BE:64:ARG:NH2	2.07	0.86
52:CB:58:G:H1	52:CB:74:C:H42	1.22	0.86
50:CW:10:LEU:HD13	50:CW:12:ALA:H	1.38	0.86
1:DA:946:G:H2'	1:DA:947:G:H8	1.40	0.86
11:DO:9:ASN:HB3	11:DO:10:PRO:CD	2.04	0.86
31:BA:426:G:O6	56:BA:1785:OHX:N4	2.08	0.86
31:CA:81:G:H1	31:CA:88:C:H42	0.88	0.86
31:CA:1349:A:OP2	39:CL:118:LYS:NZ	2.07	0.86
42:CO:47:LYS:HB3	42:CO:48:PRO:CD	2.05	0.86
30:D8:34:TRP:CD1	30:D8:35:GLN:N	2.41	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:7:G:H4'	14:DQ:29:PHE:HD1	1.39	0.86
30:A8:34:TRP:N	30:A8:35:GLN:HB3	1.90	0.86
1:AA:1055:G:H1	1:AA:1104:C:H42	0.87	0.86
1:AA:1678:G:N2	1:AA:1989:G:H22	1.72	0.86
7:AH:25:LYS:HG2	7:AH:34:GLU:HG2	1.56	0.86
31:BA:280:C:H3'	31:BA:281:G:H5'	1.55	0.86
42:CO:75:HIS:HD2	42:CO:77:LEU:H	1.24	0.86
1:DA:67:U:N3	1:DA:74:A:C2	2.43	0.86
30:A8:59:LYS:HB2	30:A8:59:LYS:NZ	1.89	0.86
1:AA:1060:U:H3	1:AA:1088:A:H8	1.22	0.86
35:BH:110:LEU:HD13	35:BH:118:ILE:HD13	1.57	0.86
31:BA:1346:A:H5"	39:BL:120:ARG:NH1	1.90	0.86
49:CV:7:LYS:HG2	49:CV:8:GLY:H	1.39	0.86
30:D8:52:LYS:H	30:D8:52:LYS:HD2	1.40	0.86
1:AA:2275:C:O2'	12:AP:84:GLY:HA3	1.76	0.86
12:AP:17:LEU:CD2	12:AP:96:VAL:HG13	2.00	0.86
31:BA:1145:C:H4'	31:BA:1146:A:C8	2.10	0.86
35:CH:91:LEU:HD12	35:CH:120:THR:HG22	1.57	0.86
1:DA:2391:G:OP2	30:D8:32:LEU:CD1	2.23	0.86
1:DA:2138:C:H42	1:DA:2153:G:H1	1.21	0.86
1:DA:2468:G:H8	1:DA:2476:A:N1	1.73	0.86
1:DA:9:U:N3	1:DA:2629:A:C6	2.43	0.86
6:DG:161:THR:HG22	6:DG:163:ALA:H	1.40	0.86
1:DA:2378:A:O2'	14:DQ:21:THR:HG21	1.75	0.86
1:AA:163:U:H2'	1:AA:164:U:H5'	1.55	0.86
1:AA:2136:C:H42	1:AA:2155:G:H1	0.90	0.86
4:AE:28:ALA:HB3	4:AE:93:VAL:HG23	1.58	0.86
31:BA:991:U:O4	31:BA:1212:U:O2'	1.94	0.86
31:CA:736:C:H2'	31:CA:737:A:H8	1.40	0.86
21:DV:174:VAL:O	21:DV:175:VAL:HB	1.73	0.86
3:AD:35:LYS:HD3	3:AD:63:ARG:HB3	1.57	0.86
1:DA:1250:G:N7	11:DO:18:ARG:NH2	2.24	0.86
1:DA:859:G:O2'	1:DA:916:G:O6	1.93	0.86
5:DF:25:PRO:HB2	5:DF:27:GLU:N	1.89	0.86
28:A6:15:GLU:HA	28:A6:49:HIS:HA	1.58	0.86
1:AA:900:A:H3'	1:AA:901:A:H8	1.40	0.86
7:AH:20:ALA:HB1	7:AH:21:PRO:HD2	1.58	0.86
41:BN:99:GLN:HG2	41:BN:105:VAL:HG21	1.55	0.86
39:CL:26:VAL:HG13	39:CL:61:ALA:HB3	1.56	0.86
42:CO:24:VAL:O	42:CO:26:ALA:N	2.06	0.86
32:BE:165:VAL:HG23	32:BE:166:ASP:H	1.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BX:2:GLY:O	51:BX:4:GLY:N	2.09	0.86
31:CA:345:C:O2'	31:CA:346:G:O5'	1.93	0.86
19:DT:28:PHE:CE1	19:DT:81:VAL:HG22	2.11	0.86
21:DV:115:GLY:N	21:DV:177:PRO:HG2	1.89	0.86
1:AA:1899:G:H22	1:AA:1902:C:N4	1.74	0.85
1:AA:2645:G:H3'	1:AA:2646:C:H5'	1.58	0.85
31:CA:1160:G:N1	31:CA:1177:G:N2	2.24	0.85
52:CD:22:A:N7	52:CD:57:C:N4	2.24	0.85
34:CG:29:PRO:HD2	34:CG:30:LYS:HE2	1.56	0.85
39:CL:97:LYS:HB2	39:CL:102:LEU:HD12	1.58	0.85
1:DA:2123:G:H1	1:DA:2175:C:N4	1.73	0.85
1:DA:530:G:O2'	1:DA:532:A:C8	2.27	0.85
1:AA:2749:A:OP1	7:AH:4:ILE:HG22	1.76	0.85
53:BC:48:U:O2'	53:BC:49:C:OP2	1.92	0.85
12:DP:56:ARG:HB2	12:DP:56:ARG:NH1	1.91	0.85
27:A5:4:HIS:CB	27:A5:5:PRO:CD	2.33	0.85
38:BK:34:GLU:HB3	38:BK:118:VAL:HG21	1.57	0.85
31:CA:1322:C:H2'	31:CA:1322:C:O2	1.75	0.85
32:CE:83:MET:O	32:CE:85:ALA:N	2.10	0.85
1:DA:1899:G:H22	1:DA:1902:C:N4	1.74	0.85
1:DA:38:A:H2'	1:DA:39:C:C6	2.10	0.85
2:DB:15:A:H5"	2:DB:16:G:H8	1.41	0.85
3:AD:34:VAL:HG21	3:AD:103:ARG:HA	1.59	0.85
31:BA:1240:U:OP2	37:BJ:116:ALA:N	2.09	0.85
31:BA:611:A:H61	31:BA:629:G:H1	1.21	0.85
42:BO:71:PRO:O	42:BO:102:ARG:HD3	1.75	0.85
32:CE:77:ALA:HB2	32:CE:211:ILE:HD13	1.59	0.85
4:DE:8:LYS:HB3	4:DE:193:GLY:H	1.40	0.85
11:DO:79:ARG:HB3	11:DO:110:TYR:HD1	1.38	0.85
26:A4:63:TYR:HE2	49:BV:42:PRO:HD3	1.40	0.85
1:AA:1416:G:HO2'	1:AA:1417:C:H6	0.85	0.85
1:AA:2439:A:C8	1:AA:2439:A:H5'	2.11	0.85
31:BA:542:G:OP1	34:BG:10:ARG:NH2	2.10	0.85
35:BH:75:THR:OG1	35:BH:76:ILE:N	2.05	0.85
43:BP:26:GLY:O	43:BP:28:ALA:N	2.09	0.85
31:CA:328:C:O2'	31:CA:329:A:OP2	1.92	0.85
34:CG:31:CYS:HB3	34:CG:33:MET:HB2	1.59	0.85
13:D0:24:GLN:HB3	13:D0:44:LEU:HD11	1.57	0.85
12:DP:24:GLY:CA	12:DP:25:ASP:HB2	1.97	0.85
30:A8:16:ILE:HD11	30:A8:57:ARG:HG2	1.57	0.85
1:AA:370:G:H4'	1:AA:371:A:OP2	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:539:A:OP2	42:CO:115:LYS:NZ	2.09	0.85
1:DA:2872:G:C5	1:DA:2873:A:N1	2.44	0.85
1:DA:2275:C:HO2'	12:DP:84:GLY:CA	1.84	0.85
26:A4:36:CYS:O	26:A4:41:PRO:HG2	1.76	0.85
49:CV:78:ARG:HD3	49:CV:78:ARG:H	1.42	0.85
1:DA:1171:G:N2	1:DA:1178:C:N3	2.24	0.85
1:DA:2212:A:H1'	1:DA:2215:G:C5	2.12	0.85
9:DM:56:ASN:HB3	9:DM:125:GLY:C	1.95	0.85
11:DO:65:ARG:CG	11:DO:65:ARG:HH11	1.86	0.85
19:DT:63:LYS:H	19:DT:63:LYS:NZ	1.74	0.85
1:AA:1587:A:H2'	1:AA:1588:C:H6	1.42	0.85
1:AA:2307:G:C8	1:AA:2311:A:C2	2.64	0.85
1:AA:2701:C:C3'	1:AA:2702:U:H5"	2.06	0.85
1:AA:315:G:H2'	1:AA:316:C:C6	2.12	0.85
1:AA:1022:G:O6	9:AM:66:LYS:NZ	2.08	0.85
19:AT:36:LYS:HA	19:AT:39:ILE:HD12	1.58	0.85
21:AV:53:ILE:HG22	21:AV:71:VAL:HG22	1.56	0.85
33:BF:50:ALA:HB1	33:BF:70:VAL:HG11	1.56	0.85
31:CA:1318:A:O2'	49:CV:37:ARG:HB3	1.76	0.85
11:DO:71:VAL:HG12	11:DO:72:PRO:HD3	0.86	0.85
1:AA:1055:G:N1	1:AA:1104:C:N4	2.23	0.85
1:AA:890:A:H8	1:AA:892:G:C8	1.94	0.85
2:AB:72:G:H5"	2:AB:73:A:OP1	1.77	0.85
5:AF:67:GLN:CG	5:AF:67:GLN:O	2.25	0.85
6:AG:21:ARG:HH11	6:AG:21:ARG:CG	1.87	0.85
31:CA:1321:C:N4	31:CA:1322:C:N4	2.23	0.85
31:CA:667:G:OP2	56:CA:1757:OHX:N6	2.10	0.85
30:D8:33:ASN:O	30:D8:34:TRP:CD1	2.30	0.85
1:AA:1109:C:HO2'	1:AA:1110:G:C4'	1.88	0.85
1:AA:1510:A:H2'	1:AA:1510:A:N3	1.91	0.85
49:BV:36:ARG:NH1	49:BV:52:TYR:O	2.09	0.85
50:BW:43:LEU:HD13	50:BW:51:GLU:HB3	1.58	0.85
5:DF:178:PRO:HG2	5:DF:179:GLU:OE1	1.75	0.85
23:DZ:23:LYS:HD3	23:DZ:28:GLY:HA3	1.57	0.85
1:AA:1606:G:H5"	1:AA:1607:C:OP1	1.76	0.84
1:AA:2343:C:O2'	1:AA:2373:G:O2'	1.92	0.84
11:AO:50:ARG:CB	11:AO:50:ARG:HH21	1.90	0.84
31:BA:1006:C:H42	31:BA:1023:G:H1	1.21	0.84
49:BV:65:ASN:HD22	49:BV:65:ASN:H	1.25	0.84
31:CA:243:A:H4'	31:CA:244:U:O5'	1.77	0.84
45:CR:87:ILE:HG22	45:CR:88:ARG:N	1.92	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:598:G:C1'	11:DO:12:ALA:HB2	2.06	0.84
1:DA:2786:U:H4'	4:DE:65:GLY:N	1.92	0.84
7:DH:125:VAL:HG23	7:DH:126:PRO:HB3	1.59	0.84
31:CA:1443:G:O2'	15:DR:122:ASP:OD2	1.95	0.84
24:DW:4:SER:OG	24:DW:5:GLU:OE2	1.94	0.84
1:AA:1021:A:OP2	9:AM:65:LYS:NZ	2.10	0.84
3:AD:148:GLU:HB2	3:AD:151:LYS:HD2	1.58	0.84
12:AP:7:MET:HE1	12:AP:73:PRO:HG3	1.57	0.84
12:AP:75:THR:HG22	12:AP:90:VAL:N	1.91	0.84
12:AP:92:GLY:O	12:AP:93:TYR:CD1	2.30	0.84
52:BD:17:G:O2'	52:BD:66:G:N2	2.09	0.84
34:BG:207:TYR:C	34:BG:209:ARG:H	1.79	0.84
31:BA:254:G:O3'	47:BT:69:LYS:NZ	2.09	0.84
32:CE:7:VAL:HG22	32:CE:8:LYS:H	1.39	0.84
16:D1:44:ASN:OD1	17:D2:74:LYS:HA	1.77	0.84
1:DA:2469:A:N7	1:DA:2482:G:C4	2.43	0.84
1:DA:5:A:H61	1:DA:2898:U:H3	1.24	0.84
17:A2:89:GLN:HE21	17:A2:89:GLN:HA	1.40	0.84
31:BA:1271:G:C2'	31:BA:1272:G:H5"	2.07	0.84
21:AV:134:PRO:O	21:AV:136:PHE:N	2.11	0.84
31:BA:1028:C:H42	31:BA:1033:G:H1	0.88	0.84
31:BA:168:G:N7	56:BA:1812:OHX:N3	2.25	0.84
52:CD:21:A:N6	52:CD:55:U:O4	2.09	0.84
28:D6:29:ASN:HA	28:D6:32:ASN:HD22	1.41	0.84
1:DA:2168:G:N2	1:DA:2170:A:OP2	2.10	0.84
3:DD:60:ARG:HD3	3:DD:86:PRO:HB2	1.58	0.84
20:DU:88:LYS:O	20:DU:89:PHE:CD2	2.30	0.84
31:BA:201:C:N4	31:BA:216:G:H1	1.75	0.84
31:BA:422:C:O2'	31:BA:423:G:N3	2.10	0.84
34:BG:114:ARG:HG3	34:BG:114:ARG:HH11	1.43	0.84
50:BW:89:ARG:HH21	50:BW:104:LEU:HD11	1.42	0.84
31:CA:1443:G:H3'	31:CA:1446:A:C5'	2.08	0.84
33:CF:95:THR:O	33:CF:97:LYS:N	2.09	0.84
1:DA:1899:G:H22	1:DA:1902:C:H41	1.24	0.84
1:DA:2131:G:H5'	1:DA:2132:U:OP1	1.78	0.84
9:DM:35:ARG:HB2	9:DM:42:TRP:HH2	1.42	0.84
5:AF:55:GLY:O	56:AF:303:OHX:N1	2.09	0.84
52:BB:83:C:H2'	52:BB:84:C:H5'	1.60	0.84
31:CA:631:G:H3'	31:CA:632:A:C8	2.13	0.84
33:CF:14:ILE:HG12	33:CF:15:THR:H	1.42	0.84
1:DA:524:U:H2'	1:DA:525:U:H6	1.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:598:G:O4'	11:DO:12:ALA:HB2	1.76	0.84
27:A5:3:LYS:CD	27:A5:3:LYS:N	2.35	0.84
1:AA:2340:G:O2'	1:AA:2341:G:H5'	1.78	0.84
1:AA:780:G:H21	1:AA:783:A:H62	0.88	0.84
14:AQ:108:GLY:H	14:AQ:110:LEU:HD21	1.41	0.84
18:AS:9:TYR:H	18:AS:102:HIS:HD2	1.26	0.84
32:BE:204:ASN:ND2	32:BE:206:ASP:H	1.75	0.84
34:CG:178:VAL:O	34:CG:180:GLY:N	2.09	0.84
27:A5:2:ALA:N	27:A5:3:LYS:CE	2.37	0.84
11:AO:38:GLN:HE21	11:AO:38:GLN:HA	1.42	0.84
31:BA:1002:G:H2'	31:BA:1003:G:C8	2.12	0.84
31:CA:1157:A:H1'	31:CA:1158:C:N3	1.91	0.84
52:CB:42:U:H2'	52:CB:43:G:C8	2.12	0.84
28:D6:10:LEU:HD23	30:D8:34:TRP:CZ2	2.13	0.84
1:DA:2795:G:H3'	1:DA:2797:U:C5'	2.07	0.84
17:A2:44:LYS:O	17:A2:46:VAL:N	2.11	0.84
1:AA:1026:U:H4'	1:AA:1027:A:OP1	1.76	0.84
1:AA:2346:A:H4'	1:AA:2347:C:OP2	1.76	0.84
3:AD:72:LYS:HE2	3:AD:101:GLU:OE2	1.77	0.84
12:AP:17:LEU:CD2	12:AP:96:VAL:HG11	2.04	0.84
31:BA:1159:U:O4'	31:BA:1182:G:N2	2.10	0.84
31:CA:1255:G:OP1	40:CM:45:ARG:NH1	2.11	0.84
43:CP:92:HIS:CE1	43:CP:98:VAL:HG11	2.13	0.84
1:DA:71:A:OP2	1:DA:71:A:H3'	1.77	0.84
11:DO:81:GLN:OE1	11:DO:106:LEU:O	1.94	0.84
30:A8:34:TRP:HE3	30:A8:35:GLN:CG	1.79	0.84
1:AA:2790:A:C2	1:AA:2894:G:H5'	2.12	0.84
23:AZ:80:LEU:C	23:AZ:81:LYS:HE2	1.98	0.84
31:BA:1028:C:N3	31:BA:1033:G:N2	2.25	0.84
31:BA:1147:C:O2	39:BL:16:ARG:NH1	2.11	0.84
34:CG:4:TYR:HD1	34:CG:5:ILE:N	1.75	0.84
42:CO:60:LEU:O	42:CO:62:SER:N	2.11	0.84
1:DA:2681:C:H2'	1:DA:2681:C:O2	1.77	0.84
20:DU:88:LYS:O	20:DU:89:PHE:CG	2.30	0.84
21:DV:147:GLY:O	21:DV:149:SER:N	2.11	0.84
12:AP:138:ASP:N	12:AP:138:ASP:OD1	2.11	0.83
15:AR:51:ARG:HB2	15:AR:98:LYS:HD3	1.60	0.83
23:AZ:56:GLN:HA	23:AZ:56:GLN:HE21	1.43	0.83
31:BA:396:G:O2'	31:BA:398:C:OP1	1.94	0.83
52:BD:62:G:N2	52:BD:70:C:N3	2.26	0.83
34:BG:11:LEU:O	34:BG:13:ARG:N	2.10	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:150:GLU:O	34:BG:152:SER:N	2.10	0.83
31:CA:179:A:H2'	31:CA:180:U:H6	1.42	0.83
17:D2:78:LYS:O	17:D2:79:VAL:HG12	1.78	0.83
1:DA:2469:A:C8	1:DA:2482:G:C4	2.66	0.83
1:DA:90:U:H2'	1:DA:91:A:C5'	2.03	0.83
8:DK:101:LEU:H	8:DK:101:LEU:HD23	1.39	0.83
1:DA:2255:G:C2	12:DP:85:LYS:HE2	2.13	0.83
32:BE:59:GLU:O	32:BE:61:LEU:N	2.11	0.83
31:CA:1049:U:H4'	31:CA:1050:G:C5'	2.08	0.83
1:DA:153:C:H42	1:DA:173:G:H1	1.25	0.83
12:DP:110:THR:HG23	12:DP:113:GLN:HG3	1.58	0.83
26:A4:39:CYS:SG	26:A4:41:PRO:CG	2.66	0.83
1:AA:2319:G:H4'	1:AA:2320:A:OP1	1.78	0.83
6:AG:67:LYS:O	6:AG:67:LYS:HD2	1.76	0.83
12:AP:66:ILE:HG13	12:AP:67:ARG:H	1.42	0.83
31:BA:1004:A:H5"	31:BA:1025:U:C4	2.12	0.83
35:BH:91:LEU:HD12	35:BH:120:THR:HG22	1.58	0.83
1:DA:2427:C:H5"	1:DA:2428:G:OP1	1.78	0.83
1:AA:646:A:H2'	1:AA:647:G:O4'	1.79	0.83
1:AA:958:U:OP2	12:AP:14:ARG:NH1	2.10	0.83
21:AV:39:VAL:HG21	21:AV:44:PHE:HB2	1.60	0.83
31:BA:1003:G:C2'	31:BA:1004:A:H5'	2.07	0.83
31:CA:870:U:H4'	31:CA:871:U:H5'	1.61	0.83
52:CB:44:C:H2'	52:CB:45:C:O4'	1.78	0.83
33:CF:184:TYR:HD1	33:CF:201:TYR:HE2	1.27	0.83
1:DA:1992:G:O2'	1:DA:1993:U:OP2	1.96	0.83
25:DX:19:GLN:HE22	25:DX:52:HIS:CE1	1.96	0.83
1:AA:2688:U:H5	1:AA:2720:U:OP2	1.62	0.83
31:BA:453:A:H4'	46:BS:72:ARG:HB2	1.59	0.83
32:BE:235:SER:O	32:BE:237:ALA:N	2.11	0.83
17:D2:49:THR:HB	17:D2:50:PRO:CD	2.09	0.83
9:DM:15:LEU:HD11	9:DM:55:VAL:HG12	1.59	0.83
1:DA:483:A:H4'	20:DU:49:VAL:HA	1.60	0.83
1:AA:1278:A:O3'	13:A0:34:ILE:HD11	1.78	0.83
1:AA:2347:C:H4'	28:A6:39:TYR:HE2	1.43	0.83
1:AA:1332:G:N2	1:AA:1609:A:O2'	2.11	0.83
31:BA:1004:A:H2'	31:BA:1005:A:O4'	1.77	0.83
34:BG:31:CYS:C	34:BG:33:MET:H	1.80	0.83
35:CH:60:TYR:HB2	35:CH:64:ARG:HH21	1.43	0.83
43:CP:33:ALA:O	43:CP:37:THR:OG1	1.96	0.83
26:D4:22:ILE:HG12	26:D4:23:GLU:N	1.93	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:18:CYS:CB	26:A4:39:CYS:HB2	1.87	0.83
1:AA:1535:U:N3	1:AA:1536:A:H3'	1.92	0.83
1:AA:2287:A:H62	1:AA:2344:U:H3	0.85	0.83
1:AA:620:G:H4'	1:AA:621:A:C5'	2.08	0.83
31:BA:1145:C:H5"	31:BA:1146:A:OP1	1.77	0.83
31:BA:1318:A:H5"	49:BV:10:PHE:CD2	2.14	0.83
32:CE:92:TYR:CD2	32:CE:151:GLY:HA3	2.13	0.83
17:D2:62:LEU:HB3	17:D2:93:GLU:O	1.79	0.83
22:D3:43:THR:O	22:D3:45:PHE:N	2.11	0.83
1:DA:2125:G:H22	1:DA:2172:U:P	2.02	0.83
1:AA:1077:A:H3'	1:AA:1078:U:H5"	1.60	0.83
2:AB:15:A:OP1	2:AB:15:A:H4'	1.79	0.83
4:AE:132:HIS:O	4:AE:133:LYS:HB2	1.78	0.83
4:AE:48:GLN:HE22	4:AE:77:ILE:HD12	1.43	0.83
31:BA:77:C:H2'	31:BA:78:G:H5"	1.58	0.83
31:BA:93:U:H2'	31:BA:95:G:O4'	1.78	0.83
31:BA:35:G:O2'	42:BO:118:SER:O	1.96	0.83
43:BP:94:ARG:O	43:BP:96:LEU:N	2.12	0.83
34:CG:14:ARG:HG3	34:CG:14:ARG:HH11	1.44	0.83
38:CK:77:GLU:HG3	38:CK:78:GLN:N	1.91	0.83
40:CM:54:PHE:CG	40:CM:55:LYS:HD3	2.13	0.83
18:DS:51:LEU:O	18:DS:51:LEU:HD22	1.79	0.83
17:A2:59:ALA:HB2	17:A2:96:ILE:HD13	1.60	0.83
1:AA:1535:U:H3'	1:AA:1536:A:H5"	1.60	0.83
7:AH:124:GLU:HB2	7:AH:132:ARG:HG3	1.60	0.83
33:CF:23:TYR:HD2	33:CF:24:ALA:N	1.77	0.83
8:DK:124:GLY:H	8:DK:142:VAL:HG12	1.42	0.83
14:DQ:17:ARG:HG3	14:DQ:17:ARG:HH11	1.44	0.83
21:DV:141:VAL:HG21	21:DV:150:LEU:HD13	1.60	0.83
29:A7:43:THR:HG23	29:A7:44:PRO:HD2	1.59	0.83
28:A6:25:LYS:HE3	30:A8:34:TRP:HZ2	1.44	0.83
31:CA:418:C:H42	31:CA:425:G:H1	1.23	0.83
48:CU:58:LEU:H	48:CU:58:LEU:HD12	1.41	0.83
1:DA:847:U:C5	1:DA:933:A:N6	2.47	0.83
1:DA:986:C:C2'	1:DA:987:G:H5'	2.09	0.83
8:DK:109:ILE:HB	8:DK:130:TYR:OH	1.77	0.83
1:AA:559:G:H22	16:A1:49:HIS:CD2	1.97	0.82
1:AA:654(B):C:H42	1:AA:654(S):G:H1	1.27	0.82
31:BA:73:G:O6	31:BA:97:U:C2	2.31	0.82
53:BC:18:C:O2	56:BC:105:OHX:N4	2.12	0.82
52:BD:21:A:N1	52:BD:55:U:O4	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1086:U:H3	31:CA:1099:G:H22	1.25	0.82
31:CA:991:U:O2'	31:CA:992:U:O5'	1.95	0.82
34:CG:8:VAL:O	34:CG:11:LEU:N	2.10	0.82
16:D1:90:VAL:O	16:D1:92:ARG:N	2.12	0.82
1:DA:1043:C:H42	1:DA:1112:G:H1	0.88	0.82
1:DA:1054:A:H61	1:DA:1105:U:H3	0.83	0.82
7:AH:153:LYS:HG2	7:AH:162:ILE:HB	1.61	0.82
31:CA:1023:G:H3'	31:CA:1024:G:H5"	1.61	0.82
33:CF:181:ASN:HD21	33:CF:204:LEU:HB2	1.44	0.82
42:CO:75:HIS:CD2	42:CO:77:LEU:H	1.97	0.82
1:DA:1048:A:H2	1:DA:1112:G:H21	1.24	0.82
1:DA:1342:A:N1	1:DA:1397:U:C4	2.47	0.82
1:DA:1781:C:O2'	56:DA:3337:OHX:N6	2.12	0.82
1:DA:877:U:O4	1:DA:899:A:N6	2.12	0.82
7:DH:19:VAL:HG12	7:DH:20:ALA:H	1.44	0.82
1:AA:1652:A:OP1	13:A0:8:ARG:NH1	2.12	0.82
1:AA:524:U:H2'	1:AA:525:U:H6	1.43	0.82
15:AR:56:GLY:O	15:AR:59:THR:HG23	1.80	0.82
32:BE:94:ASN:H	32:BE:94:ASN:HD22	1.28	0.82
32:CE:7:VAL:HG13	32:CE:8:LYS:HD3	1.60	0.82
1:DA:1382:G:OP1	56:DA:3437:OHX:N2	2.12	0.82
17:A2:35:LEU:HB2	17:A2:37:VAL:HG22	1.60	0.82
3:AD:35:LYS:NZ	3:AD:65:ILE:HA	1.94	0.82
31:BA:38:G:C2	31:BA:397:A:C2	2.67	0.82
31:CA:526:C:OP2	42:CO:91:LYS:NZ	2.13	0.82
32:CE:233:SER:HB2	32:CE:234:PRO:HD2	1.58	0.82
43:CP:94:ARG:O	43:CP:96:LEU:N	2.12	0.82
1:DA:2415:G:H4'	11:DO:67:MET:H	1.41	0.82
3:DD:35:LYS:HE2	3:DD:104:TYR:CD1	2.14	0.82
13:A0:100:LEU:HD13	13:A0:112:ALA:HA	1.59	0.82
1:AA:2138:C:N4	1:AA:2153:G:H1	1.77	0.82
30:D8:33:ASN:HD21	30:D8:41:ILE:CG1	1.91	0.82
1:DA:155:C:N3	1:DA:171:G:C2	2.47	0.82
1:DA:330:A:H2	1:DA:1210:A:HO2'	0.88	0.82
1:DA:2313:C:H5"	6:DG:40:ASN:ND2	1.93	0.82
27:A5:6:VAL:HG22	27:A5:7:PRO:CD	2.09	0.82
30:A8:61:LEU:HD12	30:A8:61:LEU:O	1.79	0.82
9:AM:103:VAL:O	9:AM:106:MET:N	2.12	0.82
31:BA:438:G:OP1	34:BG:125:HIS:HE1	1.63	0.82
52:CB:16:C:H2'	52:CB:18:G:OP1	1.80	0.82
43:CP:92:HIS:HE1	43:CP:98:VAL:HG11	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1169:G:H2'	1:DA:1170:G:O4'	1.79	0.82
1:DA:2508:G:O6	56:DA:3159:OHX:N1	2.13	0.82
3:DD:69:ARG:HD3	3:DD:105:ILE:HD11	1.59	0.82
11:DO:11:GLY:O	11:DO:13:ASN:N	2.12	0.82
15:DR:3:ARG:HG2	15:DR:6:LEU:HB2	1.60	0.82
22:A3:36:ILE:O	22:A3:36:ILE:HD13	1.80	0.82
1:AA:667:U:OP2	56:AO:203:OHX:N4	2.11	0.82
42:BO:7:ILE:HD11	47:BT:32:TYR:HB3	1.62	0.82
1:DA:67:U:N3	1:DA:74:A:H2	1.78	0.82
6:DG:63:ILE:HG13	6:DG:63:ILE:O	1.78	0.82
12:AP:133:ARG:O	12:AP:134:ARG:HB3	1.79	0.82
20:AU:97:ARG:HH21	20:AU:98:VAL:HB	1.44	0.82
1:DA:2467:C:H2'	1:DA:2468:G:O4'	1.80	0.82
1:AA:2400:G:H2'	1:AA:2401:U:H6	1.45	0.82
1:AA:881:G:H5'	1:AA:882:G:OP2	1.78	0.82
31:BA:1315:U:H2'	31:BA:1316:G:O4'	1.79	0.82
31:BA:422:C:O2'	31:BA:423:G:C2	2.33	0.82
32:BE:158:LEU:HD22	32:BE:182:ILE:HD11	1.60	0.82
38:BK:86:ILE:HG22	38:BK:87:SER:H	1.44	0.82
52:CB:61:G:N2	52:CB:72:U:O2	2.11	0.82
5:DF:188:ARG:HA	11:DO:3:LEU:HD11	1.59	0.82
1:AA:330:A:H2	1:AA:1210:A:H2'	1.45	0.82
1:AA:1800:C:OP1	3:AD:264:LYS:NZ	2.13	0.82
3:AD:28:GLU:HB3	3:AD:29:PRO:CD	2.08	0.82
11:AO:61:ARG:O	11:AO:62:LEU:HD23	1.78	0.82
41:BN:87:THR:HG22	41:BN:88:GLY:H	1.45	0.82
54:C1:21:C:H2'	54:C1:22:A:C8	2.14	0.82
31:CA:1003:G:N2	31:CA:1037:C:N3	2.28	0.82
31:CA:1160:G:O6	31:CA:1181:G:C6	2.33	0.82
31:CA:1277:C:HO2'	31:CA:1279:A:H8	0.83	0.82
31:CA:388:G:OP1	56:CA:1725:OHX:N5	2.12	0.82
52:CB:31:G:H1	52:CB:41:C:N4	1.78	0.82
2:AB:6:C:H2'	2:AB:7:G:H5"	1.62	0.81
7:AH:152:ARG:HG3	7:AH:153:LYS:H	1.45	0.81
31:BA:748:C:H4'	31:BA:749:C:O5'	1.80	0.81
37:BJ:111:ARG:HD2	37:BJ:123:GLU:HB2	1.62	0.81
42:BO:6:THR:H	42:BO:9:GLN:HE21	1.28	0.81
31:CA:312:C:OP1	56:CA:1746:OHX:N4	2.13	0.81
53:CC:1:C:O2	53:CC:1:C:H2'	1.78	0.81
31:CA:1125:U:O4	40:CM:5:ARG:NH1	2.13	0.81
16:D1:91:ASP:OD2	16:D1:96:ALA:HB2	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:80:GLU:O	4:DE:82:ARG:N	2.13	0.81
2:DB:7:G:O5'	14:DQ:29:PHE:HE1	1.63	0.81
21:DV:28:MET:HG3	21:DV:37:VAL:HG11	1.62	0.81
1:AA:1062:G:H2'	1:AA:1063:G:C8	2.15	0.81
5:AF:40:GLN:OE1	5:AF:184:TYR:HB2	1.79	0.81
34:BG:85:LYS:HG2	34:BG:86:LYS:HD2	1.62	0.81
43:BP:108:ARG:NH1	43:BP:108:ARG:HG3	1.92	0.81
31:CA:736:C:H2'	31:CA:737:A:C8	2.14	0.81
12:DP:24:GLY:CA	12:DP:25:ASP:HB3	2.05	0.81
1:AA:805:G:H5"	11:AO:38:GLN:NE2	1.95	0.81
1:AA:882:G:H2'	1:AA:883:G:C8	2.15	0.81
31:BA:87:A:H2'	31:BA:88:C:C6	2.15	0.81
39:CL:28:VAL:HG22	39:CL:63:ILE:HB	1.60	0.81
1:DA:2107:C:N4	1:DA:2182:G:H1	1.77	0.81
1:DA:226:G:H21	1:DA:228:A:H62	1.27	0.81
3:DD:35:LYS:HG2	3:DD:64:ILE:HG23	1.61	0.81
24:DW:47:ASN:O	24:DW:49:LYS:N	2.13	0.81
4:AE:13:ARG:HH11	4:AE:21:VAL:HG11	1.45	0.81
7:AH:9:ILE:HB	7:AH:49:VAL:HB	1.62	0.81
31:BA:820:U:H4'	31:BA:821:G:OP2	1.80	0.81
1:DA:1174:A:N6	1:DA:1176:G:O2'	2.13	0.81
3:DD:35:LYS:CD	3:DD:104:TYR:HD1	1.92	0.81
1:DA:2467:C:H4'	12:DP:123:HIS:CD2	2.15	0.81
3:AD:2:ALA:O	3:AD:3:VAL:HB	1.77	0.81
4:AE:13:ARG:HB2	4:AE:21:VAL:HG12	1.62	0.81
1:AA:142:G:H1'	19:AT:37:THR:HG21	1.60	0.81
31:BA:1374:A:H2'	31:BA:1375:A:H5'	1.62	0.81
31:BA:173:U:H5"	31:BA:197:A:O4'	1.78	0.81
31:BA:390:C:O3'	46:BS:28:ARG:NH2	2.14	0.81
31:CA:273:A:H1'	47:CT:16:GLN:HE21	1.46	0.81
42:CO:34:ARG:HG3	42:CO:35:GLY:N	1.95	0.81
43:CP:60:VAL:HG13	43:CP:64:TRP:HE1	1.43	0.81
1:DA:2308:G:O2'	1:DA:2309:A:P	2.38	0.81
1:DA:324:A:OP1	56:DA:3348:OHX:N2	2.13	0.81
1:DA:2318:G:H22	14:DQ:2:ALA:HA	1.43	0.81
21:DV:158:PRO:HB2	21:DV:159:PRO:CD	2.11	0.81
1:AA:1533:C:C3'	1:AA:1534:G:H5"	2.06	0.81
1:DA:1019:U:H3	1:DA:1142(A):A:H62	1.24	0.81
1:DA:1921:G:N7	56:DA:3064:OHX:N2	2.28	0.81
10:DN:105:GLU:HA	10:DN:108:GLU:HG3	1.60	0.81
11:AO:64:LYS:HD2	30:A8:25:MET:SD	2.20	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:273(F):C:H3'	1:AA:274:G:H5"	1.62	0.81
8:AK:110:ASP:N	8:AK:110:ASP:OD1	2.10	0.81
12:AP:51:ARG:NH1	12:AP:55:VAL:HG11	1.96	0.81
31:BA:448:A:OP2	31:BA:485:G:N2	2.13	0.81
38:BK:91:ARG:HH11	38:BK:91:ARG:CG	1.94	0.81
31:CA:1310:G:H5'	43:CP:77:ASN:HD21	1.43	0.81
36:CI:61:LEU:HD23	36:CI:63:TYR:OH	1.81	0.81
46:CS:1:MET:HE1	46:CS:65:GLN:HB2	1.60	0.81
27:D5:3:LYS:CE	27:D5:3:LYS:CA	2.41	0.81
1:DA:528:A:H2	1:DA:2043:C:H4'	1.44	0.81
12:DP:135:ASP:O	12:DP:137:TYR:N	2.13	0.81
1:AA:1728:G:C2	1:AA:1730:U:OP2	2.34	0.81
1:AA:860:U:H5	1:AA:917:A:C2	1.97	0.81
1:AA:907:U:O2'	12:AP:101:ARG:NH2	2.14	0.81
21:AV:77:ASP:OD2	21:AV:80:ARG:HG2	1.79	0.81
52:BB:62:G:C2'	52:BB:63:U:H5'	2.10	0.81
32:BE:80:ILE:HD11	32:BE:208:ILE:HG23	1.61	0.81
34:BG:88:VAL:O	34:BG:90:GLY:N	2.14	0.81
31:CA:750:G:OP2	56:CA:1803:OHX:N5	2.14	0.81
30:D8:33:ASN:O	30:D8:34:TRP:HD1	1.63	0.81
1:DA:2468:G:C8	1:DA:2476:A:N1	2.48	0.81
1:DA:483:A:H5'	20:DU:49:VAL:HG22	1.60	0.81
9:DM:13:TRP:O	9:DM:135:PRO:HD2	1.81	0.81
1:AA:819:A:OP2	1:AA:1187:G:N2	2.14	0.81
1:AA:287:C:H2'	1:AA:288:C:H6	1.45	0.81
1:DA:1427:A:H4'	1:DA:1428:C:O5'	1.80	0.81
1:DA:2439:A:H5'	1:DA:2439:A:C8	2.15	0.81
15:DR:5:ALA:O	15:DR:8:LYS:HB3	1.81	0.81
1:AA:243:U:OP2	30:A8:8:LYS:NZ	2.13	0.81
4:AE:101:ARG:CZ	4:AE:171:GLU:HB3	2.11	0.81
4:AE:13:ARG:HB2	4:AE:21:VAL:CG1	2.11	0.81
4:AE:3:GLY:HA3	4:AE:81:ILE:HG21	1.63	0.81
7:AH:83:TYR:HB2	7:AH:134:SER:HA	1.63	0.81
20:AU:40:GLU:HA	20:AU:40:GLU:OE1	1.78	0.81
21:AV:160:GLY:O	21:AV:161:VAL:HG13	1.81	0.81
32:BE:63:MET:HB3	32:BE:225:ALA:HB1	1.63	0.81
31:CA:993:G:H2'	31:CA:995:C:H41	1.44	0.81
1:DA:1689:A:N6	1:DA:1698:A:H2	1.79	0.81
8:DK:14:ASP:OD1	8:DK:15:VAL:N	2.13	0.81
1:AA:2599:G:N7	3:AD:236:GLY:O	2.14	0.81
1:AA:86:C:H4'	1:AA:104:U:H1'	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:47:ILE:HG13	10:AN:48:PRO:HD2	1.61	0.81
23:AZ:18:ILE:HG12	23:AZ:37:ILE:HG23	1.63	0.81
31:BA:81:G:N1	31:BA:88:C:N4	2.29	0.81
52:BB:52:G:H2'	52:BB:53:A:C8	2.15	0.81
35:BH:78:HIS:CE1	35:BH:143:ARG:H	1.99	0.81
39:BL:48:GLU:H	39:BL:49:PRO:HD2	1.46	0.81
32:CE:224:GLN:HG3	32:CE:225:ALA:N	1.94	0.81
34:CG:173:TRP:HB3	34:CG:187:ARG:HH11	1.46	0.81
1:DA:1543:A:H4'	1:DA:1543:A:OP1	1.79	0.81
15:DR:91:ARG:NH1	15:DR:124:ASP:OD1	2.13	0.81
22:A3:53:MET:HG3	22:A3:59:LEU:HD23	1.61	0.80
8:AK:131:LYS:HB3	8:AK:132:PRO:CA	2.06	0.80
8:AK:140:LEU:HD23	8:AK:140:LEU:H	1.43	0.80
24:AW:10:LEU:HD11	24:AW:59:ARG:HD2	1.63	0.80
32:BE:73:THR:OG1	32:BE:170:GLU:OE2	1.97	0.80
54:C1:13:A:O2'	54:C1:14:A:OP1	1.98	0.80
40:CM:47:PHE:CZ	44:CQ:37:PHE:HE2	1.98	0.80
1:DA:2611:U:O2'	27:D5:3:LYS:HG2	1.81	0.80
5:DF:122:LYS:HD2	5:DF:191:ARG:HG2	1.63	0.80
5:DF:161:GLU:HA	5:DF:164:ARG:NH1	1.96	0.80
11:DO:147:LEU:HD22	11:DO:148:LEU:H	1.45	0.80
1:AA:1689:A:N6	1:AA:1698:A:H2	1.78	0.80
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.15	0.80
1:AA:2583:G:H21	52:BB:85:A:H8	1.27	0.80
3:AD:262:ARG:HH11	3:AD:262:ARG:HG3	1.45	0.80
31:BA:1316:G:N2	31:BA:1318:A:H3'	1.97	0.80
31:BA:1304:G:N1	31:BA:1332:A:OP2	2.13	0.80
50:BW:56:MET:HG3	50:BW:88:VAL:HG21	1.63	0.80
52:CD:80:C:H2'	52:CD:81:C:H6	1.45	0.80
1:DA:885:C:C5	1:DA:890:A:N6	2.49	0.80
19:DT:40:LYS:O	19:DT:42:ALA:N	2.14	0.80
20:DU:39:VAL:O	20:DU:40:GLU:HB2	1.77	0.80
1:AA:1546:C:O2'	1:AA:1547:C:OP2	1.98	0.80
41:BN:107:SER:HA	48:BU:87:ARG:HD2	1.62	0.80
52:CD:48:C:C3'	52:CD:49:A:C8	2.58	0.80
1:AA:1515:C:H2'	1:AA:1516:U:C6	2.16	0.80
1:AA:2400:G:H2'	1:AA:2401:U:C6	2.15	0.80
1:AA:92:G:O6	56:AA:3523:OHX:N5	2.13	0.80
1:AA:1006:C:H1'	9:AM:106:MET:HG2	1.62	0.80
31:BA:1504:G:OP1	31:BA:1507:A:H4'	1.81	0.80
36:BI:75:LEU:HD22	36:BI:79:LEU:HG	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CD:43:G:H2'	52:CD:44:C:C6	2.16	0.80
33:CF:7:PRO:O	33:CF:11:ARG:NH1	2.15	0.80
17:D2:64:HIS:CD2	17:D2:92:THR:HG23	2.17	0.80
1:DA:2310:A:H5'	1:DA:2311:A:OP2	1.81	0.80
12:DP:79:LEU:C	12:DP:79:LEU:HD12	2.02	0.80
1:AA:1887:C:C2'	1:AA:1888:G:H5"	2.10	0.80
1:AA:2032:G:H21	4:AE:146:THR:HG23	1.45	0.80
1:AA:2055:C:H5'	1:AA:2056:G:OP1	1.82	0.80
1:AA:566:U:OP1	11:AO:29:LYS:HE3	1.82	0.80
20:AU:63:LYS:HD2	20:AU:64:GLU:H	1.47	0.80
31:BA:1226:C:H4'	49:BV:80:TYR:OH	1.82	0.80
42:CO:26:ALA:O	42:CO:27:LEU:HD22	1.80	0.80
26:D4:36:CYS:HB3	26:D4:41:PRO:HG3	1.63	0.80
11:DO:121:LYS:HA	11:DO:121:LYS:HE3	1.63	0.80
11:DO:61:ARG:NH2	11:DO:61:ARG:CG	2.39	0.80
15:DR:3:ARG:HE	15:DR:6:LEU:HD13	1.47	0.80
19:DT:65:ARG:NH1	19:DT:65:ARG:HG3	1.97	0.80
1:AA:1071:G:O6	1:AA:1091:G:O6	2.00	0.80
1:AA:1480:G:C2	1:AA:1482:U:O2	2.35	0.80
1:AA:2151:G:H2'	1:AA:2152:G:C8	2.16	0.80
1:AA:320:A:H2'	5:AF:136:THR:HG21	1.62	0.80
31:BA:1240:U:C5	37:BJ:32:ARG:HD2	2.16	0.80
32:BE:18:GLY:N	32:BE:42:ILE:HG22	1.97	0.80
34:BG:126:ILE:HD13	34:BG:127:THR:N	1.96	0.80
33:CF:131:ARG:NH1	35:CH:50:GLU:HG3	1.97	0.80
31:CA:1250:A:H4'	39:CL:68:GLY:H	1.46	0.80
6:DG:104:GLU:HG2	26:D4:23:GLU:CG	2.09	0.80
1:DA:2438:U:O3'	1:DA:2439:A:H3'	1.82	0.80
4:DE:116:VAL:O	4:DE:117:MET:HB2	1.80	0.80
11:DO:19:VAL:HG23	11:DO:27:HIS:CG	2.16	0.80
1:AA:1515:C:H2'	1:AA:1516:U:H6	1.46	0.80
1:AA:527:C:OP2	1:AA:2779:U:H5	1.62	0.80
12:AP:59:ARG:O	12:AP:61:GLY:N	2.13	0.80
20:AU:97:ARG:C	20:AU:97:ARG:HE	1.85	0.80
31:CA:1502:A:H2	31:CA:1505:G:H1	1.29	0.80
43:CP:28:ALA:O	43:CP:30:ALA:N	2.14	0.80
1:DA:1071:G:H5"	1:DA:1072:C:OP2	1.82	0.80
9:DM:35:ARG:HB2	9:DM:42:TRP:CH2	2.15	0.80
9:DM:16:ILE:C	9:DM:55:VAL:HG22	2.01	0.80
11:DO:104:GLY:O	11:DO:105:LEU:CG	2.30	0.80
13:A0:41:ALA:O	13:A0:44:LEU:N	2.15	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2167:U:O2'	1:AA:2168:G:OP1	2.00	0.80
1:AA:2277:G:H5"	12:AP:87:LYS:HB3	1.63	0.80
4:AE:167:VAL:HG11	4:AE:187:ALA:O	1.81	0.80
5:AF:197:ASP:O	5:AF:199:TRP:N	2.15	0.80
14:AQ:92:TYR:HB2	14:AQ:98:VAL:HG11	1.64	0.80
54:C1:21:C:N4	54:C1:22:A:N6	2.30	0.80
31:CA:1392:G:N2	31:CA:1502:A:H8	1.80	0.80
31:CA:260:G:O6	56:CA:1779:OHX:N3	2.14	0.80
31:CA:631:G:O2'	31:CA:632:A:OP1	1.98	0.80
35:CH:62:ALA:O	35:CH:65:ASN:N	2.15	0.80
47:CT:67:LYS:O	47:CT:68:ARG:HB2	1.81	0.80
50:CW:67:ALA:HA	50:CW:73:HIS:HA	1.63	0.80
28:D6:10:LEU:HD23	30:D8:34:TRP:CH2	2.15	0.80
30:A8:35:GLN:O	30:A8:36:LYS:HB2	1.80	0.80
1:AA:1480:G:C6	1:AA:1482:U:N3	2.48	0.80
1:AA:1728:G:N1	1:AA:1730:U:OP2	2.15	0.80
1:AA:2506:U:H2'	1:AA:2506:U:O2	1.82	0.80
1:AA:880:G:H1	1:AA:897:C:N4	1.80	0.80
1:AA:997:G:OP1	16:A1:93:LYS:HG3	1.81	0.80
4:AE:29:GLY:H	4:AE:51:PHE:HE2	1.26	0.80
19:AT:41:ASN:O	19:AT:45:THR:HG23	1.82	0.80
31:BA:677:U:OP1	56:BA:1780:OHX:N3	2.15	0.80
52:BD:23:A:H2'	52:BD:24:G:O4'	1.80	0.80
35:BH:153:LYS:NZ	35:BH:154:GLY:O	2.12	0.80
52:CB:20:C:O2'	52:CB:68:A:N7	2.14	0.80
42:CO:100:ILE:HG22	42:CO:101:VAL:H	1.47	0.80
45:CR:87:ILE:CG2	45:CR:88:ARG:H	1.94	0.80
11:DO:48:PRO:O	11:DO:51:PHE:N	2.13	0.80
1:AA:2505:G:O2'	1:AA:2506:U:H5'	1.81	0.80
33:CF:21:ARG:HH11	33:CF:21:ARG:CB	1.91	0.80
22:D3:49:LYS:O	22:D3:50:ASN:HB2	1.82	0.80
26:D4:34:GLU:CG	26:D4:35:VAL:H	1.95	0.80
1:DA:1171:G:H2'	1:DA:1171:G:OP2	1.82	0.80
1:DA:1534:G:H5'	1:DA:1535:U:OP2	1.82	0.80
11:DO:39:LYS:HA	11:DO:45:LEU:HD22	1.64	0.80
1:AA:883:G:N2	1:AA:893:C:N3	2.29	0.79
5:AF:167:ALA:O	5:AF:169:ASN:N	2.14	0.79
9:AM:56:ASN:N	9:AM:125:GLY:O	2.15	0.79
11:AO:112:LEU:H	11:AO:128:HIS:CD2	2.00	0.79
31:BA:1503:A:HO2'	31:BA:1504:G:P	2.04	0.79
52:BB:52:G:H2'	52:BB:53:A:H8	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:78:GLN:O	41:BN:103:LEU:HA	1.82	0.79
33:CF:131:ARG:HH12	35:CH:50:GLU:HG3	1.46	0.79
22:D3:36:ILE:O	22:D3:36:ILE:HD13	1.82	0.79
1:DA:1069:A:H4'	1:DA:1070:A:H5"	1.64	0.79
1:DA:17:G:H2'	1:DA:18:C:H6	1.47	0.79
1:DA:943:U:OP2	11:DO:36:LYS:HG3	1.82	0.79
3:DD:34:VAL:HG13	3:DD:35:LYS:HD2	1.64	0.79
5:DF:192:LEU:O	5:DF:193:VAL:HG23	1.82	0.79
6:DG:130:ASN:OD1	6:DG:160:VAL:HA	1.81	0.79
20:DU:97:ARG:HH11	20:DU:97:ARG:HG2	1.47	0.79
23:DZ:82:LEU:HD23	23:DZ:82:LEU:H	1.47	0.79
1:AA:1921:G:N7	56:AA:3391:OHX:N2	2.30	0.79
1:AA:456:C:C5	19:AT:69:TYR:CE1	2.69	0.79
1:AA:885:C:N3	1:AA:890:A:N7	2.29	0.79
3:AD:27:THR:HG23	3:AD:28:GLU:H	1.46	0.79
12:AP:21:THR:CG2	12:AP:21:THR:O	2.30	0.79
52:CB:28:G:H22	52:CB:45:C:H1'	1.47	0.79
52:CB:67:A:N6	52:CB:70:C:H1'	1.97	0.79
37:CJ:50:ILE:HB	37:CJ:58:PRO:HG3	1.64	0.79
1:DA:2843:G:C2'	1:DA:2844:G:H5"	2.12	0.79
3:DD:255:LYS:CE	3:DD:255:LYS:H	1.92	0.79
1:AA:1607:C:O2	56:AA:3433:OHX:N5	2.16	0.79
1:AA:67:U:N3	1:AA:74:A:C2	2.47	0.79
48:BU:21:LYS:O	48:BU:22:VAL:HB	1.81	0.79
31:CA:1162:C:H42	31:CA:1174:G:H1	1.27	0.79
4:DE:39:PRO:CG	4:DE:45:THR:HG23	2.11	0.79
5:DF:24:LEU:HB3	5:DF:25:PRO:HD2	1.62	0.79
11:DO:11:GLY:C	11:DO:13:ASN:H	1.85	0.79
19:DT:40:LYS:HA	19:DT:51:VAL:HG11	1.64	0.79
1:AA:1678:G:H21	1:AA:1989:G:N2	1.80	0.79
34:BG:22:LYS:HB2	34:BG:26:CYS:SG	2.22	0.79
37:BJ:23:VAL:O	37:BJ:27:ILE:HG13	1.83	0.79
41:BN:12:ARG:HG2	41:BN:13:GLN:H	1.45	0.79
34:CG:31:CYS:C	34:CG:33:MET:H	1.84	0.79
28:D6:28:ARG:HD2	28:D6:31:PRO:HD2	1.64	0.79
1:DA:330:A:C2	1:DA:1210:A:O2'	2.35	0.79
5:DF:78:ILE:HA	5:DF:83:PHE:CD1	2.17	0.79
12:DP:21:THR:CG2	12:DP:21:THR:O	2.30	0.79
1:AA:2391:G:OP1	30:A8:32:LEU:HD12	1.82	0.79
1:AA:631:A:P	30:A8:46:ARG:HH21	2.06	0.79
4:AE:68:ALA:C	4:AE:70:ALA:H	1.84	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:10:PRO:HD2	7:AH:50:VAL:H	1.46	0.79
9:AM:133:GLN:HE21	9:AM:133:GLN:H	1.27	0.79
31:BA:671:G:N2	31:BA:672:U:H1'	1.97	0.79
52:BB:19:C:H4'	52:BB:20:C:OP1	1.81	0.79
41:BN:85:ARG:HG2	41:BN:113:PRO:HD3	1.65	0.79
31:CA:345:C:H1'	31:CA:346:G:C2	2.18	0.79
3:DD:2:ALA:O	3:DD:3:VAL:HB	1.83	0.79
9:DM:56:ASN:HB2	9:DM:125:GLY:C	2.00	0.79
15:DR:8:LYS:O	15:DR:10:VAL:N	2.14	0.79
1:AA:1250:G:N7	11:AO:18:ARG:NH2	2.31	0.79
1:AA:18:C:O3'	16:A1:23:GLY:HA2	1.83	0.79
1:AA:880:G:O2'	1:AA:881:G:OP1	2.00	0.79
31:BA:1086:U:H3	31:BA:1099:G:H22	1.31	0.79
38:BK:91:ARG:HH11	38:BK:91:ARG:HG3	1.47	0.79
41:BN:124:LYS:HD2	41:BN:125:PHE:CE2	2.17	0.79
31:CA:328:C:H2'	31:CA:328:C:O2	1.82	0.79
31:CA:413:G:O2'	31:CA:428:G:N2	2.16	0.79
1:DA:1071:G:H1'	1:DA:1089:G:H3'	1.63	0.79
1:DA:2537:U:H2'	1:DA:2538:C:C6	2.17	0.79
1:DA:1135:C:O2	56:DA:3468:OHX:N6	2.15	0.79
1:DA:906:G:OP1	12:DP:26:TYR:OH	2.00	0.79
27:A5:50:GLY:H	27:A5:56:LYS:HG3	1.48	0.79
28:A6:12:GLU:HA	28:A6:23:THR:HB	1.64	0.79
1:AA:1871:A:H2'	1:AA:1872:A:C8	2.18	0.79
5:AF:101:LEU:HD13	5:AF:102:PRO:CD	2.12	0.79
1:AA:2276:G:OP2	12:AP:84:GLY:HA2	1.83	0.79
31:BA:965:A:H4'	31:BA:966:G:OP1	1.80	0.79
2:DB:52:A:O2'	2:DB:53:A:N7	2.15	0.79
1:DA:2726:U:H6	10:DN:67:LYS:HZ3	1.30	0.79
11:DO:46:LYS:O	11:DO:48:PRO:CA	2.30	0.79
12:DP:78:PRO:O	12:DP:79:LEU:CD1	2.31	0.79
15:AR:26:ASP:HB3	15:AR:92:GLY:H	1.47	0.79
23:AZ:76:ARG:CG	23:AZ:76:ARG:HH11	1.96	0.79
31:CA:1442:G:C6	31:CA:1446:A:N6	2.51	0.79
2:DB:15:A:H3'	2:DB:16:G:H5'	1.65	0.79
13:A0:100:LEU:HD11	13:A0:113:LEU:HD13	1.65	0.79
1:AA:1088:A:H5'	1:AA:1089:G:H5'	1.63	0.79
1:AA:1417:C:H42	1:AA:1581:G:H1	1.31	0.79
7:AH:126:PRO:O	7:AH:127:GLU:HB2	1.81	0.79
47:BT:64:PRO:HB3	47:BT:70:ARG:NH1	1.98	0.79
31:CA:1503:A:H1'	31:CA:1504:G:OP1	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:421:U:O2	31:CA:421:U:H2'	1.82	0.79
1:DA:2474:C:O2	1:DA:2474:C:H2'	1.81	0.79
1:DA:2469:A:N7	1:DA:2482:G:C5	2.50	0.79
1:DA:2656:U:H3	1:DA:2665:A:H2	1.29	0.79
1:DA:2872:G:C4	1:DA:2873:A:N1	2.51	0.79
18:DS:65:LEU:HD13	18:DS:68:ARG:HD2	1.64	0.79
21:DV:128:VAL:HG22	21:DV:129:SER:N	1.98	0.79
1:AA:1551:C:H2'	1:AA:1552:G:H5'	1.62	0.79
1:AA:1607:C:H4'	1:AA:1608:A:O5'	1.83	0.79
1:AA:1899:G:N2	1:AA:1902:C:H5	1.78	0.79
1:AA:222:A:H3'	1:AA:421:U:H5'	1.63	0.79
3:AD:166:GLN:NE2	3:AD:166:GLN:HA	1.98	0.79
31:BA:1004:A:C5'	31:BA:1025:U:H3	1.96	0.79
31:BA:736:C:H2'	31:BA:737:A:C8	2.18	0.79
43:BP:87:TYR:O	43:BP:89:GLY:N	2.15	0.79
31:CA:82:U:O2	31:CA:87:A:N1	2.16	0.79
31:CA:973:G:H1'	40:CM:55:LYS:CE	2.12	0.79
16:D1:50:ARG:NH1	17:D2:72:VAL:CG2	2.46	0.79
30:D8:33:ASN:HA	30:D8:36:LYS:CD	2.11	0.79
1:DA:1204:A:O2'	1:DA:1205:U:OP2	1.99	0.79
1:DA:768:G:O2'	1:DA:1379:A:N6	2.15	0.79
5:DF:46:ARG:HH11	5:DF:46:ARG:CG	1.96	0.79
12:DP:26:TYR:HD1	12:DP:139:GLU:HG2	1.43	0.79
16:A1:90:VAL:HG22	17:A2:39:LEU:HB3	1.65	0.78
1:AA:1416:G:O2'	1:AA:1417:C:H6	1.65	0.78
1:AA:2795:G:H3'	1:AA:2797:U:C5'	2.13	0.78
1:AA:588:U:H2'	1:AA:589:C:C6	2.17	0.78
3:AD:32:SER:O	3:AD:33:LEU:HB2	1.83	0.78
31:BA:1113:C:H2'	31:BA:1114:C:H6	1.48	0.78
52:BD:62:G:H1	52:BD:70:C:H42	1.31	0.78
46:BS:75:ARG:O	46:BS:77:ALA:N	2.15	0.78
31:CA:324:G:N7	56:CA:1766:OHX:N4	2.30	0.78
1:DA:1089:G:H4'	1:DA:1090:U:OP1	1.83	0.78
1:DA:2394:C:OP1	11:DO:63:PRO:HD2	1.82	0.78
1:DA:2797:U:H2'	1:DA:2798:C:H5'	1.65	0.78
1:DA:1916:A:OP2	56:DA:3162:OHX:N3	2.15	0.78
3:DD:35:LYS:HE2	3:DD:104:TYR:HD1	1.48	0.78
4:DE:37:ARG:HD3	4:DE:44:TYR:OH	1.83	0.78
12:DP:90:VAL:CG1	12:DP:90:VAL:O	2.31	0.78
20:DU:61:ILE:HG22	20:DU:62:GLU:N	1.96	0.78
1:AA:2392:A:H8	11:AO:60:MET:HB2	1.46	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1176:A:N6	31:BA:1177:G:C5	2.51	0.78
31:BA:736:C:H2'	31:BA:737:A:H8	1.48	0.78
31:CA:363:A:O2'	31:CA:364:A:H5'	1.83	0.78
31:CA:979:C:H5	31:CA:980:C:C6	1.98	0.78
32:CE:16:HIS:NE2	32:CE:209:ARG:HG2	1.97	0.78
33:CF:162:GLN:HG2	54:C1:24:A:H1'	1.64	0.78
16:D1:28:ARG:CG	16:D1:28:ARG:NH1	2.46	0.78
26:A4:14:ILE:HG13	26:A4:31:ILE:HB	1.65	0.78
1:AA:1925:C:C2'	1:AA:1926:U:H5'	2.14	0.78
1:AA:2475:C:O2	1:AA:2475:C:H2'	1.83	0.78
4:AE:78:LEU:O	4:AE:79:ARG:HB2	1.83	0.78
1:AA:2393:A:H5'	11:AO:62:LEU:HB3	1.65	0.78
12:AP:32:TYR:HE1	12:AP:133:ARG:HG3	1.47	0.78
31:BA:532:A:OP1	56:BA:1788:OHX:N6	2.15	0.78
32:BE:18:GLY:H	32:BE:42:ILE:HG22	1.46	0.78
31:CA:1004:A:H5"	31:CA:1025:U:O4	1.83	0.78
31:CA:353:A:H5'	31:CA:353:A:H8	1.46	0.78
31:CA:485:G:H1'	31:CA:486:U:H5	1.46	0.78
40:CM:48:THR:HA	40:CM:62:HIS:HB3	1.63	0.78
11:DO:64:LYS:HG3	11:DO:65:ARG:N	1.95	0.78
1:AA:1535:U:H3'	1:AA:1536:A:C5'	2.13	0.78
1:AA:654(N):G:H2'	1:AA:654(O):G:C8	2.19	0.78
1:DA:2310:A:H5"	1:DA:2310:A:N3	1.98	0.78
6:DG:96:ARG:O	6:DG:98:ARG:N	2.15	0.78
15:DR:77:PRO:HG2	15:DR:80:SER:HB2	1.63	0.78
1:AA:2308:G:C2	1:AA:2311:A:C2	2.71	0.78
31:CA:1022:G:H2'	31:CA:1023:G:O4'	1.84	0.78
31:CA:1039:C:H3'	31:CA:1040:U:H5"	1.65	0.78
31:CA:1141:C:O2'	31:CA:1142:G:H5'	1.82	0.78
31:CA:1298:C:C5	37:CJ:114:ARG:HD2	2.19	0.78
32:CE:185:ILE:HG22	32:CE:199:TYR:HB2	1.64	0.78
31:CA:1128:C:H4'	39:CL:16:ARG:HH12	1.45	0.78
1:DA:945:A:C6	1:DA:2448:A:C5	2.72	0.78
1:DA:2789:C:C3'	1:DA:2790:A:H5"	2.13	0.78
5:DF:119:ARG:HH11	5:DF:119:ARG:CG	1.97	0.78
11:DO:37:GLY:O	11:DO:39:LYS:N	2.17	0.78
13:A0:2:ARG:HG3	13:A0:5:LYS:NZ	1.98	0.78
1:AA:2127:G:O2'	1:AA:2173:A:N1	2.15	0.78
1:AA:2210:G:H5'	1:AA:2211:G:N7	1.99	0.78
1:AA:2340:G:C2'	1:AA:2341:G:H5'	2.13	0.78
3:AD:35:LYS:HB3	3:AD:63:ARG:HA	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:130:GLY:O	4:AE:131:ALA:O	2.00	0.78
8:AK:93:THR:HG22	8:AK:119:PRO:HB3	1.63	0.78
31:BA:1133:G:H1	31:BA:1141:C:H42	1.30	0.78
31:CA:1003:G:H1	31:CA:1037:C:H42	1.32	0.78
43:CP:40:ASN:HB3	43:CP:43:THR:HG23	1.64	0.78
1:DA:1188:U:H5'	17:D2:79:VAL:HB	1.65	0.78
1:DA:1057:A:N1	1:DA:1081:U:O4	2.16	0.78
1:DA:2303:G:C2'	1:DA:2304:G:H5'	2.13	0.78
9:AM:97:ARG:NH1	9:AM:97:ARG:HG3	1.79	0.78
31:BA:1053:G:C5'	31:BA:1054:C:H5'	2.13	0.78
31:BA:1178:G:N2	31:BA:1181:G:C8	2.52	0.78
32:BE:74:LYS:HD2	32:BE:74:LYS:H	1.47	0.78
38:BK:13:ILE:O	38:BK:17:THR:HG23	1.84	0.78
1:DA:304:G:H2'	1:DA:305:U:C6	2.19	0.78
3:DD:35:LYS:CG	3:DD:64:ILE:HG23	2.12	0.78
22:A3:51:VAL:N	22:A3:62:LEU:HD12	1.99	0.78
1:AA:2751:G:O2'	1:AA:2752:C:OP1	2.02	0.78
3:AD:27:THR:CG2	3:AD:28:GLU:H	1.97	0.78
31:BA:1005:A:H5"	31:BA:1006:C:C6	2.19	0.78
31:BA:86:U:O2'	31:BA:87:A:O4'	2.00	0.78
42:BO:126:LYS:HG2	42:BO:128:ALA:H	1.49	0.78
44:BQ:6:LEU:HB3	44:BQ:23:ARG:HH21	1.49	0.78
30:D8:29:LYS:O	30:D8:29:LYS:CG	2.31	0.78
2:DB:39:A:N1	26:D4:1:MET:HB3	1.99	0.78
2:DB:74:U:H2'	2:DB:75:G:H5"	1.66	0.78
3:DD:64:ILE:O	3:DD:64:ILE:HG13	1.84	0.78
8:DK:76:THR:HG23	8:DK:77:LEU:H	1.49	0.78
12:DP:30:GLY:HA2	12:DP:107:ALA:HB2	1.65	0.78
15:DR:92:GLY:HA2	15:DR:116:ALA:HA	1.66	0.78
11:AO:26:GLY:O	11:AO:28:GLY:N	2.17	0.78
31:CA:1025:U:O2'	31:CA:1026:G:O5'	2.02	0.78
31:CA:950:U:H3'	43:CP:102:ARG:HH22	1.47	0.78
32:CE:74:LYS:O	32:CE:75:LYS:HB2	1.84	0.78
48:CU:55:ARG:HH11	48:CU:55:ARG:HG3	1.49	0.78
1:DA:2773:C:OP1	4:DE:166:THR:OG1	2.00	0.78
1:DA:851:U:O2	1:DA:928:G:C2	2.37	0.78
10:DN:117:LEU:HD12	10:DN:117:LEU:N	1.99	0.78
19:DT:27:THR:C	19:DT:28:PHE:CD1	2.57	0.78
26:A4:23:GLU:OE1	26:A4:24:THR:N	2.16	0.78
1:AA:1416:G:O2'	1:AA:1417:C:O5'	2.01	0.78
1:AA:2712:U:H5'	1:AA:2712:U:O2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:61:ARG:CZ	11:AO:61:ARG:HB3	2.13	0.78
1:AA:138:G:N2	19:AT:44:GLU:OE2	2.16	0.78
21:AV:10:ARG:HD3	21:AV:38:TYR:HB3	1.66	0.78
31:BA:1251:A:H2'	31:BA:1252:A:C8	2.19	0.78
31:BA:1271:G:H2'	31:BA:1272:G:C5'	2.12	0.78
31:BA:131:C:O2	31:BA:131:C:H2'	1.83	0.78
31:BA:171:A:H2'	31:BA:172:A:C8	2.19	0.78
31:BA:677:U:H3	31:BA:713:G:H22	1.32	0.78
31:BA:791:G:C2'	31:BA:792:A:H5'	2.14	0.78
34:BG:5:ILE:HG23	34:BG:6:GLY:N	1.99	0.78
32:CE:233:SER:HB2	32:CE:234:PRO:CD	2.14	0.78
27:D5:41:PRO:O	27:D5:44:THR:OG1	2.00	0.78
1:DA:38:A:H2'	1:DA:39:C:H6	1.45	0.78
1:AA:2131:G:H5'	1:AA:2132:U:C5'	2.11	0.77
1:AA:2623:G:N2	27:A5:22:HIS:HE1	1.82	0.77
1:AA:598:G:H1'	11:AO:12:ALA:HB2	1.65	0.77
9:AM:137:LYS:HE3	9:AM:138:LEU:H	1.49	0.77
31:BA:977:A:C8	31:BA:1223:C:C4	2.72	0.77
31:BA:789:U:H5	31:BA:792:A:OP2	1.66	0.77
50:BW:98:PRO:O	50:BW:100:ILE:N	2.14	0.77
39:CL:111:ARG:HB3	39:CL:113:LYS:HE2	1.64	0.77
44:CQ:22:THR:HB	44:CQ:33:VAL:HG11	1.66	0.77
16:D1:91:ASP:O	16:D1:92:ARG:HG3	1.85	0.77
17:D2:49:THR:HB	17:D2:50:PRO:HD3	1.66	0.77
28:D6:12:GLU:HB3	28:D6:23:THR:HG22	1.66	0.77
1:DA:2275:C:O2	12:DP:85:LYS:CG	2.32	0.77
3:DD:108:PRO:HB3	3:DD:143:HIS:CE1	2.19	0.77
4:DE:178:GLU:OE2	4:DE:178:GLU:N	2.13	0.77
9:DM:15:LEU:HD13	9:DM:55:VAL:HG13	1.60	0.77
21:DV:52:SER:O	21:DV:54:HIS:N	2.17	0.77
1:AA:1340:U:H4'	1:AA:1341:U:OP2	1.83	0.77
3:AD:10:THR:HG23	3:AD:13:ARG:HB2	1.66	0.77
10:AN:34:THR:HG23	10:AN:35:VAL:N	1.97	0.77
18:AS:40:ASN:O	18:AS:41:LYS:HG2	1.84	0.77
32:BE:236:TYR:HA	32:BE:239:VAL:HG21	1.65	0.77
32:CE:102:LEU:H	32:CE:102:LEU:HD12	1.48	0.77
1:AA:2656:U:H3	1:AA:2665:A:H2	1.32	0.77
1:AA:910:A:C5	12:AP:13:GLN:HG3	2.19	0.77
8:AK:33:ARG:O	8:AK:35:LEU:N	2.18	0.77
31:BA:1053:G:O6	31:BA:1199:U:H2'	1.83	0.77
31:BA:135:C:H2'	31:BA:136:C:H5'	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:48:C:C6	52:BD:48:C:OP2	2.37	0.77
39:CL:11:LYS:H	39:CL:104:ARG:NH2	1.82	0.77
31:CA:690:G:H22	41:CN:55:LYS:HE2	1.49	0.77
50:CW:100:ILE:HD12	50:CW:100:ILE:H	1.47	0.77
50:CW:40:ALA:HB2	50:CW:55:ILE:HG22	1.67	0.77
22:D3:53:MET:HG3	22:D3:59:LEU:CD2	2.12	0.77
28:D6:25:LYS:HA	30:D8:34:TRP:CZ3	2.18	0.77
1:DA:1379:A:H4'	1:DA:1380:G:OP2	1.84	0.77
1:DA:827:U:O2'	1:DA:2068:U:C2	2.37	0.77
1:DA:2406:U:O4	11:DO:70:GLN:HB2	1.84	0.77
1:DA:946:G:H2'	1:DA:947:G:C8	2.18	0.77
1:AA:2257:U:O2'	1:AA:2258:C:H5'	1.84	0.77
2:AB:73:A:C2'	2:AB:74:U:H5'	2.15	0.77
31:BA:1182:G:H4'	31:BA:1183:A:H5"	1.67	0.77
31:BA:624:C:O3'	46:BS:10:GLY:HA2	1.84	0.77
1:DA:1790:C:H5"	1:DA:1791:A:OP1	1.83	0.77
4:AE:51:PHE:CD1	4:AE:52:LEU:HG	2.19	0.77
12:AP:51:ARG:NH1	12:AP:51:ARG:HG2	1.94	0.77
31:BA:510:A:OP2	34:BG:49:ARG:NH2	2.17	0.77
31:BA:78:G:N1	31:BA:91:C:N4	2.30	0.77
52:BD:20:C:H5'	52:BD:68:A:N6	1.99	0.77
52:CB:75:C:O2'	52:CB:76:C:OP1	2.02	0.77
53:CC:48:U:H1'	53:CC:49:C:O5'	1.84	0.77
34:CG:153:ARG:O	34:CG:155:LEU:N	2.15	0.77
2:DB:15:A:H5"	2:DB:16:G:C8	2.19	0.77
2:DB:39:A:H2'	26:D4:1:MET:CE	2.14	0.77
7:DH:6:ARG:HH21	7:DH:54:ARG:HH22	1.31	0.77
20:DU:9:LYS:O	20:DU:27:VAL:HG23	1.83	0.77
27:A5:40:LYS:HZ3	27:A5:46:CYS:HB3	1.50	0.77
1:AA:140:A:C8	1:AA:1408:C:O2'	2.32	0.77
1:AA:674:G:O2'	5:AF:74:ARG:HD3	1.85	0.77
12:AP:27:VAL:HG13	12:AP:105:GLU:OE2	1.83	0.77
31:CA:1347:G:H8	39:CL:107:ARG:HB3	1.48	0.77
31:CA:377:G:OP1	46:CS:3:LYS:HD2	1.83	0.77
13:D0:41:ALA:O	13:D0:43:GLU:N	2.16	0.77
1:DA:2756:U:H4'	1:DA:2757:A:OP1	1.82	0.77
11:DO:16:ARG:HH11	11:DO:16:ARG:HG3	1.49	0.77
15:DR:60:THR:HG22	15:DR:77:PRO:HA	1.65	0.77
27:A5:41:PRO:O	27:A5:44:THR:OG1	2.02	0.77
27:A5:50:GLY:N	27:A5:56:LYS:HG3	2.00	0.77
29:A7:8:ASN:ND2	29:A7:8:ASN:O	2.13	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2318:G:H22	14:AQ:2:ALA:HA	1.50	0.77
2:AB:30:C:H2'	2:AB:31:C:H5'	1.65	0.77
11:AO:75:ILE:H	11:AO:75:ILE:CD1	1.97	0.77
31:BA:524:G:H2'	31:BA:525:C:C6	2.20	0.77
39:BL:111:ARG:HG3	39:BL:112:LYS:H	1.48	0.77
31:CA:409:G:OP1	34:CG:24:GLU:HG2	1.84	0.77
52:CD:20:C:H3'	52:CD:68:A:N6	1.99	0.77
4:DE:58:ARG:O	4:DE:60:ASN:N	2.18	0.77
11:DO:19:VAL:CG2	11:DO:27:HIS:CB	2.55	0.77
1:AA:140:A:H8	1:AA:1408:C:HO2'	0.80	0.77
1:AA:2210:G:C3'	1:AA:2211:G:C8	2.62	0.77
1:AA:2811:G:O6	56:AA:3432:OHX:N6	2.17	0.77
5:AF:45:ARG:HH11	5:AF:45:ARG:HG2	1.49	0.77
15:AR:50:ILE:HD11	15:AR:102:ILE:CD1	2.15	0.77
31:CA:1321:C:H41	31:CA:1322:C:N4	1.81	0.77
31:CA:1502:A:H5"	31:CA:1504:G:N7	2.00	0.77
31:CA:485:G:H1'	31:CA:486:U:C5	2.20	0.77
41:CN:54:ARG:NH1	41:CN:54:ARG:HG2	1.95	0.77
31:CA:974:A:OP2	44:CQ:41:ARG:NH1	2.17	0.77
26:D4:37:SER:OG	26:D4:38:LYS:N	2.15	0.77
1:DA:2015:A:H1'	27:D5:2:ALA:HA	1.67	0.77
1:DA:107:C:H2'	1:DA:108:U:H6	1.49	0.77
4:DE:70:ALA:O	4:DE:72:VAL:N	2.17	0.77
1:DA:1049:C:N3	7:DH:2:SER:N	2.33	0.77
11:DO:79:ARG:HD3	11:DO:110:TYR:CE1	2.19	0.77
15:DR:88:ILE:HD12	15:DR:89:VAL:N	1.99	0.77
18:DS:9:TYR:H	18:DS:102:HIS:CD2	2.01	0.77
26:A4:39:CYS:SG	26:A4:41:PRO:CD	2.73	0.77
1:AA:1586:A:H4'	1:AA:1586:A:OP1	1.84	0.77
19:AT:15:GLU:CD	19:AT:15:GLU:H	1.88	0.77
31:BA:1510:U:H2'	31:BA:1511:G:C8	2.20	0.77
31:BA:135:C:O2'	56:BA:1773:OHX:N1	2.18	0.77
31:CA:498:A:H4'	31:CA:500:G:OP1	1.84	0.77
31:CA:942:G:H21	39:CL:124:GLN:NE2	1.83	0.77
43:CP:28:ALA:C	43:CP:30:ALA:H	1.87	0.77
1:DA:2811:G:OP1	4:DE:61:ARG:HB2	1.83	0.77
31:BA:313:A:H2'	31:BA:314:C:H6	1.48	0.77
52:CB:30:A:H2'	52:CB:31:G:C8	2.19	0.77
6:DG:104:GLU:CG	26:D4:23:GLU:HG2	2.12	0.77
1:DA:1024:G:H3'	1:DA:1025:G:H5"	1.67	0.77
1:DA:1510:A:H8	1:DA:1510:A:OP2	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2129:C:C2'	1:DA:2130:U:H5'	2.14	0.77
1:DA:2433:A:H5"	1:DA:2434:A:OP1	1.85	0.77
1:DA:443:A:H5"	1:DA:444:C:OP1	1.84	0.77
1:DA:602:G:O2'	1:DA:604:G:O2'	2.01	0.77
1:DA:1903:G:OP1	3:DD:241:PRO:HB2	1.85	0.77
1:DA:389:G:N1	11:DO:71:VAL:HG12	2.00	0.77
15:DR:8:LYS:HZ2	15:DR:8:LYS:HB2	1.47	0.77
26:A4:18:CYS:CB	26:A4:39:CYS:CB	2.55	0.76
27:A5:56:LYS:H	27:A5:56:LYS:CD	1.98	0.76
1:AA:2857:G:N2	1:AA:2860:A:OP2	2.17	0.76
7:AH:83:TYR:HD2	7:AH:83:TYR:H	1.30	0.76
2:AB:30:C:OP2	14:AQ:32:LEU:HD11	1.85	0.76
31:BA:1305:G:OP2	31:BA:1305:G:H8	1.68	0.76
52:BB:17:G:O2'	52:BB:66:G:N2	2.16	0.76
6:AG:115:ARG:NH1	43:BP:7:VAL:HB	2.00	0.76
31:CA:1119:C:OP2	39:CL:9:ARG:NH2	2.18	0.76
31:CA:1152:A:H5'	40:CM:13:HIS:CD2	2.20	0.76
31:CA:421:U:H5"	31:CA:422:C:OP2	1.85	0.76
34:CG:3:ARG:HE	34:CG:118:ARG:HD3	1.50	0.76
37:CJ:76:ARG:HG2	37:CJ:76:ARG:HH11	1.50	0.76
41:CN:48:ILE:HD11	41:CN:64:ALA:HA	1.67	0.76
50:CW:40:ALA:HB2	50:CW:55:ILE:CG2	2.15	0.76
22:A3:68:GLU:HG3	22:A3:80:HIS:HD2	1.49	0.76
7:AH:150:ALA:C	7:AH:152:ARG:H	1.86	0.76
7:AH:97:ARG:O	7:AH:98:LEU:HB2	1.84	0.76
9:AM:97:ARG:HH11	9:AM:97:ARG:CG	1.92	0.76
1:AA:805:G:C5'	11:AO:38:GLN:NE2	2.48	0.76
1:AA:456:C:H5	19:AT:69:TYR:CE1	2.03	0.76
36:BI:69:GLU:O	36:BI:72:VAL:HG12	1.85	0.76
54:C1:12:A:O2'	54:C1:13:A:OP1	2.04	0.76
31:CA:1288:A:H2'	31:CA:1289:A:C8	2.20	0.76
3:DD:176:ARG:CG	3:DD:176:ARG:HH11	1.98	0.76
11:DO:80:TYR:CE1	11:DO:111:ARG:HG2	2.19	0.76
16:A1:59:ARG:O	16:A1:63:VAL:HG23	1.84	0.76
1:AA:165:U:O2	1:AA:165:U:H3'	1.85	0.76
1:AA:2747:G:O6	1:AA:2755:C:H5"	1.85	0.76
1:AA:654(M):C:H3'	1:AA:654(N):G:C8	2.20	0.76
1:AA:900:A:H5'	1:AA:901:A:OP2	1.85	0.76
1:AA:860:U:C5	1:AA:917:A:C2	2.72	0.76
3:AD:166:GLN:CA	3:AD:166:GLN:HE21	1.96	0.76
14:AQ:37:ALA:HB2	14:AQ:101:LEU:HD21	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:46:G:H2'	31:BA:366:C:H5	1.50	0.76
52:BD:52:G:H2'	52:BD:53:A:C8	2.19	0.76
34:BG:86:LYS:H	34:BG:86:LYS:HD2	1.51	0.76
31:CA:991:U:HO2'	31:CA:992:U:P	2.08	0.76
52:CD:14:A:H3'	52:CD:15:G:H5"	1.65	0.76
52:CD:79:A:C2'	52:CD:80:C:H5'	2.16	0.76
32:CE:132:LYS:HA	32:CE:135:GLN:HB2	1.67	0.76
31:CA:995:C:H1'	44:CQ:4:LYS:HE3	1.65	0.76
1:DA:1800:C:OP2	3:DD:266:SER:OG	2.03	0.76
1:DA:228:A:H3'	1:DA:228:A:H8	1.50	0.76
1:DA:2875:C:O2'	15:DR:3:ARG:HG3	1.84	0.76
11:DO:64:LYS:CG	11:DO:65:ARG:N	2.47	0.76
14:DQ:30:ARG:HG3	14:DQ:35:ILE:HD13	1.67	0.76
46:BS:43:LYS:HG3	46:BS:48:TRP:HE3	1.49	0.76
31:CA:1025:U:HO2'	31:CA:1026:G:P	2.07	0.76
31:CA:1194:U:H2'	31:CA:1195:C:H6	1.50	0.76
31:CA:991:U:O2	31:CA:993:G:H8	1.68	0.76
16:D1:72:HIS:HE1	16:D1:107:ALA:HA	1.49	0.76
1:DA:2726:U:HO2'	1:DA:2727:G:H8	1.30	0.76
10:DN:98:VAL:HG12	10:DN:117:LEU:HB2	1.67	0.76
27:A5:40:LYS:NZ	27:A5:46:CYS:HB3	2.01	0.76
11:AO:62:LEU:HD12	30:A8:30:ARG:HH12	1.46	0.76
30:A8:56:GLU:O	30:A8:58:ILE:N	2.17	0.76
3:AD:96:HIS:ND1	3:AD:102:LYS:HD3	2.00	0.76
7:AH:58:GLU:O	7:AH:60:ARG:N	2.18	0.76
37:BJ:120:ILE:O	37:BJ:124:LEU:HB2	1.85	0.76
31:CA:1329:A:C2'	31:CA:1330:U:H5'	2.14	0.76
35:CH:63:ARG:O	35:CH:66:MET:HE2	1.86	0.76
1:DA:1171:G:H1'	1:DA:1173:G:O4'	1.85	0.76
1:DA:1899:G:O2'	1:DA:1900:A:OP2	2.03	0.76
1:DA:2531:A:H4'	7:DH:157:TYR:CE2	2.20	0.76
26:A4:39:CYS:SG	26:A4:41:PRO:HG3	2.26	0.76
1:AA:1985:G:OP2	56:AA:3467:OHX:N2	2.18	0.76
1:AA:2751:G:C2	7:AH:3:ARG:HB3	2.20	0.76
4:AE:15:PHE:H	4:AE:21:VAL:H	1.33	0.76
31:BA:975:A:H4'	31:BA:976:G:H5"	1.67	0.76
31:CA:1278:U:O2	31:CA:1278:U:H2'	1.86	0.76
52:CB:57:C:C2	52:CB:68:A:H1'	2.21	0.76
28:D6:23:THR:O	56:D8:101:OHX:N4	2.19	0.76
1:DA:2405:G:O2'	1:DA:2406:U:OP1	2.04	0.76
1:DA:2516:G:C6	1:DA:2517:C:N4	2.54	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:889:C:C5	1:DA:890:A:H1'	2.21	0.76
10:DN:47:ILE:CG1	10:DN:48:PRO:HD2	2.15	0.76
26:A4:59:PHE:O	26:A4:63:TYR:HB3	1.85	0.76
1:AA:1045:A:O2'	1:AA:1047:G:C4	2.38	0.76
1:AA:1049:C:H2'	1:AA:1050:A:C5'	2.16	0.76
1:AA:154:G:C2'	1:AA:155:C:H5"	2.15	0.76
1:AA:2287:A:N6	1:AA:2344:U:N3	2.18	0.76
31:BA:659:U:H2'	31:BA:660:G:H8	1.48	0.76
31:CA:1003:G:N2	31:CA:1037:C:C2	2.53	0.76
31:CA:976:G:H5'	31:CA:1358:U:O2'	1.86	0.76
31:CA:362:G:N7	56:CA:1798:OHX:N5	2.33	0.76
46:CS:8:ARG:HG2	46:CS:8:ARG:NH1	2.00	0.76
22:D3:32:ARG:HG2	22:D3:33:ALA:H	1.51	0.76
29:D7:34:ARG:HH11	29:D7:39:ARG:HG3	1.48	0.76
1:DA:1142:U:H2'	1:DA:1142:U:O2	1.85	0.76
3:DD:246:PRO:O	3:DD:254:THR:HG22	1.85	0.76
9:DM:137:LYS:HA	9:DM:137:LYS:NZ	2.00	0.76
15:DR:61:PHE:HD2	15:DR:61:PHE:H	1.33	0.76
14:AQ:30:ARG:HG2	14:AQ:30:ARG:NH1	1.95	0.76
14:AQ:67:ARG:NH1	14:AQ:67:ARG:HB2	2.01	0.76
14:AQ:89:ARG:O	14:AQ:89:ARG:HG2	1.83	0.76
18:AS:9:TYR:H	18:AS:102:HIS:CD2	2.04	0.76
31:BA:79:G:O2'	31:BA:80:G:O5'	2.03	0.76
32:BE:91:PRO:HG3	32:BE:154:LEU:HB3	1.67	0.76
34:BG:199:ASN:O	34:BG:201:GLN:N	2.17	0.76
31:CA:1135:U:H2'	31:CA:1137:C:O2	1.86	0.76
31:CA:1190:G:C6	56:CA:1762:OHX:N6	2.53	0.76
31:CA:468:A:C2'	31:CA:474:G:H5'	2.16	0.76
34:CG:175:SER:HB3	34:CG:186:LEU:HD11	1.68	0.76
39:CL:114:TYR:HD1	40:CM:60:ARG:HG2	1.51	0.76
43:CP:3:ARG:HG2	43:CP:9:ILE:CG1	2.16	0.76
47:CT:6:LEU:HD22	47:CT:23:VAL:HG11	1.68	0.76
16:D1:50:ARG:HH12	17:D2:72:VAL:HG23	1.51	0.76
17:D2:73:SER:CB	17:D2:83:ARG:O	2.33	0.76
1:DA:2391:G:OP2	30:D8:32:LEU:HD13	1.83	0.76
1:DA:1358:G:O2'	1:DA:1359:A:H5"	1.84	0.76
12:DP:79:LEU:CD1	12:DP:79:LEU:C	2.54	0.76
1:AA:1532:C:H2'	1:AA:1533:C:H6	1.51	0.76
1:AA:2689:U:C4'	1:AA:2690:C:H5'	2.14	0.76
31:BA:1367:C:H5'	40:BM:60:ARG:NH2	1.98	0.76
37:BJ:111:ARG:NH1	37:BJ:113:GLU:OE2	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:963:G:N3	40:BM:55:LYS:NZ	2.32	0.76
50:BW:26:ASN:H	50:BW:26:ASN:HD22	1.33	0.76
37:CJ:16:LEU:HD12	39:CL:42:ARG:HA	1.67	0.76
42:CO:100:ILE:HG22	42:CO:101:VAL:N	2.01	0.76
17:D2:15:GLU:O	17:D2:96:ILE:HG21	1.86	0.76
1:DA:1188:U:O2'	1:DA:1189:A:H5'	1.84	0.76
1:DA:2893:G:H4'	1:DA:2894:G:O5'	1.86	0.76
1:DA:528:A:C2	1:DA:2043:C:H4'	2.20	0.76
5:DF:161:GLU:HG2	5:DF:164:ARG:HH12	1.51	0.76
26:A4:63:TYR:CE2	49:BV:42:PRO:HD3	2.21	0.76
27:A5:33:CYS:HB2	27:A5:40:LYS:HD3	1.66	0.76
1:AA:1430:C:H2'	1:AA:1431:U:C6	2.20	0.76
1:AA:2807:G:H2'	1:AA:2808:U:H5"	1.66	0.76
15:AR:108:ARG:HA	15:AR:111:ARG:HE	1.50	0.76
31:BA:1007:C:C2'	31:BA:1008:C:H5"	2.15	0.76
31:BA:142:G:H2'	31:BA:143:A:H8	1.51	0.76
31:CA:1372:U:OP1	39:CL:72:GLY:N	2.18	0.76
52:CB:48:C:H3'	52:CB:49:A:H8	1.51	0.76
34:CG:14:ARG:HG3	34:CG:14:ARG:NH1	2.00	0.76
34:CG:189:PRO:HB2	34:CG:194:LEU:HD21	1.67	0.76
1:DA:1495:A:C2'	1:DA:1496:A:H5'	2.16	0.76
8:DK:123:LEU:HA	8:DK:142:VAL:HG11	1.67	0.76
21:DV:44:PHE:HE1	21:DV:48:PHE:CD2	2.03	0.76
24:DW:47:ASN:C	24:DW:49:LYS:H	1.90	0.76
1:AA:274:G:H2'	1:AA:275:G:O4'	1.87	0.75
1:AA:67:U:N3	1:AA:74:A:H2	1.83	0.75
1:AA:910:A:N7	12:AP:13:GLN:HG3	2.02	0.75
18:AS:58:ALA:HB1	18:AS:64:MET:HE2	1.65	0.75
31:BA:1390:U:O4	56:BA:1811:OHX:N2	2.20	0.75
33:BF:40:ARG:O	33:BF:44:GLU:HG2	1.86	0.75
34:BG:209:ARG:NE	34:BG:209:ARG:HA	2.01	0.75
52:CB:19:C:H4'	52:CB:20:C:OP1	1.87	0.75
52:CB:73:U:H2'	52:CB:74:C:H5'	1.68	0.75
34:CG:118:ARG:HA	34:CG:121:VAL:HG23	1.68	0.75
3:DD:35:LYS:CD	3:DD:104:TYR:CD1	2.69	0.75
28:A6:16:CYS:O	28:A6:17:LYS:HB2	1.86	0.75
1:AA:1288:U:C2	1:AA:1327:C:O2	2.39	0.75
1:AA:1557:C:OP2	1:AA:1558:A:O2'	2.02	0.75
1:AA:2317:C:H2'	1:AA:2318:G:C5'	2.15	0.75
6:AG:67:LYS:HE2	26:A4:6:HIS:HE1	1.46	0.75
31:BA:1503:A:HO2'	31:BA:1504:G:C5'	1.99	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:81:G:H1	31:BA:88:C:N4	1.84	0.75
52:BD:57:C:O2'	52:BD:68:A:H4'	1.85	0.75
32:BE:69:LEU:HB2	32:BE:159:PRO:HG3	1.67	0.75
34:BG:85:LYS:O	56:BG:302:OHX:N5	2.19	0.75
31:CA:1297:C:H1'	31:CA:1298:C:OP2	1.86	0.75
52:CB:84:C:H2'	52:CB:85:A:C4	2.21	0.75
52:CD:61:G:H1	52:CD:71:C:N4	1.84	0.75
37:CJ:27:ILE:HG12	37:CJ:43:PHE:HD2	1.51	0.75
31:CA:1189:C:P	40:CM:51:ARG:HH22	2.09	0.75
43:CP:13:LYS:NZ	43:CP:21:TYR:OH	2.19	0.75
1:DA:847:U:C4	1:DA:933:A:C6	2.72	0.75
3:DD:64:ILE:O	3:DD:64:ILE:CG1	2.34	0.75
14:DQ:110:LEU:HD22	14:DQ:111:GLU:N	2.02	0.75
1:AA:1056:G:H21	1:AA:1103:A:H62	0.84	0.75
1:AA:2364:C:O2'	1:AA:2365:G:H5'	1.85	0.75
1:AA:2402:C:O2'	1:AA:2403:C:OP1	2.03	0.75
1:AA:945:A:N7	1:AA:2448:A:N3	2.35	0.75
1:AA:796:C:H2'	1:AA:797:C:C6	2.22	0.75
1:AA:880:G:N2	1:AA:897:C:N3	2.33	0.75
15:AR:111:ARG:HD3	15:AR:111:ARG:H	1.51	0.75
31:BA:1026:G:N7	31:BA:1036:G:N2	2.34	0.75
34:BG:92:VAL:O	34:BG:96:LEU:HD23	1.86	0.75
31:CA:1503:A:HO2'	31:CA:1504:G:P	2.09	0.75
31:CA:359:U:H2'	31:CA:360:A:H8	1.51	0.75
53:CC:62:C:H2'	53:CC:63:C:H6	1.51	0.75
50:CW:25:ARG:HG3	50:CW:25:ARG:HH11	1.50	0.75
28:D6:25:LYS:CB	30:D8:34:TRP:CH2	2.69	0.75
1:DA:1141:U:O2'	1:DA:1142:U:OP2	2.04	0.75
1:AA:2141:G:O6	1:AA:2150:U:O2	2.05	0.75
1:AA:2163:C:H2'	1:AA:2164:C:H5'	1.67	0.75
1:AA:889:C:H3'	1:AA:890:A:C4'	2.13	0.75
5:AF:108:LYS:O	5:AF:112:MET:HG3	1.87	0.75
11:AO:100:LEU:HB3	11:AO:106:LEU:HD12	1.69	0.75
31:CA:1316:G:N2	31:CA:1318:A:H3'	2.01	0.75
31:CA:293:G:N7	56:CA:1810:OHX:N6	2.33	0.75
52:CB:61:G:C2	52:CB:72:U:O2	2.40	0.75
39:CL:42:ARG:NH2	39:CL:75:ASP:OD2	2.16	0.75
42:CO:18:VAL:O	42:CO:19:ARG:HB2	1.86	0.75
43:CP:86:CYS:O	43:CP:89:GLY:N	2.18	0.75
46:CS:58:TYR:O	46:CS:61:SER:OG	1.99	0.75
1:DA:1171:G:H4'	1:DA:1173:G:OP1	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2400:G:H2'	1:DA:2401:U:H6	1.50	0.75
1:DA:2468:G:C8	1:DA:2476:A:C6	2.74	0.75
1:DA:2780:G:H4'	1:DA:2781:A:OP2	1.87	0.75
1:DA:646:A:H2'	1:DA:647:G:O4'	1.86	0.75
30:A8:59:LYS:HB2	30:A8:59:LYS:HZ3	1.49	0.75
1:AA:1057:A:H2'	1:AA:1058:U:C6	2.21	0.75
5:AF:29:ASN:H	5:AF:112:MET:HE2	1.52	0.75
11:AO:16:ARG:HH11	11:AO:16:ARG:HG3	1.49	0.75
12:AP:75:THR:CG2	12:AP:89:ASN:H	1.99	0.75
31:BA:112:G:OP1	46:BS:27:LYS:HD2	1.87	0.75
31:BA:1132:C:O2'	31:BA:1133:G:H5'	1.85	0.75
41:BN:127:LYS:HE2	41:BN:127:LYS:HA	1.68	0.75
46:BS:50:LYS:HD3	46:BS:51:VAL:N	2.00	0.75
31:CA:182:U:C5	31:CA:183:G:H1'	2.22	0.75
31:CA:84:U:O2	31:CA:84:U:H2'	1.86	0.75
32:CE:142:LEU:HD23	32:CE:142:LEU:O	1.86	0.75
11:DO:62:LEU:HD11	30:D8:25:MET:C	2.07	0.75
7:DH:92:ILE:HG22	7:DH:93:GLY:N	2.01	0.75
12:DP:17:LEU:HD21	12:DP:41:TRP:HE1	1.50	0.75
15:DR:56:GLY:O	15:DR:59:THR:HG23	1.86	0.75
1:AA:252:G:OP2	11:AO:50:ARG:NH1	2.18	0.75
3:AD:186:HIS:CD2	3:AD:188:GLU:H	2.03	0.75
4:AE:181:LEU:HD21	15:AR:7:ILE:HG23	1.69	0.75
7:AH:141:VAL:HG12	7:AH:142:GLY:N	2.00	0.75
14:AQ:36:TYR:HD1	14:AQ:36:TYR:N	1.85	0.75
18:AS:64:MET:O	18:AS:65:LEU:HB2	1.87	0.75
31:BA:1090:U:O2'	31:BA:1091:U:H5'	1.87	0.75
31:CA:1322:C:O2'	31:CA:1323:G:H5'	1.85	0.75
52:CB:28:G:N2	52:CB:45:C:H1'	2.02	0.75
44:CQ:21:TYR:HE2	44:CQ:23:ARG:HH21	1.34	0.75
1:DA:1110:G:O2'	1:DA:1111:A:O4'	2.03	0.75
2:DB:43:C:H5'	2:DB:44:G:OP2	1.86	0.75
3:DD:267:SER:HA	3:DD:270:ILE:HD12	1.68	0.75
1:AA:654(M):C:H5'	1:AA:654(N):G:N7	2.02	0.75
21:AV:27:VAL:HG12	21:AV:87:ASP:CB	2.15	0.75
31:BA:313:A:H2'	31:BA:314:C:C6	2.22	0.75
32:BE:69:LEU:HB3	32:BE:162:ILE:HG22	1.68	0.75
31:CA:547:A:OP2	34:CG:2:GLY:N	2.19	0.75
43:CP:37:THR:O	43:CP:55:ARG:NH2	2.15	0.75
1:DA:153:C:N4	1:DA:173:G:H1	1.85	0.75
1:DA:2297:C:H2'	1:DA:2297:C:O2	1.83	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2748:A:H2'	1:DA:2749:A:H8	1.52	0.75
11:DO:84:ASN:O	11:DO:86:LYS:N	2.19	0.75
14:DQ:107:GLU:H	14:DQ:110:LEU:HD11	1.51	0.75
18:DS:59:VAL:HG23	18:DS:65:LEU:N	2.02	0.75
29:A7:35:ARG:HG3	29:A7:42:LEU:HD11	1.69	0.75
1:AA:1109:C:O2'	1:AA:1110:G:O4'	2.02	0.75
1:AA:49:A:C8	1:AA:120:U:C5	2.65	0.75
1:AA:270(O):U:C4'	1:AA:270(P):C:OP2	2.34	0.75
1:AA:49:A:N7	1:AA:120:U:C4	2.55	0.75
1:AA:546:C:H3'	1:AA:547:A:C8	2.22	0.75
10:AN:71:ARG:NH1	15:AR:74:ARG:HH21	1.85	0.75
31:BA:1124:G:H3'	31:BA:1145:C:H41	1.51	0.75
31:BA:1120:G:N7	56:BA:1728:OHX:N1	2.34	0.75
33:BF:30:ARG:HB2	44:BQ:36:PHE:O	1.86	0.75
31:CA:1277:C:O2'	31:CA:1279:A:H8	1.66	0.75
32:CE:42:ILE:HG21	32:CE:203:GLY:HA2	1.69	0.75
43:CP:78:ILE:HG23	43:CP:92:HIS:HD2	1.49	0.75
16:D1:69:CYS:HB3	16:D1:106:PHE:CZ	2.21	0.75
1:DA:2136:C:N4	1:DA:2155:G:C6	2.55	0.75
1:DA:2789:C:C2'	1:DA:2790:A:H5"	2.17	0.75
1:DA:885:C:H41	1:DA:890:A:H62	1.33	0.75
8:DK:104:GLN:HG2	8:DK:105:HIS:HD2	1.50	0.75
19:DT:18:TYR:HA	19:DT:21:PHE:CD2	2.21	0.75
1:AA:2635:C:H5"	4:AE:78:LEU:HA	1.69	0.75
4:AE:87:GLU:O	4:AE:89:ASP:N	2.20	0.75
7:AH:43:VAL:HG12	7:AH:52:VAL:HG22	1.68	0.75
9:AM:95:PRO:O	9:AM:96:GLU:CD	2.25	0.75
31:BA:1280:A:H3'	31:BA:1281:U:H5"	1.68	0.75
31:BA:486:U:H2'	31:BA:487:A:C8	2.21	0.75
37:BJ:68:ASN:ND2	37:BJ:127:ALA:O	2.20	0.75
45:BR:63:ARG:NH1	45:BR:87:ILE:HD12	1.98	0.75
1:DA:2304:G:H22	1:DA:2312:U:H3	1.33	0.75
1:DA:2667:C:N3	7:DH:110:SER:OG	2.17	0.75
1:DA:900:A:H3'	1:DA:901:A:H8	1.52	0.75
4:DE:31:CYS:HB3	4:DE:49:LEU:HB3	1.67	0.75
4:DE:3:GLY:HA3	4:DE:81:ILE:HD12	1.68	0.75
4:DE:52:LEU:HB3	4:DE:75:VAL:HG23	1.68	0.75
8:DK:77:LEU:HD13	8:DK:141:LYS:HD2	1.69	0.75
20:DU:97:ARG:HG2	20:DU:97:ARG:NH1	2.02	0.75
1:AA:882:G:N1	1:AA:894:C:N4	2.24	0.74
6:AG:13:GLU:O	6:AG:14:GLU:HB2	1.85	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:6:LEU:O	11:AO:7:ARG:O	2.05	0.74
31:BA:575:G:OP1	56:BA:1746:OHX:N3	2.19	0.74
35:BH:100:VAL:HG22	35:BH:118:ILE:HG22	1.69	0.74
31:CA:1319:A:OP1	49:CV:10:PHE:HB3	1.87	0.74
32:CE:236:TYR:HB2	32:CE:239:VAL:HB	1.68	0.74
3:DD:231:HIS:ND1	3:DD:232:PRO:HD2	2.01	0.74
3:DD:63:ARG:N	3:DD:63:ARG:HD3	2.02	0.74
8:DK:101:LEU:H	8:DK:101:LEU:CD2	1.98	0.74
1:DA:2275:C:HO2'	12:DP:84:GLY:HA2	1.43	0.74
13:A0:91:GLN:H	13:A0:91:GLN:NE2	1.85	0.74
28:A6:33:LYS:HG3	28:A6:34:LEU:HD22	1.68	0.74
1:AA:2298:A:H62	1:AA:2318:G:H8	1.36	0.74
1:AA:2544:G:OP1	56:AA:3504:OHX:N2	2.20	0.74
18:AS:111:HIS:CD2	18:AS:112:GLY:H	2.04	0.74
20:AU:81:LYS:HB3	20:AU:97:ARG:HD3	1.68	0.74
31:BA:723:U:H2'	31:BA:723:U:O2	1.87	0.74
39:BL:53:VAL:HG21	39:BL:92:TYR:CG	2.22	0.74
46:BS:43:LYS:CG	46:BS:48:TRP:CE3	2.70	0.74
31:CA:200:G:H1	31:CA:217:C:H42	1.35	0.74
31:CA:266:G:H1	31:CA:270:A:H62	1.35	0.74
33:CF:180:ALA:O	33:CF:181:ASN:HB3	1.86	0.74
1:DA:1019:U:H2'	1:DA:1020:A:C8	2.22	0.74
1:AA:1427:A:H4'	1:AA:1428:C:O5'	1.86	0.74
1:AA:2142:C:N4	1:AA:2149:G:H1	1.84	0.74
1:AA:2164:C:H2'	1:AA:2165:G:O4'	1.87	0.74
34:BG:173:TRP:CZ3	34:BG:193:ASP:HB3	2.21	0.74
34:BG:209:ARG:CA	34:BG:209:ARG:HE	1.96	0.74
31:CA:1503:A:N6	54:C1:12:A:C4	2.55	0.74
16:D1:50:ARG:NH1	17:D2:72:VAL:HB	2.02	0.74
17:D2:39:LEU:O	17:D2:40:LEU:HD12	1.87	0.74
1:DA:1210:A:H5'	1:DA:1212:G:O4'	1.87	0.74
1:DA:2720:U:N3	1:DA:2873:A:C2	2.55	0.74
1:DA:296:C:O2'	1:DA:297:C:H5'	1.86	0.74
5:DF:119:ARG:HH11	5:DF:119:ARG:HG2	1.52	0.74
1:AA:527:C:OP2	1:AA:2779:U:C5	2.39	0.74
1:AA:847:U:C4	1:AA:933:A:N1	2.56	0.74
4:AE:20:ALA:CB	4:AE:21:VAL:HG13	2.17	0.74
6:AG:16:ARG:HH11	6:AG:16:ARG:HG3	1.50	0.74
32:BE:8:LYS:HE3	32:BE:11:LEU:HD13	1.68	0.74
1:DA:2531:A:H4'	7:DH:157:TYR:HE2	1.52	0.74
1:DA:945:A:C5	1:DA:2448:A:C2	2.76	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:25:THR:C	3:DD:27:THR:H	1.89	0.74
8:DK:104:GLN:HG2	8:DK:105:HIS:CD2	2.21	0.74
12:DP:90:VAL:HG12	12:DP:90:VAL:O	1.85	0.74
1:AA:286:C:H2'	1:AA:287:C:C6	2.21	0.74
3:AD:35:LYS:HD3	3:AD:63:ARG:CA	2.18	0.74
7:AH:4:ILE:HB	7:AH:6:ARG:CD	2.16	0.74
35:BH:106:PRO:O	35:BH:110:LEU:HG	1.87	0.74
35:BH:139:LEU:O	35:BH:142:LEU:N	2.19	0.74
44:BQ:40:CYS:O	44:BQ:42:ILE:N	2.19	0.74
54:C1:21:C:C4	54:C1:22:A:C6	2.76	0.74
31:CA:1056:U:O4	31:CA:1200:C:C6	2.40	0.74
52:CB:13:G:N2	52:CB:23:A:N1	2.35	0.74
33:CF:164:ARG:HG2	33:CF:165:THR:H	1.52	0.74
3:DD:201:HIS:O	3:DD:204:ILE:HG12	1.87	0.74
3:DD:35:LYS:HE3	3:DD:64:ILE:C	2.08	0.74
6:DG:126:ASP:OD2	6:DG:130:ASN:HB2	1.87	0.74
1:AA:2015:A:O2'	27:A5:3:LYS:HG3	1.86	0.74
7:AH:153:LYS:N	7:AH:153:LYS:HD2	2.01	0.74
7:AH:40:GLU:O	7:AH:41:MET:HB2	1.86	0.74
21:AV:169:GLU:OE1	21:AV:170:THR:OG1	2.06	0.74
32:BE:81:VAL:O	32:BE:85:ALA:HB2	1.88	0.74
52:CB:47:U:O2'	52:CB:48:C:O4'	2.01	0.74
34:CG:150:GLU:O	34:CG:152:SER:N	2.19	0.74
45:CR:39:LEU:O	45:CR:39:LEU:HD22	1.88	0.74
1:DA:1464:C:HO2'	1:DA:1528:A:H8	1.33	0.74
3:DD:35:LYS:HE2	3:DD:104:TYR:CB	2.16	0.74
3:DD:35:LYS:CD	3:DD:64:ILE:H	1.99	0.74
1:AA:62:C:H42	1:AA:92:G:H1	1.35	0.74
3:AD:186:HIS:HD2	3:AD:188:GLU:H	1.35	0.74
4:AE:67:PHE:O	4:AE:69:LYS:N	2.20	0.74
15:AR:102:ILE:HA	15:AR:105:LEU:CD2	2.18	0.74
15:AR:84:GLN:HG2	15:AR:85:LYS:HG2	1.69	0.74
46:BS:8:ARG:HB3	46:BS:28:ARG:NH1	2.01	0.74
31:CA:1288:A:H2'	31:CA:1289:A:H8	1.52	0.74
31:CA:748:C:H1'	31:CA:749:C:OP2	1.87	0.74
16:D1:11:ARG:HG3	16:D1:11:ARG:HH11	1.53	0.74
28:D6:24:GLU:OE2	56:D8:101:OHX:N2	2.20	0.74
6:DG:64:THR:HG23	6:DG:66:GLN:H	1.53	0.74
11:DO:15:ARG:CB	11:DO:15:ARG:HH11	2.01	0.74
1:AA:1858:G:O2'	1:AA:1884:A:N6	2.20	0.74
31:BA:673:G:H2'	31:BA:674:G:C8	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:185:ILE:HG22	32:BE:199:TYR:HB2	1.68	0.74
32:BE:220:ASP:O	32:BE:223:ILE:N	2.20	0.74
45:BR:7:GLU:OE1	45:BR:38:ARG:NH2	2.19	0.74
47:BT:86:GLU:O	47:BT:90:ILE:HG12	1.87	0.74
31:CA:1331:G:H4'	31:CA:1331:G:OP1	1.86	0.74
31:CA:975:A:C4'	31:CA:976:G:H5"	2.18	0.74
1:DA:1442:G:H2'	1:DA:1443:G:H5"	1.70	0.74
1:DA:2523:G:H5'	1:DA:2523:G:C8	2.20	0.74
1:DA:30:G:H2'	1:DA:31:C:C6	2.23	0.74
1:DA:631:A:OP1	11:DO:64:LYS:CE	2.35	0.74
1:DA:2275:C:O2	12:DP:85:LYS:HG2	1.88	0.74
20:DU:97:ARG:NH2	20:DU:98:VAL:HB	2.03	0.74
22:A3:49:LYS:N	22:A3:80:HIS:HB3	2.03	0.74
1:AA:2173:A:H5'	1:AA:2174:C:OP2	1.87	0.74
7:AH:6:ARG:HG3	7:AH:7:LEU:HG	1.70	0.74
24:AW:58:ALA:O	24:AW:62:THR:HG22	1.86	0.74
31:BA:468:A:H2'	31:BA:474:G:H5'	1.68	0.74
37:BJ:15:ASP:O	37:BJ:19:GLY:N	2.19	0.74
31:CA:1199:U:H4'	40:CM:54:PHE:CE1	2.22	0.74
31:CA:890:G:O6	56:CA:1756:OHX:N5	2.20	0.74
1:DA:2816:C:O3'	13:D0:99:LYS:NZ	2.20	0.74
1:DA:1701:A:OP2	56:DA:3099:OHX:N4	2.21	0.74
1:DA:2391:G:OP2	30:D8:32:LEU:HD12	1.88	0.74
1:DA:2702:U:H2'	1:DA:2703:C:C5	2.21	0.74
1:DA:2712:U:H1'	1:DA:2712(A):A:C8	2.22	0.74
1:DA:451:C:N4	1:DA:454:A:H5'	2.02	0.74
13:A0:75:LEU:O	13:A0:75:LEU:HD22	1.88	0.74
1:AA:1028:A:N3	1:AA:2486:G:O2'	2.20	0.74
1:AA:860:U:H5	1:AA:917:A:H2	1.32	0.74
3:AD:35:LYS:CG	3:AD:64:ILE:N	2.51	0.74
1:AA:943:U:OP2	11:AO:36:LYS:CD	2.35	0.74
14:AQ:25:ARG:NH1	14:AQ:42:ASP:OD2	2.21	0.74
15:AR:53:ARG:HB3	15:AR:53:ARG:CZ	2.16	0.74
21:AV:52:SER:OG	21:AV:52:SER:O	2.05	0.74
52:BB:1:G:H2'	52:BB:2:G:H8	1.52	0.74
33:BF:92:ALA:HB2	33:BF:99:VAL:HG22	1.70	0.74
34:BG:4:TYR:HE2	34:BG:11:LEU:HD11	1.50	0.74
46:BS:39:TYR:O	46:BS:40:ASP:HB2	1.86	0.74
52:CD:19:C:H2'	52:CD:20:C:H4'	1.70	0.74
32:CE:178:ARG:NH2	38:CK:68:ARG:HH22	1.86	0.74
47:CT:67:LYS:HA	47:CT:70:ARG:HH12	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1183:G:N7	56:DA:3427:OHX:N4	2.36	0.74
5:DF:25:PRO:HB3	5:DF:28:ILE:HG23	1.69	0.74
9:DM:47:ALA:O	9:DM:119:ARG:NH2	2.20	0.74
9:DM:134:ARG:HG2	9:DM:134:ARG:O	1.87	0.74
9:DM:45:ASN:HD22	9:DM:45:ASN:H	1.33	0.74
15:DR:88:ILE:HD11	15:DR:125:ARG:HH22	1.53	0.74
13:A0:85:PRO:O	13:A0:87:TYR:N	2.21	0.73
1:AA:2584:U:H2'	1:AA:2585:U:H2'	1.70	0.73
1:AA:598:G:C1'	11:AO:12:ALA:HB2	2.18	0.73
3:AD:35:LYS:NZ	3:AD:64:ILE:O	2.18	0.73
11:AO:138:LEU:HD12	11:AO:144:GLU:HG3	1.70	0.73
34:BG:65:ARG:NH1	34:BG:70:ILE:O	2.20	0.73
43:BP:13:LYS:O	43:BP:44:ARG:HD2	1.88	0.73
31:CA:1054:C:O2'	31:CA:1055:A:O5'	2.03	0.73
31:CA:1129:C:H4'	31:CA:1130:A:C5'	2.18	0.73
39:CL:10:ARG:NH1	39:CL:105:ASP:OD1	2.21	0.73
1:DA:2303:G:O2'	1:DA:2304:G:H5'	1.88	0.73
1:DA:627:A:N7	11:DO:84:ASN:ND2	2.33	0.73
3:DD:35:LYS:CE	3:DD:104:TYR:HD1	2.01	0.73
3:DD:218:ARG:HB3	3:DD:219:PRO:HD2	1.70	0.73
15:DR:51:ARG:CG	15:DR:98:LYS:HD2	2.17	0.73
13:A0:10:LEU:O	13:A0:12:ARG:HG3	1.87	0.73
1:AA:2212:A:H1'	1:AA:2215:G:C5	2.22	0.73
1:AA:2216:G:O6	56:AA:3329:OHX:N3	2.20	0.73
10:AN:104:ARG:HD3	15:AR:36:GLU:OE2	1.87	0.73
31:BA:210:U:O2'	31:BA:216:G:H8	1.70	0.73
31:BA:46:G:H2'	31:BA:366:C:C5	2.23	0.73
52:BB:48:C:N4	52:BB:52:G:H1	1.86	0.73
52:BD:12:C:O2	52:BD:24:G:N2	2.19	0.73
49:BV:63:THR:HG23	49:BV:65:ASN:HD21	1.54	0.73
32:CE:8:LYS:HB2	32:CE:217:ARG:HE	1.52	0.73
16:D1:98:LEU:C	16:D1:100:VAL:N	2.41	0.73
1:DA:1379:A:H1'	1:DA:1380:G:OP1	1.88	0.73
1:DA:2786:U:H4'	4:DE:65:GLY:H	1.51	0.73
1:DA:676:A:H8	1:DA:2069:G:N2	1.77	0.73
3:DD:32:SER:O	3:DD:33:LEU:HB2	1.88	0.73
6:DG:121:ASN:HD22	6:DG:181:ARG:NH2	1.86	0.73
10:DN:115:VAL:HG13	10:DN:121:VAL:HG21	1.69	0.73
16:A1:66:ASN:OD1	16:A1:76:TYR:HB3	1.87	0.73
22:A3:35:ASN:H	22:A3:35:ASN:HD22	1.35	0.73
29:A7:8:ASN:ND2	29:A7:8:ASN:C	2.33	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:948:G:O6	56:AA:3547:OHX:N1	2.20	0.73
11:AO:85:LEU:HA	11:AO:88:LEU:HD22	1.71	0.73
35:BH:147:ASP:HA	35:BH:150:ARG:NH1	2.04	0.73
48:BU:53:ARG:HH21	48:BU:59:SER:C	1.91	0.73
31:CA:1157:A:H1'	31:CA:1158:C:C2	2.24	0.73
31:CA:1277:C:O2'	31:CA:1279:A:C8	2.40	0.73
35:CH:8:GLU:HB3	35:CH:34:VAL:HG23	1.70	0.73
41:CN:57:THR:HG22	41:CN:59:TYR:H	1.54	0.73
42:CO:117:ARG:HB3	42:CO:122:THR:HB	1.69	0.73
30:D8:54:GLU:OE1	30:D8:57:ARG:NH2	2.22	0.73
1:DA:1538:G:O2'	1:DA:1539:G:H5'	1.87	0.73
1:DA:534:U:O2'	16:D1:49:HIS:HD2	1.72	0.73
21:DV:155:LEU:HD21	21:DV:171:ILE:HG21	1.70	0.73
21:DV:158:PRO:CB	21:DV:159:PRO:HD2	2.15	0.73
1:AA:1026:U:O2	1:AA:1027:A:H5"	1.88	0.73
2:AB:15:A:H5'	2:AB:16:G:H8	1.50	0.73
3:AD:35:LYS:HZ1	3:AD:104:TYR:HB2	1.50	0.73
3:AD:34:VAL:C	3:AD:35:LYS:HG3	2.07	0.73
3:AD:96:HIS:CE1	3:AD:102:LYS:HD3	2.22	0.73
7:AH:4:ILE:O	7:AH:6:ARG:HG2	1.88	0.73
1:AA:805:G:H4'	11:AO:38:GLN:HE21	1.52	0.73
31:BA:992:U:H1'	31:BA:993:G:OP2	1.88	0.73
37:BJ:120:ILE:HG22	37:BJ:124:LEU:HD12	1.70	0.73
46:BS:43:LYS:HG3	46:BS:48:TRP:CE3	2.24	0.73
31:CA:418:C:N4	31:CA:425:G:H1	1.84	0.73
34:CG:139:ARG:CG	34:CG:139:ARG:HH11	1.99	0.73
1:DA:2294:C:P	14:DQ:89:ARG:HH22	2.10	0.73
1:DA:2615:U:C2	27:D5:7:PRO:HA	2.22	0.73
1:DA:946:G:C2'	1:DA:947:G:H5'	2.19	0.73
6:DG:43:LEU:HD12	6:DG:45:GLU:HG3	1.69	0.73
22:A3:83:PRO:O	22:A3:84:LEU:HB2	1.88	0.73
1:AA:1545(A):A:H2'	1:AA:1546:C:H5'	1.69	0.73
1:AA:1728:G:H3'	1:AA:1729:A:C5'	2.16	0.73
1:AA:2751:G:O2'	1:AA:2752:C:P	2.45	0.73
5:AF:67:GLN:O	5:AF:68:LYS:HB2	1.86	0.73
11:AO:15:ARG:CB	11:AO:15:ARG:HH11	2.01	0.73
2:AB:75:G:H21	21:AV:85:HIS:CE1	2.06	0.73
31:BA:395:C:O2	31:BA:395:C:H2'	1.88	0.73
31:BA:452:A:O2'	31:BA:453:A:O5'	2.06	0.73
34:BG:22:LYS:CB	34:BG:26:CYS:HB2	2.17	0.73
50:BW:89:ARG:HD2	50:BW:104:LEU:HD21	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1209:C:H2'	31:CA:1209:C:O2	1.87	0.73
39:CL:63:ILE:HD11	39:CL:81:ILE:HD11	1.71	0.73
1:DA:1496:A:H8	1:DA:1577:C:O2'	1.70	0.73
1:DA:2275:C:H5'	1:DA:2275:C:H6	1.53	0.73
1:DA:2469:A:C8	1:DA:2482:G:C6	2.76	0.73
1:DA:2789:C:H2'	1:DA:2790:A:H5"	1.68	0.73
1:DA:27:G:N2	1:DA:512:G:HO2'	1.86	0.73
8:DK:59:ALA:HA	8:DK:62:LYS:HB3	1.69	0.73
9:DM:133:GLN:O	9:DM:134:ARG:HD3	1.88	0.73
10:DN:119:PRO:HB2	15:DR:68:TYR:CE2	2.24	0.73
13:A0:2:ARG:HG3	13:A0:5:LYS:HZ1	1.53	0.73
1:AA:2532:G:O2'	1:AA:2657:A:N1	2.21	0.73
4:AE:23:VAL:HG21	4:AE:183:LEU:HD23	1.69	0.73
5:AF:164:ARG:HG3	5:AF:175:THR:OG1	1.88	0.73
5:AF:40:GLN:OE1	5:AF:184:TYR:CB	2.36	0.73
7:AH:84:SER:OG	7:AH:85:LYS:N	2.19	0.73
14:AQ:3:ARG:HG2	14:AQ:4:LEU:N	2.03	0.73
35:BH:126:ARG:HG3	35:BH:126:ARG:HH11	1.54	0.73
49:BV:41:VAL:HA	49:BV:44:MET:HB2	1.69	0.73
49:BV:41:VAL:CB	49:BV:42:PRO:HA	2.17	0.73
38:CK:12:ARG:NH1	38:CK:27:PRO:HD3	2.02	0.73
1:DA:1639:U:C2'	1:DA:1640:C:H5'	2.19	0.73
13:A0:92:GLY:H	13:A0:94:TYR:HE2	1.33	0.73
27:A5:6:VAL:HG22	27:A5:7:PRO:HD2	1.70	0.73
1:AA:68:G:H2'	1:AA:69:C:H6	1.52	0.73
1:AA:900:A:H3'	1:AA:901:A:C8	2.23	0.73
1:AA:2255:G:H22	12:AP:85:LYS:HE2	0.92	0.73
31:BA:1331:G:O2'	31:BA:1332:A:O5'	2.06	0.73
52:BB:10:C:H42	52:BB:26:G:H1	1.36	0.73
32:BE:204:ASN:HD22	32:BE:206:ASP:H	1.36	0.73
48:BU:26:LEU:HB3	48:BU:42:ARG:HH22	1.53	0.73
39:CL:3:GLN:HG2	39:CL:20:ARG:HD2	1.70	0.73
44:CQ:45:ARG:O	44:CQ:49:HIS:CD2	2.42	0.73
1:DA:1582:C:HO2'	1:DA:1586:A:H8	1.36	0.73
1:DA:2557:G:H2'	1:DA:2558:C:H6	1.54	0.73
1:DA:2544:G:OP1	56:DA:3471:OHX:N4	2.22	0.73
5:DF:152:GLU:OE2	5:DF:191:ARG:HD2	1.89	0.73
10:DN:120:GLU:OE1	10:DN:122:LEU:HD21	1.87	0.73
15:DR:11:GLU:OE1	15:DR:11:GLU:N	2.22	0.73
27:A5:4:HIS:HB3	27:A5:5:PRO:HD3	0.75	0.73
11:AO:58:THR:CG2	11:AO:61:ARG:HG3	2.14	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:394:G:C5	31:BA:395:C:C5	2.77	0.73
34:BG:12:CYS:HA	34:BG:19:LEU:CD2	2.19	0.73
38:BK:64:LYS:C	38:BK:65:TYR:HD1	1.91	0.73
43:CP:76:ALA:HA	43:CP:79:LYS:CB	2.17	0.73
1:DA:2130:U:H2'	1:DA:2158:A:C2	2.24	0.73
1:DA:2561:A:H2	10:DN:23:ARG:HH12	1.37	0.73
1:DA:2490:G:N2	56:DA:3344:OHX:N1	2.37	0.73
9:DM:97:ARG:NH1	9:DM:97:ARG:HG2	1.88	0.73
13:A0:92:GLY:N	13:A0:94:TYR:HE2	1.86	0.73
27:A5:40:LYS:HB2	27:A5:46:CYS:SG	2.29	0.73
1:AA:1296:G:O2'	1:AA:1297:C:H5'	1.88	0.73
1:AA:361:G:O2'	1:AA:362:U:H5'	1.89	0.73
7:AH:80:SER:O	7:AH:81:GLU:HG3	1.88	0.73
20:AU:76:CYS:SG	20:AU:77:PRO:HD2	2.28	0.73
31:BA:1194:U:H2'	31:BA:1195:C:H6	1.53	0.73
53:BC:20:G:C2	53:BC:58:A:N3	2.57	0.73
39:CL:49:PRO:HB3	39:CL:96:LEU:HD11	1.70	0.73
17:D2:77:ALA:O	17:D2:78:LYS:CG	2.37	0.73
12:DP:4:PRO:HD3	12:DP:70:PRO:O	1.87	0.73
17:A2:47:VAL:HG22	17:A2:48:GLY:N	2.04	0.73
28:A6:34:LEU:HB2	28:A6:36:LEU:HD22	1.69	0.73
1:AA:141:A:H8	1:AA:1595:G:H21	1.36	0.73
1:AA:330:A:O2'	1:AA:331:A:H8	1.70	0.73
2:AB:50:G:OP1	14:AQ:63:THR:HG23	1.88	0.73
21:AV:30:ASN:O	21:AV:32:HIS:N	2.22	0.73
31:BA:859:A:H2'	31:BA:860:A:H8	1.54	0.73
32:BE:77:ALA:HB2	32:BE:211:ILE:HD13	1.71	0.73
35:BH:147:ASP:HA	35:BH:150:ARG:HH12	1.54	0.73
36:BI:82:ARG:HB2	36:BI:85:VAL:HG23	1.71	0.73
50:BW:25:ARG:HH11	50:BW:25:ARG:HG3	1.54	0.73
31:CA:458:C:H2'	31:CA:464:G:O4'	1.89	0.73
39:CL:14:VAL:O	39:CL:65:VAL:HG23	1.89	0.73
28:D6:52:VAL:HG22	28:D6:53:LYS:H	1.53	0.73
1:DA:2157:G:H2'	1:DA:2158:A:C8	2.24	0.73
5:DF:38:ARG:HH11	5:DF:38:ARG:HG3	1.54	0.73
26:A4:40:HIS:H	26:A4:41:PRO:CD	2.00	0.72
29:A7:29:LYS:HD3	29:A7:32:LYS:HD2	1.71	0.72
1:AA:2474:C:H2'	1:AA:2475:C:O4'	1.89	0.72
1:AA:588:U:H2'	1:AA:589:C:H6	1.53	0.72
3:AD:17:THR:HG22	3:AD:205:VAL:N	2.03	0.72
31:BA:1301:U:O4	31:BA:1303:C:H1'	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1226:C:N4	43:CP:104:ARG:HD2	2.03	0.72
1:DA:1607:C:H4'	1:DA:1608:A:O5'	1.87	0.72
31:BA:1000:A:H4'	1:DA:2137:C:OP1	1.89	0.72
1:DA:259:G:O2'	1:DA:621:A:O2'	2.07	0.72
1:DA:669:G:O2'	1:DA:670:A:OP1	2.05	0.72
3:DD:182:LEU:H	3:DD:272:ALA:HB3	1.54	0.72
16:A1:92:ARG:HD3	16:A1:94:ASN:HB3	1.69	0.72
1:AA:1107:G:H2'	1:AA:1108:U:H6	1.54	0.72
1:AA:1729:A:H8	1:AA:1730:U:C5	2.07	0.72
6:AG:35:GLU:OE1	6:AG:36:LYS:N	2.21	0.72
11:AO:64:LYS:O	11:AO:66:GLY:N	2.22	0.72
31:BA:343:U:H1'	31:BA:347:G:N2	2.04	0.72
31:BA:829:G:O2'	31:BA:830:G:H5'	1.89	0.72
43:BP:15:VAL:HG23	43:BP:43:THR:O	1.88	0.72
31:CA:1129:C:H4'	31:CA:1130:A:H5'	1.69	0.72
35:CH:9:LYS:HB2	35:CH:112:LEU:HD11	1.69	0.72
1:DA:1138:G:H5"	1:DA:1139:G:OP2	1.88	0.72
1:DA:2119:A:N6	1:DA:2170:A:H62	1.86	0.72
1:DA:666:G:OP1	11:DO:47:ASP:O	2.07	0.72
11:DO:61:ARG:HH21	11:DO:61:ARG:HB3	1.54	0.72
16:A1:58:ARG:HA	16:A1:61:TRP:CE3	2.24	0.72
1:AA:1043:C:H2'	1:AA:1044:G:H5'	1.72	0.72
4:AE:179:GLU:HB3	4:AE:181:LEU:HD22	1.71	0.72
1:AA:2318:G:H22	14:AQ:2:ALA:CA	2.02	0.72
21:AV:9:TYR:HE1	21:AV:35:ARG:HD3	1.55	0.72
37:BJ:9:VAL:HG13	37:BJ:94:ARG:HE	1.54	0.72
31:CA:1056:U:O2	31:CA:1056:U:H2'	1.87	0.72
31:CA:1194:U:H2'	31:CA:1195:C:C6	2.24	0.72
52:CB:23:A:H2'	52:CB:24:G:H5'	1.70	0.72
44:CQ:18:VAL:O	44:CQ:20:ALA:N	2.21	0.72
22:D3:49:LYS:NZ	22:D3:68:GLU:OE2	2.14	0.72
1:DA:1899:G:N2	1:DA:1902:C:H41	1.87	0.72
1:DA:492:A:C2'	1:DA:493:G:H5'	2.19	0.72
3:DD:35:LYS:CE	3:DD:104:TYR:HB2	2.18	0.72
18:AS:68:ARG:HE	18:AS:112:GLY:HA3	1.54	0.72
21:AV:27:VAL:HG22	21:AV:28:MET:H	1.52	0.72
48:BU:70:ILE:HG23	48:BU:79:LEU:HD13	1.70	0.72
31:CA:976:G:OP1	44:CQ:32:SER:N	2.22	0.72
13:D0:97:VAL:HA	13:D0:113:LEU:O	1.89	0.72
1:DA:1384:A:N3	1:DA:1405:U:H1'	2.04	0.72
7:DH:15:VAL:HG12	7:DH:29:PRO:HD2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:DH:58:GLU:O	7:DH:60:ARG:N	2.22	0.72
14:DQ:10:ARG:O	14:DQ:14:VAL:HG12	1.89	0.72
27:A5:50:GLY:H	27:A5:56:LYS:CG	2.01	0.72
3:AD:18:VAL:HG12	3:AD:19:ALA:H	1.55	0.72
1:AA:1138:G:H21	9:AM:106:MET:CE	2.01	0.72
24:AW:47:ASN:O	24:AW:49:LYS:N	2.22	0.72
31:BA:209:U:H5'	31:BA:210:U:OP2	1.88	0.72
31:BA:81:G:N1	31:BA:88:C:C4	2.57	0.72
52:BB:17:G:HO2'	52:BB:66:G:N2	1.88	0.72
32:BE:59:GLU:C	32:BE:61:LEU:H	1.91	0.72
31:BA:1055:A:O2'	33:BF:161:GLU:OE1	2.07	0.72
33:BF:20:SER:HB2	33:BF:40:ARG:HH22	1.53	0.72
31:CA:1303:C:O2	31:CA:1303:C:H2'	1.89	0.72
31:CA:1346:A:H1'	31:CA:1347:G:OP2	1.90	0.72
31:CA:436:C:H2'	31:CA:437:U:H6	1.55	0.72
31:CA:410:G:OP2	34:CG:25:ARG:HG2	1.89	0.72
1:DA:1068:G:O2'	1:DA:1096:A:O2'	2.05	0.72
1:DA:2619:C:OP1	4:DE:152:LYS:HE2	1.89	0.72
1:DA:2645:G:C3'	1:DA:2646:C:H5'	2.20	0.72
4:DE:176:ILE:HB	4:DE:181:LEU:HB2	1.71	0.72
6:DG:4:ASP:O	6:DG:5:VAL:HB	1.89	0.72
1:AA:1049:C:H2'	1:AA:1050:A:H5'	1.71	0.72
1:AA:2543:G:H5"	1:AA:2543:G:H8	1.54	0.72
9:AM:22:THR:HG21	9:AM:25:ARG:HD2	1.70	0.72
12:AP:21:THR:O	12:AP:21:THR:HG22	1.89	0.72
1:AA:142:G:C1'	19:AT:37:THR:HG21	2.18	0.72
20:AU:97:ARG:NE	20:AU:97:ARG:O	2.23	0.72
32:BE:124:SER:HB2	32:BE:125:PRO:HD2	1.70	0.72
31:BA:438:G:H4'	34:BG:123:HIS:ND1	2.04	0.72
38:BK:41:ARG:NH2	38:BK:123:GLU:OE1	2.23	0.72
42:BO:66:VAL:HG21	42:BO:98:TYR:CE1	2.24	0.72
43:BP:105:THR:OG1	43:BP:106:ASN:N	2.23	0.72
31:CA:1060:C:O2'	31:CA:1061:G:H5'	1.90	0.72
31:CA:78:G:H2'	31:CA:79:G:O4'	1.90	0.72
52:CD:57:C:H4'	52:CD:58:G:O5'	1.89	0.72
32:CE:167:PRO:O	32:CE:171:ALA:N	2.23	0.72
38:CK:17:THR:O	38:CK:78:GLN:NE2	2.20	0.72
26:D4:48:ARG:HG2	26:D4:49:PHE:H	1.54	0.72
28:D6:24:GLU:HG3	28:D6:25:LYS:H	1.54	0.72
1:DA:2561:A:H2	10:DN:23:ARG:NH1	1.87	0.72
1:DA:946:G:N2	1:DA:971:C:O2	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:55:LYS:HD2	6:DG:58:GLN:NE2	2.04	0.72
20:DU:97:ARG:H	20:DU:97:ARG:HD3	1.53	0.72
26:A4:54:GLY:HA2	26:A4:57:GLU:HB3	1.71	0.72
1:AA:1558:A:H1'	1:AA:1559:G:OP2	1.90	0.72
1:AA:2400:G:O2'	1:AA:2401:U:H5'	1.89	0.72
1:AA:2567:G:H2'	1:AA:2568:C:C6	2.25	0.72
1:AA:2579:C:H2'	1:AA:2580:U:O4'	1.90	0.72
4:AE:101:ARG:HG2	4:AE:169:ASN:OD1	1.89	0.72
4:AE:14:ILE:H	4:AE:21:VAL:HA	1.55	0.72
6:AG:38:VAL:HG22	6:AG:93:THR:HG23	1.71	0.72
12:AP:104:PHE:O	12:AP:105:GLU:HB2	1.89	0.72
12:AP:1:MET:O	12:AP:2:LEU:HB2	1.89	0.72
31:BA:670:G:OP2	56:BA:1760:OHX:N5	2.23	0.72
52:BB:10:C:H2'	52:BB:11:C:C6	2.24	0.72
52:BB:46:G:H2'	52:BB:47:U:C5	2.25	0.72
34:BG:163:GLU:O	34:BG:165:MET:N	2.23	0.72
36:BI:3:ARG:NH1	36:BI:38:GLU:OE1	2.23	0.72
31:CA:1129:C:C4	31:CA:1139:G:N1	2.57	0.72
31:CA:1503:A:O2'	31:CA:1504:G:O5'	2.08	0.72
32:CE:118:LEU:HB2	32:CE:142:LEU:HD12	1.70	0.72
49:CV:49:ILE:HG13	49:CV:62:ILE:HD11	1.71	0.72
1:DA:1161:C:H1'	17:D2:8:GLY:O	1.89	0.72
1:DA:1762:A:C4'	1:DA:1762:A:OP1	2.37	0.72
11:DO:21:ARG:NE	11:DO:21:ARG:HA	1.98	0.72
1:DA:495:G:H21	18:DS:61:ASN:HD21	1.37	0.72
13:A0:41:ALA:O	13:A0:43:GLU:N	2.23	0.72
27:A5:36:CYS:SG	27:A5:48:GLU:O	2.47	0.72
27:A5:3:LYS:O	27:A5:4:HIS:HB2	1.89	0.72
1:AA:1142:U:H2'	1:AA:1142:U:O2	1.90	0.72
1:AA:15:G:C2'	1:AA:16:G:H5'	2.20	0.72
1:AA:1864:U:H2'	1:AA:1869:G:H5"	1.72	0.72
4:AE:116:VAL:O	4:AE:117:MET:HB3	1.89	0.72
31:CA:1034:G:N2	31:CA:1035:A:H62	1.88	0.72
31:CA:664:G:H22	31:CA:741:G:H1	1.36	0.72
31:CA:979:C:C5	31:CA:980:C:H6	2.08	0.72
26:D4:22:ILE:CG1	26:D4:23:GLU:H	1.99	0.72
2:DB:28:C:OP1	14:DQ:36:TYR:OH	2.05	0.72
4:DE:116:VAL:O	4:DE:117:MET:CB	2.38	0.72
6:DG:28:VAL:O	6:DG:31:VAL:HG12	1.89	0.72
21:DV:168:GLU:HG3	21:DV:169:GLU:N	2.03	0.72
1:AA:2347:C:H4'	28:A6:39:TYR:CE2	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1266:G:O6	18:AS:13:SER:OG	2.06	0.72
1:AA:2402:C:H5	1:AA:2415:G:H22	1.37	0.72
1:AA:881:G:H3'	1:AA:882:G:O4'	1.89	0.72
1:AA:1803:A:O2'	3:AD:259:THR:HG21	1.90	0.72
3:AD:35:LYS:HD2	3:AD:104:TYR:HD1	1.46	0.72
5:AF:132:VAL:HG23	5:AF:133:ASN:N	2.05	0.72
9:AM:1:MET:HE1	16:A1:95:LEU:HD21	1.72	0.72
31:BA:280:C:O2'	56:BA:1793:OHX:N4	2.22	0.72
56:BA:1793:OHX:N6	47:BT:39:SER:O	2.22	0.72
31:BA:468:A:C8	31:BA:474:G:C8	2.78	0.72
31:CA:1189:C:OP1	40:CM:51:ARG:NH2	2.17	0.72
31:CA:687:A:H1'	31:CA:688:G:OP2	1.90	0.72
53:CC:48:U:HO2'	53:CC:49:C:P	2.11	0.72
41:CN:20:TYR:CE2	41:CN:83:ILE:HD12	2.25	0.72
3:DD:108:PRO:HB3	3:DD:143:HIS:HE1	1.55	0.72
4:DE:66:HIS:C	4:DE:68:ALA:N	2.43	0.72
11:DO:92:GLU:OE2	11:DO:121:LYS:HG2	1.90	0.72
15:DR:20:PRO:HD2	15:DR:86:ILE:HG23	1.72	0.72
1:DA:481:G:OP2	20:DU:47:LYS:HB2	1.88	0.72
12:AP:92:GLY:O	12:AP:93:TYR:CG	2.42	0.72
18:AS:12:ILE:HG13	18:AS:42:ARG:HH12	1.54	0.72
31:BA:310:G:OP2	46:BS:27:LYS:NZ	2.23	0.72
31:CA:954:G:H2'	31:CA:955:U:C6	2.25	0.72
33:CF:182:ILE:HG22	33:CF:203:PHE:HA	1.71	0.72
41:CN:93:GLN:HA	41:CN:93:GLN:HE21	1.54	0.72
1:DA:674:G:OP1	5:DF:54:ARG:NH2	2.22	0.72
10:DN:117:LEU:HD12	10:DN:117:LEU:H	1.54	0.72
11:DO:46:LYS:O	11:DO:48:PRO:HB3	1.89	0.72
16:A1:79:PHE:HE2	16:A1:83:LEU:CD2	2.03	0.71
1:AA:1030:G:OP2	12:AP:128:LYS:NZ	2.19	0.71
1:AA:330:A:O2'	1:AA:331:A:C8	2.43	0.71
1:AA:969:U:O4	56:AA:3547:OHX:N1	2.23	0.71
31:BA:1301:U:O2	31:BA:1301:U:H2'	1.88	0.71
31:BA:22:G:H2'	31:BA:23:C:C6	2.25	0.71
52:BB:17:G:N2	52:BB:66:G:H2'	2.04	0.71
32:BE:17:PHE:HB3	32:BE:44:LEU:HD11	1.70	0.71
42:BO:7:ILE:CD1	47:BT:32:TYR:HB3	2.19	0.71
43:BP:47:ASP:O	43:BP:48:LEU:HB3	1.87	0.71
31:CA:1329:A:H2'	31:CA:1330:U:H5'	1.71	0.71
1:DA:1771:C:O2'	1:DA:1786:A:H8	1.73	0.71
1:DA:626:U:H5'	1:DA:627:A:H5'	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:166:GLN:HE21	3:DD:166:GLN:CA	2.02	0.71
11:DO:104:GLY:O	11:DO:105:LEU:CB	2.38	0.71
21:DV:170:THR:O	21:DV:172:ALA:N	2.22	0.71
13:A0:12:ARG:HD3	13:A0:16:HIS:CD2	2.25	0.71
1:AA:593:G:O3'	30:A8:61:LEU:HD22	1.89	0.71
2:AB:12:C:O2	22:A3:74:ARG:NH1	2.23	0.71
2:AB:73:A:H2'	2:AB:74:U:H5'	1.72	0.71
3:AD:28:GLU:O	3:AD:29:PRO:C	2.24	0.71
4:AE:1:MET:HB3	4:AE:200:GLU:OE1	1.89	0.71
7:AH:101:ARG:NH1	7:AH:122:THR:OG1	2.22	0.71
9:AM:22:THR:HG22	9:AM:23:LEU:N	2.05	0.71
10:AN:2:ILE:HD13	10:AN:2:ILE:N	2.05	0.71
31:BA:1053:G:N7	31:BA:1199:U:H3'	2.05	0.71
31:BA:266:G:OP1	56:BA:1724:OHX:N2	2.23	0.71
54:C1:12:A:O2'	54:C1:13:A:P	2.48	0.71
31:CA:1033:G:H2'	31:CA:1034:G:O4'	1.90	0.71
31:CA:1100:C:HO2'	31:CA:1102:A:P	2.13	0.71
31:CA:1181:G:N3	31:CA:1181:G:H2'	2.06	0.71
31:CA:411:A:N7	31:CA:413:G:N3	2.38	0.71
34:CG:11:LEU:HD22	34:CG:66:ARG:HD3	1.71	0.71
1:DA:2352:A:C2	22:D3:33:ALA:O	2.43	0.71
1:DA:2326:C:OP1	56:DA:3223:OHX:N5	2.23	0.71
1:DA:2599:G:OP2	3:DD:236:GLY:N	2.23	0.71
14:DQ:29:PHE:CD2	14:DQ:30:ARG:N	2.53	0.71
18:DS:17:VAL:O	18:DS:19:LEU:N	2.23	0.71
20:DU:43:ASN:N	20:DU:43:ASN:HD22	1.88	0.71
1:AA:1065:U:H1'	1:AA:1074:G:H22	1.55	0.71
1:AA:4:C:H2'	1:AA:5:A:C8	2.26	0.71
31:BA:1008:C:N4	31:BA:1021:G:H1	1.85	0.71
31:BA:1065:U:HO2'	31:BA:1066:C:P	2.13	0.71
32:CE:169:LYS:O	32:CE:169:LYS:HD3	1.90	0.71
41:CN:124:LYS:HE3	41:CN:125:PHE:CE2	2.25	0.71
1:DA:2320:A:H1'	1:DA:2321:G:C6	2.25	0.71
1:DA:2400:G:C4	1:DA:2401:U:C5	2.78	0.71
5:DF:69:HIS:H	5:DF:69:HIS:HD2	1.35	0.71
17:A2:35:LEU:HD22	17:A2:35:LEU:H	1.55	0.71
11:AO:121:LYS:HZ3	11:AO:123:LEU:HD11	1.54	0.71
14:AQ:48:LEU:HD23	14:AQ:82:ILE:HD11	1.72	0.71
2:AB:116:G:C5'	14:AQ:55:ALA:HB2	2.19	0.71
15:AR:136:GLN:HG3	15:AR:137:LYS:H	1.54	0.71
1:AA:989:G:N7	25:AX:13:ILE:HD11	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:353:A:H8	31:BA:353:A:H5'	1.55	0.71
32:BE:146:GLN:OE1	32:BE:153:ARG:NH2	2.24	0.71
33:BF:12:LEU:O	33:BF:14:ILE:N	2.23	0.71
31:CA:1129:C:H41	31:CA:1141:C:N4	1.87	0.71
31:CA:1203:C:H2'	31:CA:1204:A:O4'	1.90	0.71
31:CA:1206:G:O2'	33:CF:193:TYR:HA	1.90	0.71
1:DA:1316:U:O2'	1:DA:1317:A:H5'	1.90	0.71
1:DA:2872:G:O2'	1:DA:2873:A:H5'	1.90	0.71
1:DA:999:U:H3'	1:DA:1154:G:O6	1.89	0.71
11:DO:15:ARG:NH1	11:DO:15:ARG:CG	2.39	0.71
11:DO:61:ARG:HG2	11:DO:61:ARG:NH2	2.02	0.71
2:DB:7:G:O5'	14:DQ:29:PHE:CE1	2.43	0.71
15:DR:106:SER:HA	15:DR:110:ILE:HG13	1.72	0.71
16:A1:92:ARG:HB3	17:A2:11:GLN:NE2	2.05	0.71
31:BA:950:U:H2'	31:BA:951:G:H8	1.55	0.71
32:BE:54:THR:HG21	32:BE:201:ILE:HD11	1.72	0.71
31:CA:652:U:H1'	31:CA:653:A:H2	1.54	0.71
31:CA:791:G:C6	31:CA:792:A:N7	2.58	0.71
31:CA:930:C:H2'	31:CA:931:C:H5'	1.72	0.71
47:CT:59:ILE:HG22	47:CT:71:PHE:HD1	1.55	0.71
30:D8:52:LYS:H	30:D8:52:LYS:CD	2.04	0.71
1:DA:30:G:H2'	1:DA:31:C:H6	1.53	0.71
2:DB:59:A:H2'	2:DB:60:C:O4'	1.90	0.71
8:DK:123:LEU:HA	8:DK:142:VAL:CG1	2.20	0.71
12:DP:83:MET:SD	12:DP:83:MET:N	2.63	0.71
7:AH:4:ILE:HB	7:AH:6:ARG:HD3	1.73	0.71
20:AU:84:ARG:HH12	20:AU:97:ARG:HB2	1.55	0.71
21:AV:125:LEU:HG	21:AV:164:ALA:HB3	1.72	0.71
24:AW:47:ASN:C	24:AW:49:LYS:H	1.94	0.71
31:BA:394:G:C5	31:BA:395:C:H5	2.08	0.71
31:BA:630:G:H2'	31:BA:631:G:O4'	1.91	0.71
31:CA:632:A:C1'	31:CA:633:G:OP2	2.33	0.71
1:DA:997:G:O2'	1:DA:998:C:H5'	1.91	0.71
3:DD:34:VAL:HG21	3:DD:103:ARG:HA	1.73	0.71
1:DA:773:U:H4'	3:DD:47:GLY:HA3	1.73	0.71
5:DF:37:VAL:HG13	5:DF:184:TYR:HD1	1.55	0.71
9:DM:33:LEU:CD1	9:DM:38:HIS:HD2	2.03	0.71
14:DQ:102:ALA:O	14:DQ:105:ALA:N	2.23	0.71
15:DR:3:ARG:HG2	15:DR:6:LEU:H	1.53	0.71
24:DW:21:LEU:O	24:DW:25:VAL:HG22	1.90	0.71
1:AA:1833:U:H2'	1:AA:1834:U:H6	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1858:G:O6	56:AA:3569:OHX:N6	2.24	0.71
1:AA:70:G:H4'	1:AA:71:A:OP1	1.91	0.71
1:AA:882:G:H3'	1:AA:883:G:H5"	1.71	0.71
1:AA:2572:A:N7	4:AE:144:ARG:HD2	2.05	0.71
11:AO:64:LYS:C	11:AO:66:GLY:H	1.93	0.71
31:BA:1053:G:O3'	31:BA:1054:C:H4'	1.89	0.71
38:BK:86:ILE:HG22	38:BK:87:SER:N	2.05	0.71
33:CF:184:TYR:HD1	33:CF:201:TYR:CE2	2.09	0.71
37:CJ:113:GLU:HB2	37:CJ:119:ARG:CG	2.19	0.71
16:D1:50:ARG:HH11	17:D2:70:ILE:CG2	2.00	0.71
28:D6:24:GLU:HG3	28:D6:25:LYS:N	2.06	0.71
2:DB:66:A:C2	2:DB:108:C:C4	2.79	0.71
4:DE:61:ARG:C	4:DE:63:LEU:H	1.94	0.71
9:DM:128:HIS:HB2	9:DM:129:PRO:CD	2.20	0.71
11:DO:106:LEU:HD11	11:DO:111:ARG:O	1.90	0.71
1:DA:2415:G:H4'	11:DO:66:GLY:HA3	1.72	0.71
1:DA:389:G:H1	11:DO:71:VAL:CG1	2.02	0.71
13:A0:94:TYR:N	13:A0:94:TYR:CD2	2.56	0.71
27:A5:3:LYS:H	27:A5:3:LYS:HD2	1.53	0.71
1:AA:1071:G:N1	1:AA:1091:G:N7	2.38	0.71
1:AA:917:A:H2'	1:AA:918:A:C5'	2.20	0.71
6:AG:119:GLY:HA3	6:AG:181:ARG:HB2	1.73	0.71
7:AH:86:GLU:HG3	7:AH:165:ALA:HB3	1.72	0.71
12:AP:83:MET:SD	12:AP:83:MET:N	2.63	0.71
14:AQ:59:LYS:HG2	14:AQ:60:GLY:H	1.54	0.71
1:AA:86:C:H5"	20:AU:2:ARG:HH12	1.54	0.71
31:BA:1347:G:N2	31:BA:1373:G:H2'	2.04	0.71
31:BA:631:G:O2'	31:BA:632:A:O4'	2.07	0.71
52:BB:46:G:O2'	52:BB:47:U:H5'	1.91	0.71
33:BF:110:ASN:O	33:BF:111:LEU:HD23	1.90	0.71
39:BL:17:VAL:HG21	39:BL:80:GLY:HA3	1.73	0.71
31:CA:965:A:OP1	31:CA:1198:G:H5"	1.91	0.71
37:CJ:65:ALA:HB2	37:CJ:128:ALA:HB2	1.72	0.71
1:DA:1652:A:N6	13:D0:11:ASN:HD21	1.88	0.71
16:D1:112:ARG:HH11	17:D2:47:VAL:HG13	1.56	0.71
20:DU:31:LEU:O	20:DU:31:LEU:HD12	1.90	0.71
1:AA:2191:G:H2'	1:AA:2192:G:H5"	1.73	0.71
8:AK:64:GLU:C	8:AK:66:GLU:H	1.93	0.71
9:AM:34:LEU:HD11	9:AM:119:ARG:O	1.91	0.71
24:AW:32:LEU:HA	24:AW:35:LEU:HD23	1.72	0.71
35:BH:78:HIS:HE1	35:BH:143:ARG:N	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:43:ALA:O	39:BL:45:ALA:N	2.24	0.71
44:CQ:18:VAL:C	44:CQ:20:ALA:H	1.94	0.71
48:CU:36:ASN:HB2	48:CU:39:VAL:HG23	1.73	0.71
27:D5:3:LYS:O	27:D5:4:HIS:O	2.09	0.71
1:DA:492:A:H2'	1:DA:493:G:H5'	1.72	0.71
1:DA:910:A:H62	12:DP:12:GLN:HA	1.56	0.71
12:DP:23:GLY:HA2	12:DP:25:ASP:HB2	1.73	0.71
12:DP:29:PHE:HB3	12:DP:65:PHE:CZ	2.25	0.71
17:A2:29:PRO:HA	17:A2:61:VAL:HG23	1.72	0.71
26:A4:37:SER:HB3	26:A4:42:PHE:CD1	2.26	0.71
1:AA:2281:C:O2'	1:AA:2282:G:H5'	1.91	0.71
6:AG:165:THR:HG23	6:AG:168:GLU:OE1	1.91	0.71
19:AT:4:ALA:HA	19:AT:7:VAL:HG23	1.73	0.71
31:BA:142:G:H1	31:BA:221:C:N4	1.89	0.71
52:BD:49:A:H1'	52:BD:52:G:H22	1.56	0.71
43:BP:3:ARG:HG2	43:BP:9:ILE:HD11	1.73	0.71
31:CA:818:G:O2'	31:CA:819:A:H5'	1.90	0.71
52:CD:12:C:O2	52:CD:24:G:N2	2.24	0.71
34:CG:178:VAL:HG12	34:CG:179:GLU:N	2.04	0.71
1:DA:1519:G:C2'	1:DA:1520:U:H5'	2.20	0.71
1:DA:2872:G:C8	1:DA:2873:A:C2	2.79	0.71
1:DA:259:G:N2	1:DA:621:A:H8	1.86	0.71
5:DF:32:LEU:O	5:DF:32:LEU:HD23	1.91	0.71
5:DF:4:VAL:HG11	5:DF:17:ARG:HE	1.55	0.71
7:DH:104:GLU:HB2	7:DH:114:VAL:HG22	1.73	0.71
12:DP:19:GLY:H	12:DP:98:LYS:NZ	1.87	0.71
21:DV:6:LYS:HG3	21:DV:7:ALA:H	1.56	0.71
1:AA:1275:A:C4	13:A0:16:HIS:ND1	2.58	0.70
30:A8:31:HIS:CG	30:A8:31:HIS:O	2.43	0.70
56:AA:3535:OHX:N1	3:AD:202:LYS:O	2.24	0.70
1:AA:1995:U:OP1	56:AA:3557:OHX:N3	2.24	0.70
1:AA:602:G:N2	1:AA:655:A:C8	2.59	0.70
1:AA:784:A:C5'	1:AA:785:G:OP1	2.35	0.70
1:AA:880:G:OP1	1:AA:880:G:H4'	1.91	0.70
5:AF:127:GLU:OE2	5:AF:127:GLU:HA	1.90	0.70
7:AH:83:TYR:CB	7:AH:135:GLY:H	2.03	0.70
31:BA:1242:C:H42	31:BA:1295:G:H1	1.39	0.70
31:BA:1305:G:H22	31:BA:1331:G:C2'	2.04	0.70
31:CA:1200:C:H5'	31:CA:1201:A:H5'	1.73	0.70
31:CA:690:G:H2'	31:CA:691:G:O4'	1.91	0.70
52:CB:46:G:O2'	52:CB:47:U:OP1	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CW:8:ARG:HH11	50:CW:8:ARG:CG	2.04	0.70
1:DA:1126:A:H8	1:DA:1126:A:OP1	1.74	0.70
1:DA:2122:U:H2'	1:DA:2123:G:O4'	1.91	0.70
1:DA:884:C:N3	1:DA:892:G:N2	2.36	0.70
1:AA:330:A:HO2'	1:AA:331:A:H8	1.37	0.70
1:AA:910:A:H62	12:AP:12:GLN:HA	1.55	0.70
25:AX:8:LEU:HB2	25:AX:28:LEU:HD22	1.73	0.70
31:BA:1305:G:N2	31:BA:1331:G:N3	2.39	0.70
41:BN:22:HIS:HB3	41:BN:29:ILE:HG23	1.72	0.70
43:BP:23:TYR:HB3	43:BP:67:GLU:HB2	1.72	0.70
47:BT:48:GLU:O	47:BT:50:LYS:N	2.24	0.70
49:BV:51:VAL:HG12	49:BV:52:TYR:H	1.55	0.70
50:BW:100:ILE:HG13	50:BW:102:GLY:N	2.02	0.70
50:BW:52:ALA:O	50:BW:54:LYS:N	2.25	0.70
31:CA:1024:G:H2'	31:CA:1025:U:C6	2.26	0.70
31:CA:1300:G:O2'	31:CA:1301:U:O5'	2.09	0.70
40:CM:30:SER:HB2	40:CM:81:THR:HG22	1.73	0.70
17:D2:35:LEU:O	17:D2:37:VAL:HG13	1.91	0.70
1:DA:598:G:H1'	11:DO:12:ALA:HB2	1.73	0.70
2:DB:111:U:O4	56:DB:213:OHX:N3	2.24	0.70
2:DB:83:G:H1	2:DB:93:C:H42	1.36	0.70
3:DD:68:LYS:HB3	3:DD:70:TRP:CH2	2.27	0.70
7:DH:92:ILE:HD12	7:DH:92:ILE:H	1.56	0.70
12:DP:2:LEU:O	12:DP:70:PRO:CG	2.40	0.70
21:DV:28:MET:O	21:DV:34:ASN:HA	1.91	0.70
27:A5:16:ARG:NH1	27:A5:17:ASP:OD1	2.25	0.70
1:AA:1065:U:H1'	1:AA:1074:G:N2	2.05	0.70
1:AA:643:A:O2'	1:AA:644:A:H5'	1.90	0.70
11:AO:64:LYS:C	11:AO:66:GLY:N	2.41	0.70
34:BG:108:LEU:HB3	34:BG:110:PHE:HE1	1.54	0.70
38:BK:12:ARG:NH1	38:BK:27:PRO:HD2	2.06	0.70
52:CB:37:A:C2	54:C1:20:G:C5	2.79	0.70
31:CA:1351:U:H4'	37:CJ:33:ASP:HB3	1.74	0.70
31:CA:1497:G:H2'	31:CA:1498:U:H5'	1.73	0.70
31:CA:266:G:OP1	56:CA:1727:OHX:N2	2.25	0.70
37:CJ:143:ARG:NH1	52:CD:43:G:H5'	2.06	0.70
1:DA:1460:A:H4'	1:DA:1461:G:OP2	1.91	0.70
1:DA:2211:G:O2'	1:DA:2212:A:P	2.49	0.70
1:DA:2736:G:H2'	1:DA:2737:G:H8	1.56	0.70
1:DA:35:G:C4	1:DA:454:A:C2	2.79	0.70
2:DB:63:G:OP1	56:DB:220:OHX:N6	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:105:THR:HG21	4:DE:164:ARG:NH1	2.06	0.70
6:DG:56:ALA:HB2	6:DG:153:ARG:NE	2.06	0.70
8:DK:76:THR:HG23	8:DK:77:LEU:N	2.06	0.70
12:DP:19:GLY:N	12:DP:98:LYS:HZ3	1.85	0.70
1:AA:240:G:O6	56:AA:3536:OHX:N4	2.23	0.70
1:AA:675:A:H4'	5:AF:67:GLN:NE2	2.05	0.70
31:BA:1213:A:N7	31:BA:1215:G:C5	2.59	0.70
38:BK:51:VAL:HG21	38:BK:60:ARG:NH1	2.05	0.70
31:CA:757:U:H2'	31:CA:758:G:O4'	1.90	0.70
52:CB:52:G:H2'	52:CB:53:A:O4'	1.92	0.70
34:CG:12:CYS:HB3	34:CG:33:MET:HG2	1.73	0.70
1:DA:2840:C:H5"	13:D0:53:HIS:CD2	2.26	0.70
16:D1:65:ILE:HD11	16:D1:96:ALA:CB	2.21	0.70
1:DA:1800:C:OP2	3:DD:183:ARG:NH2	2.23	0.70
1:DA:2157:G:H2'	1:DA:2158:A:H8	1.56	0.70
1:DA:2657:A:O2'	7:DH:160:LYS:HE3	1.91	0.70
4:DE:92:THR:O	4:DE:95:ILE:HG13	1.92	0.70
6:DG:2:PRO:O	6:DG:4:ASP:N	2.25	0.70
9:DM:57:ALA:O	9:DM:58:ASP:CG	2.30	0.70
11:DO:52:GLU:CG	11:DO:57:THR:HA	2.19	0.70
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.26	0.70
1:AA:654(D):G:H1	1:AA:654(Q):C:H42	0.73	0.70
1:AA:971:C:H2'	1:AA:972:G:H5'	1.74	0.70
18:AS:79:GLY:CA	18:AS:100:THR:HG22	2.21	0.70
31:BA:1145:C:H4'	31:BA:1146:A:H8	1.56	0.70
31:BA:171:A:H2'	31:BA:172:A:H8	1.56	0.70
52:BD:51:C:H2'	52:BD:52:G:O4'	1.90	0.70
36:BI:67:MET:HB2	36:BI:68:PRO:HD2	1.74	0.70
39:BL:98:PRO:O	39:BL:100:GLY:N	2.25	0.70
37:CJ:113:GLU:CB	37:CJ:119:ARG:HG2	2.19	0.70
37:CJ:16:LEU:CD1	39:CL:42:ARG:HA	2.21	0.70
39:CL:53:VAL:C	39:CL:55:ALA:H	1.94	0.70
41:CN:20:TYR:HB2	41:CN:31:THR:HG23	1.73	0.70
42:CO:55:VAL:HG22	42:CO:56:ALA:N	2.06	0.70
26:D4:18:CYS:SG	26:D4:19:GLY:HA2	2.31	0.70
28:D6:25:LYS:CA	30:D8:34:TRP:CZ3	2.75	0.70
1:DA:1570:A:O4'	3:DD:38:LYS:HE2	1.91	0.70
1:DA:2310:A:C5'	1:DA:2311:A:OP2	2.40	0.70
1:DA:2522:U:H2'	1:DA:2523:G:H5"	1.72	0.70
1:DA:2872:G:C5	1:DA:2873:A:C2	2.79	0.70
1:DA:1855:G:N7	56:DA:3248:OHX:N1	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:DN:117:LEU:H	10:DN:117:LEU:CD1	2.04	0.70
1:AA:1473:G:C2'	1:AA:1474:C:H5'	2.21	0.70
1:AA:1519:G:C2'	1:AA:1520:U:H5'	2.22	0.70
7:AH:105:LEU:H	7:AH:105:LEU:HD23	1.56	0.70
9:AM:23:LEU:HG	9:AM:24:GLY:N	2.06	0.70
54:B1:11:U:H1'	54:B1:12:A:OP1	1.91	0.70
52:BD:13:G:H2'	52:BD:14:A:C8	2.26	0.70
32:BE:212:GLN:CD	32:BE:235:SER:HB2	2.12	0.70
54:C1:11:U:H2'	54:C1:12:A:C2	2.27	0.70
31:CA:1028:C:N3	31:CA:1034:G:N2	2.40	0.70
31:CA:1095:U:C4	31:CA:1096:C:C4	2.80	0.70
31:CA:1449:C:O3'	31:CA:1450:U:H4'	1.90	0.70
37:CJ:20:ASP:HB3	37:CJ:23:VAL:HG23	1.72	0.70
47:CT:59:ILE:HG22	47:CT:71:PHE:CD1	2.26	0.70
16:D1:92:ARG:NH1	17:D2:11:GLN:H	1.89	0.70
1:DA:2311:A:C2	6:DG:88:ILE:HD11	2.26	0.70
1:DA:2468:G:C5	1:DA:2481:G:C2	2.80	0.70
1:DA:2480:C:OP2	56:DA:3176:OHX:N4	2.24	0.70
1:DA:848:G:H2'	1:DA:849:A:H8	1.53	0.70
1:DA:798:G:OP1	56:DF:301:OHX:N6	2.24	0.70
9:DM:21:LYS:O	9:DM:60:ILE:HG23	1.91	0.70
11:DO:46:LYS:O	11:DO:48:PRO:CB	2.39	0.70
16:A1:75:ASN:HB2	16:A1:78:THR:OG1	1.91	0.70
6:AG:67:LYS:HG3	26:A4:6:HIS:CE1	2.27	0.70
1:AA:1076:C:H2'	1:AA:1077:A:H5"	1.72	0.70
1:AA:1079:C:H5'	1:AA:1080:A:OP2	1.92	0.70
1:AA:1202:C:H2'	1:AA:1203:G:H5'	1.72	0.70
1:AA:2392:A:H2	1:AA:2424:C:H42	1.40	0.70
8:AK:104:GLN:O	8:AK:105:HIS:CD2	2.44	0.70
24:AW:42:GLY:C	24:AW:44:LEU:H	1.92	0.70
31:BA:515:G:N2	31:BA:537:G:C4	2.60	0.70
31:BA:819:A:H4'	31:BA:820:U:OP2	1.91	0.70
33:BF:95:THR:HG22	33:BF:96:GLY:N	2.03	0.70
47:BT:91:ARG:HH11	47:BT:91:ARG:HG2	1.57	0.70
31:CA:1301:U:H2'	31:CA:1301:U:O2	1.90	0.70
31:CA:606:G:N7	56:CA:1775:OHX:N5	2.38	0.70
34:CG:205:GLU:OE1	35:CH:100:VAL:HG12	1.92	0.70
39:CL:78:LYS:HB2	39:CL:78:LYS:HZ2	1.57	0.70
31:CA:1151:A:O2'	40:CM:70:ARG:NH2	2.23	0.70
30:D8:30:ARG:HB3	30:D8:31:HIS:HD2	1.55	0.70
8:DK:79:ILE:O	8:DK:79:ILE:HG22	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1050:A:C8	1:AA:2751:G:N7	2.60	0.70
1:AA:442:G:O4'	5:AF:46:ARG:HD3	1.91	0.70
1:AA:546:C:H3'	1:AA:547:A:H8	1.56	0.70
1:AA:833:U:H2'	1:AA:834:C:C6	2.27	0.70
3:AD:228:PRO:HG3	3:AD:234:GLY:O	1.91	0.70
1:AA:2467:C:C4'	12:AP:123:HIS:ND1	2.52	0.70
15:AR:108:ARG:HA	15:AR:111:ARG:NE	2.06	0.70
20:AU:91:GLU:HG3	20:AU:92:ASN:OD1	1.92	0.70
31:BA:1238:A:N7	31:BA:1301:U:O4	2.25	0.70
34:BG:163:GLU:C	34:BG:165:MET:H	1.95	0.70
44:BQ:4:LYS:O	44:BQ:7:ILE:HG13	1.92	0.70
31:CA:1153:C:C2	31:CA:1154:G:C8	2.79	0.70
31:CA:1256:A:N6	31:CA:1278:U:OP2	2.25	0.70
31:CA:1361:G:OP1	56:CA:1769:OHX:N3	2.25	0.70
52:CD:18:G:C1'	52:CD:19:C:OP2	2.38	0.70
32:CE:21:ARG:HA	32:CE:39:ILE:HA	1.73	0.70
33:CF:46:GLU:O	33:CF:47:LEU:HB2	1.91	0.70
1:DA:90:U:O2'	1:DA:91:A:C8	2.43	0.70
11:DO:104:GLY:O	11:DO:105:LEU:HG	1.91	0.70
11:DO:46:LYS:NZ	11:DO:46:LYS:CB	2.41	0.70
12:DP:19:GLY:HA3	12:DP:98:LYS:HD2	1.74	0.70
12:DP:21:THR:HG22	12:DP:21:THR:O	1.91	0.70
24:DW:46:GLN:N	24:DW:49:LYS:HZ2	1.88	0.70
17:A2:35:LEU:O	17:A2:37:VAL:N	2.24	0.70
1:AA:1441:G:H2'	1:AA:1442:G:H8	1.57	0.70
1:AA:2134:A:H2'	1:AA:2135:A:H8	1.57	0.70
1:AA:234:C:H2'	1:AA:235:U:H6	1.55	0.70
1:AA:304:G:H2'	1:AA:305:U:H6	1.57	0.70
3:AD:35:LYS:HE3	3:AD:64:ILE:C	2.12	0.70
20:AU:76:CYS:HB3	20:AU:96:ILE:HD13	1.74	0.70
31:BA:869:G:N7	56:BA:1802:OHX:N3	2.39	0.70
52:BB:3:U:H4'	52:BB:4:G:OP1	1.90	0.70
33:BF:21:ARG:HD3	33:BF:21:ARG:N	2.07	0.70
31:CA:1250:A:H4'	39:CL:68:GLY:N	2.07	0.70
31:CA:209:U:H1'	31:CA:210:U:OP1	1.91	0.70
31:CA:631:G:OP1	31:CA:632:A:N6	2.20	0.70
52:CD:12:C:H2'	52:CD:13:G:O4'	1.90	0.70
32:CE:73:THR:HG21	32:CE:97:TRP:H	1.55	0.70
43:CP:73:GLU:O	43:CP:77:ASN:HB2	1.92	0.70
1:DA:1238:G:OP1	56:DA:3489:OHX:N6	2.24	0.70
1:DA:1418:G:OP1	1:DA:1588:C:O2'	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1444(A):A:H2'	1:DA:1444(A):A:N3	2.06	0.70
1:DA:1030:G:H4'	12:DP:123:HIS:HE1	1.56	0.70
1:AA:1294:U:O2'	13:A0:23:ASN:ND2	2.25	0.70
28:A6:42:TRP:N	28:A6:42:TRP:CD1	2.58	0.70
1:AA:1104:C:H2'	1:AA:1104:C:O2	1.92	0.70
1:AA:207:A:H2'	1:AA:208:C:O4'	1.92	0.70
1:AA:2392:A:C8	11:AO:60:MET:HB2	2.26	0.70
1:AA:34:C:O2'	1:AA:35:G:OP2	2.09	0.70
1:AA:676:A:H8	1:AA:2069:G:N2	1.86	0.70
12:AP:21:THR:HB	12:AP:99:PRO:O	1.91	0.70
31:BA:189:U:O2	47:BT:72:ARG:NH1	2.24	0.70
52:BB:15:G:H1'	52:BB:20:C:H41	1.57	0.70
52:BB:27:A:H5"	52:BB:28:G:C8	2.26	0.70
34:BG:11:LEU:C	34:BG:13:ARG:N	2.41	0.70
38:BK:129:VAL:HG23	38:BK:130:GLY:H	1.56	0.70
31:CA:827:U:H3	31:CA:872:A:H62	1.37	0.70
13:D0:41:ALA:C	13:D0:43:GLU:H	1.95	0.70
16:D1:112:ARG:HH11	17:D2:47:VAL:CG1	2.05	0.70
1:DA:1913:A:H4'	1:DA:1914:C:H5"	1.74	0.70
3:DD:35:LYS:HE3	3:DD:64:ILE:N	2.07	0.70
12:DP:26:TYR:CD1	12:DP:139:GLU:CG	2.74	0.70
19:DT:12:VAL:HB	19:DT:29:TRP:CE2	2.26	0.70
20:DU:23:ARG:HG3	20:DU:23:ARG:HH11	1.57	0.70
1:AA:1899:G:N2	1:AA:1902:C:H41	1.90	0.69
1:AA:2315:G:H2'	1:AA:2316:C:C6	2.27	0.69
1:AA:654(B):C:N4	1:AA:654(S):G:H1	1.90	0.69
5:AF:66:PRO:O	5:AF:67:GLN:HB3	1.90	0.69
6:AG:13:GLU:O	6:AG:14:GLU:CB	2.40	0.69
11:AO:9:ASN:HB3	11:AO:10:PRO:CD	2.22	0.69
31:BA:226:G:N2	31:BA:227:G:H1'	2.07	0.69
41:BN:91:ARG:NH2	48:BU:88:LYS:HE3	2.07	0.69
31:CA:991:U:O2	31:CA:993:G:C8	2.45	0.69
39:CL:112:LYS:HD3	39:CL:112:LYS:C	2.12	0.69
22:D3:32:ARG:O	22:D3:34:GLY:N	2.25	0.69
27:D5:24:ALA:O	56:D5:102:OHX:N5	2.25	0.69
1:DA:34:C:OP2	1:DA:34:C:C6	2.45	0.69
5:DF:46:ARG:HG2	5:DF:46:ARG:NH1	2.02	0.69
11:DO:71:VAL:HG13	11:DO:72:PRO:N	2.02	0.69
21:DV:110:GLY:O	21:DV:143:GLY:HA2	1.91	0.69
17:A2:48:GLY:O	17:A2:49:THR:O	2.10	0.69
22:A3:11:ARG:NH1	22:A3:11:ARG:HB2	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1058:U:H2'	1:AA:1059:G:C8	2.27	0.69
1:AA:1313:U:H2'	1:AA:1610:A:C2	2.27	0.69
1:AA:1887:C:H2'	1:AA:1888:G:C5'	2.18	0.69
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.27	0.69
6:AG:114:ILE:HD11	6:AG:140:ILE:HD12	1.73	0.69
19:AT:55:ASN:HB2	19:AT:80:ILE:HG13	1.72	0.69
31:BA:266:G:H5"	31:BA:267:C:C5	2.26	0.69
32:BE:111:ARG:HG2	32:BE:111:ARG:NH1	2.04	0.69
50:BW:47:GLY:C	50:BW:49:ALA:H	1.94	0.69
31:CA:426:G:OP1	34:CG:38:TYR:OH	2.07	0.69
1:DA:2520:C:H6	1:DA:2520:C:OP1	1.75	0.69
6:DG:161:THR:HG22	6:DG:163:ALA:N	2.07	0.69
6:DG:63:ILE:CG1	6:DG:63:ILE:O	2.41	0.69
8:DK:131:LYS:HB3	8:DK:132:PRO:CA	2.21	0.69
15:DR:8:LYS:C	15:DR:10:VAL:H	1.94	0.69
24:DW:10:LEU:O	24:DW:14:ARG:HB2	1.92	0.69
24:DW:29:LYS:HE3	24:DW:57:ILE:HG21	1.74	0.69
1:AA:143:C:H4'	19:AT:38:GLU:OE2	1.92	0.69
1:AA:1932:A:H2'	1:AA:1933:G:O4'	1.92	0.69
1:AA:2168:G:O2'	1:AA:2169:A:H5'	1.91	0.69
1:AA:2255:G:H22	12:AP:85:LYS:CE	1.81	0.69
1:AA:259:G:O2'	1:AA:621:A:O2'	2.08	0.69
1:AA:588:U:C2	5:AF:90:PHE:CE1	2.79	0.69
6:AG:124:SER:HB2	6:AG:131:TYR:CE1	2.26	0.69
12:AP:59:ARG:HD2	12:AP:59:ARG:H	1.57	0.69
21:AV:103:ARG:HG3	21:AV:136:PHE:CD1	2.26	0.69
31:BA:1178:G:O2'	31:BA:1179:A:OP1	2.10	0.69
31:BA:427:U:O4	56:BA:1785:OHX:N6	2.25	0.69
52:BD:18:G:C1'	52:BD:19:C:OP2	2.38	0.69
34:BG:11:LEU:C	34:BG:13:ARG:H	1.93	0.69
50:BW:26:ASN:HB2	50:BW:71:THR:HG23	1.74	0.69
54:C1:21:C:H2'	54:C1:22:A:H8	1.57	0.69
52:CB:47:U:H2'	52:CB:48:C:H6	1.49	0.69
52:CB:77:C:N3	52:CB:78:C:N4	2.40	0.69
32:CE:200:ILE:HG22	32:CE:202:PRO:HD3	1.74	0.69
32:CE:6:THR:O	32:CE:7:VAL:HB	1.93	0.69
33:CF:14:ILE:CG1	33:CF:15:THR:H	2.04	0.69
1:DA:1420:U:O2'	1:DA:1421:G:P	2.51	0.69
1:DA:2125:G:N1	1:DA:2172:U:OP1	2.22	0.69
1:DA:2557:G:H2'	1:DA:2558:C:C6	2.27	0.69
1:DA:2853:C:O2'	1:DA:2854:G:H5'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:31:C:H2'	2:DB:32:C:H5'	1.74	0.69
3:DD:186:HIS:HD2	3:DD:188:GLU:H	1.40	0.69
5:DF:119:ARG:HH11	5:DF:119:ARG:CB	2.06	0.69
6:DG:121:ASN:HD22	6:DG:181:ARG:HH21	1.40	0.69
7:DH:11:VAL:HB	7:DH:13:LYS:HD2	1.74	0.69
8:DK:93:THR:O	8:DK:97:ILE:HG13	1.92	0.69
9:DM:71:ILE:O	9:DM:71:ILE:HD12	1.93	0.69
11:DO:62:LEU:HD11	30:D8:25:MET:O	1.92	0.69
21:DV:48:PHE:CE2	21:DV:52:SER:HA	2.27	0.69
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.27	0.69
1:AA:1416:G:O2'	1:AA:1417:C:P	2.51	0.69
1:AA:2094:G:C2'	1:AA:2095:C:H5'	2.22	0.69
3:AD:223:GLY:HA3	3:AD:231:HIS:CE1	2.27	0.69
8:AK:8:PRO:HD3	8:AK:15:VAL:HG23	1.73	0.69
9:AM:4:TYR:OH	9:AM:7:LYS:NZ	2.24	0.69
1:AA:636:G:OP1	11:AO:132:LYS:HG2	1.91	0.69
31:BA:1034:G:H2'	31:BA:1035:A:H8	1.56	0.69
31:BA:1386:G:O2'	31:BA:1387:G:H5'	1.92	0.69
31:BA:142:G:N2	31:BA:221:C:N3	2.38	0.69
31:BA:869:G:OP2	56:BA:1802:OHX:N5	2.24	0.69
35:BH:153:LYS:H	38:BK:64:LYS:HZ1	1.41	0.69
49:BV:51:VAL:HG12	49:BV:52:TYR:N	2.07	0.69
31:CA:1096:C:H2'	31:CA:1097:C:H6	1.56	0.69
31:CA:509:A:O2'	31:CA:510:A:OP1	2.10	0.69
1:DA:1486:A:O2'	1:DA:1487:G:H5'	1.91	0.69
1:DA:1579:A:H2'	1:DA:1580:A:C8	2.26	0.69
1:DA:634:C:H2'	1:DA:635:C:H6	1.56	0.69
1:DA:986:C:H2'	1:DA:987:G:H5'	1.72	0.69
6:DG:15:VAL:HG13	6:DG:175:LEU:HB2	1.74	0.69
11:DO:81:GLN:OE1	11:DO:106:LEU:HA	1.91	0.69
21:DV:115:GLY:CA	21:DV:177:PRO:HG2	2.23	0.69
28:A6:17:LYS:O	28:A6:18:ARG:HB2	1.91	0.69
1:AA:999:U:H5"	1:AA:1154:G:O6	1.92	0.69
1:AA:1587:A:H2'	1:AA:1588:C:C6	2.26	0.69
1:AA:1952:A:C2	10:AN:22:ILE:HD11	2.27	0.69
1:AA:2294:C:C4	1:AA:2295:C:C5	2.80	0.69
1:AA:2401:U:H2'	1:AA:2402:C:O4'	1.91	0.69
1:AA:518:G:H4'	18:AS:18:ARG:NH1	2.08	0.69
1:AA:557:U:H2'	1:AA:558:G:H8	1.57	0.69
1:AA:654(B):C:N3	1:AA:654(S):G:N2	2.39	0.69
1:AA:882:G:H2'	1:AA:883:G:N7	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:HA	3:AD:36:PRO:O	1.93	0.69
5:AF:57:VAL:HG13	5:AF:58:ALA:N	2.07	0.69
20:AU:81:LYS:HD2	20:AU:96:ILE:HD12	1.75	0.69
31:BA:659:U:H2'	31:BA:660:G:C8	2.28	0.69
36:BI:12:PRO:HG3	36:BI:57:GLN:O	1.92	0.69
31:BA:966:G:O2'	39:BL:127:LYS:O	2.09	0.69
43:BP:30:ALA:C	43:BP:32:GLU:H	1.95	0.69
31:CA:1126:U:O2'	31:CA:1127:G:P	2.50	0.69
34:CG:73:ARG:O	34:CG:77:ASN:ND2	2.21	0.69
40:CM:54:PHE:CZ	40:CM:55:LYS:HE2	2.26	0.69
1:DA:1494:A:H2'	1:DA:1495:A:C8	2.27	0.69
1:DA:2101:G:H2'	1:DA:2102:U:O4'	1.93	0.69
1:DA:2313:C:C5'	6:DG:40:ASN:ND2	2.54	0.69
19:DT:12:VAL:HB	19:DT:29:TRP:HE1	1.52	0.69
21:DV:80:ARG:O	21:DV:81:ARG:HB3	1.92	0.69
28:A6:44:ARG:HD3	28:A6:44:ARG:H	1.57	0.69
1:AA:2114:A:N3	1:AA:2114:A:H2'	2.07	0.69
1:AA:518:G:H4'	18:AS:18:ARG:HH11	1.57	0.69
1:AA:581:C:H2'	1:AA:582:G:C8	2.27	0.69
3:AD:159:ALA:HB1	3:AD:198:ASN:O	1.93	0.69
4:AE:38:THR:HG23	4:AE:41:LYS:H	1.57	0.69
20:AU:5:MET:O	20:AU:6:HIS:HB3	1.92	0.69
31:BA:464:G:O6	31:BA:466:C:H5'	1.93	0.69
31:BA:792:A:C2	31:BA:794:A:N6	2.61	0.69
35:BH:15:ARG:HD2	35:BH:26:PHE:CD2	2.28	0.69
36:BI:3:ARG:O	36:BI:93:SER:HB2	1.93	0.69
31:BA:1199:U:H4'	40:BM:54:PHE:CE2	2.28	0.69
31:CA:1435:G:H2'	31:CA:1436:U:C6	2.27	0.69
32:CE:172:ILE:HD12	32:CE:172:ILE:H	1.57	0.69
1:DA:2327:A:H2'	1:DA:2328:A:C8	2.27	0.69
1:DA:2833:G:OP1	1:DA:2833:G:H8	1.76	0.69
1:DA:959:A:N1	1:DA:960:A:C2	2.60	0.69
5:DF:167:ALA:HB1	5:DF:173:VAL:HG11	1.74	0.69
5:DF:25:PRO:CB	5:DF:27:GLU:H	1.95	0.69
19:DT:67:GLY:O	19:DT:69:TYR:N	2.26	0.69
19:DT:8:ILE:N	19:DT:8:ILE:HD12	2.08	0.69
13:A0:57:ARG:HB3	13:A0:59:ASP:OD2	1.92	0.69
15:AR:105:LEU:HD23	15:AR:106:SER:H	1.56	0.69
20:AU:78:ALA:HB3	20:AU:81:LYS:HE3	1.75	0.69
1:AA:2432:A:C4	23:AZ:33:LYS:HG2	2.28	0.69
23:AZ:78:LYS:NZ	23:AZ:94:LEU:HD11	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:130:VAL:O	33:BF:134:ILE:HG12	1.93	0.69
38:BK:87:SER:HA	38:BK:93:VAL:HG23	1.73	0.69
31:CA:1036:G:H5'	31:CA:1037:C:OP2	1.93	0.69
31:CA:1159:U:H1'	31:CA:1181:G:H1	1.57	0.69
33:CF:58:GLU:HB2	33:CF:65:ALA:HB3	1.75	0.69
50:CW:100:ILE:CD1	50:CW:100:ILE:H	2.05	0.69
30:D8:30:ARG:HB3	30:D8:31:HIS:CD2	2.28	0.69
1:DA:1071:G:H22	1:DA:1090:U:H5	1.38	0.69
1:DA:1495:A:O2'	1:DA:1496:A:H5'	1.93	0.69
1:DA:2681:C:C5	1:DA:2727:G:C2	2.81	0.69
1:DA:633:A:H2'	1:DA:634:C:H5'	1.75	0.69
1:DA:645:C:O2	1:DA:645:C:H2'	1.93	0.69
4:DE:12:THR:O	4:DE:23:VAL:HG22	1.92	0.69
12:DP:132:VAL:HG21	21:DV:81:ARG:HH12	1.57	0.69
21:DV:53:ILE:HG22	21:DV:71:VAL:O	1.93	0.69
16:A1:44:ASN:HD21	17:A2:75:PHE:H	1.40	0.69
26:A4:52:THR:OG1	26:A4:53:GLU:N	2.24	0.69
1:AA:1324:G:C4	1:AA:1328:G:O6	2.45	0.69
1:AA:1448:G:O2'	1:AA:1529:A:N1	2.26	0.69
1:AA:879:G:H1	1:AA:898:C:N4	1.89	0.69
4:AE:131:ALA:HB1	4:AE:135:HIS:CE1	2.28	0.69
4:AE:117:MET:CE	4:AE:136:ARG:HA	2.21	0.69
21:AV:60:GLU:O	21:AV:61:LEU:HB3	1.93	0.69
31:BA:719:C:O2'	48:BU:49:LYS:HB3	1.93	0.69
44:BQ:4:LYS:O	44:BQ:6:LEU:N	2.26	0.69
31:CA:485:G:HO2'	31:CA:486:U:H6	1.38	0.69
31:CA:737:A:O2'	36:CI:73:ASN:ND2	2.26	0.69
49:CV:18:LYS:O	49:CV:22:LEU:HB2	1.93	0.69
1:DA:2335:A:HO2'	1:DA:2336:A:P	2.16	0.69
1:DA:2475:C:H2'	1:DA:2477:C:OP1	1.92	0.69
1:DA:2751:G:C6	7:DH:2:SER:HB2	2.28	0.69
7:DH:3:ARG:HG3	7:DH:4:ILE:H	1.57	0.69
22:A3:11:ARG:CZ	22:A3:11:ARG:HB2	2.22	0.69
27:A5:56:LYS:HD2	27:A5:56:LYS:N	2.03	0.69
1:AA:330:A:C2	1:AA:1210:A:H2'	2.26	0.69
6:AG:64:THR:HG22	6:AG:66:GLN:H	1.58	0.69
9:AM:15:LEU:HD13	9:AM:16:ILE:N	2.07	0.69
31:BA:439:A:H2'	31:BA:440:A:C5'	2.23	0.69
31:BA:654:G:H2'	31:BA:655:A:H5'	1.74	0.69
52:BB:17:G:HO2'	52:BB:66:G:H22	1.39	0.69
38:BK:69:ARG:HD3	38:BK:75:ARG:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1492:A:OP1	42:BO:47:LYS:N	2.26	0.69
31:CA:1004:A:H2	31:CA:1024:G:C8	2.11	0.69
31:CA:1275:A:H2'	31:CA:1276:G:O4'	1.93	0.69
35:CH:33:VAL:HG12	35:CH:34:VAL:H	1.58	0.69
40:CM:6:ILE:HD11	40:CM:72:VAL:HB	1.75	0.69
13:D0:55:ALA:C	13:D0:57:ARG:H	1.96	0.69
1:DA:1190:G:H2'	1:DA:1191:G:H8	1.57	0.69
11:DO:100:LEU:HG	11:DO:105:LEU:CD1	2.23	0.69
1:AA:1287:A:N7	13:A0:107:ASP:HB2	2.08	0.69
1:AA:1379:A:H1'	1:AA:1380:G:OP1	1.93	0.69
1:AA:164:U:H5"	1:AA:165:U:OP2	1.92	0.69
1:AA:917:A:H2'	1:AA:918:A:H5'	1.74	0.69
3:AD:65:ILE:HD11	3:AD:67:PHE:CE2	2.27	0.69
8:AK:13:GLY:HA3	8:AK:17:GLN:OE1	1.93	0.69
32:BE:22:LYS:HA	32:BE:22:LYS:NZ	2.07	0.69
31:BA:974:A:OP2	44:BQ:29:ARG:NH2	2.25	0.69
47:BT:91:ARG:HH12	47:BT:92:ARG:NH2	1.90	0.69
31:CA:1158:C:C2	31:CA:1160:G:N7	2.61	0.69
31:CA:1346:A:C6	37:CJ:10:ARG:NH1	2.61	0.69
53:CC:54:G:H2'	53:CC:55:U:C6	2.28	0.69
52:CD:7:G:N2	52:CD:76:C:O2	2.26	0.69
50:CW:23:ARG:O	50:CW:27:LYS:HB2	1.93	0.69
1:DA:654:A:N3	1:DA:654:A:H2'	2.08	0.69
1:DA:884:C:N4	1:DA:892:G:N1	2.28	0.69
1:DA:910:A:C5	12:DP:13:GLN:HG3	2.27	0.69
9:DM:67:LEU:O	9:DM:88:GLU:HG3	1.93	0.69
11:DO:64:LYS:HB2	30:D8:25:MET:HE2	1.75	0.69
14:DQ:24:LEU:O	14:DQ:85:VAL:HB	1.92	0.69
1:AA:10:G:H2'	1:AA:11:G:C8	2.28	0.69
1:AA:1331:A:O2'	1:AA:1332:G:H8	1.76	0.69
1:AA:2688:U:C5	1:AA:2720:U:OP2	2.46	0.69
1:AA:2808:U:H5	1:AA:2891:G:C5	2.11	0.69
1:AA:2331:G:OP2	56:AA:3512:OHX:N4	2.25	0.69
8:AK:133:HIS:HB2	8:AK:134:PRO:HD2	1.75	0.69
12:AP:35:VAL:CG1	12:AP:130:LYS:HB3	2.22	0.69
31:BA:1129:C:H4'	31:BA:1130:A:C5'	2.20	0.69
31:BA:1331:G:O2'	31:BA:1332:A:P	2.51	0.69
52:BB:21:A:H2	52:BB:22:A:H62	1.41	0.69
34:BG:76:ARG:HD3	34:BG:207:TYR:HE2	1.58	0.69
31:CA:426:G:OP1	34:CG:36:ARG:NH2	2.26	0.69
31:CA:468:A:H2'	31:CA:474:G:C5'	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:820:U:H4'	31:CA:821:G:OP2	1.91	0.69
33:CF:29:TYR:OH	44:CQ:54:PRO:HD2	1.93	0.69
47:CT:53:LEU:HD12	47:CT:53:LEU:H	1.56	0.69
1:DA:1733:G:C2'	1:DA:1734:C:H5'	2.23	0.69
1:DA:2061:G:H5"	1:DA:2503:A:C2	2.28	0.69
1:DA:2572:A:C8	4:DE:144:ARG:HD2	2.27	0.69
1:DA:2712:U:O2'	1:DA:2712(A):A:P	2.51	0.69
1:DA:2720:U:C2	1:DA:2873:A:C2	2.81	0.69
1:DA:2884:U:H2'	1:DA:2885:C:H5'	1.75	0.69
1:DA:795:C:O2'	1:DA:796:C:H5'	1.91	0.69
1:DA:945:A:N1	1:DA:2448:A:C4	2.61	0.69
2:DB:31:C:C2'	2:DB:32:C:H5'	2.22	0.69
4:DE:169:ASN:OD1	4:DE:203:LYS:HB3	1.93	0.69
6:DG:111:LEU:HB2	6:DG:112:PRO:HD3	1.74	0.69
8:DK:77:LEU:HA	8:DK:141:LYS:HB3	1.73	0.69
19:DT:28:PHE:HZ	19:DT:81:VAL:HG21	1.58	0.69
22:A3:49:LYS:H	22:A3:80:HIS:HB3	1.58	0.68
5:AF:144:LYS:O	5:AF:146:ALA:N	2.26	0.68
7:AH:135:GLY:HA3	7:AH:141:VAL:HG23	1.75	0.68
14:AQ:88:ASP:O	14:AQ:89:ARG:HB3	1.93	0.68
31:BA:142:G:C2	31:BA:143:A:N7	2.61	0.68
31:BA:1408:A:N1	57:BA:1715:PAR:H611	2.08	0.68
31:BA:321:A:C2	31:BA:333:G:C2	2.82	0.68
31:BA:751:U:H2'	31:BA:751:U:O2	1.92	0.68
31:BA:999:U:O2'	1:DA:2137:C:H5'	1.93	0.68
52:BB:7:G:H3'	52:BB:58:G:OP2	1.91	0.68
52:BD:1:G:H1	52:BD:81:C:H42	1.40	0.68
35:BH:16:THR:OG1	35:BH:17:ALA:N	2.23	0.68
46:BS:28:ARG:HG2	46:BS:29:ASP:OD2	1.93	0.68
31:CA:947:G:H2'	31:CA:948:C:C6	2.28	0.68
39:CL:125:TYR:HD2	39:CL:126:SER:H	1.40	0.68
1:DA:1111:A:H5'	7:DH:3:ARG:HD3	1.76	0.68
1:DA:2225:A:OP1	56:DA:3127:OHX:N1	2.26	0.68
1:DA:654(T):A:H2'	1:DA:654(U):A:O4'	1.93	0.68
5:DF:132:VAL:HG22	5:DF:133:ASN:N	2.03	0.68
6:DG:135:LEU:O	6:DG:154:GLY:HA3	1.93	0.68
23:DZ:67:ILE:N	23:DZ:68:PRO:HD2	2.08	0.68
27:A5:2:ALA:CA	27:A5:3:LYS:HE2	2.22	0.68
1:AA:1069:A:H4'	1:AA:1070:A:C5'	2.23	0.68
1:AA:125:G:C6	29:A7:10:ARG:HG3	2.29	0.68
1:AA:1778:U:H2'	1:AA:1784:A:H62	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2352:A:C4	1:AA:2366:A:C2	2.81	0.68
1:AA:654(S):G:H1'	1:AA:654(T):A:N7	2.08	0.68
1:AA:1257:C:H4'	5:AF:83:PHE:CD2	2.28	0.68
14:AQ:58:LEU:H	14:AQ:58:LEU:HD23	1.55	0.68
31:BA:328:C:H4'	31:BA:329:A:H5'	1.76	0.68
53:BC:47:G:H5"	53:BC:48:U:OP2	1.93	0.68
36:BI:37:VAL:HG12	36:BI:38:GLU:H	1.58	0.68
37:BJ:92:SER:O	37:BJ:95:ARG:N	2.26	0.68
50:BW:52:ALA:O	50:BW:55:ILE:N	2.24	0.68
54:C1:21:C:C4	54:C1:22:A:N6	2.61	0.68
31:CA:255:G:O6	31:CA:270:A:N6	2.27	0.68
31:CA:554:C:H2'	31:CA:555:C:H6	1.59	0.68
34:CG:11:LEU:C	34:CG:13:ARG:N	2.42	0.68
28:D6:25:LYS:HA	30:D8:34:TRP:HZ3	1.57	0.68
1:DA:1342:A:C2	1:DA:1397:U:C2	2.82	0.68
1:DA:1444:G:N2	1:DA:1548:C:C2	2.61	0.68
1:DA:216:A:OP2	56:DA:3341:OHX:N1	2.26	0.68
1:DA:2468:G:N2	1:DA:2481:G:O2'	2.26	0.68
1:DA:2747:G:O6	1:DA:2755:C:H5"	1.93	0.68
5:DF:8:GLN:NE2	5:DF:8:GLN:O	2.27	0.68
9:DM:35:ARG:O	9:DM:37:LYS:N	2.27	0.68
12:DP:112:GLU:HG2	12:DP:113:GLN:N	2.09	0.68
14:DQ:66:ALA:O	14:DQ:69:VAL:N	2.26	0.68
1:DA:2849:U:OP1	15:DR:95:ARG:NH1	2.26	0.68
1:AA:2567:G:H2'	1:AA:2568:C:H6	1.57	0.68
1:AA:847:U:O4	1:AA:933:A:N1	2.26	0.68
11:AO:47:ASP:OD1	11:AO:50:ARG:NH2	2.27	0.68
11:AO:96:THR:HG22	11:AO:126:VAL:HG21	1.76	0.68
31:BA:376:G:OP1	46:BS:5:ARG:HB2	1.93	0.68
31:BA:652:U:O2'	31:BA:653:A:H5"	1.93	0.68
34:BG:172:PRO:C	34:BG:174:LEU:H	1.96	0.68
39:BL:48:GLU:N	39:BL:49:PRO:HD2	2.08	0.68
48:BU:53:ARG:O	48:BU:55:ARG:N	2.26	0.68
33:CF:45:LYS:HG3	33:CF:46:GLU:H	1.58	0.68
34:CG:4:TYR:HD1	34:CG:5:ILE:H	1.38	0.68
39:CL:43:ALA:HA	39:CL:74:ILE:HG21	1.75	0.68
17:D2:1:MET:HA	17:D2:42:GLY:HA3	1.74	0.68
1:DA:2400:G:H2'	1:DA:2401:U:C6	2.28	0.68
4:DE:91:VAL:HB	4:DE:95:ILE:HD11	1.74	0.68
5:DF:4:VAL:HG22	5:DF:19:GLU:OE1	1.93	0.68
6:DG:61:ALA:HB2	6:DG:68:PRO:HD3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:104:GLY:C	11:DO:105:LEU:HG	2.14	0.68
12:DP:132:VAL:HG22	12:DP:133:ARG:H	1.59	0.68
1:DA:2251:G:OP1	12:DP:82:ARG:NH1	2.26	0.68
19:DT:55:ASN:HB2	19:DT:80:ILE:HG12	1.75	0.68
1:AA:546:C:H5'	1:AA:547:A:OP2	1.93	0.68
5:AF:144:LYS:C	5:AF:146:ALA:H	1.96	0.68
8:AK:64:GLU:O	8:AK:66:GLU:N	2.25	0.68
18:AS:82:LEU:HB2	18:AS:98:LYS:HB2	1.74	0.68
35:BH:41:VAL:HG22	35:BH:113:ALA:CB	2.22	0.68
41:BN:124:LYS:HD2	41:BN:125:PHE:HE2	1.57	0.68
31:CA:1221:G:OP1	31:CA:1321:C:N4	2.26	0.68
31:CA:1126:U:O4	31:CA:1281:U:C6	2.46	0.68
31:CA:1363:A:H1'	31:CA:1365:G:N7	2.08	0.68
30:D8:35:GLN:O	30:D8:35:GLN:CD	2.32	0.68
1:DA:2153:G:H2'	1:DA:2154:G:C8	2.28	0.68
1:DA:2287:A:N6	1:DA:2344:U:N3	2.40	0.68
22:A3:23:VAL:HG13	22:A3:38:VAL:HG23	1.76	0.68
26:A4:12:ALA:HB1	26:A4:29:PRO:HA	1.75	0.68
30:A8:52:LYS:N	30:A8:53:PRO:CD	2.56	0.68
1:AA:1131:G:C5	9:AM:75:TYR:HD2	2.12	0.68
1:AA:1607:C:N3	56:AA:3433:OHX:N5	2.42	0.68
1:AA:121:G:N7	56:AA:3481:OHX:N3	2.42	0.68
1:AA:890:A:H5'	1:AA:892:G:OP2	1.94	0.68
2:AB:15:A:OP1	2:AB:15:A:C4'	2.41	0.68
1:AA:1901:A:OP2	3:AD:255:LYS:HE2	1.93	0.68
14:AQ:20:ARG:O	14:AQ:22:GLY:N	2.27	0.68
31:BA:501:C:H2'	31:BA:502:G:H8	1.58	0.68
31:BA:78:G:N2	31:BA:91:C:N3	2.41	0.68
34:BG:173:TRP:HZ3	34:BG:193:ASP:HB3	1.57	0.68
40:BM:8:LEU:HD12	40:BM:20:ALA:HB2	1.75	0.68
41:BN:21:ILE:HG12	41:BN:30:VAL:HG12	1.76	0.68
31:CA:1179:A:H2'	31:CA:1180:A:O4'	1.94	0.68
31:CA:867:G:O2'	31:CA:868:C:H5'	1.93	0.68
1:DA:1535:U:H2'	1:DA:1535:U:O2	1.93	0.68
1:DA:17:G:H2'	1:DA:18:C:C6	2.29	0.68
1:DA:2306:C:H3'	1:DA:2307:G:C5'	2.14	0.68
1:DA:2887:U:O2'	1:DA:2888:C:H5'	1.94	0.68
1:DA:587:C:O2	11:DO:33:ARG:NH1	2.26	0.68
9:DM:90:MET:O	9:DM:95:PRO:HA	1.92	0.68
12:DP:10:ARG:HE	12:DP:10:ARG:HA	1.59	0.68
15:DR:19:LEU:HB3	15:DR:86:ILE:HG21	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DZ:19:GLN:HB3	23:DZ:35:THR:O	1.93	0.68
1:AA:1434:A:H61	1:AA:1558:A:N6	1.91	0.68
1:AA:1871:A:H2'	1:AA:1872:A:H8	1.53	0.68
1:AA:792:G:C3'	1:AA:793:A:H5'	2.23	0.68
4:AE:130:GLY:O	4:AE:131:ALA:C	2.31	0.68
8:AK:21:VAL:HG21	8:AK:25:TYR:HD1	1.58	0.68
31:BA:1245:A:C2	31:BA:1293:G:C2	2.82	0.68
31:BA:387:U:OP1	56:BA:1721:OHX:N1	2.27	0.68
31:BA:51:A:OP2	31:BA:52:G:H8	1.76	0.68
31:BA:992:U:H4'	31:BA:993:G:O5'	1.92	0.68
38:BK:10:LEU:HD23	38:BK:10:LEU:H	1.58	0.68
42:BO:117:ARG:HB3	42:BO:122:THR:HB	1.74	0.68
33:CF:23:TYR:HD2	33:CF:23:TYR:C	1.97	0.68
34:CG:31:CYS:C	34:CG:33:MET:N	2.45	0.68
16:D1:52:ARG:HB3	16:D1:52:ARG:HH11	1.59	0.68
1:DA:1858:G:N7	56:DA:3253:OHX:N4	2.41	0.68
1:DA:2808:U:H5'	1:DA:2891:G:O6	1.92	0.68
4:DE:111:ARG:HA	13:D0:2:ARG:HH12	1.58	0.68
8:DK:143:SER:OG	8:DK:144:VAL:N	2.25	0.68
9:DM:18:ALA:O	9:DM:21:LYS:HG3	1.94	0.68
11:DO:147:LEU:CD2	11:DO:148:LEU:H	2.07	0.68
1:AA:1607:C:C2	56:AA:3433:OHX:N5	2.62	0.68
1:AA:581:C:H2'	1:AA:582:G:H8	1.59	0.68
3:AD:25:THR:O	3:AD:26:LYS:C	2.32	0.68
19:AT:25:LYS:HE2	19:AT:82:GLN:OE1	1.92	0.68
31:BA:1020:U:H2'	31:BA:1021:G:C8	2.29	0.68
31:BA:312:C:H2'	31:BA:313:A:C8	2.28	0.68
32:BE:167:PRO:HG3	32:BE:188:ALA:HB2	1.75	0.68
32:BE:220:ASP:O	32:BE:222:ILE:N	2.27	0.68
33:BF:58:GLU:HB2	33:BF:65:ALA:CB	2.23	0.68
43:BP:49:THR:C	43:BP:51:ALA:H	1.95	0.68
44:BQ:24:CYS:HB3	44:BQ:28:GLY:H	1.58	0.68
31:CA:1352:C:N3	31:CA:1370:G:N2	2.41	0.68
31:CA:485:G:O2'	31:CA:486:U:O5'	2.12	0.68
31:CA:77:C:H2'	31:CA:78:G:H5'	1.76	0.68
31:CA:983:A:H2	31:CA:984:C:C6	2.11	0.68
52:CD:48:C:H42	52:CD:52:G:H1	1.41	0.68
33:CF:32:LEU:O	33:CF:36:ASP:HB2	1.93	0.68
35:CH:28:PHE:O	35:CH:47:LYS:HA	1.94	0.68
43:CP:62:ASN:O	26:D4:49:PHE:HE2	1.75	0.68
22:D3:55:ARG:O	22:D3:55:ARG:HG2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1434:A:H61	1:DA:1558:A:N6	1.92	0.68
1:DA:172:C:H2'	1:DA:173:G:C8	2.29	0.68
1:DA:2157:G:C2'	1:DA:2158:A:H8	2.07	0.68
1:DA:902:C:O2'	1:DA:903:C:H5'	1.92	0.68
18:DS:84:ARG:HB2	18:DS:96:ILE:CD1	2.24	0.68
19:DT:63:LYS:HZ2	19:DT:63:LYS:H	1.39	0.68
27:A5:4:HIS:HB3	27:A5:5:PRO:HD2	1.67	0.68
1:AA:273(F):C:H2'	1:AA:273(F):C:O2	1.94	0.68
1:AA:2807:G:C2'	1:AA:2808:U:H5"	2.24	0.68
1:AA:50:U:H3'	1:AA:51:G:H5'	1.76	0.68
3:AD:34:VAL:O	3:AD:34:VAL:HG13	1.92	0.68
14:AQ:36:TYR:CD1	14:AQ:36:TYR:N	2.58	0.68
20:AU:101:LYS:NZ	20:AU:101:LYS:HB3	2.09	0.68
31:BA:1191:A:H2'	31:BA:1192:C:C6	2.28	0.68
31:BA:1374:A:C2'	31:BA:1375:A:H5'	2.24	0.68
31:BA:1397:C:H6	31:BA:1397:C:H3'	1.59	0.68
36:BI:39:LYS:HB3	36:BI:62:TRP:HZ3	1.58	0.68
31:CA:1095:U:OP1	31:CA:1108:G:N2	2.26	0.68
31:CA:581:G:OP1	45:CR:61:GLY:HA3	1.94	0.68
52:CB:67:A:H61	52:CB:70:C:H1'	1.57	0.68
38:CK:6:ILE:O	38:CK:9:MET:N	2.27	0.68
1:DA:991:C:O2	1:DA:1164:G:C2	2.47	0.68
1:DA:1543:A:C4'	1:DA:1543:A:OP1	2.41	0.68
1:DA:2469:A:N7	1:DA:2482:G:C8	2.61	0.68
1:DA:1370:C:OP1	56:DA:3419:OHX:N4	2.27	0.68
1:DA:1681:G:N2	56:DA:3488:OHX:N5	2.40	0.68
1:DA:807:U:H2'	1:DA:808:G:H8	1.58	0.68
1:DA:945:A:C2	1:DA:2448:A:C4	2.81	0.68
2:DB:44:G:H5"	2:DB:45:A:OP1	1.93	0.68
20:DU:43:ASN:HB3	20:DU:64:GLU:HA	1.74	0.68
1:AA:1786:A:H2	1:AA:2606:C:H1'	1.58	0.68
1:AA:309:G:N3	1:AA:329:G:O2'	2.27	0.68
1:AA:475:U:OP1	56:AA:3496:OHX:N4	2.26	0.68
2:AB:80:U:OP2	56:AB:219:OHX:N4	2.26	0.68
1:AA:2811:G:OP1	4:AE:61:ARG:HG2	1.93	0.68
31:BA:498:A:H4'	31:BA:500:G:OP1	1.94	0.68
32:BE:59:GLU:HB2	32:BE:221:LEU:HD11	1.76	0.68
38:BK:4:ASP:OD1	38:BK:85:ARG:NH1	2.27	0.68
31:CA:1054:C:HO2'	31:CA:1055:A:P	2.15	0.68
37:CJ:147:ALA:O	37:CJ:149:ARG:N	2.24	0.68
1:DA:1639:U:H2'	1:DA:1640:C:H5'	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:90:U:H3'	1:DA:90:U:O2	1.93	0.68
6:DG:47:LYS:HD3	6:DG:81:LYS:CG	2.23	0.68
11:DO:58:THR:O	11:DO:58:THR:HG22	1.92	0.68
11:DO:61:ARG:CB	11:DO:62:LEU:HD22	2.24	0.68
1:DA:2875:C:O2'	15:DR:5:ALA:HB3	1.94	0.68
1:AA:1014:U:C2'	1:AA:1015:G:H5"	2.22	0.68
1:AA:1689:A:N6	1:AA:1698:A:C2	2.55	0.68
1:AA:535:C:O3'	16:A1:53:ARG:NH1	2.27	0.68
9:AM:57:ALA:O	9:AM:58:ASP:HB3	1.93	0.68
11:AO:5:ASP:HA	11:AO:7:ARG:NH2	2.08	0.68
20:AU:49:VAL:HB	20:AU:50:ARG:NH2	2.09	0.68
21:AV:120:ILE:O	21:AV:121:HIS:ND1	2.27	0.68
31:BA:1348:U:H2'	31:BA:1349:A:H8	1.59	0.68
31:BA:652:U:C4	31:BA:752:G:N3	2.62	0.68
52:BD:38:MIA:H162	52:BD:39:A:N1	2.09	0.68
32:BE:11:LEU:HD22	32:BE:217:ARG:HH12	1.59	0.68
31:CA:1160:G:H1	31:CA:1177:G:H21	1.40	0.68
31:CA:328:C:H1'	31:CA:329:A:OP2	1.94	0.68
40:CM:84:GLN:O	40:CM:88:LEU:HB2	1.94	0.68
31:CA:1219:U:O2'	49:CV:34:TRP:HB3	1.94	0.68
1:DA:534:U:O2'	16:D1:49:HIS:CD2	2.46	0.68
1:DA:1063:G:H2'	1:DA:1064:C:O4'	1.94	0.68
1:DA:1140:C:O4'	1:DA:1143:A:C2	2.47	0.68
1:DA:1420:U:O2'	1:DA:1421:G:OP1	2.10	0.68
1:DA:2129:C:H2'	1:DA:2130:U:H5'	1.74	0.68
1:DA:2480:C:H2'	1:DA:2481:G:H5'	1.76	0.68
1:DA:2798:C:N4	1:DA:2799:A:H62	1.92	0.68
1:AA:1174:A:H2'	1:AA:1176:G:OP1	1.93	0.67
1:AA:897:C:H6	1:AA:897:C:OP1	1.76	0.67
2:AB:73:A:C4	2:AB:104:A:C2	2.81	0.67
4:AE:92:THR:HB	4:AE:94:GLU:HG2	1.76	0.67
5:AF:132:VAL:HG23	5:AF:133:ASN:H	1.58	0.67
6:AG:111:LEU:HA	6:AG:114:ILE:HD13	1.76	0.67
11:AO:144:GLU:N	11:AO:144:GLU:OE2	2.26	0.67
15:AR:107:ASP:O	15:AR:110:ILE:HG22	1.95	0.67
21:AV:72:ARG:CG	21:AV:72:ARG:HH11	1.92	0.67
31:BA:1194:U:H2'	31:BA:1195:C:C6	2.28	0.67
31:BA:1234:C:H1'	31:BA:1364:U:O2	1.94	0.67
31:BA:359:U:H2'	31:BA:360:A:C8	2.29	0.67
31:BA:376:G:H5"	46:BS:5:ARG:HD2	1.76	0.67
52:BD:13:G:H2'	52:BD:14:A:H8	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:81:C:H5"	52:BD:82:A:OP2	1.94	0.67
48:BU:31:LEU:HD23	48:BU:31:LEU:H	1.57	0.67
37:CJ:120:ILE:O	37:CJ:124:LEU:HB2	1.94	0.67
1:DA:2273:A:H2'	1:DA:2274:A:C8	2.29	0.67
1:DA:2311:A:H2	6:DG:88:ILE:HD11	1.58	0.67
1:DA:2820:A:O2'	1:DA:2821:A:OP1	2.11	0.67
1:DA:2572:A:N7	4:DE:144:ARG:HD2	2.09	0.67
4:DE:27:LEU:HD23	15:DR:7:ILE:HD11	1.76	0.67
6:DG:173:LEU:O	6:DG:178:PHE:HB2	1.93	0.67
6:AG:67:LYS:CE	26:A4:6:HIS:CE1	2.76	0.67
1:AA:1522:G:H5"	1:AA:1523:U:OP2	1.93	0.67
1:AA:1847:A:OP1	1:AA:1847:A:H8	1.77	0.67
1:AA:2346:A:O3'	28:A6:39:TYR:OH	2.11	0.67
31:BA:390:C:H2'	31:BA:391:G:C8	2.30	0.67
52:BD:50:U:H2'	52:BD:51:C:C6	2.28	0.67
31:CA:1053:G:O6	31:CA:1199:U:H2'	1.94	0.67
34:CG:32:ALA:HA	34:CG:35:ARG:HB3	1.75	0.67
40:CM:48:THR:HG1	40:CM:62:HIS:HD1	1.38	0.67
1:DA:2165:G:N7	1:DA:2166:G:N2	2.42	0.67
1:DA:232:G:O6	56:DA:3473:OHX:N3	2.28	0.67
2:DB:45:A:H1'	6:DG:95:ARG:NH2	2.10	0.67
9:DM:30:ILE:O	9:DM:34:LEU:HD22	1.93	0.67
9:DM:40:PRO:HB3	16:D1:68:ALA:HB2	1.76	0.67
11:DO:61:ARG:C	11:DO:62:LEU:CD2	2.57	0.67
1:DA:2276:G:P	12:DP:84:GLY:HA2	2.34	0.67
26:A4:16:CYS:HB2	26:A4:36:CYS:H	1.59	0.67
1:AA:2645:G:C3'	1:AA:2646:C:H5'	2.24	0.67
1:AA:635:C:O2'	1:AA:639:U:OP1	2.12	0.67
4:AE:3:GLY:HA3	4:AE:81:ILE:HD12	1.77	0.67
12:AP:90:VAL:CG1	12:AP:90:VAL:O	2.42	0.67
12:AP:90:VAL:HG12	12:AP:90:VAL:O	1.93	0.67
1:AA:2378:A:H5"	14:AQ:23:ARG:NH1	2.09	0.67
31:BA:1190:G:C6	56:BA:1745:OHX:N1	2.62	0.67
31:BA:664:G:H22	31:BA:741:G:H1	1.42	0.67
52:BD:19:C:C2'	52:BD:20:C:H4'	2.14	0.67
37:BJ:23:VAL:HG12	37:BJ:43:PHE:HE2	1.59	0.67
31:CA:575:G:O2'	31:CA:821:G:H5'	1.94	0.67
31:CA:7:G:H5'	31:CA:298:A:O4'	1.94	0.67
53:CC:20:G:C2	53:CC:58:A:N3	2.63	0.67
45:CR:43:LEU:HD11	45:CR:53:HIS:HA	1.77	0.67
17:D2:51:VAL:HG12	17:D2:52:VAL:N	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2169:A:N3	1:DA:2169:A:H3'	2.10	0.67
1:DA:917:A:C2'	1:DA:918:A:H5'	2.24	0.67
2:DB:52:A:O2'	2:DB:53:A:C8	2.46	0.67
2:DB:89(A):A:C8	2:DB:90:C:H1'	2.30	0.67
6:DG:83:ARG:O	6:DG:85:GLY:N	2.27	0.67
1:DA:907:U:H5'	12:DP:23:GLY:O	1.95	0.67
17:A2:66:ARG:CZ	17:A2:88:ARG:HD3	2.25	0.67
1:AA:2636:U:OP1	4:AE:79:ARG:HA	1.93	0.67
1:AA:2583:G:OP1	56:AA:3516:OHX:N4	2.27	0.67
1:AA:459:U:O2'	1:AA:460:A:H5'	1.94	0.67
1:AA:572:A:H5"	1:AA:573:G:OP2	1.95	0.67
52:BD:77:C:H2'	52:BD:78:C:C6	2.29	0.67
33:BF:8:ILE:O	33:BF:10:PHE:N	2.28	0.67
33:BF:191:THR:HG21	33:BF:193:TYR:CZ	2.29	0.67
31:BA:1152:A:O3'	40:BM:13:HIS:HE1	1.77	0.67
47:BT:91:ARG:NH1	47:BT:92:ARG:HH21	1.93	0.67
31:CA:197:A:H3'	31:CA:197:A:OP2	1.94	0.67
32:CE:98:LEU:O	32:CE:101:MET:HG2	1.95	0.67
31:CA:1374:A:O2'	37:CJ:28:ASN:HB3	1.94	0.67
49:CV:12:ASP:HB3	49:CV:38:SER:HB3	1.75	0.67
1:DA:2468:G:H8	1:DA:2476:A:C6	2.10	0.67
1:DA:27:G:H1	1:DA:512:G:HO2'	1.40	0.67
1:DA:959:A:C6	1:DA:960:A:N1	2.62	0.67
5:DF:53:THR:O	5:DF:56:GLU:N	2.27	0.67
9:DM:57:ALA:C	9:DM:59:LYS:H	1.98	0.67
18:DS:92:ARG:NH1	18:DS:94:ASP:OD2	2.28	0.67
21:DV:139:VAL:HG21	21:DV:155:LEU:HD22	1.77	0.67
26:A4:56:VAL:O	26:A4:60:GLN:HG3	1.93	0.67
1:AA:1545(A):A:H2'	1:AA:1546:C:C5'	2.25	0.67
3:AD:30:GLU:CG	3:AD:63:ARG:HH21	2.05	0.67
6:AG:145:THR:O	6:AG:146:TYR:HB3	1.95	0.67
6:AG:76:SER:OG	6:AG:83:ARG:HA	1.95	0.67
12:AP:55:VAL:HG21	52:BB:64:U:OP1	1.94	0.67
14:AQ:34:HIS:CE1	14:AQ:54:LEU:HD23	2.30	0.67
21:AV:125:LEU:HG	21:AV:164:ALA:CB	2.24	0.67
31:BA:1453:G:H22	50:BW:54:LYS:NZ	1.91	0.67
33:BF:23:TYR:CD2	33:BF:24:ALA:N	2.62	0.67
33:BF:29:TYR:OH	44:BQ:54:PRO:HD2	1.93	0.67
53:CC:16:C:C5	56:CC:108:OHX:N2	2.62	0.67
32:CE:96:ARG:H	32:CE:96:ARG:HD2	1.59	0.67
34:CG:8:VAL:C	34:CG:10:ARG:H	1.96	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:60:GLU:OE2	34:CG:199:ASN:N	2.27	0.67
1:DA:1298:C:H5"	1:DA:1299:G:OP2	1.94	0.67
1:DA:140:A:C8	1:DA:1408:C:O2'	2.44	0.67
1:DA:2338:G:N7	56:DA:3221:OHX:N6	2.42	0.67
1:DA:2610:C:C4'	1:DA:2611:U:OP2	2.35	0.67
9:DM:4:TYR:O	16:D1:64:ARG:NH1	2.25	0.67
11:DO:57:THR:C	11:DO:59:LEU:H	1.97	0.67
12:DP:8:LYS:O	12:DP:9:TYR:CD1	2.47	0.67
22:A3:46:LYS:NZ	22:A3:75:LEU:O	2.27	0.67
1:AA:2211:G:H4'	1:AA:2212:A:OP2	1.95	0.67
1:AA:2408:U:O5'	1:AA:2408:U:H6	1.77	0.67
1:AA:805:G:H4'	11:AO:38:GLN:NE2	2.04	0.67
15:AR:55:ASN:H	15:AR:59:THR:HG22	1.59	0.67
23:AZ:92:LYS:HA	23:AZ:95:LEU:HB2	1.77	0.67
31:BA:654:G:C2'	31:BA:655:A:H5'	2.25	0.67
31:BA:789:U:C4	31:BA:792:A:OP2	2.47	0.67
31:CA:1027:C:C2	31:CA:1035:A:N6	2.62	0.67
31:CA:1142:G:H2'	31:CA:1143:G:O4'	1.95	0.67
34:CG:14:ARG:HH11	34:CG:14:ARG:CG	2.07	0.67
31:CA:363:A:OP1	42:CO:33:ARG:HG3	1.94	0.67
43:CP:115:LYS:O	43:CP:117:VAL:N	2.28	0.67
31:CA:1317:C:C2	44:CQ:16:PHE:HE1	2.13	0.67
1:DA:1188:U:C2'	1:DA:1189:A:H5'	2.25	0.67
1:DA:288:C:H3'	1:DA:289:A:H8	1.59	0.67
1:DA:900:A:C4	1:DA:901:A:C8	2.82	0.67
3:DD:33:LEU:N	3:DD:35:LYS:O	2.28	0.67
3:DD:65:ILE:H	3:DD:65:ILE:HD13	1.60	0.67
12:DP:26:TYR:HD1	12:DP:139:GLU:CG	2.07	0.67
12:DP:79:LEU:HD13	12:DP:80:GLU:HB2	1.77	0.67
21:DV:87:ASP:OD2	21:DV:87:ASP:N	2.24	0.67
24:DW:17:SER:CB	24:DW:18:PRO:HA	2.06	0.67
23:DZ:82:LEU:CD2	23:DZ:82:LEU:H	2.06	0.67
13:A0:20:LEU:HD21	13:A0:40:LYS:HD3	1.77	0.67
30:A8:56:GLU:O	30:A8:59:LYS:N	2.23	0.67
8:AK:74:ASN:O	8:AK:75:LEU:HD12	1.94	0.67
12:AP:88:GLY:O	12:AP:89:ASN:HB2	1.95	0.67
20:AU:49:VAL:HB	20:AU:50:ARG:HH21	1.59	0.67
31:BA:129(A):G:C2	31:BA:191(A):G:C8	2.83	0.67
31:BA:118:U:C5	31:BA:288:A:C6	2.82	0.67
40:BM:4:ILE:HB	40:BM:74:ILE:HG13	1.75	0.67
40:BM:57:LYS:HE2	40:BM:60:ARG:HH12	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1316:G:H22	31:CA:1319:A:P	2.18	0.67
31:CA:576:G:OP1	56:CA:1750:OHX:N4	2.28	0.67
32:CE:19:HIS:CE1	32:CE:204:ASN:HB3	2.30	0.67
33:CF:23:TYR:CD2	33:CF:24:ALA:N	2.62	0.67
28:D6:10:LEU:CD2	30:D8:34:TRP:CZ2	2.78	0.67
1:DA:1477:A:H2'	1:DA:1478:G:O4'	1.95	0.67
1:DA:1533:C:H3'	1:DA:1534:G:O4'	1.94	0.67
1:DA:2059:A:H5'	1:DA:2060:A:OP2	1.93	0.67
1:DA:270(N):G:O2'	1:DA:270(O):U:H5'	1.94	0.67
1:DA:847:U:O4	1:DA:933:A:C6	2.48	0.67
1:DA:883:G:H2'	1:DA:884:C:C6	2.30	0.67
3:DD:121:PRO:HB3	3:DD:135:PHE:CE1	2.30	0.67
6:DG:11:TYR:HA	6:DG:15:VAL:HB	1.77	0.67
7:DH:123:PHE:CE2	7:DH:133:VAL:HG22	2.30	0.67
18:DS:17:VAL:C	18:DS:19:LEU:H	1.97	0.67
19:DT:51:VAL:H	19:DT:83:VAL:HG23	1.60	0.67
13:A0:51:LEU:HD22	13:A0:66:VAL:HG13	1.77	0.67
27:A5:58:LEU:HD22	27:A5:60:VAL:HG12	1.77	0.67
1:AA:580:C:H2'	1:AA:581:C:H6	1.58	0.67
21:AV:109:ALA:HB1	21:AV:142:SER:O	1.95	0.67
1:AA:270(T):G:OP1	23:AZ:97:LEU:HD22	1.95	0.67
31:BA:1026:G:O6	31:BA:1035:A:N6	2.16	0.67
31:BA:1374:A:O2'	37:BJ:28:ASN:HB3	1.94	0.67
31:BA:405:U:H3'	31:BA:406:G:H5'	1.75	0.67
31:BA:57:G:H2'	31:BA:58:C:C6	2.29	0.67
31:BA:991:U:O2'	31:BA:992:U:C5'	2.42	0.67
32:BE:83:MET:O	32:BE:85:ALA:N	2.27	0.67
37:BJ:27:ILE:HG12	37:BJ:43:PHE:HD2	1.60	0.67
37:BJ:59:LEU:HD23	37:BJ:59:LEU:O	1.94	0.67
39:BL:8:GLY:HA2	39:BL:79:LEU:HD13	1.76	0.67
49:BV:15:LEU:HD23	49:BV:15:LEU:H	1.58	0.67
31:CA:1177:G:O2'	31:CA:1178:G:N3	2.24	0.67
31:CA:56:U:H2'	31:CA:57:G:C8	2.29	0.67
1:DA:747:U:C2	27:D5:2:ALA:N	2.63	0.67
3:DD:43:ARG:HD2	3:DD:44:ASN:OD1	1.94	0.67
15:DR:16:ARG:NH2	15:DR:18:ASP:OD2	2.28	0.67
20:DU:47:LYS:HA	20:DU:60:PHE:HB3	1.76	0.67
28:A6:25:LYS:HE2	28:A6:27:LYS:HD3	1.77	0.67
29:A7:8:ASN:HD21	29:A7:11:LYS:N	1.83	0.67
1:AA:2885:C:OP2	56:AA:3438:OHX:N4	2.28	0.67
6:AG:61:ALA:HB2	6:AG:67:LYS:HA	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:151:ILE:O	7:AH:152:ARG:HG2	1.95	0.67
8:AK:132:PRO:O	8:AK:133:HIS:ND1	2.28	0.67
31:BA:1026:G:C5	31:BA:1036:G:N2	2.63	0.67
35:BH:139:LEU:O	35:BH:141:GLN:N	2.28	0.67
37:BJ:16:LEU:HD12	39:BL:42:ARG:HA	1.77	0.67
31:BA:1226:C:N4	43:BP:104:ARG:HG3	2.10	0.67
56:CA:1762:OHX:N5	40:CM:59:SER:OG	2.28	0.67
52:CB:48:C:H3'	52:CB:49:A:C8	2.30	0.67
33:CF:14:ILE:HG12	33:CF:15:THR:N	2.10	0.67
33:CF:150:LYS:HG3	33:CF:169:ALA:HB2	1.77	0.67
1:DA:782:A:H5'	1:DA:783:A:C2	2.30	0.67
1:DA:93:C:H5'	1:DA:94:G:OP2	1.95	0.67
5:DF:59:TYR:CD1	5:DF:78:ILE:HG13	2.30	0.67
6:DG:114:ILE:HG22	6:DG:117:PHE:HB2	1.75	0.67
25:DX:59:VAL:HG12	25:DX:60:GLU:N	2.09	0.67
1:AA:1108:U:C4	1:AA:1109:C:N4	2.63	0.67
1:AA:2162:G:H2'	1:AA:2163:C:O4'	1.94	0.67
1:AA:338:G:N2	1:AA:339:U:H1'	2.09	0.67
31:BA:1291:G:H2'	31:BA:1292:U:C6	2.30	0.67
39:BL:111:ARG:HG3	39:BL:112:LYS:N	2.09	0.67
42:BO:11:VAL:HG13	47:BT:29:HIS:CD2	2.30	0.67
47:BT:62:SER:HB3	47:BT:72:ARG:HH21	1.58	0.67
47:BT:67:LYS:O	47:BT:68:ARG:CB	2.42	0.67
31:CA:1022:G:N3	31:CA:1023:G:H1'	2.10	0.67
31:CA:1293:G:H2'	31:CA:1294:G:O4'	1.94	0.67
31:CA:793:U:H5'	31:CA:794:A:O5'	1.95	0.67
31:CA:798:G:OP1	41:CN:122:LYS:NZ	2.28	0.67
52:CD:51:C:O2'	52:CD:52:G:OP1	2.09	0.67
32:CE:62:ALA:C	32:CE:64:ARG:H	1.96	0.67
37:CJ:57:GLU:OE1	37:CJ:57:GLU:N	2.16	0.67
43:CP:76:ALA:HA	43:CP:79:LYS:HB2	1.76	0.67
49:CV:66:MET:N	49:CV:67:VAL:HB	2.09	0.67
51:CX:2:GLY:C	51:CX:4:GLY:H	1.98	0.67
17:D2:78:LYS:O	17:D2:79:VAL:CG1	2.43	0.67
2:DB:40:U:N3	26:D4:1:MET:SD	2.67	0.67
1:DA:1359:A:H2'	1:DA:1360:A:H5'	1.77	0.67
1:DA:2746:U:OP2	56:DA:3430:OHX:N1	2.28	0.67
12:DP:2:LEU:O	12:DP:70:PRO:HG2	1.95	0.67
1:AA:1532:C:H2'	1:AA:1533:C:C6	2.29	0.66
1:AA:1582:C:HO2'	1:AA:1586:A:H8	0.74	0.66
1:AA:320:A:H2'	5:AF:136:THR:CG2	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:114:ILE:O	11:AO:114:ILE:HD12	1.95	0.66
31:BA:1305:G:H22	31:BA:1331:G:C1'	2.08	0.66
52:BD:43:G:O2'	52:BD:44:C:H5'	1.96	0.66
33:BF:109:PRO:C	33:BF:111:LEU:H	1.99	0.66
42:BO:45:PRO:HB3	42:BO:92:ASP:HB3	1.78	0.66
54:C1:21:C:N4	54:C1:22:A:C6	2.63	0.66
31:CA:1190:G:C6	56:CA:1762:OHX:N3	2.62	0.66
52:CB:83:C:C2'	52:CB:84:C:H5'	2.23	0.66
34:CG:154:ASN:ND2	34:CG:154:ASN:O	2.28	0.66
35:CH:76:ILE:HG23	35:CH:77:PRO:HD2	1.77	0.66
43:CP:79:LYS:O	43:CP:82:MET:HB3	1.94	0.66
28:D6:24:GLU:HG3	28:D6:25:LYS:HG2	1.77	0.66
1:DA:2392:A:C8	11:DO:60:MET:CB	2.59	0.66
1:DA:2553:G:H3'	1:DA:2554:U:H5"	1.76	0.66
1:DA:2702:U:H2'	1:DA:2703:C:H5	1.60	0.66
8:DK:77:LEU:CD1	8:DK:141:LYS:HD2	2.25	0.66
11:DO:65:ARG:HH21	30:D8:15:LYS:HB2	1.59	0.66
1:DA:953:A:OP2	12:DP:16:ARG:HD3	1.95	0.66
15:DR:27:THR:HG23	15:DR:89:VAL:HG22	1.77	0.66
1:AA:1396:U:H2'	1:AA:1396:U:O2	1.94	0.66
1:AA:1925:C:H2'	1:AA:1926:U:H5'	1.76	0.66
2:AB:71:C:H2'	2:AB:71:C:O2	1.95	0.66
7:AH:137:ASP:O	7:AH:138:LYS:HB2	1.93	0.66
8:AK:11:ASN:O	8:AK:12:LEU:HB2	1.95	0.66
1:AA:389:G:H22	11:AO:72:PRO:HD3	1.59	0.66
11:AO:91:PHE:HZ	11:AO:103:ALA:HB2	1.59	0.66
14:AQ:111:GLU:O	14:AQ:112:PHE:CD1	2.48	0.66
18:AS:86:LEU:HD12	18:AS:87:PRO:HD2	1.76	0.66
20:AU:18:GLY:O	20:AU:20:TYR:N	2.28	0.66
21:AV:104:PHE:HE1	21:AV:119:GLU:HB3	1.60	0.66
32:BE:16:HIS:HB3	32:BE:210:SER:OG	1.95	0.66
31:CA:1106:G:H4'	33:CF:171:GLY:O	1.95	0.66
37:CJ:40:ALA:HB3	39:CL:41:VAL:HG21	1.76	0.66
50:CW:71:THR:HG22	50:CW:72:LEU:H	1.59	0.66
30:D8:49:VAL:HG12	30:D8:50:LEU:N	2.10	0.66
1:DA:620:G:H5'	1:DA:620:G:N3	2.11	0.66
5:DF:69:HIS:O	5:DF:70:THR:HG22	1.96	0.66
9:DM:56:ASN:CA	9:DM:125:GLY:CA	2.69	0.66
12:DP:11:LYS:HG2	12:DP:75:THR:CG2	2.25	0.66
21:DV:62:PRO:O	21:DV:64:GLY:N	2.28	0.66
21:DV:81:ARG:O	21:DV:81:ARG:HG3	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:92:ARG:NH1	17:A2:11:GLN:O	2.28	0.66
30:A8:34:TRP:H	30:A8:35:GLN:CB	2.06	0.66
1:AA:1178:C:O2'	1:AA:1179:C:O5'	2.13	0.66
1:AA:2108:C:H2'	1:AA:2109:U:O4'	1.96	0.66
1:AA:2797:U:H2'	1:AA:2797:U:O2	1.94	0.66
6:AG:122:PRO:HG3	6:AG:182:LYS:OXT	1.95	0.66
6:AG:83:ARG:H	6:AG:86:MET:CE	2.08	0.66
7:AH:4:ILE:HG21	7:AH:6:ARG:NH1	2.10	0.66
12:AP:75:THR:HG22	12:AP:89:ASN:H	1.60	0.66
15:AR:36:GLU:HG3	15:AR:41:ARG:HD2	1.77	0.66
18:AS:12:ILE:HG13	18:AS:42:ARG:NH1	2.09	0.66
20:AU:89:PHE:H	20:AU:90:LEU:HD12	1.60	0.66
31:BA:924:C:O2'	31:BA:1502:A:N6	2.27	0.66
34:BG:61:LYS:HD3	34:BG:206:PHE:CE2	2.29	0.66
37:BJ:23:VAL:CG1	37:BJ:43:PHE:HE2	2.09	0.66
43:BP:12:ASN:OD1	43:BP:13:LYS:N	2.29	0.66
31:BA:1329:A:P	43:BP:28:ALA:HB3	2.35	0.66
43:BP:88:ARG:HD3	43:BP:98:VAL:CG1	2.26	0.66
52:CD:3:U:H2'	52:CD:4:G:C8	2.30	0.66
38:CK:12:ARG:HD3	38:CK:26:VAL:HG12	1.77	0.66
1:DA:2138:C:N4	1:DA:2153:G:H1	1.93	0.66
1:DA:2801:A:H2'	1:DA:2802:G:O4'	1.94	0.66
1:DA:74:A:H5'	1:DA:75:G:O4'	1.96	0.66
4:DE:8:LYS:HB3	4:DE:193:GLY:N	2.09	0.66
6:DG:125:PHE:HB3	6:DG:166:ASP:HB2	1.77	0.66
6:DG:38:VAL:HG22	6:DG:93:THR:HG23	1.77	0.66
1:AA:2326:C:OP1	56:BC:106:OHX:N5	2.28	0.66
1:AA:273(E):U:C2'	1:AA:273(F):C:H5'	2.26	0.66
1:AA:2790:A:H1'	1:AA:2893:G:O2'	1.95	0.66
2:AB:7:G:H1	2:AB:113:C:H42	1.42	0.66
3:AD:32:SER:O	3:AD:33:LEU:CB	2.43	0.66
3:AD:70:TRP:C	3:AD:70:TRP:CD1	2.69	0.66
5:AF:178:PRO:HB2	5:AF:201:VAL:HG21	1.77	0.66
31:BA:419:C:N4	31:BA:424:G:H1	1.92	0.66
32:BE:76:GLN:O	32:BE:211:ILE:HD12	1.96	0.66
33:BF:109:PRO:O	33:BF:111:LEU:N	2.28	0.66
33:BF:6:HIS:HE2	33:BF:184:TYR:HE2	1.44	0.66
35:BH:127:ASN:ND2	35:BH:130:ASN:H	1.92	0.66
31:BA:191:G:C4	50:BW:105:SER:HB2	2.31	0.66
31:CA:1498:U:O2'	31:CA:1499:A:OP2	2.07	0.66
31:CA:264:U:OP1	56:CA:1779:OHX:N6	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:686:U:O2'	31:CA:687:A:P	2.54	0.66
22:D3:12:ASN:HA	22:D3:14:ARG:HH21	1.59	0.66
1:DA:363(E):U:H5'	1:DA:363(F):A:OP2	1.95	0.66
1:DA:511:U:H5"	1:DA:512:G:OP2	1.95	0.66
3:DD:130:ALA:C	3:DD:131:LEU:HD12	2.15	0.66
12:DP:68:ILE:HD13	12:DP:103:MET:HG2	1.76	0.66
14:DQ:110:LEU:HD23	14:DQ:112:PHE:CE2	2.31	0.66
19:DT:63:LYS:O	19:DT:63:LYS:HD2	1.94	0.66
17:A2:15:GLU:HG3	17:A2:16:PRO:CD	2.19	0.66
17:A2:39:LEU:O	17:A2:40:LEU:CD2	2.44	0.66
30:A8:16:ILE:CD1	30:A8:57:ARG:HG2	2.24	0.66
1:AA:2837:G:H21	13:A0:45:ARG:NH2	1.93	0.66
2:AB:89(A):A:N6	2:AB:90:C:O2	2.28	0.66
7:AH:98:LEU:HD22	7:AH:125:VAL:HG23	1.76	0.66
8:AK:78:THR:HG22	8:AK:141:LYS:HB3	1.76	0.66
21:AV:134:PRO:C	21:AV:136:PHE:H	1.99	0.66
36:BI:42:GLU:O	36:BI:44:GLY:N	2.29	0.66
47:BT:11:VAL:HG12	47:BT:85:VAL:HG13	1.77	0.66
34:CG:126:ILE:HG22	34:CG:127:THR:N	2.11	0.66
35:CH:101:ILE:H	35:CH:101:ILE:HD13	1.60	0.66
40:CM:48:THR:OG1	40:CM:62:HIS:ND1	2.27	0.66
46:CS:23:ASP:OD1	46:CS:25:ARG:NH1	2.29	0.66
17:D2:29:PRO:HA	17:D2:61:VAL:HG11	1.78	0.66
17:D2:76:LYS:HE2	17:D2:81:TYR:CE1	2.30	0.66
1:DA:228:A:H3'	1:DA:228:A:C8	2.30	0.66
1:DA:2777:G:C5'	1:DA:2778:A:H5'	2.15	0.66
1:DA:959:A:C6	1:DA:960:A:C2	2.84	0.66
2:DB:74:U:C2'	2:DB:75:G:H5"	2.25	0.66
18:DS:27:LYS:O	18:DS:71:VAL:HG23	1.95	0.66
13:A0:62:ALA:O	13:A0:66:VAL:HG23	1.96	0.66
13:A0:87:TYR:HE1	13:A0:117:VAL:HG12	1.58	0.66
22:A3:70:GLN:NE2	22:A3:80:HIS:HE2	1.94	0.66
1:AA:1175:U:O2	1:AA:1175:U:H2'	1.96	0.66
1:AA:1359:A:N1	1:AA:1372:U:C4	2.63	0.66
1:AA:2118:U:H5"	1:AA:2119:A:OP1	1.94	0.66
9:AM:94:HIS:O	9:AM:96:GLU:O	2.12	0.66
11:AO:88:LEU:HD12	11:AO:95:VAL:HG11	1.78	0.66
37:BJ:44:TYR:HA	37:BJ:47:CYS:HB2	1.78	0.66
42:BO:70:ILE:HD11	42:BO:77:LEU:HD12	1.78	0.66
31:CA:1285:A:H1'	31:CA:1286:A:OP2	1.95	0.66
32:CE:224:GLN:HA	32:CE:229:VAL:HG22	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:22:TRP:HB3	33:CF:59:ARG:HB2	1.78	0.66
39:CL:114:TYR:HD2	39:CL:114:TYR:H	1.44	0.66
43:CP:94:ARG:O	43:CP:96:LEU:HG	1.95	0.66
48:CU:29:PHE:HD1	48:CU:39:VAL:CG1	2.08	0.66
22:D3:71:ASP:OD1	22:D3:72:ARG:N	2.28	0.66
1:DA:945:A:C4	1:DA:2448:A:C2	2.84	0.66
1:DA:463:G:N2	1:DA:466:A:OP2	2.27	0.66
8:DK:74:ASN:OD1	8:DK:75:LEU:N	2.26	0.66
11:DO:105:LEU:O	11:DO:106:LEU:HB2	1.96	0.66
11:DO:85:LEU:HB3	11:DO:114:ILE:HD11	1.78	0.66
20:DU:93:GLY:O	20:DU:95:LYS:N	2.28	0.66
1:AA:2331:G:H4'	22:A3:43:THR:H	1.59	0.66
56:AA:3416:OHX:N3	56:AA:3504:OHX:N4	2.44	0.66
2:AB:66:A:N6	2:AB:107:U:H2'	2.11	0.66
4:AE:48:GLN:NE2	4:AE:77:ILE:HD12	2.10	0.66
4:AE:51:PHE:HD1	4:AE:52:LEU:HG	1.61	0.66
18:AS:26:GLY:HA2	18:AS:71:VAL:O	1.95	0.66
52:BD:61:G:H1	52:BD:71:C:N4	1.89	0.66
45:BR:70:LEU:HD11	45:BR:77:ARG:HG3	1.78	0.66
46:BS:69:THR:O	46:BS:69:THR:OG1	2.14	0.66
48:BU:58:LEU:HB3	48:BU:62:GLU:HB3	1.78	0.66
31:CA:1129:C:N4	31:CA:1139:G:N2	2.43	0.66
31:CA:250:A:H1'	31:CA:251:G:OP2	1.95	0.66
31:CA:987:G:H1	31:CA:1218:C:N4	1.91	0.66
52:CB:46:G:O2'	52:CB:47:U:H5'	1.96	0.66
52:CB:51:C:C6	52:CB:51:C:OP2	2.48	0.66
32:CE:124:SER:O	32:CE:126:GLU:N	2.27	0.66
34:CG:15:GLU:OE1	34:CG:15:GLU:N	2.29	0.66
38:CK:51:VAL:HG21	38:CK:60:ARG:HH21	1.60	0.66
40:CM:99:LYS:HD3	40:CM:100:THR:N	2.11	0.66
1:DA:2418:A:C5	1:DA:2419:U:C5	2.84	0.66
1:DA:443:A:OP2	1:DA:615:G:N2	2.24	0.66
1:DA:535:C:O2'	1:DA:536:A:H5'	1.96	0.66
8:DK:110:ASP:O	8:DK:111:PRO:O	2.14	0.66
11:DO:61:ARG:HB2	11:DO:61:ARG:NH2	2.09	0.66
18:DS:13:SER:O	18:DS:16:LYS:HB2	1.95	0.66
21:DV:44:PHE:CE1	21:DV:48:PHE:HB2	2.31	0.66
1:AA:2723:C:H4'	13:A0:1:MET:HE3	1.77	0.66
1:AA:1263:U:O2'	27:A5:11:THR:HG23	1.96	0.66
1:AA:1076:C:C2'	1:AA:1077:A:H5"	2.26	0.66
1:AA:1899:G:H22	1:AA:1902:C:H41	1.41	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:28:ILE:HA	5:AF:112:MET:CE	2.26	0.66
14:AQ:3:ARG:HG2	14:AQ:4:LEU:H	1.61	0.66
31:BA:182:U:H2'	31:BA:182:U:O2	1.94	0.66
32:BE:5:ILE:HG21	32:BE:221:LEU:HD23	1.78	0.66
31:BA:1367:C:C5'	40:BM:60:ARG:HH21	2.04	0.66
41:BN:12:ARG:HG2	41:BN:13:GLN:N	2.10	0.66
43:BP:20:THR:O	43:BP:22:ILE:N	2.29	0.66
31:CA:1111:A:C8	31:CA:1112:C:C5	2.84	0.66
52:CB:3:U:C4'	52:CB:4:G:OP1	2.44	0.66
53:CC:18:C:O2'	56:CC:110:OHX:N3	2.29	0.66
38:CK:34:GLU:OE1	38:CK:37:ARG:NH1	2.28	0.66
40:CM:78:ASN:ND2	40:CM:81:THR:HG23	2.11	0.66
1:DA:1022:G:C6	1:DA:1140:C:C4	2.84	0.66
1:DA:1340:U:H4'	1:DA:1341:U:OP2	1.95	0.66
1:DA:1538:G:C2'	1:DA:1539:G:H5'	2.26	0.66
3:DD:137:PRO:O	3:DD:140:THR:HG23	1.95	0.66
5:DF:158:THR:OG1	5:DF:159:GLY:N	2.29	0.66
1:AA:2135:A:N6	1:AA:2156:G:O2'	2.29	0.66
1:AA:2490:G:N2	56:AA:3330:OHX:N3	2.43	0.66
1:AA:2533:A:OP2	56:AA:3525:OHX:N3	2.28	0.66
1:AA:573:G:O2'	1:AA:574:C:H3'	1.96	0.66
1:AA:646:A:C8	1:AA:647:G:H1'	2.30	0.66
3:AD:223:GLY:HA3	3:AD:231:HIS:ND1	2.11	0.66
5:AF:123:LEU:HD12	5:AF:124:LEU:N	2.10	0.66
10:AN:88:ASN:ND2	10:AN:92:GLU:H	1.94	0.66
11:AO:100:LEU:HD23	11:AO:112:LEU:HD11	1.76	0.66
19:AT:80:ILE:O	19:AT:80:ILE:HD12	1.96	0.66
31:BA:920:U:O2'	31:BA:921:U:H5'	1.96	0.66
52:BD:16:C:H41	52:BD:68:A:H2'	1.60	0.66
36:BI:42:GLU:C	36:BI:44:GLY:H	1.99	0.66
43:BP:84:ILE:HG23	43:BP:86:CYS:H	1.61	0.66
31:BA:177:C:OP2	50:BW:65:LYS:HE2	1.96	0.66
31:CA:1263:C:N3	31:CA:1273:G:N2	2.44	0.66
31:CA:90:C:H2'	31:CA:91:C:O4'	1.96	0.66
31:CA:992:U:H3	31:CA:1044:A:N6	1.87	0.66
32:CE:137:ARG:O	32:CE:137:ARG:HD3	1.96	0.66
32:CE:179:LYS:HA	38:CK:72:PRO:HG3	1.78	0.66
31:CA:1190:G:P	33:CF:5:ILE:HG23	2.36	0.66
34:CG:98:GLU:OE2	34:CG:103:ASN:ND2	2.29	0.66
34:CG:4:TYR:CD1	34:CG:5:ILE:N	2.61	0.66
37:CJ:43:PHE:O	37:CJ:47:CYS:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CS:21:VAL:HG22	46:CS:33:ILE:HD12	1.78	0.66
49:CV:7:LYS:HE3	49:CV:8:GLY:N	2.10	0.66
30:D8:22:VAL:HG12	30:D8:50:LEU:CD2	2.25	0.66
30:D8:30:ARG:O	30:D8:31:HIS:C	2.34	0.66
1:DA:535:C:C2'	1:DA:536:A:H5'	2.26	0.66
1:DA:971:C:H2'	1:DA:972:G:C5'	2.25	0.66
3:DD:36:PRO:CB	3:DD:61:LEU:HG	2.26	0.66
6:DG:67:LYS:H	26:D4:6:HIS:CD2	2.14	0.66
9:DM:17:ASP:O	9:DM:55:VAL:HG23	1.95	0.66
1:AA:1634:A:OP1	56:AA:3370:OHX:N2	2.29	0.66
1:AA:2335:A:C8	1:AA:2337:G:C5	2.84	0.66
1:AA:299:A:H62	1:AA:300:A:N6	1.93	0.66
1:AA:524:U:H2'	1:AA:525:U:C6	2.28	0.66
1:AA:654(D):G:N1	1:AA:654(Q):C:N4	2.24	0.66
4:AE:111:ARG:HB3	13:A0:1:MET:SD	2.36	0.66
31:BA:312:C:H2'	31:BA:313:A:H8	1.59	0.66
32:BE:98:LEU:HB2	32:BE:101:MET:HG3	1.78	0.66
6:AG:115:ARG:HH12	43:BP:7:VAL:HB	1.61	0.66
45:BR:82:ILE:HG23	45:BR:87:ILE:HB	1.77	0.66
31:CA:1305:G:H22	31:CA:1331:G:C2'	2.08	0.66
31:CA:1513:A:H2'	31:CA:1514:C:C6	2.30	0.66
31:CA:77:C:C2'	31:CA:78:G:H5'	2.26	0.66
52:CD:23:A:H2'	52:CD:24:G:O4'	1.95	0.66
42:CO:8:ASN:HD22	47:CT:34:LYS:HE2	1.61	0.66
29:D7:34:ARG:NH1	29:D7:39:ARG:CG	2.59	0.66
1:DA:1000:A:C6	1:DA:1001:A:C2	2.84	0.66
1:DA:1905:C:OP2	56:DA:3212:OHX:N3	2.29	0.66
1:DA:2361:A:OP1	30:D8:27:THR:HG23	1.95	0.66
3:DD:166:GLN:HA	3:DD:166:GLN:NE2	2.07	0.66
5:DF:69:HIS:O	5:DF:70:THR:CG2	2.44	0.66
7:DH:84:SER:O	7:DH:85:LYS:HB2	1.94	0.66
12:DP:19:GLY:HA3	12:DP:98:LYS:HZ2	1.60	0.66
15:DR:8:LYS:C	15:DR:10:VAL:N	2.47	0.66
18:DS:26:GLY:H	18:DS:71:VAL:HB	1.61	0.66
21:DV:30:ASN:ND2	21:DV:90:VAL:O	2.28	0.66
1:AA:571:A:O2'	17:A2:78:LYS:NZ	2.29	0.65
26:A4:13:ARG:O	26:A4:14:ILE:HB	1.96	0.65
1:AA:1077:A:N3	1:AA:1077:A:H2'	2.10	0.65
1:AA:1164:G:H2'	1:AA:1165:U:H6	1.60	0.65
1:AA:2723:C:OP1	13:A0:3:HIS:HD2	1.79	0.65
1:AA:798:G:OP1	56:AF:303:OHX:N2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:945:A:N3	1:AA:945:A:H2'	2.10	0.65
3:AD:242:ARG:HG2	3:AD:246:PRO:HG3	1.78	0.65
4:AE:4:ILE:CD1	4:AE:28:ALA:HB1	2.25	0.65
6:AG:172:LEU:O	6:AG:176:LEU:HB2	1.96	0.65
6:AG:107:LEU:HD21	6:AG:178:PHE:CD1	2.31	0.65
12:AP:92:GLY:C	12:AP:93:TYR:CD1	2.69	0.65
20:AU:84:ARG:HH11	20:AU:84:ARG:HB2	1.61	0.65
21:AV:128:VAL:HG21	21:AV:134:PRO:HD2	1.77	0.65
52:BD:48:C:H2'	52:BD:49:A:O4'	1.95	0.65
52:BD:54:C:H2'	52:BD:55:U:O4'	1.96	0.65
31:CA:452:A:O2'	31:CA:453:A:O4'	2.14	0.65
52:CB:16:C:H5'	52:CB:17:G:OP2	1.96	0.65
53:CC:54:G:H2'	53:CC:55:U:H6	1.62	0.65
52:CD:43:G:O2'	52:CD:44:C:H5'	1.96	0.65
37:CJ:135:VAL:O	37:CJ:139:GLU:HG3	1.95	0.65
40:CM:17:ASP:OD1	40:CM:70:ARG:NH1	2.30	0.65
1:DA:889:C:H2'	1:DA:890:A:H4'	1.77	0.65
43:CP:7:VAL:HG21	6:DG:115:ARG:NH1	2.11	0.65
11:DO:86:LYS:HG3	11:DO:87:ASP:N	2.11	0.65
18:DS:34:ASN:OD1	27:D5:39:MET:HG3	1.95	0.65
20:DU:48:ALA:HB3	20:DU:59:GLY:O	1.96	0.65
13:A0:91:GLN:H	13:A0:91:GLN:CD	2.00	0.65
28:A6:43:CYS:HB3	28:A6:44:ARG:NH1	2.10	0.65
1:AA:389:G:H22	11:AO:72:PRO:CD	2.10	0.65
31:BA:1497:G:H2'	31:BA:1498:U:H5'	1.77	0.65
37:BJ:50:ILE:O	37:BJ:54:THR:HG23	1.96	0.65
45:BR:78:TYR:O	45:BR:80:ALA:N	2.29	0.65
49:BV:65:ASN:HD22	49:BV:65:ASN:N	1.91	0.65
31:CA:1004:A:H1'	31:CA:1036:G:C6	2.30	0.65
31:CA:1128:C:O2'	31:CA:1129:C:P	2.53	0.65
31:CA:631:G:H3'	31:CA:632:A:N7	2.10	0.65
32:CE:23:ARG:O	32:CE:23:ARG:NE	2.29	0.65
33:CF:73:PRO:O	33:CF:76:VAL:HG22	1.96	0.65
43:CP:29:ARG:HD3	43:CP:64:TRP:CE3	2.30	0.65
45:CR:8:LYS:O	45:CR:12:ILE:HG13	1.95	0.65
1:DA:2020:A:P	16:D1:27:LEU:HD23	2.36	0.65
1:DA:1000:A:C2	1:DA:1155:A:C4	2.84	0.65
1:DA:1514:U:O2'	1:DA:1515:C:H5'	1.96	0.65
1:DA:527:C:H5	56:DA:3388:OHX:N5	1.94	0.65
2:DB:105:G:N7	56:DB:209:OHX:N5	2.44	0.65
1:DA:566:U:H5"	11:DO:29:LYS:HE3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:87:PHE:CE1	14:DQ:102:ALA:HB2	2.32	0.65
19:DT:11:PRO:HB3	19:DT:92:LEU:HD21	1.77	0.65
1:AA:1188:U:O2'	1:AA:1189:A:H5'	1.96	0.65
1:AA:1437:C:C2	1:AA:1438:U:C5	2.85	0.65
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.59	0.65
1:AA:1728:G:H5'	1:AA:1729:A:OP2	1.96	0.65
1:AA:2311:A:O2'	6:AG:88:ILE:HG21	1.96	0.65
1:AA:2016:U:OP1	56:AA:3367:OHX:N5	2.29	0.65
1:AA:529:A:H8	1:AA:530:G:C6	2.15	0.65
5:AF:29:ASN:H	5:AF:112:MET:CE	2.08	0.65
21:AV:60:GLU:O	21:AV:61:LEU:HD22	1.95	0.65
52:BD:29:C:C2'	52:BD:30:A:H5'	2.26	0.65
38:BK:29:SER:OG	38:BK:32:LYS:HB2	1.95	0.65
39:BL:17:VAL:HG11	39:BL:81:ILE:HD13	1.79	0.65
44:BQ:13:THR:N	44:BQ:14:PRO:HD2	2.12	0.65
31:CA:1517:G:H2'	31:CA:1518:A:H8	1.60	0.65
31:CA:829:G:O2'	31:CA:830:G:H5'	1.96	0.65
31:CA:982:U:H4'	31:CA:983:A:OP1	1.95	0.65
32:CE:87:ARG:NH1	32:CE:220:ASP:OD1	2.29	0.65
37:CJ:69:VAL:HG13	37:CJ:134:ALA:O	1.97	0.65
37:CJ:22:LEU:HG	37:CJ:97:GLN:HE22	1.60	0.65
40:CM:8:LEU:HD23	40:CM:20:ALA:HB2	1.78	0.65
1:DA:1864:U:O4	56:DA:3454:OHX:N5	2.29	0.65
1:DA:648:G:O2'	1:DA:649:G:H5'	1.95	0.65
3:DD:255:LYS:HD2	3:DD:255:LYS:O	1.97	0.65
17:A2:8:GLY:O	17:A2:10:LYS:HE3	1.97	0.65
1:AA:273(E):U:O2'	1:AA:273(F):C:H5'	1.95	0.65
4:AE:137:HIS:HB3	4:AE:138:PRO:HD2	1.79	0.65
5:AF:46:ARG:HH11	5:AF:46:ARG:CG	2.07	0.65
6:AG:70:VAL:HG22	6:AG:70:VAL:O	1.97	0.65
9:AM:96:GLU:C	9:AM:98:VAL:H	2.00	0.65
31:BA:131:C:O2	31:BA:132:C:C5	2.50	0.65
31:BA:201:C:N4	31:BA:209:U:O2	2.30	0.65
31:BA:411:A:H62	31:BA:413:G:H21	1.44	0.65
31:BA:412:A:O2'	31:BA:413:G:OP2	2.13	0.65
31:BA:486:U:H2'	31:BA:487:A:H8	1.61	0.65
31:BA:91:C:H2'	31:BA:92:G:O4'	1.96	0.65
52:BD:19:C:H2'	52:BD:20:C:C4'	2.18	0.65
36:BI:97:PHE:CZ	48:BU:61:LYS:HD3	2.32	0.65
31:CA:1192:C:C5	31:CA:1193:G:C8	2.85	0.65
31:CA:198:G:H2'	31:CA:199:G:H8	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:36:ASP:HA	33:CF:39:ILE:HD12	1.77	0.65
39:CL:114:TYR:CD1	40:CM:60:ARG:HG2	2.30	0.65
46:CS:17:TYR:HE1	46:CS:41:PRO:HG3	1.60	0.65
50:CW:70:SER:O	50:CW:73:HIS:HB2	1.96	0.65
22:D3:25:ARG:HG3	22:D3:31:VAL:CG1	2.26	0.65
30:D8:34:TRP:O	30:D8:36:LYS:N	2.30	0.65
1:DA:1854:A:H62	1:DA:1888:G:H8	1.44	0.65
1:DA:880:G:C2	1:DA:898:C:N3	2.65	0.65
4:DE:137:HIS:HD1	4:DE:138:PRO:HD3	1.61	0.65
20:DU:43:ASN:HD22	20:DU:43:ASN:H	1.43	0.65
20:DU:61:ILE:CG2	20:DU:62:GLU:H	1.99	0.65
1:AA:1061:U:H4'	1:AA:1070:A:C1'	2.13	0.65
1:AA:1328:G:H2'	1:AA:1330:C:C5	2.32	0.65
1:AA:2477:C:O2	56:AA:3560:OHX:N3	2.30	0.65
1:AA:491:G:O6	18:AS:49:LYS:NZ	2.21	0.65
2:AB:57:A:C2'	2:AB:58:A:H5'	2.26	0.65
21:AV:76:LEU:H	21:AV:76:LEU:HD22	1.62	0.65
31:BA:428:G:O6	56:BA:1785:OHX:N1	2.30	0.65
31:CA:1097:C:H2'	31:CA:1097:C:O2	1.97	0.65
31:CA:1176:A:H2'	31:CA:1177:G:C5'	2.14	0.65
31:CA:1337:G:H5"	31:CA:1338:G:OP1	1.96	0.65
31:CA:407:G:O2'	34:CG:116:GLN:HG3	1.96	0.65
33:CF:40:ARG:O	33:CF:44:GLU:HG3	1.95	0.65
9:DM:42:TRP:O	16:D1:64:ARG:NH2	2.30	0.65
1:DA:607:U:H3	1:DA:621:A:H2	1.40	0.65
2:DB:100:G:H2'	2:DB:101:A:O4'	1.97	0.65
14:DQ:86:ALA:O	14:DQ:87:PHE:HB2	1.96	0.65
1:AA:1061:U:O2'	1:AA:1070:A:O4'	2.10	0.65
1:AA:1771:C:H1'	1:AA:1786:A:C8	2.32	0.65
1:AA:2807:G:C3'	1:AA:2808:U:H5"	2.27	0.65
1:AA:619:G:H5"	1:AA:620:G:OP2	1.94	0.65
1:AA:68:G:H2'	1:AA:69:C:C6	2.30	0.65
1:AA:58:G:N2	1:AA:70:G:C4	2.64	0.65
1:AA:845:G:O2'	1:AA:846:C:C5	2.50	0.65
5:AF:123:LEU:HD21	5:AF:199:TRP:CZ3	2.32	0.65
1:AA:1257:C:H4'	5:AF:83:PHE:CE2	2.31	0.65
6:AG:33:ARG:HB2	6:AG:162:THR:HG21	1.78	0.65
9:AM:133:GLN:NE2	9:AM:133:GLN:H	1.95	0.65
9:AM:46:VAL:O	9:AM:47:ALA:HB3	1.96	0.65
31:BA:243:A:H4'	31:BA:244:U:H5"	1.78	0.65
31:BA:260:G:O6	56:BA:1789:OHX:N5	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:31:CYS:C	34:BG:33:MET:N	2.50	0.65
31:BA:952:U:O4	43:BP:104:ARG:HD3	1.97	0.65
43:BP:20:THR:C	43:BP:22:ILE:H	2.00	0.65
46:BS:45:THR:HG22	46:BS:47:ASP:H	1.61	0.65
50:BW:104:LEU:HD12	50:BW:105:SER:N	2.12	0.65
31:CA:1012:U:H2'	31:CA:1013:G:C8	2.31	0.65
32:CE:178:ARG:HH22	32:CE:196:LEU:HA	1.60	0.65
33:CF:179:ARG:HG3	33:CF:206:GLU:OE2	1.96	0.65
50:CW:16:HIS:O	50:CW:19:SER:OG	2.10	0.65
1:DA:1442:G:C2'	1:DA:1443:G:H5"	2.27	0.65
1:DA:2873:A:H2'	1:DA:2873:A:N3	2.11	0.65
1:DA:2490:G:N1	56:DA:3344:OHX:N4	2.45	0.65
3:DD:44:ASN:OD1	3:DD:44:ASN:N	2.29	0.65
4:DE:37:ARG:HD3	4:DE:44:TYR:CZ	2.32	0.65
16:A1:90:VAL:HG12	16:A1:91:ASP:N	2.11	0.65
1:AA:2210:G:H3'	1:AA:2211:G:N7	2.09	0.65
2:AB:75:G:H21	21:AV:85:HIS:HE1	1.45	0.65
3:AD:6:PHE:HE1	3:AD:18:VAL:HG23	1.62	0.65
4:AE:87:GLU:O	4:AE:87:GLU:HG3	1.96	0.65
31:BA:192:U:C4'	50:BW:103:GLY:HA2	2.26	0.65
31:BA:452:A:H2'	31:BA:453:A:H8	1.61	0.65
31:BA:439:A:OP2	31:BA:493:G:N2	2.29	0.65
52:BD:38:MIA:O2'	52:BD:39:A:H5'	1.97	0.65
31:BA:974:A:OP2	44:BQ:41:ARG:NH1	2.30	0.65
48:BU:57:GLY:C	48:BU:58:LEU:HD12	2.17	0.65
31:CA:116:A:OP2	31:CA:116:A:C8	2.50	0.65
32:CE:72:GLY:C	32:CE:74:LYS:H	2.00	0.65
33:CF:81:GLY:O	33:CF:82:GLU:HB2	1.96	0.65
13:D0:57:ARG:HH21	13:D0:62:ALA:HB2	1.60	0.65
16:D1:92:ARG:CD	16:D1:95:LEU:HD12	2.20	0.65
1:DA:1341:U:C2'	1:DA:1397:U:O2	2.42	0.65
1:DA:1557:C:H5"	1:DA:1558:A:OP2	1.97	0.65
1:DA:270(L):U:O2'	1:DA:270(M):U:OP1	2.15	0.65
1:DA:451:C:H41	1:DA:454:A:H5'	1.60	0.65
1:DA:748:G:C8	18:DS:89:ALA:HB1	2.32	0.65
12:DP:11:LYS:HG2	12:DP:75:THR:HG21	1.79	0.65
12:DP:88:GLY:O	12:DP:89:ASN:HB2	1.95	0.65
23:DZ:87:PRO:C	23:DZ:89:GLU:N	2.50	0.65
9:AM:40:PRO:HB3	16:A1:68:ALA:HB2	1.77	0.65
30:A8:29:LYS:HE2	30:A8:44:LYS:CB	2.26	0.65
1:AA:2168:G:N2	1:AA:2170:A:H62	1.94	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2219:G:H2'	1:AA:2224:G:H5'	1.77	0.65
1:AA:218:A:H2	1:AA:235:U:H4'	1.62	0.65
1:AA:280:C:N3	1:AA:361:G:C2	2.65	0.65
56:AA:3416:OHX:N5	56:AA:3504:OHX:N5	2.45	0.65
1:AA:943:U:P	11:AO:36:LYS:CG	2.78	0.65
3:AD:231:HIS:CG	3:AD:232:PRO:HD2	2.31	0.65
7:AH:4:ILE:O	7:AH:6:ARG:N	2.30	0.65
8:AK:7:GLU:O	8:AK:9:LEU:HD13	1.96	0.65
12:AP:12:GLN:HG2	12:AP:73:PRO:HD2	1.78	0.65
20:AU:96:ILE:HD11	20:AU:98:VAL:HG12	1.79	0.65
54:B1:11:U:O2'	54:B1:12:A:C2	2.42	0.65
31:BA:7:G:H5'	31:BA:298:A:O4'	1.96	0.65
42:BO:90:VAL:O	42:BO:91:LYS:HB3	1.97	0.65
31:CA:1129:C:C4	31:CA:1142:G:O6	2.48	0.65
31:CA:1158:C:N3	31:CA:1160:G:N7	2.45	0.65
31:CA:332:G:C2	31:CA:333:G:C8	2.85	0.65
43:CP:76:ALA:O	43:CP:80:ARG:HG3	1.96	0.65
45:CR:39:LEU:HD11	45:CR:56:LEU:HB2	1.77	0.65
1:DA:1778:U:H2'	1:DA:1784:A:N6	2.12	0.65
1:DA:2210:G:H3'	1:DA:2211:G:C4	2.32	0.65
1:DA:2881:C:O3'	13:D0:96:ARG:HG3	1.97	0.65
3:DD:68:LYS:HB3	3:DD:70:TRP:CZ3	2.31	0.65
4:DE:61:ARG:C	4:DE:63:LEU:N	2.51	0.65
6:DG:63:ILE:HD12	6:DG:141:PHE:CD2	2.32	0.65
6:DG:34:LEU:O	6:DG:35:GLU:HB3	1.96	0.65
11:DO:63:PRO:O	11:DO:64:LYS:C	2.35	0.65
12:DP:12:GLN:HE21	12:DP:73:PRO:HD2	1.61	0.65
23:DZ:91:LYS:HG3	23:DZ:92:LYS:H	1.62	0.65
1:AA:1491:G:N2	1:AA:1500:G:H1'	2.12	0.65
1:AA:2172:U:O2	1:AA:2172:U:H2'	1.96	0.65
1:AA:2756:U:H4'	1:AA:2757:A:OP1	1.96	0.65
3:AD:158:ALA:O	3:AD:161:THR:HG23	1.97	0.65
3:AD:35:LYS:HG2	3:AD:64:ILE:CG2	2.27	0.65
4:AE:120:TRP:CD2	4:AE:155:LYS:HD3	2.32	0.65
15:AR:102:ILE:HB	15:AR:110:ILE:HD12	1.79	0.65
15:AR:41:ARG:HH11	15:AR:41:ARG:CB	2.09	0.65
31:BA:1020:U:H2'	31:BA:1021:G:H8	1.61	0.65
31:BA:1434:A:H2'	31:BA:1435:G:O4'	1.96	0.65
31:BA:1453:G:H22	50:BW:54:LYS:HZ2	1.44	0.65
31:BA:773:G:H1	31:BA:806:C:H42	1.44	0.65
53:BC:24:C:H2'	53:BC:25:U:H6	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:25:ASN:ND2	32:BE:193:ASP:HB3	2.12	0.65
31:CA:428:G:O4'	31:CA:430:A:C8	2.50	0.65
52:CB:62:G:H2'	52:CB:63:U:H5'	1.78	0.65
33:CF:8:ILE:O	33:CF:10:PHE:N	2.30	0.65
43:CP:91:ARG:HB2	43:CP:98:VAL:HG12	1.79	0.65
17:D2:64:HIS:HD2	17:D2:92:THR:HG23	1.60	0.65
1:DA:2106:G:H2'	1:DA:2107:C:O4'	1.97	0.65
1:DA:2790:A:H4'	1:DA:2791:C:OP2	1.97	0.65
1:DA:2844:G:H5'	1:DA:2844:G:H8	1.62	0.65
24:DW:47:ASN:O	24:DW:49:LYS:HE3	1.97	0.65
1:AA:1292:U:H2'	1:AA:1293:C:C6	2.32	0.65
1:AA:1359:A:C2	1:AA:1372:U:O4	2.50	0.65
1:AA:1488:G:C5	1:AA:1489:U:C5	2.85	0.65
1:AA:2378:A:O5'	1:AA:2378:A:H8	1.80	0.65
1:AA:2749:A:N1	1:AA:2750:A:N6	2.44	0.65
7:AH:105:LEU:H	7:AH:105:LEU:CD2	2.10	0.65
12:AP:133:ARG:O	12:AP:134:ARG:CB	2.45	0.65
20:AU:90:LEU:HD12	20:AU:90:LEU:N	2.12	0.65
34:BG:79:PHE:HE1	34:BG:204:ILE:HG12	1.62	0.65
35:BH:83:GLU:HG2	35:BH:88:LYS:HB2	1.78	0.65
37:BJ:65:ALA:HB1	37:BJ:127:ALA:HB3	1.79	0.65
37:BJ:91:VAL:HG12	37:BJ:95:ARG:HB3	1.78	0.65
39:BL:117:HIS:O	39:BL:118:LYS:HG3	1.96	0.65
46:BS:75:ARG:C	46:BS:77:ALA:H	2.00	0.65
34:CG:150:GLU:HG2	34:CG:151:LYS:N	2.12	0.65
47:CT:67:LYS:O	47:CT:68:ARG:CB	2.44	0.65
1:DA:1537:C:H2'	1:DA:1538:G:C8	2.32	0.65
1:DA:2468:G:C6	1:DA:2481:G:C6	2.85	0.65
1:DA:2561:A:C2	10:DN:23:ARG:NH1	2.65	0.65
1:DA:946:G:O2'	1:DA:947:G:C5'	2.30	0.65
5:DF:132:VAL:C	5:DF:134:GLY:H	1.99	0.65
9:DM:15:LEU:HD23	9:DM:134:ARG:HG3	1.79	0.65
21:DV:107:THR:N	21:DV:108:PRO:HD2	2.11	0.65
24:DW:12:GLU:HG3	24:DW:16:LEU:HD21	1.78	0.65
25:DX:7:LYS:HD2	25:DX:34:GLU:HG2	1.79	0.65
1:AA:1024:G:H3'	1:AA:1025:G:H5"	1.78	0.64
1:AA:1593:G:H2'	1:AA:1594:G:C8	2.32	0.64
1:AA:165:U:H2'	1:AA:171:G:O4'	1.98	0.64
1:AA:2802:G:OP2	1:AA:2802:G:H8	1.80	0.64
1:AA:880:G:O2'	1:AA:881:G:P	2.54	0.64
7:AH:29:PRO:HD2	7:AH:79:VAL:O	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:38:GLN:NE2	11:AO:38:GLN:HA	2.11	0.64
21:AV:37:VAL:HG23	21:AV:38:TYR:N	2.11	0.64
31:BA:1086:U:O5'	31:BA:1086:U:H6	1.80	0.64
31:BA:1296:C:H4'	31:BA:1302:U:C5	2.32	0.64
31:BA:501:C:H2'	31:BA:502:G:C8	2.32	0.64
31:BA:78:G:H1	31:BA:91:C:N4	1.90	0.64
31:BA:668:G:O2'	45:BR:46:HIS:HD2	1.78	0.64
31:CA:1154:G:C2	31:CA:1155:G:C8	2.84	0.64
31:CA:1298:C:H4'	31:CA:1299:A:C8	2.32	0.64
31:CA:623:C:C4	31:CA:624:C:C5	2.85	0.64
40:CM:6:ILE:CG2	40:CM:98:ILE:HG23	2.27	0.64
30:D8:52:LYS:N	30:D8:52:LYS:HD2	2.12	0.64
1:DA:1434:A:H61	1:DA:1558:A:H62	1.44	0.64
1:DA:997:G:OP1	16:D1:93:LYS:HD2	1.97	0.64
4:DE:66:HIS:NE2	4:DE:73:GLU:OE1	2.30	0.64
5:DF:4:VAL:HA	5:DF:19:GLU:CB	2.26	0.64
7:DH:7:LEU:N	7:DH:8:PRO:CD	2.60	0.64
8:DK:58:LEU:O	8:DK:61:ARG:N	2.29	0.64
11:DO:107:LYS:O	11:DO:109:GLY:N	2.30	0.64
12:DP:85:LYS:HB3	22:D3:9:SER:HB3	1.78	0.64
15:DR:20:PRO:HD2	15:DR:86:ILE:CG2	2.27	0.64
17:A2:24:LYS:HB2	17:A2:92:THR:HG23	1.79	0.64
1:AA:1094:U:O2'	1:AA:1096:A:OP1	2.15	0.64
21:AV:30:ASN:OD1	21:AV:90:VAL:HB	1.97	0.64
31:BA:1023:G:H3'	31:BA:1024:G:C5'	2.27	0.64
31:BA:619:U:O2	34:BG:135:LEU:HD22	1.97	0.64
32:BE:22:LYS:HZ3	32:BE:22:LYS:HA	1.62	0.64
42:BO:53:ARG:HG3	42:BO:53:ARG:HH11	1.62	0.64
47:BT:76:LEU:HD12	47:BT:77:VAL:H	1.61	0.64
31:CA:1100:C:O2'	31:CA:1102:A:OP1	2.15	0.64
31:CA:1300:G:O2'	31:CA:1301:U:P	2.55	0.64
31:CA:1449:C:O2'	31:CA:1450:U:OP1	2.13	0.64
31:CA:631:G:H3'	31:CA:632:A:C5	2.32	0.64
33:CF:182:ILE:CG2	33:CF:203:PHE:HD1	2.10	0.64
1:DA:1170:G:H2'	1:DA:1170:G:N3	2.11	0.64
1:DA:271(A):C:O2	1:DA:271(A):C:H2'	1.95	0.64
2:DB:15:A:OP2	2:DB:107:U:O2'	2.15	0.64
8:DK:58:LEU:O	8:DK:60:GLU:N	2.30	0.64
9:DM:57:ALA:O	9:DM:59:LYS:N	2.30	0.64
19:DT:18:TYR:O	19:DT:21:PHE:N	2.29	0.64
1:AA:2439:A:C5'	1:AA:2439:A:C8	2.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2712:U:H1'	1:AA:2712(A):A:C8	2.33	0.64
2:AB:43:C:P	6:AG:67:LYS:NZ	2.69	0.64
4:AE:53:PRO:O	4:AE:54:GLN:O	2.15	0.64
7:AH:98:LEU:HD12	7:AH:102:ALA:O	1.96	0.64
12:AP:52:VAL:HA	12:AP:55:VAL:HG13	1.77	0.64
15:AR:105:LEU:C	15:AR:107:ASP:H	1.97	0.64
20:AU:78:ALA:HB3	20:AU:81:LYS:CE	2.27	0.64
21:AV:9:TYR:CE1	21:AV:35:ARG:HD3	2.32	0.64
31:BA:1333:A:H2'	31:BA:1334:G:O4'	1.97	0.64
31:BA:976:G:H5'	31:BA:1358:U:O2'	1.97	0.64
32:BE:177:ALA:O	32:BE:180:LEU:N	2.19	0.64
38:BK:4:ASP:HB2	38:BK:89:PRO:HG3	1.79	0.64
31:BA:1152:A:H5'	40:BM:13:HIS:ND1	2.12	0.64
49:BV:30:LEU:HD22	49:BV:30:LEU:O	1.97	0.64
31:CA:1055:A:N7	31:CA:1206:G:C2	2.65	0.64
52:CD:49:A:H2	52:CD:51:C:OP2	1.80	0.64
50:CW:72:LEU:HD11	50:CW:80:ARG:HD2	1.80	0.64
13:D0:28:LEU:HD12	13:D0:48:VAL:HG21	1.77	0.64
13:D0:45:ARG:HA	13:D0:95:THR:HG21	1.79	0.64
22:D3:38:VAL:HB	22:D3:59:LEU:HD12	1.78	0.64
1:DA:2107:C:N4	1:DA:2182:G:N1	2.35	0.64
1:DA:2219:G:H2'	1:DA:2224:G:H5'	1.78	0.64
1:DA:2446:G:H2'	1:DA:2447:G:H5"	1.79	0.64
3:DD:34:VAL:CG1	3:DD:34:VAL:O	2.44	0.64
4:DE:23:VAL:O	4:DE:24:THR:OG1	2.13	0.64
8:DK:72:LEU:C	8:DK:74:ASN:H	2.01	0.64
11:DO:47:ASP:OD2	11:DO:49:ARG:HB2	1.98	0.64
31:CA:1432:G:OP1	15:DR:107:ASP:HB2	1.98	0.64
28:A6:25:LYS:CE	30:A8:34:TRP:HZ2	2.10	0.64
1:AA:654(M):C:H3'	1:AA:654(N):G:H8	1.61	0.64
1:AA:7:G:H2'	1:AA:8:A:O4'	1.98	0.64
3:AD:262:ARG:NH1	3:AD:262:ARG:HG3	2.11	0.64
5:AF:32:LEU:HD21	5:AF:105:VAL:HG13	1.79	0.64
52:BB:27:A:H5'	52:BB:28:G:OP2	1.97	0.64
52:BD:60:A:H2'	52:BD:61:G:O4'	1.97	0.64
35:BH:76:ILE:HG13	35:BH:93:PRO:HB3	1.79	0.64
37:BJ:113:GLU:HB2	37:BJ:119:ARG:HG2	1.79	0.64
41:BN:21:ILE:HG12	41:BN:30:VAL:CG1	2.27	0.64
50:BW:26:ASN:N	50:BW:26:ASN:HD22	1.95	0.64
31:CA:1010:G:H2'	31:CA:1011:G:O4'	1.98	0.64
31:CA:1132:C:O2'	31:CA:1133:G:H5'	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:652:U:OP2	56:CA:1793:OHX:N6	2.29	0.64
31:CA:413:G:O2'	31:CA:414:A:OP2	2.16	0.64
52:CB:51:C:OP2	52:CB:51:C:H6	1.80	0.64
2:DB:40:U:C6	26:D4:1:MET:HE2	2.33	0.64
1:DA:1048:A:OP2	1:DA:1109:C:N4	2.27	0.64
1:DA:1070:A:H5'	1:DA:1071:G:C5'	2.27	0.64
1:DA:2563:U:O2	1:DA:2565:A:C8	2.51	0.64
1:DA:2776:A:H3'	1:DA:2776:A:OP1	1.97	0.64
5:DF:203:GLN:HA	5:DF:203:GLN:HE21	1.62	0.64
16:A1:105:VAL:O	16:A1:109:LEU:HD12	1.98	0.64
17:A2:89:GLN:HE21	17:A2:89:GLN:CA	2.10	0.64
1:AA:234:C:H2'	1:AA:235:U:C6	2.31	0.64
1:AA:2712:U:C5'	1:AA:2712:U:O2	2.45	0.64
10:AN:90:GLN:O	10:AN:91:LEU:HB2	1.97	0.64
12:AP:77:LYS:O	12:AP:78:PRO:C	2.36	0.64
31:BA:247:G:O6	31:BA:278:G:C6	2.50	0.64
31:BA:307:C:OP1	56:BA:1733:OHX:N3	2.31	0.64
34:BG:28:SER:HB2	34:BG:29:PRO:HD2	1.79	0.64
38:BK:10:LEU:HD23	38:BK:10:LEU:N	2.13	0.64
43:BP:15:VAL:HA	43:BP:18:ALA:HB3	1.79	0.64
39:CL:47:LEU:HB2	39:CL:50:LEU:HD12	1.78	0.64
31:CA:552:U:O2'	42:CO:86:ARG:O	2.11	0.64
51:CX:25:LYS:O	51:CX:26:LYS:HB2	1.97	0.64
1:DA:2371:G:O2'	28:D6:46:HIS:HD2	1.79	0.64
3:DD:69:ARG:CD	3:DD:105:ILE:HD11	2.26	0.64
7:DH:136:ILE:H	7:DH:136:ILE:HD12	1.62	0.64
10:DN:66:LYS:NZ	10:DN:80:ASP:O	2.29	0.64
11:DO:97:PRO:HG3	11:DO:112:LEU:CG	2.27	0.64
23:DZ:7:ILE:HD12	23:DZ:62:VAL:HG11	1.79	0.64
13:A0:41:ALA:C	13:A0:43:GLU:H	2.00	0.64
16:A1:92:ARG:HD2	16:A1:95:LEU:HD12	1.79	0.64
1:AA:1018:C:H2'	1:AA:1018:C:O2	1.96	0.64
1:AA:1480:G:C5	1:AA:1482:U:N3	2.65	0.64
3:AD:137:PRO:O	3:AD:140:THR:OG1	2.15	0.64
7:AH:4:ILE:CG1	7:AH:6:ARG:CZ	2.74	0.64
1:AA:26:G:OP1	18:AS:80:PRO:HB3	1.96	0.64
31:BA:1132:C:H2'	31:BA:1133:G:C8	2.33	0.64
31:BA:890:G:O2'	31:BA:906:G:O6	2.14	0.64
52:BB:27:A:H5"	52:BB:28:G:H8	1.62	0.64
52:BB:56:U:O2	52:BB:56:U:H2'	1.97	0.64
6:AG:83:ARG:NH2	53:BC:57:C:N3	2.44	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BR:78:TYR:C	45:BR:80:ALA:H	2.01	0.64
31:CA:1205:U:H4'	33:CF:195:VAL:HG22	1.79	0.64
31:CA:1328:C:H2'	31:CA:1329:A:O4'	1.98	0.64
32:CE:103:THR:HA	32:CE:180:LEU:HD11	1.79	0.64
40:CM:16:LEU:HB3	40:CM:70:ARG:HD2	1.80	0.64
40:CM:26:ALA:O	40:CM:84:GLN:NE2	2.30	0.64
50:CW:33:ILE:HD13	50:CW:63:ILE:HA	1.77	0.64
17:D2:77:ALA:O	17:D2:78:LYS:CB	2.44	0.64
1:DA:1893:C:H2'	1:DA:1894:C:O4'	1.97	0.64
1:DA:1899:G:C2'	1:DA:1900:A:OP2	2.45	0.64
1:DA:880:G:N2	1:DA:881:G:H1'	2.13	0.64
2:DB:89:G:OP2	2:DB:89:G:C8	2.50	0.64
3:DD:186:HIS:CD2	3:DD:188:GLU:H	2.14	0.64
5:DF:68:LYS:HB3	5:DF:69:HIS:HD2	1.61	0.64
14:DQ:29:PHE:HD2	14:DQ:29:PHE:C	2.01	0.64
1:DA:2845:G:H5"	15:DR:54:ARG:O	1.98	0.64
17:A2:4:ILE:HG22	17:A2:4:ILE:O	1.97	0.64
1:AA:1165:U:H2'	1:AA:1166:C:C6	2.32	0.64
1:AA:2439:A:O2'	1:AA:2440:C:OP2	2.12	0.64
20:AU:96:ILE:HG23	20:AU:101:LYS:HG2	1.78	0.64
31:BA:947:G:H2'	31:BA:948:C:O4'	1.97	0.64
52:BB:47:U:H2'	52:BB:48:C:O4'	1.97	0.64
53:BC:54:G:H2'	53:BC:55:U:H6	1.62	0.64
52:BD:47:U:H2'	52:BD:48:C:H6	1.59	0.64
35:BH:113:ALA:O	35:BH:115:VAL:HG23	1.98	0.64
47:BT:70:ARG:O	47:BT:71:PHE:HD2	1.80	0.64
31:CA:1129:C:H4'	31:CA:1130:A:O5'	1.96	0.64
32:CE:96:ARG:N	32:CE:96:ARG:HD2	2.13	0.64
33:CF:5:ILE:HD13	33:CF:5:ILE:H	1.63	0.64
38:CK:31:PHE:HZ	38:CK:134:ILE:HD11	1.62	0.64
50:CW:26:ASN:HB2	50:CW:71:THR:HG23	1.80	0.64
1:DA:1088:A:C5'	1:DA:1089:G:H5'	2.22	0.64
1:DA:1014:U:H3	1:DA:1148:A:H61	1.43	0.64
1:DA:1257:C:H4'	5:DF:83:PHE:CD2	2.33	0.64
1:DA:1278:A:O2'	13:D0:34:ILE:HD11	1.98	0.64
1:DA:1332:G:H21	1:DA:1610:A:H8	1.46	0.64
1:DA:323:G:H5'	5:DF:169:ASN:HD21	1.61	0.64
6:DG:83:ARG:HB2	6:DG:86:MET:HE2	1.77	0.64
30:A8:44:LYS:N	30:A8:44:LYS:HD2	2.13	0.64
1:AA:10:G:H2'	1:AA:11:G:H8	1.63	0.64
1:AA:2467:C:H4'	12:AP:123:HIS:CE1	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:488:G:OP2	56:AA:3497:OHX:N4	2.31	0.64
1:AA:50:U:H3'	1:AA:51:G:C5'	2.27	0.64
1:AA:899:A:O2'	1:AA:900:A:O4'	2.16	0.64
6:AG:161:THR:HG22	6:AG:163:ALA:N	2.07	0.64
6:AG:173:LEU:O	6:AG:178:PHE:HB2	1.98	0.64
11:AO:126:VAL:HG12	11:AO:147:LEU:HD22	1.80	0.64
11:AO:113:LYS:HA	11:AO:129:ALA:O	1.97	0.64
14:AQ:59:LYS:HG2	14:AQ:60:GLY:N	2.12	0.64
31:BA:291:C:O2'	31:BA:292:G:H5'	1.97	0.64
53:BC:24:C:H2'	53:BC:25:U:C6	2.33	0.64
52:BD:20:C:H5'	52:BD:68:A:H62	1.61	0.64
32:BE:20:GLU:HB2	32:BE:190:THR:OG1	1.98	0.64
32:BE:24:TRP:O	32:BE:26:PRO:HD3	1.98	0.64
47:BT:76:LEU:HD11	47:BT:79:SER:H	1.63	0.64
31:CA:1052:U:H5"	31:CA:1053:G:OP2	1.97	0.64
32:CE:236:TYR:CB	32:CE:239:VAL:HB	2.27	0.64
48:CU:29:PHE:HD2	48:CU:29:PHE:H	1.44	0.64
16:D1:28:ARG:HG2	16:D1:38:THR:OG1	1.96	0.64
1:DA:1496:A:C8	1:DA:1577:C:O2'	2.45	0.64
1:DA:270(F):U:O4	56:DA:3457:OHX:N1	2.30	0.64
4:DE:101:ARG:HG3	4:DE:203:LYS:HE3	1.80	0.64
1:DA:329:G:OP2	20:DU:71:LYS:HE3	1.98	0.64
20:DU:89:PHE:CE1	20:DU:90:LEU:CB	2.80	0.64
21:DV:152:ALA:HB2	21:DV:171:ILE:HD11	1.80	0.64
17:A2:53:GLU:HG2	17:A2:54:GLY:N	2.12	0.64
1:AA:1278:A:OP1	13:A0:36:THR:HG22	1.98	0.64
1:AA:15:G:O2'	1:AA:16:G:H5'	1.97	0.64
1:AA:1705:G:C6	1:AA:1706:U:C4	2.86	0.64
1:AA:2086:U:H2'	1:AA:2087:G:C8	2.33	0.64
1:AA:2523:G:C2'	1:AA:2524:G:H5'	2.28	0.64
1:AA:607:U:OP1	5:AF:102:PRO:HA	1.98	0.64
1:AA:898:C:H5'	1:AA:899:A:OP2	1.98	0.64
1:AA:908:C:OP1	12:AP:22:LYS:HB3	1.98	0.64
3:AD:27:THR:O	3:AD:28:GLU:HB2	1.96	0.64
11:AO:11:GLY:C	11:AO:13:ASN:H	1.99	0.64
14:AQ:29:PHE:CD2	14:AQ:30:ARG:N	2.62	0.64
31:BA:1342:C:H2'	31:BA:1343:G:H8	1.63	0.64
31:BA:343:U:H1'	31:BA:347:G:H22	1.61	0.64
31:BA:353:A:H2'	31:BA:354:G:OP2	1.98	0.64
31:BA:530:G:C4'	31:BA:531:U:OP2	2.44	0.64
31:BA:973:G:H3'	31:BA:974:A:H5"	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:3:U:H4'	52:CB:4:G:OP1	1.98	0.64
52:CD:57:C:O2'	52:CD:68:A:H4'	1.98	0.64
32:CE:132:LYS:HG3	32:CE:135:GLN:NE2	2.12	0.64
33:CF:23:TYR:C	33:CF:23:TYR:CD2	2.71	0.64
35:CH:72:GLN:O	35:CH:74:GLY:N	2.29	0.64
42:CO:55:VAL:HG22	42:CO:56:ALA:H	1.62	0.64
1:DA:1100:C:H2'	1:DA:1101:U:O4'	1.98	0.64
1:DA:1636:C:H2'	1:DA:1637:A:C8	2.33	0.64
1:DA:527:C:OP2	1:DA:2779:U:H5	1.81	0.64
1:DA:580:C:H2'	1:DA:581:C:H6	1.62	0.64
1:DA:654(D):G:H1	1:DA:654(Q):C:H42	1.44	0.64
19:DT:40:LYS:C	19:DT:42:ALA:H	2.01	0.64
13:A0:117:VAL:O	13:A0:118:GLU:HB2	1.97	0.64
1:AA:1053:C:H42	1:AA:1106:G:H1	1.46	0.64
1:AA:1327:C:H2'	1:AA:1328:G:O4'	1.98	0.64
1:AA:2373:G:H1	1:AA:2380:C:H42	1.46	0.64
1:AA:583:G:H5"	16:A1:10:ARG:HH12	1.63	0.64
1:AA:878:A:N1	1:AA:879:G:C2	2.66	0.64
3:AD:65:ILE:HD11	3:AD:67:PHE:CZ	2.33	0.64
4:AE:102:VAL:HG23	4:AE:199:ARG:O	1.97	0.64
25:AX:39:ASP:OD1	25:AX:44:ARG:NH2	2.31	0.64
31:BA:1028(B):C:C2	31:BA:1032(A):G:N2	2.65	0.64
31:BA:106:C:O2'	31:BA:107:G:H5'	1.98	0.64
31:BA:925:G:N7	56:BA:1811:OHX:N5	2.45	0.64
31:BA:956:U:O4	56:BA:1766:OHX:N4	2.31	0.64
52:BB:3:U:C4'	52:BB:4:G:OP1	2.46	0.64
53:BC:21:U:H4'	53:BC:22:A:OP2	1.96	0.64
35:BH:16:THR:O	35:BH:17:ALA:HB2	1.98	0.64
51:BX:2:GLY:C	51:BX:4:GLY:H	2.00	0.64
31:CA:1129:C:H5	31:CA:1141:C:H42	1.43	0.64
31:CA:1128:C:N4	31:CA:1139:G:C2	2.65	0.64
31:CA:1298:C:H5	37:CJ:114:ARG:CD	2.10	0.64
31:CA:447:G:O6	31:CA:485:G:C8	2.51	0.64
35:CH:88:LYS:HE2	35:CH:123:LEU:HD12	1.79	0.64
42:CO:100:ILE:CG2	42:CO:101:VAL:H	2.10	0.64
1:DA:1090:U:O4	1:DA:1101:U:C2	2.51	0.64
1:DA:1252:G:N3	16:D1:33:ARG:HD2	2.12	0.64
1:DA:395:U:H2'	1:DA:396:G:N7	2.13	0.64
12:DP:43:THR:HA	12:DP:94:VAL:HG12	1.80	0.64
19:DT:36:LYS:HG3	19:DT:56:THR:HG23	1.80	0.64
19:DT:26:TYR:OH	19:DT:88:LYS:HB2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:DV:59:LEU:HD22	21:DV:61:LEU:HG	1.80	0.64
28:A6:15:GLU:O	28:A6:16:CYS:HB2	1.97	0.63
30:A8:36:LYS:HG2	30:A8:40:GLU:CD	2.18	0.63
1:AA:1797:C:C2'	1:AA:1798:U:H5'	2.27	0.63
1:AA:2219:G:C2'	1:AA:2224:G:H5'	2.29	0.63
3:AD:71:ASP:HB3	3:AD:103:ARG:NH2	2.13	0.63
3:AD:27:THR:HG21	3:AD:83:GLU:CB	2.28	0.63
9:AM:22:THR:HG22	9:AM:23:LEU:H	1.62	0.63
10:AN:85:VAL:HG11	10:AN:114:ILE:HD13	1.81	0.63
12:AP:23:GLY:HA2	12:AP:25:ASP:CB	2.29	0.63
31:BA:1346:A:C4	37:BJ:10:ARG:NH1	2.66	0.63
31:BA:791:G:H2'	31:BA:792:A:C5'	2.21	0.63
31:BA:81:G:N2	31:BA:88:C:C4	2.65	0.63
53:BC:73:A:C6	53:BC:74:A:C6	2.86	0.63
34:BG:30:LYS:C	34:BG:32:ALA:H	1.99	0.63
31:BA:377:G:OP1	46:BS:3:LYS:HD2	1.97	0.63
47:BT:9:VAL:HG11	47:BT:84:LEU:HB2	1.80	0.63
31:BA:1305:G:H5'	51:BX:4:GLY:HA3	1.80	0.63
54:C1:19:U:C2'	54:C1:20:G:C5'	2.73	0.63
52:CD:19:C:H2'	52:CD:20:C:C4'	2.28	0.63
37:CJ:44:TYR:HA	37:CJ:47:CYS:HB3	1.80	0.63
13:D0:84:ALA:N	13:D0:85:PRO:HD2	2.13	0.63
1:DA:1292:U:H2'	1:DA:1293:C:C6	2.32	0.63
1:DA:1482:U:H5'	1:DA:1483:G:OP2	1.98	0.63
1:DA:654(S):G:C4'	1:DA:654(T):A:OP1	2.45	0.63
1:DA:899:A:H5'	1:DA:900:A:OP2	1.98	0.63
7:DH:12:PRO:HG2	7:DH:48:GLY:HA2	1.78	0.63
15:DR:107:ASP:OD2	15:DR:109:GLU:N	2.28	0.63
30:A8:34:TRP:H	30:A8:35:GLN:HB3	1.63	0.63
1:AA:2129:C:H2'	1:AA:2130:U:H5'	1.79	0.63
1:AA:1882:C:OP2	56:AA:3554:OHX:N4	2.31	0.63
21:AV:140:ASP:CG	21:AV:141:VAL:H	2.02	0.63
21:AV:6:LYS:NZ	21:AV:43:GLU:HG3	2.12	0.63
31:BA:1280:A:H3'	31:BA:1281:U:C5'	2.28	0.63
31:BA:590:C:H2'	31:BA:590:C:O2	1.98	0.63
31:BA:798:G:H2'	31:BA:799:G:O5'	1.98	0.63
38:BK:23:SER:OG	38:BK:61:VAL:O	2.13	0.63
31:CA:980:C:H3'	31:CA:981:U:C6	2.33	0.63
52:CB:59:A:C2	52:CB:74:C:C2	2.85	0.63
34:CG:11:LEU:O	34:CG:13:ARG:N	2.31	0.63
1:DA:458:G:O2'	29:D7:39:ARG:HD3	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2391:G:P	30:D8:32:LEU:HD12	2.38	0.63
1:DA:2415:G:H4'	11:DO:67:MET:N	2.12	0.63
1:DA:2516:G:O6	1:DA:2517:C:N4	2.31	0.63
1:DA:322:A:H5'	1:DA:340:A:H1'	1.80	0.63
6:DG:9:ARG:HD3	6:DG:13:GLU:OE1	1.98	0.63
24:DW:6:VAL:O	24:DW:9:GLN:N	2.31	0.63
13:A0:24:GLN:HE22	13:A0:36:THR:HG21	1.62	0.63
1:AA:1015:G:H2'	1:AA:1016:G:H5'	1.80	0.63
1:AA:1206:G:C6	1:AA:1207:C:C4	2.86	0.63
1:AA:1280:G:O2'	1:AA:1281:G:H5'	1.98	0.63
1:AA:1900:A:C5'	1:AA:1900:A:C8	2.81	0.63
1:AA:2331:G:O3'	22:A3:43:THR:HG22	1.98	0.63
1:AA:514:A:O2'	1:AA:515:A:H5'	1.97	0.63
3:AD:169:GLU:O	3:AD:169:GLU:HG3	1.99	0.63
11:AO:65:ARG:HH11	11:AO:65:ARG:CG	1.87	0.63
12:AP:111:GLU:OE1	12:AP:133:ARG:NH2	2.32	0.63
2:AB:7:G:O5'	14:AQ:29:PHE:HE1	1.81	0.63
31:BA:1503:A:O2'	31:BA:1504:G:P	2.56	0.63
31:BA:411:A:C4	31:BA:413:G:H1'	2.32	0.63
32:BE:170:GLU:O	32:BE:174:VAL:HG23	1.98	0.63
32:BE:94:ASN:N	32:BE:94:ASN:HD22	1.97	0.63
38:BK:7:ALA:HB2	38:BK:85:ARG:HD2	1.79	0.63
31:BA:963:G:H21	40:BM:55:LYS:HE2	1.64	0.63
40:BM:39:PRO:HB3	40:BM:70:ARG:NH1	2.12	0.63
43:BP:20:THR:HG23	43:BP:26:GLY:HA2	1.80	0.63
31:BA:189:U:C2	47:BT:72:ARG:NH1	2.66	0.63
31:CA:1207:G:O2'	31:CA:1208:C:H5'	1.97	0.63
31:CA:191(F):U:O2	50:CW:105:SER:HB2	1.98	0.63
31:CA:51:A:C6	31:CA:353:A:C2	2.87	0.63
31:CA:585:G:H4'	42:CO:8:ASN:ND2	2.13	0.63
31:CA:776:G:O6	56:CA:1751:OHX:N6	2.31	0.63
31:CA:977:A:H8	31:CA:982:U:O4	1.82	0.63
53:CC:16:C:H5	56:CC:108:OHX:N2	1.95	0.63
34:CG:25:ARG:O	34:CG:27:TYR:N	2.30	0.63
39:CL:114:TYR:HD1	40:CM:60:ARG:CG	2.10	0.63
43:CP:39:ILE:HG22	43:CP:40:ASN:H	1.62	0.63
44:CQ:16:PHE:N	44:CQ:16:PHE:CD2	2.66	0.63
44:CQ:27:CYS:SG	44:CQ:27:CYS:O	2.57	0.63
47:CT:94:ASN:O	47:CT:98:LEU:HG	1.98	0.63
1:DA:1007:C:H5"	9:DM:35:ARG:NH1	2.14	0.63
1:DA:2191:G:O2'	1:DA:2192:G:OP1	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2728:U:O2'	1:DA:2729:G:H5'	1.98	0.63
4:DE:61:ARG:HB3	4:DE:62:PRO:HD3	1.80	0.63
11:DO:107:LYS:HB3	11:DO:110:TYR:HD2	1.64	0.63
52:CB:62:G:H4'	12:DP:56:ARG:NH2	2.12	0.63
1:AA:1310:G:OP2	29:A7:9:ARG:HD2	1.98	0.63
1:AA:1058:U:H2'	1:AA:1059:G:H8	1.61	0.63
1:AA:1202:C:C2'	1:AA:1203:G:H5'	2.28	0.63
1:AA:2291:U:O2'	1:AA:2374:C:H1'	1.98	0.63
5:AF:152:GLU:OE1	5:AF:191:ARG:HD2	1.97	0.63
8:AK:140:LEU:HD23	8:AK:140:LEU:N	2.11	0.63
9:AM:22:THR:CG2	9:AM:23:LEU:N	2.61	0.63
20:AU:35:TYR:CD1	20:AU:69:ALA:HB3	2.32	0.63
21:AV:103:ARG:HG3	21:AV:136:PHE:HD1	1.62	0.63
23:AZ:78:LYS:HD2	23:AZ:78:LYS:N	2.14	0.63
31:BA:1004:A:OP1	31:BA:1025:U:C4	2.51	0.63
31:BA:1251:A:H2'	31:BA:1252:A:H8	1.61	0.63
31:BA:359:U:H2'	31:BA:360:A:H8	1.62	0.63
52:BD:13:G:O5'	52:BD:13:G:H8	1.81	0.63
32:BE:115:LEU:HD13	32:BE:145:LEU:HB3	1.80	0.63
31:CA:1133:G:H2'	31:CA:1134:G:H8	1.64	0.63
31:CA:1015:A:N3	31:CA:1218:C:O2'	2.30	0.63
31:CA:328:C:C2'	31:CA:329:A:OP2	2.45	0.63
31:CA:750:G:N3	45:CR:23:GLY:HA3	2.14	0.63
34:CG:111:ALA:HB2	34:CG:120:LEU:HD11	1.80	0.63
43:CP:76:ALA:HA	43:CP:79:LYS:HB3	1.80	0.63
44:CQ:24:CYS:HB2	44:CQ:39:LEU:HA	1.81	0.63
46:CS:56:ALA:O	46:CS:60:LEU:HG	1.98	0.63
1:DA:2279:G:O6	22:D3:14:ARG:HD2	1.98	0.63
1:DA:1496:A:H8	1:DA:1577:C:HO2'	1.35	0.63
1:DA:2046:G:H5'	27:D5:19:ARG:HG3	1.79	0.63
1:DA:945:A:C6	1:DA:2448:A:C4	2.87	0.63
1:DA:634:C:H2'	1:DA:635:C:C6	2.34	0.63
11:DO:52:GLU:HG3	11:DO:57:THR:CA	2.22	0.63
1:DA:389:G:N1	11:DO:71:VAL:CG1	2.60	0.63
21:DV:103:ARG:O	21:DV:104:PHE:HB2	1.98	0.63
1:AA:2391:G:P	30:A8:32:LEU:HD11	2.31	0.63
1:AA:1858:G:HO2'	1:AA:1884:A:N6	1.96	0.63
1:AA:2163:C:H5"	1:AA:2172:U:OP2	1.99	0.63
1:AA:654(C):G:H2'	1:AA:654(D):G:O4'	1.98	0.63
3:AD:27:THR:CG2	3:AD:28:GLU:N	2.55	0.63
12:AP:84:GLY:O	12:AP:85:LYS:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:97:ARG:HH21	20:AU:98:VAL:CB	2.10	0.63
31:BA:197:A:N7	31:BA:221:C:H4'	2.13	0.63
31:BA:417:C:H2'	31:BA:418:C:H6	1.62	0.63
33:BF:108:ASN:ND2	33:BF:144:SER:OG	2.29	0.63
33:BF:56:ASP:O	33:BF:57:ILE:HG13	1.98	0.63
31:BA:267:C:OP1	47:BT:67:LYS:HD2	1.98	0.63
31:CA:126:G:O2'	31:CA:634:C:O2'	2.14	0.63
31:CA:182:U:H5	31:CA:183:G:C1'	2.11	0.63
52:CD:47:U:H2'	52:CD:48:C:H6	1.63	0.63
31:CA:1206:G:O4'	33:CF:194:GLY:N	2.32	0.63
17:D2:38:LEU:HD13	17:D2:55:ALA:HB1	1.80	0.63
1:DA:1733:G:H2'	1:DA:1734:C:H5'	1.79	0.63
1:DA:864:G:C6	1:DA:865:C:N4	2.67	0.63
1:DA:959:A:N6	1:DA:960:A:N1	2.47	0.63
10:DN:116:SER:HB2	10:DN:117:LEU:HD12	1.79	0.63
12:DP:98:LYS:HB3	12:DP:99:PRO:HD2	1.80	0.63
21:DV:18:LEU:HB3	21:DV:23:LYS:O	1.99	0.63
1:AA:1681:G:OP1	56:AA:3479:OHX:N4	2.32	0.63
1:AA:1798:U:H5"	3:AD:259:THR:CG2	2.24	0.63
1:AA:1888:G:H3'	1:AA:1888:G:N3	2.13	0.63
1:AA:2210:G:C3'	1:AA:2211:G:N7	2.62	0.63
1:AA:2241:A:O2'	1:AA:2242:G:H5'	1.99	0.63
1:AA:2661:G:O2'	1:AA:2662:A:H5'	1.97	0.63
1:AA:658:C:H2'	1:AA:659:C:C6	2.33	0.63
1:AA:811:U:OP2	11:AO:21:ARG:O	2.17	0.63
2:AB:66:A:H61	2:AB:107:U:H2'	1.62	0.63
8:AK:131:LYS:N	8:AK:131:LYS:HD3	2.14	0.63
8:AK:8:PRO:HG3	8:AK:14:ASP:HB2	1.80	0.63
9:AM:55:VAL:C	9:AM:57:ALA:H	2.02	0.63
20:AU:42:VAL:HB	20:AU:67:LEU:HD11	1.78	0.63
31:BA:448:A:P	31:BA:485:G:H22	2.22	0.63
32:BE:61:LEU:HD23	32:BE:68:ILE:HD11	1.81	0.63
32:BE:7:VAL:HG23	32:BE:8:LYS:HE2	1.80	0.63
35:BH:51:VAL:HB	35:BH:52:PRO:HD3	1.81	0.63
31:CA:1004:A:C2	31:CA:1024:G:C8	2.87	0.63
31:CA:1374:A:H2'	31:CA:1375:A:C5'	2.28	0.63
31:CA:298:A:H5"	31:CA:299:G:OP2	1.99	0.63
31:CA:977:A:H2'	31:CA:978:A:H5'	1.80	0.63
17:D2:21:ARG:HD3	17:D2:91:TYR:HB3	1.81	0.63
26:D4:34:GLU:OE1	26:D4:34:GLU:N	2.32	0.63
1:DA:1766:U:H3	1:DA:1986:A:H61	1.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2287:A:N6	1:DA:2344:U:H3	1.94	0.63
1:DA:2383:G:OP2	30:D8:37:SER:HB2	1.99	0.63
1:DA:654(S):G:H4'	1:DA:654(T):A:OP1	1.97	0.63
5:DF:102:PRO:O	5:DF:105:VAL:N	2.32	0.63
5:DF:36:VAL:O	5:DF:40:GLN:HB2	1.98	0.63
21:DV:115:GLY:HA2	21:DV:177:PRO:HG2	1.81	0.63
24:DW:65:ASN:HD22	24:DW:69:ARG:NH2	1.85	0.63
13:A0:3:HIS:O	13:A0:5:LYS:N	2.32	0.63
22:A3:49:LYS:NZ	22:A3:68:GLU:OE2	2.24	0.63
22:A3:70:GLN:HE21	22:A3:80:HIS:HE2	1.47	0.63
1:AA:1164:G:H2'	1:AA:1165:U:C6	2.33	0.63
1:AA:307:G:N7	56:AA:3445:OHX:N2	2.46	0.63
1:AA:444:C:H4'	5:AF:49:ALA:HB2	1.79	0.63
6:AG:146:TYR:O	6:AG:149:VAL:HG22	1.98	0.63
7:AH:88:LEU:N	7:AH:88:LEU:HD12	2.14	0.63
11:AO:115:LEU:HA	11:AO:134:ALA:HB2	1.81	0.63
18:AS:37:ARG:HD3	18:AS:38:TYR:CE2	2.33	0.63
20:AU:49:VAL:C	20:AU:51:VAL:H	1.98	0.63
21:AV:44:PHE:CE2	21:AV:86:VAL:HG11	2.33	0.63
31:BA:1073:U:OP2	35:BH:57:LYS:NZ	2.17	0.63
52:BB:75:C:H2'	52:BB:76:C:C6	2.34	0.63
32:BE:8:LYS:H	32:BE:8:LYS:HE2	1.64	0.63
49:BV:33:THR:OG1	49:BV:34:TRP:N	2.29	0.63
31:CA:1095:U:O4	31:CA:1096:C:N4	2.31	0.63
31:CA:1305:G:N2	31:CA:1331:G:O2'	2.31	0.63
31:CA:313:A:H2'	31:CA:314:C:C6	2.33	0.63
31:CA:870:U:H4'	31:CA:871:U:C5'	2.27	0.63
34:CG:62:GLN:NE2	34:CG:65:ARG:HE	1.96	0.63
36:CI:45:LEU:HD21	36:CI:57:GLN:NE2	2.13	0.63
48:CU:53:ARG:HA	48:CU:56:THR:OG1	1.99	0.63
26:D4:56:VAL:O	26:D4:57:GLU:HB2	1.99	0.63
1:DA:1061:U:O2	1:DA:1061:U:H2'	1.98	0.63
1:DA:397:G:N7	56:DA:3483:OHX:N6	2.47	0.63
1:DA:900:A:H2'	1:DA:900:A:N3	2.13	0.63
1:DA:996:A:C2	1:DA:997:G:C8	2.87	0.63
2:DB:102:G:N3	21:DV:73:GLN:NE2	2.42	0.63
2:DB:104:A:H2'	2:DB:105:G:O4'	1.99	0.63
24:DW:37:PHE:O	24:DW:41:ILE:HG12	1.98	0.63
1:AA:1015:G:C2'	1:AA:1016:G:H5'	2.29	0.63
5:AF:185:ASP:OD1	5:AF:188:ARG:NH1	2.31	0.63
12:AP:32:TYR:OH	12:AP:111:GLU:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ3	1.62	0.63
14:AQ:27:SER:HA	14:AQ:88:ASP:CB	2.29	0.63
23:AZ:65:SER:HB2	23:AZ:66:HIS:CD2	2.30	0.63
31:BA:1305:G:OP2	31:BA:1305:G:C8	2.50	0.63
31:BA:130:A:OP2	31:BA:189:U:C5	2.51	0.63
31:BA:1429:C:H2'	31:BA:1430:C:C6	2.33	0.63
31:BA:509:A:O2'	31:BA:510:A:OP1	2.13	0.63
31:BA:751:U:H5"	31:BA:752:G:OP2	1.97	0.63
31:BA:78:G:O6	31:BA:90:C:N4	2.31	0.63
52:BB:21:A:C2	52:BB:22:A:N6	2.61	0.63
52:BD:44:C:H2'	52:BD:45:C:O4'	1.98	0.63
31:CA:1023:G:C6	31:CA:1024:G:N7	2.67	0.63
31:CA:1128:C:O2'	31:CA:1129:C:OP1	2.17	0.63
31:CA:971:G:N2	31:CA:1363:A:OP2	2.19	0.63
31:CA:362:G:O6	56:CA:1798:OHX:N1	2.31	0.63
31:CA:501:C:H2'	31:CA:502:G:C8	2.33	0.63
31:CA:852:G:O2'	31:CA:853:G:H5'	1.99	0.63
52:CD:22:A:C5	52:CD:57:C:N4	2.66	0.63
49:CV:7:LYS:HG2	49:CV:8:GLY:N	2.11	0.63
1:DA:1076:C:H2'	1:DA:1077:A:H5'	1.79	0.63
1:DA:1991:U:H2'	1:DA:1992:G:H5"	1.81	0.63
1:DA:2190:G:C3'	1:DA:2191:G:H5"	2.29	0.63
1:DA:2519:U:H4'	1:DA:2520:C:OP1	1.98	0.63
1:DA:5:A:N6	1:DA:2898:U:H3	1.96	0.63
3:DD:35:LYS:HD3	3:DD:104:TYR:HD1	1.63	0.63
3:DD:63:ARG:H	3:DD:63:ARG:HD3	1.62	0.63
6:DG:35:GLU:O	6:DG:36:LYS:HB3	1.98	0.63
11:DO:64:LYS:O	11:DO:65:ARG:C	2.37	0.63
12:DP:19:GLY:HA3	12:DP:98:LYS:NZ	2.14	0.63
21:DV:29:TYR:HB3	21:DV:34:ASN:ND2	2.14	0.63
1:AA:1701:A:OP2	56:AA:3558:OHX:N2	2.32	0.63
1:AA:768:G:O2'	1:AA:1379:A:N6	2.32	0.63
9:AM:111:PRO:HA	9:AM:114:ARG:NH1	2.13	0.63
1:AA:598:G:H1'	11:AO:12:ALA:CB	2.29	0.63
31:BA:1006:C:N4	31:BA:1023:G:H1	1.94	0.63
31:BA:1024:G:H4'	31:BA:1024:G:OP1	1.98	0.63
31:BA:39:G:N7	31:BA:547:A:H8	1.97	0.63
31:BA:68:G:N2	31:BA:69:G:H1'	2.14	0.63
31:BA:859:A:H2'	31:BA:860:A:C8	2.34	0.63
31:BA:872:A:C4	31:BA:874:G:N7	2.67	0.63
31:BA:956:U:C2'	31:BA:957:U:H5'	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:8:GLU:O	43:BP:10:PRO:HD3	1.99	0.63
49:BV:41:VAL:HB	49:BV:42:PRO:CA	2.23	0.63
31:CA:179:A:H2'	31:CA:180:U:C6	2.30	0.63
31:CA:260:G:O6	56:CA:1779:OHX:N2	2.31	0.63
31:CA:485:G:O2'	31:CA:486:U:H6	1.81	0.63
31:CA:980:C:H3'	31:CA:981:U:H6	1.61	0.63
32:CE:16:HIS:HB3	32:CE:210:SER:HB2	1.80	0.63
37:CJ:81:GLY:O	37:CJ:83:ALA:N	2.32	0.63
32:CE:178:ARG:NH2	38:CK:68:ARG:NH2	2.46	0.63
40:CM:47:PHE:HB2	44:CQ:34:TYR:HE2	1.62	0.63
45:CR:82:ILE:HD13	45:CR:82:ILE:C	2.20	0.63
17:D2:33:VAL:HG13	17:D2:35:LEU:HD22	1.79	0.63
11:DO:49:ARG:HD2	30:D8:58:ILE:CG2	2.29	0.63
1:DA:1078:U:O2	1:DA:1088:A:H2	1.82	0.63
1:DA:1273:U:OP2	56:DA:3377:OHX:N4	2.31	0.63
1:DA:1955:U:O3'	1:DA:1956:U:H6	1.82	0.63
1:DA:2401:U:C3'	1:DA:2402:C:H5"	2.28	0.63
1:DA:302:C:H2'	1:DA:303:U:C6	2.34	0.63
12:DP:84:GLY:O	12:DP:85:LYS:HB2	1.98	0.63
1:AA:1086:A:H4'	1:AA:1103:A:C2	2.34	0.62
1:AA:2756:U:H1'	1:AA:2757:A:H5"	1.81	0.62
1:AA:481:G:H1'	1:AA:507:A:N1	2.14	0.62
1:AA:636:G:OP2	11:AO:113:LYS:NZ	2.31	0.62
1:AA:654(M):C:C5'	1:AA:654(N):G:N7	2.62	0.62
2:AB:6:C:C2'	2:AB:7:G:H5"	2.29	0.62
2:AB:7:G:P	14:AQ:29:PHE:HE1	2.22	0.62
5:AF:177:ALA:HB1	5:AF:178:PRO:HD2	1.80	0.62
11:AO:15:ARG:NH1	11:AO:15:ARG:CG	2.39	0.62
12:AP:32:TYR:O	12:AP:105:GLU:HA	1.98	0.62
12:AP:19:GLY:HA3	12:AP:98:LYS:CD	2.29	0.62
12:AP:25:ASP:O	12:AP:25:ASP:CG	2.38	0.62
54:B1:12:A:O2'	54:B1:13:A:O5'	2.16	0.62
31:BA:129(A):G:N2	31:BA:188:U:O2'	2.32	0.62
31:BA:368:U:P	8:DK:91:SER:HG	2.22	0.62
31:BA:942:G:C2	31:BA:943:U:C6	2.87	0.62
52:BB:10:C:N3	52:BB:26:G:N2	2.32	0.62
52:BB:59:A:N6	52:BB:73:U:H3	1.93	0.62
31:CA:571:U:H5"	31:CA:572:A:OP2	1.99	0.62
52:CD:9:U:HO2'	52:CD:10:C:H5	1.46	0.62
32:CE:17:PHE:CE2	32:CE:44:LEU:HA	2.34	0.62
41:CN:21:ILE:HG21	41:CN:84:VAL:HG12	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:62:ILE:HD12	49:CV:62:ILE:N	2.13	0.62
1:DA:2173:A:N6	1:DA:2174:C:O2	2.32	0.62
1:DA:2712:U:O2'	1:DA:2712(A):A:O5'	2.12	0.62
3:DD:36:PRO:HB3	3:DD:61:LEU:HG	1.79	0.62
8:DK:75:LEU:HD23	8:DK:76:THR:N	2.14	0.62
21:DV:97:GLU:HB2	21:DV:125:LEU:HD11	1.81	0.62
29:A7:43:THR:HG23	29:A7:44:PRO:CD	2.29	0.62
1:AA:1586:A:C2	1:AA:1587:A:C5	2.88	0.62
1:AA:26:G:C6	1:AA:27:G:N1	2.67	0.62
3:AD:31:LYS:O	3:AD:31:LYS:HG3	1.99	0.62
1:AA:907:U:O5'	12:AP:23:GLY:O	2.17	0.62
12:AP:54:MET:O	12:AP:57:HIS:N	2.32	0.62
20:AU:39:VAL:O	20:AU:40:GLU:HG2	1.99	0.62
31:BA:1034:G:H2'	31:BA:1035:A:C8	2.34	0.62
31:BA:1213:A:C6	31:BA:1215:G:H1'	2.35	0.62
31:BA:1266:G:N2	31:BA:1269:A:OP2	2.27	0.62
31:BA:652:U:H1'	31:BA:653:A:C2	2.34	0.62
37:BJ:155:ARG:HD3	37:BJ:155:ARG:O	1.99	0.62
31:CA:1387:G:H2'	31:CA:1388:C:C6	2.34	0.62
31:CA:417:C:O2'	31:CA:418:C:H5'	1.99	0.62
52:CB:7:G:OP2	56:CB:104:OHX:N1	2.31	0.62
33:CF:72:LYS:NZ	33:CF:74:GLY:HA3	2.14	0.62
33:CF:23:TYR:CD1	40:CM:10:GLY:HA2	2.34	0.62
17:D2:78:LYS:C	17:D2:79:VAL:CG1	2.68	0.62
28:D6:44:ARG:O	28:D6:45:LYS:HB2	1.98	0.62
1:DA:1416:G:O2'	1:DA:1417:C:H6	1.74	0.62
53:CC:12:G:H1'	1:DA:1923:U:O2'	1.99	0.62
1:DA:2143:C:H42	1:DA:2148:G:H1	0.65	0.62
1:DA:469:G:O6	29:D7:37:LYS:HE2	1.98	0.62
2:DB:1(M):A:O5'	56:DB:219:OHX:N5	2.31	0.62
2:DB:74:U:C3'	2:DB:75:G:H5"	2.29	0.62
4:DE:81:ILE:O	4:DE:82:ARG:HB3	1.97	0.62
11:DO:11:GLY:C	11:DO:13:ASN:N	2.52	0.62
16:A1:82:GLY:O	16:A1:85:LYS:N	2.32	0.62
1:AA:1061:U:O3'	1:AA:1070:A:H4'	2.00	0.62
1:AA:1551:C:C2'	1:AA:1552:G:H5'	2.30	0.62
5:AF:128:ALA:O	5:AF:129:PHE:HB2	1.99	0.62
1:AA:2428:G:H21	11:AO:60:MET:CE	2.12	0.62
31:BA:1024:G:H2'	31:BA:1025:U:C6	2.34	0.62
31:BA:633:G:H5'	31:BA:634:C:OP2	1.97	0.62
31:BA:827:U:C5'	31:BA:828:A:OP2	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:85:LYS:HG2	34:BG:86:LYS:N	2.11	0.62
37:BJ:69:VAL:HG22	37:BJ:135:VAL:HG22	1.81	0.62
31:CA:1086:U:H6	31:CA:1086:U:O5'	1.82	0.62
31:CA:1074:G:O2'	31:CA:1101:A:N1	2.29	0.62
31:CA:923:A:OP1	35:CH:21:ALA:HB2	1.99	0.62
34:CG:189:PRO:HB2	34:CG:194:LEU:CD2	2.28	0.62
39:CL:118:LYS:HB3	39:CL:121:ARG:HB3	1.80	0.62
40:CM:78:ASN:HD22	40:CM:80:LYS:HB3	1.64	0.62
43:CP:40:ASN:OD1	43:CP:41:PRO:HD2	1.99	0.62
48:CU:56:THR:HB	48:CU:58:LEU:CD1	2.28	0.62
1:DA:1651:G:H5'	13:D0:39:PRO:HG2	1.80	0.62
16:D1:110:VAL:O	16:D1:114:LYS:HG2	1.99	0.62
26:D4:34:GLU:HG2	26:D4:35:VAL:N	2.08	0.62
1:DA:1260:G:H2'	1:DA:1261:C:H6	1.64	0.62
1:DA:2143:C:N4	1:DA:2148:G:N1	2.12	0.62
1:DA:2688:U:O2	1:DA:2688:U:H3'	1.99	0.62
1:DA:719:C:C2'	1:DA:720:C:H5'	2.30	0.62
1:DA:971:C:OP1	1:DA:974:G:C8	2.52	0.62
5:DF:177:ALA:HB1	5:DF:178:PRO:HD2	1.81	0.62
6:DG:128:ARG:NH2	6:DG:128:ARG:HG3	2.09	0.62
19:DT:63:LYS:HA	19:DT:72:LYS:HA	1.81	0.62
13:A0:79:LEU:HA	13:A0:83:ILE:HD12	1.80	0.62
1:AA:1888:G:OP2	1:AA:1888:G:N2	2.32	0.62
1:AA:2862:G:H2'	1:AA:2863:C:H6	1.64	0.62
1:AA:675:A:OP1	5:AF:63:LYS:HE2	1.98	0.62
4:AE:92:THR:HB	4:AE:94:GLU:H	1.63	0.62
5:AF:45:ARG:NH1	5:AF:45:ARG:HG2	2.09	0.62
31:BA:49:U:C2	31:BA:361:G:N2	2.68	0.62
31:BA:51:A:OP2	31:BA:52:G:C8	2.52	0.62
31:BA:939:G:C6	31:BA:940:C:N4	2.68	0.62
52:BD:14:A:H3'	52:BD:15:G:C5'	2.29	0.62
52:BD:41:C:H2'	52:BD:42:U:H6	1.64	0.62
41:BN:79:SER:HB2	41:BN:106:LYS:CD	2.28	0.62
31:CA:1320:C:O2	49:CV:72:GLY:HA3	2.00	0.62
31:CA:1348:U:C5	31:CA:1349:A:N7	2.67	0.62
31:CA:457:C:H2'	31:CA:458:C:C6	2.35	0.62
31:CA:892:A:O2'	31:CA:1415:G:H4'	1.99	0.62
52:CB:62:G:C2'	52:CB:63:U:H5'	2.28	0.62
32:CE:83:MET:C	32:CE:85:ALA:H	2.03	0.62
33:CF:184:TYR:CD1	33:CF:201:TYR:HE2	2.11	0.62
34:CG:13:ARG:NH1	34:CG:38:TYR:O	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:966:G:O2'	39:CL:127:LYS:O	2.18	0.62
1:DA:1396:U:H2'	1:DA:1396:U:O2	1.98	0.62
1:DA:2469:A:C2	1:DA:2470:G:C8	2.88	0.62
1:DA:803:U:C2'	1:DA:804:A:H5'	2.28	0.62
5:DF:167:ALA:O	5:DF:169:ASN:N	2.32	0.62
11:DO:97:PRO:CD	11:DO:112:LEU:HD12	2.29	0.62
12:DP:87:LYS:O	12:DP:88:GLY:C	2.38	0.62
18:DS:95:ILE:HD13	18:DS:95:ILE:H	1.63	0.62
20:DU:76:CYS:SG	20:DU:77:PRO:HD2	2.40	0.62
21:DV:132:ASN:ND2	21:DV:160:GLY:H	1.97	0.62
16:A1:108:GLU:OE1	16:A1:112:ARG:NH1	2.32	0.62
16:A1:92:ARG:NH2	17:A2:11:GLN:O	2.32	0.62
22:A3:41:ARG:HA	22:A3:41:ARG:NE	2.14	0.62
26:A4:45:GLY:O	26:A4:47:GLN:N	2.32	0.62
27:A5:6:VAL:HG22	27:A5:7:PRO:HD3	1.80	0.62
1:AA:1171:G:C6	1:AA:1174:A:N6	2.68	0.62
1:AA:1416:G:H21	1:AA:1586:A:H62	1.45	0.62
1:AA:1416:G:O2'	1:AA:1417:C:C6	2.47	0.62
1:AA:1797:C:H2'	1:AA:1798:U:H5'	1.80	0.62
1:AA:2287:A:H2	1:AA:2346:A:N1	1.98	0.62
4:AE:21:VAL:HG23	4:AE:22:PRO:CG	2.29	0.62
31:BA:428:G:O4'	31:BA:430:A:C8	2.52	0.62
37:BJ:26:PHE:CE2	37:BJ:30:ILE:HD11	2.33	0.62
41:BN:17:GLY:HA3	41:BN:77:MET:SD	2.39	0.62
31:CA:1142:G:H3'	31:CA:1143:G:H8	1.64	0.62
31:CA:556:C:C2'	31:CA:557:G:H5'	2.29	0.62
52:CB:14:A:H61	52:CB:22:A:H1'	1.63	0.62
52:CD:49:A:C2	52:CD:51:C:OP2	2.52	0.62
31:CA:674:G:OP1	36:CI:87:ARG:NH2	2.32	0.62
41:CN:100:ALA:O	41:CN:102:GLY:N	2.32	0.62
22:D3:66:VAL:HG12	22:D3:67:VAL:H	1.64	0.62
1:DA:1064:C:H42	1:DA:1074:G:H1	1.47	0.62
1:DA:1420:U:HO2'	1:DA:1421:G:P	2.21	0.62
1:DA:1480:G:H5'	1:DA:1482:U:OP2	1.99	0.62
1:DA:2392:A:H2	1:DA:2424:C:N4	1.95	0.62
1:DA:2542:A:N3	1:DA:2542:A:H5"	2.15	0.62
1:DA:2818:G:O2'	1:DA:2819:G:H5'	1.99	0.62
1:DA:573:G:O2'	1:DA:574:C:H3'	1.98	0.62
4:DE:200:GLU:HG2	4:DE:201:THR:H	1.63	0.62
11:DO:16:ARG:NH1	11:DO:16:ARG:HG3	2.15	0.62
14:DQ:14:VAL:HG21	14:DQ:89:ARG:HD3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:DS:33:ARG:NE	18:DS:52:GLU:OE2	2.32	0.62
1:AA:1026:U:H1'	1:AA:1027:A:C5'	2.29	0.62
1:AA:1181:C:O2'	1:AA:1182:A:H5'	2.00	0.62
1:AA:219:G:OP2	56:AA:3415:OHX:N2	2.31	0.62
1:AA:274:G:H2'	1:AA:275:G:C1'	2.28	0.62
3:AD:244:ARG:HB2	3:AD:245:PRO:HD2	1.79	0.62
4:AE:32:PRO:O	4:AE:34:VAL:HG12	2.00	0.62
7:AH:149:ARG:HG3	7:AH:162:ILE:O	1.99	0.62
8:AK:95:LYS:HE3	8:AK:99:GLU:HG3	1.80	0.62
9:AM:28:THR:N	9:AM:106:MET:HE1	2.15	0.62
10:AN:80:ASP:OD2	15:AR:64:ARG:NH2	2.32	0.62
31:BA:1349:A:C2	31:BA:1350:A:H1'	2.34	0.62
31:BA:149:A:C2	31:BA:150:C:N3	2.67	0.62
1:AA:2583:G:N2	52:BB:85:A:C8	2.61	0.62
32:BE:229:VAL:HG12	32:BE:230:VAL:H	1.63	0.62
32:BE:8:LYS:H	32:BE:8:LYS:CE	2.12	0.62
35:BH:101:ILE:HG13	35:BH:119:LEU:HD23	1.81	0.62
39:BL:118:LYS:O	39:BL:119:ALA:HB3	2.00	0.62
31:CA:1449:C:O2'	31:CA:1450:U:P	2.58	0.62
32:CE:19:HIS:O	32:CE:20:GLU:O	2.16	0.62
34:CG:63:LYS:HD2	34:CG:198:VAL:HG12	1.81	0.62
35:CH:100:VAL:HG13	35:CH:100:VAL:O	1.99	0.62
35:CH:76:ILE:CG2	35:CH:77:PRO:HD2	2.29	0.62
37:CJ:87:VAL:HG23	37:CJ:88:PRO:HD2	1.81	0.62
43:CP:11:ARG:O	43:CP:13:LYS:N	2.31	0.62
26:D4:30:GLU:O	26:D4:31:ILE:HG13	1.98	0.62
1:DA:1342:A:N1	1:DA:1397:U:C5	2.68	0.62
1:DA:1986:A:OP1	56:DA:3061:OHX:N4	2.32	0.62
1:DA:2123:G:N2	1:DA:2175:C:N3	2.41	0.62
1:DA:2446:G:C2'	1:DA:2447:G:H5"	2.30	0.62
1:DA:2872:G:C4	1:DA:2873:A:C2	2.87	0.62
1:DA:405:U:O2	1:DA:405:U:H3'	1.99	0.62
7:DH:92:ILE:HD12	7:DH:92:ILE:N	2.14	0.62
11:DO:80:TYR:CD1	11:DO:111:ARG:HB3	2.34	0.62
19:DT:53:LYS:NZ	19:DT:55:ASN:HD21	1.97	0.62
30:A8:48:PHE:HE2	30:A8:50:LEU:CD1	2.10	0.62
30:A8:52:LYS:H	30:A8:53:PRO:HD2	1.65	0.62
1:AA:1534:G:N3	1:AA:1534:G:H2'	2.14	0.62
1:AA:1434:A:H61	1:AA:1558:A:H62	1.46	0.62
1:AA:1992:G:O2'	1:AA:1993:U:OP2	2.12	0.62
1:AA:2210:G:H2'	1:AA:2211:G:N7	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:280:C:H2'	1:AA:281:G:H5'	1.81	0.62
1:AA:880:G:H1	1:AA:897:C:H42	1.35	0.62
6:AG:6:ALA:HB3	6:AG:104:GLU:OE2	1.99	0.62
12:AP:53:ALA:HB1	12:AP:120:ILE:CG2	2.29	0.62
20:AU:96:ILE:HG22	20:AU:101:LYS:HE2	1.80	0.62
12:AP:136:ALA:CB	21:AV:52:SER:HB2	2.29	0.62
31:BA:1452:C:HO2'	31:BA:1453:G:P	2.19	0.62
31:BA:77:C:C2'	31:BA:78:G:H5"	2.29	0.62
33:BF:184:TYR:CD1	33:BF:201:TYR:HE2	2.17	0.62
40:BM:7:LYS:HB3	40:BM:97:GLU:HB2	1.80	0.62
50:BW:13:LEU:HD12	50:BW:13:LEU:C	2.20	0.62
54:C1:20:G:O2'	54:C1:21:C:H5'	1.99	0.62
31:CA:711:G:O2'	31:CA:712:A:H5'	1.98	0.62
47:CT:63:ARG:HG2	47:CT:64:PRO:CD	2.26	0.62
1:DA:254:G:N7	30:D8:5:LYS:HE2	2.15	0.62
1:DA:1519:G:H2'	1:DA:1520:U:H5'	1.82	0.62
1:DA:1758:G:C2	1:DA:2696:U:H5'	2.34	0.62
1:DA:753:C:O5'	1:DA:753:C:H6	1.83	0.62
3:DD:125:ILE:HD12	3:DD:136:ILE:HG23	1.81	0.62
6:DG:172:LEU:HD12	6:DG:172:LEU:O	1.99	0.62
7:DH:27:LYS:HD3	7:DH:32:GLU:HB3	1.80	0.62
8:DK:31:LEU:HD21	8:DK:38:LEU:CD1	2.29	0.62
1:AA:1045:A:O2'	1:AA:1047:G:C5	2.53	0.62
1:AA:1206:G:C5	1:AA:1207:C:C5	2.88	0.62
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.34	0.62
1:AA:332:A:C2	1:AA:335:C:C5	2.88	0.62
1:AA:4:C:H2'	1:AA:5:A:H8	1.63	0.62
5:AF:167:ALA:HB1	5:AF:173:VAL:HG11	1.82	0.62
1:AA:1256:G:O2'	5:AF:82:ILE:HD11	1.99	0.62
21:AV:128:VAL:HA	21:AV:161:VAL:HG21	1.81	0.62
21:AV:63:ASP:N	21:AV:64:GLY:HA2	2.15	0.62
25:AX:6:VAL:HG12	25:AX:56:VAL:HG22	1.81	0.62
31:BA:1326:C:H2'	31:BA:1327:C:C6	2.34	0.62
31:BA:68:G:C2	31:BA:69:G:H1'	2.35	0.62
52:BB:51:C:H3'	52:BB:52:G:C8	2.35	0.62
32:BE:178:ARG:HG3	38:BK:72:PRO:HA	1.81	0.62
34:BG:101:LEU:HD23	34:BG:121:VAL:HG13	1.82	0.62
34:BG:52:SER:O	34:BG:55:ALA:HB3	1.99	0.62
31:BA:939:G:H5"	37:BJ:102:ARG:CZ	2.29	0.62
39:BL:78:LYS:HE2	39:BL:101:PHE:HE2	1.64	0.62
31:CA:173:U:H5"	31:CA:197:A:O4'	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1394:A:OP1	56:CA:1797:OHX:N2	2.32	0.62
52:CB:55:U:H2'	52:CB:56:U:H6	1.65	0.62
34:CG:19:LEU:N	34:CG:19:LEU:HD12	2.14	0.62
38:CK:29:SER:HB3	38:CK:32:LYS:HG3	1.81	0.62
42:CO:60:LEU:HB2	42:CO:64:TYR:HB3	1.81	0.62
16:D1:91:ASP:C	16:D1:93:LYS:N	2.52	0.62
26:D4:22:ILE:HD13	26:D4:22:ILE:H	1.63	0.62
1:DA:1368:G:O6	56:DA:3487:OHX:N2	2.33	0.62
1:DA:2315:G:H2'	1:DA:2316:C:C6	2.34	0.62
1:DA:2861:G:N7	56:DA:3068:OHX:N6	2.48	0.62
1:DA:849:A:OP1	56:DA:3465:OHX:N3	2.33	0.62
3:DD:5:LYS:HB2	3:DD:5:LYS:NZ	2.15	0.62
9:DM:126:PRO:O	9:DM:127:ASP:HB2	2.00	0.62
1:DA:1007:C:OP1	9:DM:35:ARG:NH1	2.32	0.62
11:DO:82:GLY:HA2	11:DO:113:LYS:O	1.98	0.62
20:DU:42:VAL:O	20:DU:64:GLU:HA	1.99	0.62
1:AA:1278:A:O3'	13:A0:34:ILE:CD1	2.48	0.62
26:A4:39:CYS:SG	26:A4:41:PRO:HD3	2.40	0.62
30:A8:34:TRP:C	30:A8:34:TRP:CD1	2.72	0.62
1:AA:1473:G:O2'	1:AA:1474:C:H5'	1.99	0.62
1:AA:2439:A:C5'	1:AA:2439:A:H8	2.13	0.62
4:AE:177:PRO:HD2	4:AE:178:GLU:OE1	1.99	0.62
6:AG:18:GLU:O	6:AG:22:ARG:HG3	1.99	0.62
6:AG:77:ILE:O	6:AG:81:LYS:O	2.18	0.62
7:AH:153:LYS:HA	7:AH:153:LYS:NZ	2.15	0.62
15:AR:42:ILE:HD12	15:AR:42:ILE:O	2.00	0.62
18:AS:110:LYS:HG3	18:AS:111:HIS:ND1	2.15	0.62
31:BA:1330:U:O4	31:BA:1331:G:N1	2.33	0.62
31:BA:322:C:O2'	50:BW:23:ARG:HD2	1.99	0.62
31:BA:388:G:OP1	56:BA:1721:OHX:N6	2.33	0.62
31:BA:84:U:H2'	31:BA:84:U:O2	1.98	0.62
52:BD:47:U:C4	52:BD:48:C:N4	2.67	0.62
54:C1:17:U:O2'	54:C1:18:G:H5'	2.00	0.62
31:CA:1184:G:O2'	31:CA:1185:G:H5'	1.99	0.62
31:CA:1382:C:H2'	31:CA:1383:C:H6	1.64	0.62
31:CA:652:U:H1'	31:CA:653:A:C2	2.33	0.62
32:CE:188:ALA:HB1	32:CE:192:SER:HB2	1.81	0.62
31:CA:1190:G:OP1	33:CF:5:ILE:HG23	1.99	0.62
43:CP:30:ALA:C	43:CP:32:GLU:H	2.01	0.62
43:CP:90:LEU:CD2	43:CP:93:ARG:HE	2.13	0.62
13:D0:38:VAL:O	13:D0:42:LYS:HB2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:857:C:H4'	22:D3:23:VAL:HG21	1.82	0.62
1:DA:2611:U:O2'	27:D5:3:LYS:CG	2.48	0.62
30:D8:33:ASN:CG	30:D8:34:TRP:H	2.01	0.62
1:DA:1061:U:H4'	1:DA:1070:A:H1'	1.80	0.62
1:DA:1678:G:H21	1:DA:1989:G:N2	1.91	0.62
1:DA:363(B):G:O2'	1:DA:363(C):G:H5'	2.00	0.62
5:DF:21:ALA:C	5:DF:23:ASP:H	2.03	0.62
11:DO:19:VAL:HG22	11:DO:20:GLY:N	2.13	0.62
1:DA:907:U:O2'	12:DP:101:ARG:NH2	2.33	0.62
12:DP:75:THR:HG21	12:DP:87:LYS:HE2	1.81	0.62
1:DA:483:A:H5"	20:DU:49:VAL:HG13	1.81	0.62
21:DV:104:PHE:O	21:DV:105:VAL:HG12	1.99	0.62
21:DV:178:GLU:O	21:DV:179:ASP:HB2	2.00	0.62
17:A2:38:LEU:HD23	17:A2:39:LEU:N	2.15	0.62
29:A7:43:THR:HG22	29:A7:44:PRO:O	2.00	0.62
1:AA:1047:G:O2'	1:AA:1111:A:N6	2.31	0.62
1:AA:1210:A:H4'	1:AA:1211:U:O5'	2.00	0.62
1:AA:1899:G:N2	1:AA:1902:C:N4	2.46	0.62
1:AA:2115:G:O6	1:AA:2117:A:H3'	1.99	0.62
1:AA:2789:C:H2'	1:AA:2790:A:H5"	1.80	0.62
1:AA:301:G:H1'	1:AA:302:C:C6	2.35	0.62
1:AA:99:U:OP1	1:AA:102:G:H5'	2.00	0.62
7:AH:153:LYS:HA	7:AH:153:LYS:HZ2	1.65	0.62
1:AA:2758:A:C4	7:AH:67:LEU:HD21	2.35	0.62
12:AP:7:MET:HE1	12:AP:93:TYR:HE2	1.65	0.62
14:AQ:67:ARG:CB	14:AQ:67:ARG:NH1	2.62	0.62
15:AR:93:ARG:HG3	15:AR:93:ARG:HH11	1.63	0.62
31:BA:1452:C:O2'	31:BA:1453:G:P	2.57	0.62
52:BD:25:G:H2'	52:BD:26:G:O4'	1.99	0.62
34:BG:4:TYR:CD1	34:BG:5:ILE:N	2.66	0.62
36:BI:19:LEU:HD21	36:BI:59:TYR:CE2	2.35	0.62
31:BA:1225:A:OP1	43:BP:102:ARG:HB2	2.00	0.62
50:BW:89:ARG:NH2	50:BW:104:LEU:HD11	2.12	0.62
31:CA:1133:G:H2'	31:CA:1134:G:C8	2.34	0.62
31:CA:222:U:H2'	31:CA:223:U:C6	2.34	0.62
52:CD:41:C:H2'	52:CD:42:U:C6	2.35	0.62
52:CD:43:G:H2'	52:CD:44:C:H6	1.61	0.62
33:CF:70:VAL:O	33:CF:106:VAL:HG23	2.00	0.62
38:CK:14:ARG:O	38:CK:18:ARG:HD3	1.99	0.62
42:CO:47:LYS:CB	42:CO:48:PRO:CD	2.76	0.62
43:CP:84:ILE:HG23	49:CV:74:PHE:CZ	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CT:12:SER:HB3	47:CT:20:THR:HB	1.82	0.62
16:D1:14:HIS:HA	16:D1:32:PHE:CD2	2.34	0.62
16:D1:36:ARG:NH2	17:D2:82:ARG:HH22	1.97	0.62
27:D5:4:HIS:CB	27:D5:5:PRO:CD	2.29	0.62
30:D8:33:ASN:O	30:D8:35:GLN:N	2.33	0.62
1:DA:2262:U:O2'	1:DA:2263:C:H5'	2.00	0.62
1:DA:603:A:H8	1:DA:604:G:H1'	1.64	0.62
1:DA:830:G:H4'	1:DA:831:G:OP2	1.99	0.62
1:DA:988:A:C2'	1:DA:989:G:O5'	2.48	0.62
2:DB:89(A):A:N7	2:DB:90:C:H1'	2.15	0.62
11:DO:19:VAL:HG22	11:DO:27:HIS:HB3	1.78	0.62
1:DA:2275:C:HO2'	12:DP:85:LYS:H	1.47	0.62
20:DU:97:ARG:HH21	20:DU:98:VAL:HB	1.64	0.62
23:DZ:86:SER:N	23:DZ:87:PRO:CD	2.62	0.62
30:A8:30:ARG:O	30:A8:31:HIS:HB3	2.00	0.61
1:AA:1496:A:H5'	1:AA:1497:U:OP1	2.00	0.61
1:AA:150:C:H2'	1:AA:151:C:C6	2.35	0.61
1:AA:2309:A:C6	1:AA:2310:A:N7	2.68	0.61
1:AA:359:A:H2'	1:AA:360:G:H5'	1.81	0.61
3:AD:35:LYS:CB	3:AD:63:ARG:HA	2.29	0.61
6:AG:17:PRO:HA	6:AG:20:ILE:HG13	1.82	0.61
9:AM:137:LYS:CE	9:AM:138:LEU:H	2.13	0.61
9:AM:71:ILE:HD13	9:AM:86:PRO:HA	1.82	0.61
21:AV:28:MET:HB2	21:AV:37:VAL:HG11	1.81	0.61
31:BA:1024:G:H2'	31:BA:1025:U:C5	2.35	0.61
31:BA:114:U:O2'	31:BA:115:G:H5'	2.00	0.61
31:BA:1245:A:H2'	31:BA:1246:C:O4'	2.01	0.61
31:BA:589:C:C4	31:BA:590:C:H5	2.18	0.61
31:BA:792:A:N3	31:BA:794:A:N6	2.47	0.61
43:BP:11:ARG:HG2	43:BP:12:ASN:H	1.63	0.61
31:CA:1118:C:H1'	31:CA:1179:A:C4	2.35	0.61
31:CA:1207:G:H2'	31:CA:1208:C:H6	1.65	0.61
31:CA:1347:G:C8	39:CL:107:ARG:CB	2.82	0.61
52:CD:17:G:O2'	52:CD:66:G:N2	2.30	0.61
33:CF:134:ILE:O	33:CF:136:GLN:N	2.33	0.61
42:CO:75:HIS:HD2	42:CO:77:LEU:N	1.94	0.61
17:D2:33:VAL:HG12	17:D2:59:ALA:O	2.00	0.61
1:DA:1226:G:H5'	17:D2:85:LYS:O	2.00	0.61
27:D5:49:CYS:SG	27:D5:50:GLY:N	2.73	0.61
1:DA:2156:G:C6	1:DA:2157:G:C2	2.88	0.61
1:DA:525:U:O2	1:DA:525:U:H2'	1.98	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:112:LEU:HB2	11:DO:128:HIS:HD2	1.65	0.61
21:DV:157:LEU:HB3	21:DV:161:VAL:HG21	1.82	0.61
30:A8:35:GLN:CA	30:A8:35:GLN:OE1	2.42	0.61
1:AA:1081:U:H3'	1:AA:1082:U:C6	2.35	0.61
1:AA:125:G:H4'	1:AA:126:A:OP2	2.00	0.61
1:AA:1519:G:O2'	1:AA:1520:U:H5'	2.01	0.61
1:AA:2135:A:HO2'	1:AA:2136:C:P	2.21	0.61
1:AA:2142:C:N3	1:AA:2149:G:N2	2.41	0.61
11:AO:138:LEU:CD1	11:AO:144:GLU:HG3	2.29	0.61
12:AP:118:LEU:HD12	12:AP:131:ILE:HG23	1.82	0.61
12:AP:66:ILE:HG13	12:AP:67:ARG:N	2.14	0.61
15:AR:20:PRO:HG2	15:AR:86:ILE:O	2.00	0.61
21:AV:133:ILE:O	21:AV:135:GLU:N	2.34	0.61
31:BA:1005:A:H3'	31:BA:1006:C:C5'	2.28	0.61
52:BB:21:A:C8	52:BB:46:G:C8	2.88	0.61
52:BD:28:G:H2'	52:BD:29:C:C6	2.35	0.61
32:BE:224:GLN:O	32:BE:224:GLN:HG2	1.99	0.61
35:BH:37:ARG:HA	35:BH:114:GLY:H	1.64	0.61
40:BM:54:PHE:CZ	40:BM:55:LYS:NZ	2.64	0.61
42:BO:64:TYR:O	42:BO:65:GLU:HB2	2.00	0.61
49:BV:44:MET:O	49:BV:47:HIS:HB2	2.00	0.61
31:CA:1311:G:N2	31:CA:1327:C:C2	2.68	0.61
31:CA:8:A:N6	34:CG:209:ARG:HB2	2.15	0.61
52:CD:61:G:N2	52:CD:71:C:N3	2.40	0.61
38:CK:23:SER:HA	38:CK:63:LEU:HD23	1.82	0.61
39:CL:5:TYR:HD2	39:CL:18:PHE:CE2	2.18	0.61
31:CA:797:C:OP1	41:CN:124:LYS:HD3	2.00	0.61
48:CU:22:VAL:O	48:CU:23:LYS:CB	2.47	0.61
17:D2:98:GLU:O	17:D2:99:ILE:HG22	2.00	0.61
28:D6:34:LEU:HA	28:D6:51:GLU:OE1	2.00	0.61
1:DA:1000:A:N1	1:DA:1155:A:C4	2.67	0.61
1:DA:2275:C:O2	12:DP:85:LYS:HG3	2.00	0.61
1:DA:2602:A:H4'	1:DA:2603:G:O5'	2.00	0.61
1:DA:1111:A:H5'	7:DH:3:ARG:HH11	1.64	0.61
25:DX:19:GLN:NE2	25:DX:52:HIS:CE1	2.58	0.61
26:A4:37:SER:C	26:A4:39:CYS:H	2.02	0.61
1:AA:1266:G:O2'	1:AA:2012:G:O6	2.09	0.61
1:AA:270(B):A:C2'	1:AA:270(C):C:H5'	2.30	0.61
3:AD:270:ILE:HG22	3:AD:271:ILE:N	2.15	0.61
4:AE:128:SER:O	4:AE:130:GLY:N	2.33	0.61
6:AG:40:ASN:HD22	6:AG:91:ARG:HB2	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:72:LEU:HD11	8:AK:107:VAL:HG11	1.81	0.61
12:AP:87:LYS:O	12:AP:88:GLY:C	2.38	0.61
21:AV:98:MET:O	21:AV:125:LEU:HD12	2.00	0.61
31:BA:1260:C:OP1	31:BA:1284:C:O2'	2.16	0.61
31:BA:1348:U:N3	31:BA:1374:A:H2	1.94	0.61
31:BA:394:G:C4	31:BA:395:C:C5	2.88	0.61
38:BK:21:LYS:O	38:BK:65:TYR:OH	2.16	0.61
31:BA:1116:C:O2'	39:BL:108:VAL:HG11	2.00	0.61
41:BN:13:GLN:HB3	41:BN:75:TYR:O	2.00	0.61
31:CA:1003:G:C2'	31:CA:1004:A:H5'	2.30	0.61
31:CA:1460:A:H2'	31:CA:1461:G:O4'	2.00	0.61
52:CB:38:MIA:H2'	52:CB:39:A:O4'	1.99	0.61
50:CW:46:GLU:O	50:CW:48:LYS:N	2.32	0.61
17:D2:44:LYS:HG2	17:D2:45:THR:OG1	2.00	0.61
1:DA:803:U:H2'	1:DA:804:A:H5'	1.81	0.61
1:DA:962:G:O2'	1:DA:963:U:H5'	2.01	0.61
5:DF:175:THR:O	5:DF:176:LEU:HB2	1.98	0.61
11:DO:61:ARG:CA	11:DO:62:LEU:HD22	2.30	0.61
1:DA:329:G:O6	20:DU:19:LYS:HG2	2.00	0.61
21:DV:45:ASP:O	21:DV:49:ARG:HG2	2.00	0.61
16:A1:47:TYR:C	16:A1:47:TYR:CD2	2.73	0.61
17:A2:18:LEU:HD22	17:A2:19:LYS:N	2.16	0.61
30:A8:6:THR:HG22	30:A8:60:LEU:O	2.00	0.61
1:AA:1171:G:O6	1:AA:1174:A:N6	2.32	0.61
1:AA:1729:A:H8	1:AA:1730:U:H5	1.47	0.61
1:AA:2133:G:H1'	1:AA:2158:A:H61	1.65	0.61
1:AA:2277:G:H2'	1:AA:2278:A:O5'	2.01	0.61
1:AA:2367:G:H2'	1:AA:2368:C:H6	1.65	0.61
1:AA:2600:A:H2'	1:AA:2601:C:C6	2.35	0.61
1:AA:441:U:O2'	5:AF:46:ARG:HD2	2.00	0.61
2:AB:48:A:H4'	14:AQ:95:HIS:CD2	2.35	0.61
3:AD:44:ASN:ND2	3:AD:44:ASN:H	1.97	0.61
4:AE:116:VAL:HG13	4:AE:122:PHE:CD2	2.35	0.61
2:AB:43:C:P	6:AG:67:LYS:HZ2	2.22	0.61
7:AH:89:ILE:HD11	7:AH:95:ARG:HA	1.82	0.61
9:AM:82:LEU:HD12	9:AM:83:LYS:H	1.66	0.61
12:AP:53:ALA:HB1	12:AP:120:ILE:HG22	1.82	0.61
12:AP:138:ASP:O	12:AP:139:GLU:O	2.17	0.61
12:AP:23:GLY:HA2	12:AP:25:ASP:HB2	1.82	0.61
15:AR:105:LEU:HD23	15:AR:106:SER:N	2.15	0.61
1:AA:495:G:H21	18:AS:61:ASN:HD21	1.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:30:ASN:C	21:AV:30:ASN:HD22	2.04	0.61
21:AV:5:LEU:O	21:AV:6:LYS:HB2	2.01	0.61
31:BA:1237:C:C5	31:BA:1336:C:C5	2.87	0.61
31:BA:606:G:H1'	31:BA:632:A:H61	1.65	0.61
52:BB:53:A:H2'	52:BB:54:C:C6	2.35	0.61
52:BD:69:U:O2'	52:BD:70:C:H5'	2.00	0.61
33:BF:164:ARG:NH1	33:BF:166:GLU:OE1	2.34	0.61
33:BF:3:ASN:N	33:BF:3:ASN:OD1	2.33	0.61
37:BJ:91:VAL:HB	37:BJ:96:GLN:HG2	1.81	0.61
38:BK:25:ASP:OD2	38:BK:60:ARG:HG3	2.00	0.61
46:BS:43:LYS:CG	46:BS:48:TRP:HE3	2.11	0.61
47:BT:67:LYS:O	47:BT:68:ARG:HB3	1.99	0.61
50:BW:23:ARG:HA	50:BW:26:ASN:HD21	1.64	0.61
31:CA:353:A:H5'	31:CA:353:A:C8	2.32	0.61
31:CA:542:G:OP1	34:CG:10:ARG:NH2	2.33	0.61
52:CB:8:U:H4'	52:CB:58:G:OP2	1.99	0.61
13:D0:88:ARG:HD2	13:D0:89:ASP:OD2	2.01	0.61
16:D1:98:LEU:O	16:D1:100:VAL:N	2.33	0.61
28:D6:34:LEU:O	28:D6:36:LEU:HG	2.00	0.61
30:D8:33:ASN:CG	30:D8:41:ILE:HD11	2.18	0.61
1:DA:1658:C:H2'	1:DA:1659:U:C6	2.36	0.61
1:DA:2212:A:O2'	1:DA:2213:U:O5'	2.19	0.61
1:DA:2758:A:C2	1:DA:2759:G:H1'	2.35	0.61
1:DA:34:C:HO2'	1:DA:35:G:P	2.23	0.61
1:DA:864:G:H1'	1:DA:914:C:H42	1.65	0.61
1:DA:7:G:H2'	1:DA:8:A:O4'	2.00	0.61
1:DA:1570:A:C4'	3:DD:38:LYS:HE2	2.30	0.61
1:DA:2786:U:C5'	4:DE:65:GLY:H	2.14	0.61
11:DO:59:LEU:HD23	11:DO:59:LEU:O	1.99	0.61
14:DQ:5:THR:OG1	14:DQ:8:GLU:HG3	1.99	0.61
15:DR:106:SER:O	15:DR:107:ASP:CB	2.48	0.61
20:DU:39:VAL:O	20:DU:40:GLU:CB	2.49	0.61
21:DV:62:PRO:C	21:DV:64:GLY:H	2.03	0.61
22:A3:38:VAL:HB	22:A3:59:LEU:HD12	1.82	0.61
30:A8:17:THR:O	30:A8:19:SER:N	2.33	0.61
1:AA:106:C:H2'	1:AA:107:C:H6	1.65	0.61
1:AA:1075:C:H2'	1:AA:1076:C:O4'	2.00	0.61
1:AA:142:G:H1'	19:AT:37:THR:CG2	2.30	0.61
1:AA:2035:G:H4'	1:AA:2036:C:OP2	1.99	0.61
1:AA:2134:A:C5	1:AA:2158:A:H2	2.18	0.61
1:AA:405:U:O2	1:AA:405:U:H2'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:116:VAL:HG13	4:AE:122:PHE:CG	2.35	0.61
5:AF:129:PHE:O	5:AF:130:ALA:HB3	2.01	0.61
6:AG:64:THR:HG22	6:AG:66:GLN:N	2.16	0.61
9:AM:133:GLN:O	9:AM:134:ARG:HG3	1.99	0.61
11:AO:19:VAL:HG22	11:AO:20:GLY:H	1.65	0.61
12:AP:78:PRO:O	12:AP:79:LEU:HG	2.00	0.61
18:AS:12:ILE:HD13	18:AS:17:VAL:HB	1.82	0.61
21:AV:75:ASN:O	21:AV:84:GLU:HG2	2.01	0.61
31:BA:1347:G:H22	31:BA:1374:A:P	2.23	0.61
31:BA:180:U:H2'	31:BA:181:G:C8	2.36	0.61
31:BA:439:A:H2'	31:BA:440:A:H5'	1.82	0.61
31:BA:615:C:C2	31:BA:616:G:C8	2.89	0.61
31:BA:750:G:C2	31:BA:751:U:C6	2.87	0.61
31:BA:363:A:OP1	42:BO:33:ARG:HG3	2.01	0.61
47:BT:65:ILE:HG21	47:BT:69:LYS:HE3	1.80	0.61
31:CA:1404:C:H2'	31:CA:1405:G:C8	2.35	0.61
31:CA:62:U:HO2'	31:CA:379:C:C2'	2.11	0.61
52:CD:24:G:H2'	52:CD:25:G:H8	1.66	0.61
40:CM:6:ILE:O	40:CM:6:ILE:HD12	1.99	0.61
43:CP:14:ARG:NH2	43:CP:16:ASP:OD1	2.33	0.61
47:CT:35:VAL:O	47:CT:35:VAL:HG12	1.99	0.61
5:DF:145:GLU:O	5:DF:146:ALA:HB2	2.01	0.61
5:DF:53:THR:HG22	5:DF:56:GLU:OE2	2.01	0.61
5:DF:69:HIS:CD2	5:DF:69:HIS:N	2.62	0.61
1:DA:2415:G:O3'	11:DO:66:GLY:HA3	2.00	0.61
16:A1:69:CYS:SG	16:A1:79:PHE:HD1	2.23	0.61
1:AA:1163:G:C2	1:AA:1164:G:C8	2.89	0.61
1:AA:1761:C:H5"	1:AA:1762:A:OP2	2.01	0.61
1:AA:1803:A:H4'	3:AD:259:THR:CG2	2.29	0.61
1:AA:2688:U:H1'	1:AA:2721:A:N6	2.15	0.61
1:AA:745:G:OP2	4:AE:133:LYS:HE2	2.00	0.61
6:AG:67:LYS:NZ	26:A4:6:HIS:NE2	2.48	0.61
11:AO:38:GLN:O	11:AO:41:ARG:HB2	2.00	0.61
23:AZ:40:ARG:NH2	23:AZ:42:GLN:HG2	2.15	0.61
31:BA:262:A:H5"	31:BA:263:A:OP2	2.00	0.61
32:BE:83:MET:C	32:BE:85:ALA:H	2.03	0.61
35:BH:45:PHE:CE2	35:BH:47:LYS:HD2	2.36	0.61
44:BQ:15:LYS:HG2	44:BQ:16:PHE:CE2	2.35	0.61
31:CA:1374:A:C2'	31:CA:1375:A:H5'	2.26	0.61
31:CA:266:G:H1	31:CA:270:A:N6	1.98	0.61
34:CG:121:VAL:O	34:CG:134:ASP:HA	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:8:VAL:HG21	34:CG:115:ARG:NH2	2.15	0.61
50:CW:8:ARG:NH1	50:CW:8:ARG:HG3	2.11	0.61
1:DA:2170:A:H5"	1:DA:2171:A:OP2	2.00	0.61
1:DA:2310:A:N3	1:DA:2310:A:C5'	2.64	0.61
1:DA:381:G:C4	1:DA:394:A:C2	2.89	0.61
5:DF:57:VAL:HG12	5:DF:58:ALA:N	2.15	0.61
10:DN:14:THR:HG21	10:DN:86:ILE:HD13	1.82	0.61
1:AA:1168:G:C2	1:AA:1182:A:C2	2.89	0.61
1:AA:1259:G:O2'	1:AA:1260:G:H5'	2.01	0.61
1:AA:1299:G:H5"	1:AA:1300:U:OP1	2.00	0.61
1:AA:1533:C:H5"	1:AA:1534:G:OP2	2.00	0.61
1:AA:2309:A:H2'	1:AA:2310:A:O4'	1.99	0.61
1:AA:389:G:H1	11:AO:71:VAL:HG12	1.66	0.61
1:AA:649:G:O6	56:AA:3447:OHX:N1	2.33	0.61
1:AA:879:G:C8	1:AA:879:G:OP2	2.54	0.61
1:AA:998:C:H2'	1:AA:999:U:O5'	1.99	0.61
4:AE:60:ASN:OD1	4:AE:62:PRO:HD2	2.00	0.61
12:AP:54:MET:O	12:AP:56:ARG:N	2.32	0.61
20:AU:20:TYR:CE1	20:AU:42:VAL:HA	2.36	0.61
31:BA:438:G:OP1	34:BG:125:HIS:CE1	2.50	0.61
31:BA:611:A:N6	31:BA:629:G:H1	1.96	0.61
31:BA:827:U:C5	31:BA:870:U:C4	2.88	0.61
34:BG:25:ARG:O	34:BG:27:TYR:N	2.34	0.61
46:BS:43:LYS:HG2	46:BS:48:TRP:CE3	2.35	0.61
46:BS:6:LEU:N	46:BS:6:LEU:HD12	2.16	0.61
49:BV:63:THR:HG23	49:BV:65:ASN:ND2	2.15	0.61
31:BA:177:C:P	50:BW:65:LYS:NZ	2.74	0.61
31:CA:1320:C:H2'	31:CA:1321:C:C6	2.36	0.61
31:CA:1524:C:H2'	31:CA:1525:G:C8	2.35	0.61
53:CC:33:C:H2'	53:CC:33:C:O2	2.00	0.61
32:CE:74:LYS:NZ	32:CE:205:ASP:O	2.32	0.61
33:CF:152:ILE:HG22	33:CF:167:TRP:HB2	1.83	0.61
33:CF:5:ILE:CD1	33:CF:5:ILE:H	2.14	0.61
31:CA:537:G:H5"	42:CO:113:ARG:NH1	2.16	0.61
42:CO:24:VAL:C	42:CO:26:ALA:N	2.53	0.61
31:CA:951:G:OP2	43:CP:102:ARG:NH2	2.33	0.61
46:CS:34:GLU:OE1	46:CS:55:ARG:NH1	2.33	0.61
50:CW:73:HIS:O	50:CW:74:LYS:HB2	2.01	0.61
16:D1:76:TYR:OH	16:D1:93:LYS:HE2	2.01	0.61
1:DA:1159:U:O2'	1:DA:1160:G:H5'	2.00	0.61
1:DA:1483:G:C2	1:DA:1484:G:C8	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1967:C:H2'	1:DA:1968:G:H5'	1.82	0.61
1:DA:2439:A:H5'	1:DA:2439:A:H8	1.66	0.61
1:DA:2776:A:H4'	1:DA:2777:G:O5'	2.00	0.61
1:DA:319:C:O2'	1:DA:320:A:H5'	2.01	0.61
1:DA:536:A:H2'	1:DA:537:C:O4'	2.00	0.61
1:DA:638:G:C5	1:DA:651:G:C2	2.89	0.61
5:DF:28:ILE:HA	5:DF:112:MET:HE2	1.82	0.61
10:DN:20:MET:HE3	10:DN:44:LYS:HE3	1.83	0.61
15:DR:78:LEU:HD23	15:DR:79:HIS:CD2	2.36	0.61
20:DU:17:SER:CB	20:DU:71:LYS:HD2	2.29	0.61
1:AA:1593:G:H2'	1:AA:1594:G:H8	1.66	0.61
1:AA:919:G:N2	1:AA:2269:A:OP2	2.34	0.61
1:AA:2694:G:C5	1:AA:2695:C:C5	2.89	0.61
1:AA:286:C:O2	1:AA:356:G:C2	2.53	0.61
1:AA:674:G:H1'	5:AF:74:ARG:HD3	1.82	0.61
2:AB:48:A:H4'	14:AQ:95:HIS:HD2	1.65	0.61
3:AD:25:THR:O	3:AD:26:LYS:O	2.19	0.61
4:AE:116:VAL:H	4:AE:157:ALA:HB2	1.66	0.61
4:AE:120:TRP:CD1	4:AE:155:LYS:HB3	2.36	0.61
9:AM:127:ASP:O	9:AM:128:HIS:HB3	1.99	0.61
10:AN:101:PRO:HB3	10:AN:122:LEU:HD12	1.81	0.61
14:AQ:111:GLU:O	14:AQ:112:PHE:HD1	1.83	0.61
14:AQ:24:LEU:HD11	14:AQ:41:ASP:HB2	1.82	0.61
20:AU:47:LYS:HG2	20:AU:60:PHE:CE1	2.35	0.61
31:BA:1160:G:N1	31:BA:1177:G:C2	2.68	0.61
31:BA:1288:A:H2'	31:BA:1289:A:H8	1.65	0.61
31:BA:192:U:O4'	50:BW:103:GLY:HA2	2.00	0.61
31:BA:601:C:H2'	31:BA:602:A:H8	1.66	0.61
31:BA:960:U:O2	31:BA:1225:A:N7	2.34	0.61
42:BO:90:VAL:O	42:BO:91:LYS:CB	2.49	0.61
31:CA:1217:C:H2'	31:CA:1218:C:O4'	2.01	0.61
31:CA:1507:A:C2	31:CA:1508:G:C4	2.89	0.61
31:CA:48:C:OP1	56:CA:1737:OHX:N4	2.33	0.61
32:CE:91:PRO:HG2	32:CE:155:LEU:HB2	1.83	0.61
35:CH:141:GLN:HA	35:CH:143:ARG:HH21	1.64	0.61
39:CL:4:TYR:HB2	39:CL:19:LEU:O	1.99	0.61
40:CM:42:THR:HG23	40:CM:67:THR:O	2.01	0.61
42:CO:58:VAL:O	42:CO:65:GLU:HA	2.01	0.61
43:CP:4:ILE:HG23	43:CP:5:ALA:H	1.66	0.61
40:CM:47:PHE:CZ	44:CQ:37:PHE:CE2	2.86	0.61
40:CM:50:ILE:HG12	44:CQ:41:ARG:HD2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:33:ASN:CA	30:D8:36:LYS:HD2	2.25	0.61
1:DA:2134:A:C2	1:DA:2159:G:H1'	2.36	0.61
1:DA:2582:G:H2'	1:DA:2583:G:H5'	1.81	0.61
1:DA:553:U:O2'	1:DA:554:U:H5'	2.00	0.61
3:DD:35:LYS:CE	3:DD:104:TYR:CD1	2.81	0.61
5:DF:54:ARG:HG3	5:DF:54:ARG:HH11	1.64	0.61
11:DO:112:LEU:CB	11:DO:128:HIS:HD2	2.13	0.61
11:DO:80:TYR:CD1	11:DO:111:ARG:CB	2.83	0.61
15:DR:134:GLU:O	15:DR:136:GLN:N	2.34	0.61
23:DZ:85:LEU:O	23:DZ:85:LEU:HD12	2.01	0.61
1:AA:1183:G:N7	56:AA:3412:OHX:N6	2.48	0.61
1:AA:540:G:C8	1:AA:540:G:H5'	2.30	0.61
1:AA:654(S):G:H4'	1:AA:654(T):A:OP1	1.99	0.61
1:AA:676:A:N1	1:AA:802:A:N1	2.48	0.61
5:AF:40:GLN:NE2	5:AF:182:ASN:HB2	2.15	0.61
20:AU:34:LYS:HE2	20:AU:34:LYS:O	2.01	0.61
21:AV:69:THR:HG22	21:AV:90:VAL:HA	1.83	0.61
31:BA:397:A:N6	31:BA:548:G:C5	2.68	0.61
34:BG:108:LEU:HD11	34:BG:174:LEU:HD22	1.83	0.61
38:BK:10:LEU:HD13	38:BK:83:ILE:HD11	1.83	0.61
31:CA:1190:G:N1	56:CA:1762:OHX:N3	2.48	0.61
31:CA:1191:A:H8	31:CA:1191:A:OP2	1.84	0.61
31:CA:137:C:H42	31:CA:226:G:H1	1.48	0.61
31:CA:485:G:O2'	31:CA:486:U:P	2.58	0.61
31:CA:540:G:H2'	31:CA:541:G:O4'	2.01	0.61
31:CA:585:G:O6	56:CA:1741:OHX:N6	2.34	0.61
31:CA:67:C:H2'	31:CA:68:G:C8	2.36	0.61
31:CA:973:G:H3'	31:CA:974:A:H5"	1.82	0.61
32:CE:172:ILE:HD12	32:CE:172:ILE:N	2.15	0.61
40:CM:54:PHE:CE1	40:CM:55:LYS:NZ	2.64	0.61
40:CM:79:ARG:O	40:CM:83:GLU:HB2	2.00	0.61
42:CO:51:ALA:O	42:CO:52:LEU:HD23	2.00	0.61
47:CT:56:VAL:HG21	47:CT:81:ARG:HD3	1.82	0.61
16:D1:65:ILE:O	16:D1:68:ALA:N	2.34	0.61
30:D8:33:ASN:OD1	30:D8:34:TRP:N	2.30	0.61
1:DA:405:U:H2'	1:DA:406:G:OP1	2.00	0.61
1:DA:654(D):G:H1	1:DA:654(Q):C:N4	1.99	0.61
1:DA:901:A:H2'	1:DA:901:A:N3	2.16	0.61
15:DR:106:SER:O	15:DR:107:ASP:HB3	2.01	0.61
1:DA:1754:C:OP1	15:DR:96:ARG:NH1	2.33	0.61
13:A0:38:VAL:HB	13:A0:39:PRO:HD3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:108:ASN:HA	26:A4:38:LYS:HB2	1.82	0.61
26:A4:50:VAL:O	26:A4:50:VAL:HG12	2.00	0.61
1:AA:1430:C:H2'	1:AA:1431:U:H6	1.65	0.61
1:AA:1729:A:C8	1:AA:1730:U:H5	2.19	0.61
1:AA:2335:A:N7	1:AA:2337:G:C5	2.69	0.61
1:AA:654(P):G:H2'	1:AA:654(Q):C:C6	2.36	0.61
3:AD:182:LEU:O	3:AD:271:ILE:HG13	2.00	0.61
3:AD:35:LYS:CD	3:AD:63:ARG:HB3	2.30	0.61
1:AA:2729:G:H1'	4:AE:187:ALA:HB2	1.83	0.61
11:AO:66:GLY:HA2	11:AO:68:GLN:NE2	2.16	0.61
31:BA:1083:U:H5	31:BA:1084:G:C6	2.19	0.61
31:BA:201:C:N4	31:BA:216:G:N1	2.38	0.61
31:BA:942:G:N2	31:BA:943:U:H1'	2.15	0.61
52:BB:81:C:OP2	52:BB:81:C:H6	1.82	0.61
32:BE:80:ILE:HD11	32:BE:208:ILE:HG12	1.82	0.61
38:BK:63:LEU:HB3	38:BK:65:TYR:CE1	2.36	0.61
54:C1:11:U:O2'	54:C1:12:A:C4	2.41	0.61
31:CA:1162:C:N4	31:CA:1174:G:H1	1.99	0.61
31:CA:545:C:H2'	31:CA:546:G:H5'	1.83	0.61
32:CE:17:PHE:HE2	32:CE:44:LEU:HA	1.65	0.61
33:CF:181:ASN:ND2	33:CF:204:LEU:HB2	2.16	0.61
33:CF:72:LYS:HZ3	33:CF:74:GLY:HA3	1.64	0.61
35:CH:41:VAL:HG11	35:CH:113:ALA:HB2	1.83	0.61
37:CJ:115:ARG:HB3	37:CJ:118:VAL:HG13	1.82	0.61
42:CO:11:VAL:HG11	47:CT:36:ILE:HG21	1.83	0.61
48:CU:29:PHE:HD1	48:CU:39:VAL:HG12	1.66	0.61
50:CW:71:THR:HG22	50:CW:72:LEU:N	2.16	0.61
1:DA:205:G:C2'	1:DA:206:U:OP2	2.48	0.61
1:DA:2709:G:O2'	1:DA:2710:C:H5'	2.00	0.61
3:DD:9:TYR:CD2	3:DD:10:THR:HG22	2.36	0.61
5:DF:178:PRO:HB3	5:DF:198:ALA:HB1	1.82	0.61
1:DA:2311:A:C2	6:DG:44:GLY:HA3	2.35	0.61
6:DG:67:LYS:H	26:D4:6:HIS:HD2	1.48	0.61
11:DO:147:LEU:O	11:DO:148:LEU:HD23	2.01	0.61
21:DV:37:VAL:HG23	21:DV:38:TYR:N	2.15	0.61
21:DV:74:VAL:HA	21:DV:86:VAL:HG22	1.83	0.61
16:A1:48:ALA:O	16:A1:52:ARG:HB3	2.00	0.60
9:AM:1:MET:HE1	16:A1:95:LEU:CD2	2.31	0.60
27:A5:22:HIS:N	27:A5:22:HIS:CD2	2.68	0.60
1:AA:1049:C:H2'	1:AA:1050:A:H5"	1.82	0.60
1:AA:2061:G:OP2	1:AA:2502:G:H5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2818:G:O2'	1:AA:2819:G:H5'	2.01	0.60
3:AD:44:ASN:ND2	3:AD:44:ASN:N	2.48	0.60
31:BA:1176:A:H3'	31:BA:1177:G:H5"	1.82	0.60
52:BB:50:U:H2'	52:BB:51:C:O4'	2.01	0.60
42:BO:11:VAL:HG13	47:BT:29:HIS:HD2	1.66	0.60
31:CA:827:U:H5"	31:CA:828:A:OP2	2.01	0.60
31:CA:963:G:N2	40:CM:55:LYS:HG2	2.16	0.60
52:CB:17:G:C6	52:CB:67:A:C6	2.89	0.60
52:CD:22:A:H2'	52:CD:22:A:N3	2.16	0.60
52:CD:36:U:H2'	52:CD:37:A:O4'	2.00	0.60
32:CE:67:THR:HG21	32:CE:155:LEU:HG	1.82	0.60
44:CQ:45:ARG:O	44:CQ:49:HIS:HD2	1.83	0.60
49:CV:78:ARG:HD3	49:CV:78:ARG:N	2.15	0.60
50:CW:100:ILE:HD12	50:CW:100:ILE:N	2.15	0.60
50:CW:76:ALA:O	50:CW:80:ARG:HG3	2.01	0.60
22:D3:47:PRO:HG3	22:D3:53:MET:HB2	1.83	0.60
1:DA:1085:A:H4'	1:DA:1086:A:OP1	2.01	0.60
1:DA:1658:C:H2'	1:DA:1659:U:H6	1.65	0.60
1:DA:2244:U:O2'	1:DA:2245:U:H5'	2.01	0.60
1:DA:860:U:C2	1:DA:2268:A:C8	2.88	0.60
1:DA:2309:A:O5'	1:DA:2309:A:H8	1.83	0.60
1:DA:2329:G:H2'	1:DA:2330:G:C8	2.35	0.60
1:DA:2625:G:H2'	1:DA:2626:C:C6	2.36	0.60
1:DA:654(M):C:H3'	1:DA:654(N):G:C8	2.36	0.60
4:DE:68:ALA:C	4:DE:70:ALA:H	2.04	0.60
5:DF:53:THR:HG22	5:DF:56:GLU:HG3	1.82	0.60
6:DG:44:GLY:O	6:DG:46:ALA:N	2.33	0.60
10:DN:117:LEU:N	10:DN:117:LEU:CD1	2.63	0.60
11:DO:63:PRO:HA	30:D8:13:ARG:HA	1.82	0.60
12:DP:78:PRO:HG2	12:DP:81:VAL:HG11	1.82	0.60
18:DS:88:ARG:NH1	18:DS:94:ASP:OD1	2.33	0.60
21:DV:115:GLY:HA2	21:DV:177:PRO:CG	2.30	0.60
1:AA:1278:A:O2'	13:A0:34:ILE:HD11	2.01	0.60
1:AA:1695:G:H2'	1:AA:1696:G:O4'	2.01	0.60
1:AA:1854:A:H62	1:AA:1888:G:H8	1.47	0.60
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.36	0.60
1:AA:273(F):C:H3'	1:AA:274:G:C5'	2.30	0.60
1:AA:863:A:O2'	1:AA:864:G:H5'	2.01	0.60
1:AA:986:C:C2'	1:AA:987:G:H5'	2.30	0.60
3:AD:35:LYS:HG2	3:AD:64:ILE:H	1.61	0.60
4:AE:36:ARG:NH1	4:AE:85:ASN:OD1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:6:LEU:O	8:AK:7:GLU:HB3	2.02	0.60
11:AO:84:ASN:HB3	11:AO:117:GLU:O	2.01	0.60
19:AT:49:VAL:HG13	19:AT:50:LYS:N	2.16	0.60
31:BA:1122:U:O4	31:BA:1123:A:N6	2.33	0.60
31:BA:1213:A:C5	31:BA:1215:G:C4	2.89	0.60
31:BA:56:U:OP2	56:BA:1796:OHX:N2	2.34	0.60
31:BA:927:G:H4'	31:BA:927:G:OP2	2.01	0.60
52:BD:49:A:H2'	52:BD:50:U:O5'	2.01	0.60
33:BF:109:PRO:HB3	33:BF:115:LEU:HD13	1.83	0.60
33:BF:62:ASP:HA	33:BF:97:LYS:HD2	1.82	0.60
41:BN:34:ASP:HB2	41:BN:35:PRO:HD2	1.83	0.60
41:BN:63:LEU:HD12	41:BN:63:LEU:H	1.66	0.60
31:CA:1392:G:N2	31:CA:1502:A:C8	2.65	0.60
31:CA:491:G:C2'	31:CA:492:G:H5'	2.31	0.60
32:CE:74:LYS:HD2	32:CE:166:ASP:HB2	1.83	0.60
33:CF:152:ILE:HG22	33:CF:167:TRP:HA	1.82	0.60
34:CG:4:TYR:HE2	34:CG:11:LEU:HD11	1.65	0.60
34:CG:62:GLN:HE22	34:CG:65:ARG:HE	1.49	0.60
41:CN:34:ASP:HB2	41:CN:35:PRO:HD2	1.82	0.60
42:CO:59:ARG:NH1	42:CO:63:GLY:HA2	2.12	0.60
1:DA:1210:A:H5"	1:DA:1211:U:H3'	1.83	0.60
1:DA:2320:A:N6	1:DA:2333:A:H2'	2.16	0.60
4:DE:89:ASP:O	4:DE:90:THR:HB	2.00	0.60
5:DF:39:TRP:HD1	5:DF:99:TYR:CE2	2.19	0.60
12:DP:35:VAL:HG22	12:DP:102:VAL:HG22	1.81	0.60
14:DQ:14:VAL:O	14:DQ:18:ILE:HG13	2.01	0.60
20:DU:89:PHE:CD1	20:DU:90:LEU:HG	2.27	0.60
26:A4:14:ILE:CG2	26:A4:21:VAL:HB	2.31	0.60
1:AA:1174:A:N7	1:AA:1178:C:N4	2.48	0.60
1:AA:1240:U:O2'	1:AA:1241:A:H5'	2.01	0.60
1:AA:2523:G:H2'	1:AA:2524:G:H5'	1.83	0.60
1:AA:274:G:OP1	1:AA:274:G:C8	2.54	0.60
1:AA:2870:C:H5"	13:A0:65:LEU:HD21	1.83	0.60
1:AA:2884:U:H2'	1:AA:2885:C:H5'	1.83	0.60
1:AA:883:G:C6	1:AA:884:C:O2	2.54	0.60
7:AH:77:LYS:HE2	7:AH:138:LYS:HE3	1.84	0.60
18:AS:79:GLY:HA3	18:AS:100:THR:HG22	1.82	0.60
18:AS:92:ARG:NH1	18:AS:94:ASP:OD2	2.33	0.60
31:BA:1077:G:N2	31:BA:1080:A:OP2	2.33	0.60
31:BA:1132:C:H2'	31:BA:1133:G:H8	1.65	0.60
31:BA:88:C:O2	31:BA:88:C:H2'	1.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:983:A:H1'	31:BA:1049:U:O2	2.02	0.60
52:BD:39:A:H2'	52:BD:40:U:O4'	2.00	0.60
52:BD:48:C:OP2	52:BD:48:C:H6	1.85	0.60
32:BE:185:ILE:CG2	32:BE:199:TYR:HB2	2.30	0.60
34:BG:8:VAL:HG21	34:BG:115:ARG:CZ	2.31	0.60
35:BH:126:ARG:NH1	35:BH:126:ARG:HG3	2.17	0.60
39:BL:125:TYR:HD2	39:BL:126:SER:H	1.47	0.60
31:CA:222:U:H2'	31:CA:223:U:H6	1.66	0.60
31:CA:362:G:O2'	42:CO:33:ARG:NH2	2.34	0.60
52:CB:28:G:H2'	52:CB:29:C:H5'	1.82	0.60
39:CL:29:ASN:O	39:CL:29:ASN:ND2	2.33	0.60
30:D8:33:ASN:HA	30:D8:36:LYS:CE	2.30	0.60
1:DA:1022:G:H22	1:DA:1142(A):A:H2	1.49	0.60
1:DA:1871:A:H2'	1:DA:1872:A:C8	2.36	0.60
1:DA:2016:U:H1'	27:D5:6:VAL:CG1	2.31	0.60
1:DA:2191:G:H2'	1:DA:2192:G:O4'	2.01	0.60
1:DA:2788:C:O2'	1:DA:2809:A:N3	2.34	0.60
1:DA:2864:G:OP1	15:DR:119:LYS:HD3	2.01	0.60
1:DA:382:G:N7	56:DA:3255:OHX:N1	2.50	0.60
5:DF:38:ARG:HD3	5:DF:99:TYR:OH	2.00	0.60
6:DG:145:THR:O	6:DG:146:TYR:HB3	2.01	0.60
9:DM:127:ASP:O	9:DM:128:HIS:HB3	2.01	0.60
11:DO:85:LEU:HG	11:DO:120:ALA:HA	1.83	0.60
20:DU:30:VAL:HG22	20:DU:37:VAL:HG12	1.84	0.60
20:DU:8:LYS:O	20:DU:27:VAL:HG21	2.02	0.60
13:A0:41:ALA:C	13:A0:43:GLU:N	2.55	0.60
16:A1:28:ARG:HD3	16:A1:38:THR:OG1	2.01	0.60
16:A1:92:ARG:CZ	17:A2:11:GLN:O	2.49	0.60
1:AA:1167:U:H2'	1:AA:1168:G:C8	2.37	0.60
1:AA:155:C:H6	1:AA:155:C:C5'	2.14	0.60
1:AA:1931:U:O2	1:AA:1931:U:O4'	2.18	0.60
1:AA:2274:A:C5	1:AA:2276:G:C8	2.90	0.60
1:AA:2284:C:H41	28:A6:25:LYS:NZ	2.00	0.60
1:AA:600:G:N2	1:AA:605:C:O3'	2.35	0.60
6:AG:97:ASP:O	6:AG:101:ILE:HG23	2.02	0.60
9:AM:133:GLN:N	9:AM:133:GLN:HE21	1.98	0.60
12:AP:35:VAL:HG12	12:AP:130:LYS:HB3	1.83	0.60
12:AP:32:TYR:CE1	12:AP:133:ARG:HG3	2.33	0.60
21:AV:30:ASN:ND2	21:AV:33:LEU:H	1.99	0.60
31:BA:433:C:H2'	31:BA:434:U:C6	2.36	0.60
52:BB:23:A:C2'	52:BB:24:G:H5"	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:1:G:C2	52:BD:82:A:C2	2.89	0.60
34:BG:8:VAL:HG21	34:BG:115:ARG:NH2	2.16	0.60
37:BJ:27:ILE:HG12	37:BJ:43:PHE:CD2	2.35	0.60
37:BJ:58:PRO:O	37:BJ:60:LYS:N	2.33	0.60
31:CA:1330:U:O4	31:CA:1331:G:C2	2.54	0.60
31:CA:244:U:H5'	31:CA:244:U:H6	1.67	0.60
31:CA:54:C:C4	31:CA:352:C:C5	2.89	0.60
31:CA:977:A:H1'	31:CA:981:U:H3	1.67	0.60
32:CE:153:ARG:HG2	32:CE:153:ARG:O	2.02	0.60
32:CE:32:ILE:HD12	32:CE:33:TYR:H	1.66	0.60
33:CF:18:TRP:HE3	33:CF:18:TRP:H	1.49	0.60
33:CF:47:LEU:HD23	33:CF:52:LEU:HD13	1.83	0.60
34:CG:139:ARG:NH1	34:CG:139:ARG:HG3	1.98	0.60
35:CH:139:LEU:O	35:CH:141:GLN:N	2.34	0.60
42:CO:27:LEU:HB2	42:CO:33:ARG:HB2	1.84	0.60
16:D1:59:ARG:O	16:D1:63:VAL:HG23	2.01	0.60
1:DA:1064:C:C4	1:DA:1065:U:C4	2.90	0.60
1:DA:1085:A:C4'	1:DA:1086:A:OP1	2.50	0.60
1:DA:1252:G:O4'	16:D1:33:ARG:HD3	2.02	0.60
1:DA:2311:A:N1	6:DG:44:GLY:HA3	2.16	0.60
1:DA:2475:C:H5'	1:DA:2476:A:OP2	2.00	0.60
1:DA:2468:G:C6	1:DA:2481:G:C2	2.89	0.60
5:DF:25:PRO:HG2	5:DF:26:ALA:H	1.65	0.60
5:DF:80:ALA:O	5:DF:83:PHE:HB2	2.01	0.60
19:DT:30:VAL:HG21	19:DT:39:ILE:HD11	1.83	0.60
17:A2:1:MET:CE	17:A2:43:GLU:HG2	2.31	0.60
1:AA:517:C:OP1	27:A5:16:ARG:NH2	2.35	0.60
11:AO:63:PRO:HB3	30:A8:12:LYS:O	2.00	0.60
1:AA:1880:C:O2'	1:AA:1881:C:H5'	2.01	0.60
1:AA:2475:C:H3'	1:AA:2476:A:H5"	1.83	0.60
1:AA:2600:A:H2'	1:AA:2601:C:H6	1.67	0.60
1:AA:2769:C:H2'	1:AA:2769:C:O2	2.00	0.60
1:AA:469:G:O6	29:A7:37:LYS:HE2	2.01	0.60
1:AA:91:A:C4	1:AA:92:G:C8	2.89	0.60
2:AB:25:A:C2'	2:AB:26:A:H5'	2.31	0.60
2:AB:7:G:H8	2:AB:7:G:C5'	2.14	0.60
4:AE:120:TRP:CE3	4:AE:155:LYS:HD3	2.36	0.60
4:AE:14:ILE:O	4:AE:15:PHE:HB2	2.01	0.60
21:AV:117:LEU:HD22	21:AV:118:GLN:N	2.16	0.60
21:AV:44:PHE:CZ	21:AV:86:VAL:HG11	2.36	0.60
21:AV:4:ARG:HA	21:AV:58:VAL:HG22	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1118:C:H1'	31:BA:1179:A:C4	2.37	0.60
31:BA:49:U:O2'	31:BA:50:A:H2'	2.02	0.60
52:BD:29:C:H2'	52:BD:30:A:H5'	1.84	0.60
52:BD:49:A:H1'	52:BD:52:G:N2	2.15	0.60
33:BF:8:ILE:C	33:BF:10:PHE:H	2.05	0.60
38:BK:88:LYS:HB3	38:BK:89:PRO:HD2	1.83	0.60
52:CD:51:C:O5'	52:CD:51:C:H6	1.85	0.60
34:CG:26:CYS:HA	34:CG:31:CYS:HB2	1.84	0.60
38:CK:56:LYS:O	38:CK:58:TYR:HD1	1.84	0.60
42:CO:83:VAL:HG12	42:CO:84:LEU:N	2.10	0.60
47:CT:22:LEU:HD11	47:CT:39:SER:HB2	1.82	0.60
22:D3:51:VAL:C	22:D3:62:LEU:HD12	2.22	0.60
1:DA:1144:G:C2	1:DA:1145:C:C2	2.89	0.60
1:DA:1728:G:H8	1:DA:1731:G:H1	1.46	0.60
1:DA:2308:G:C2'	1:DA:2309:A:OP1	2.49	0.60
1:DA:2418:A:H2'	1:DA:2419:U:H6	1.67	0.60
1:DA:71:A:C8	1:DA:71:A:H5'	2.37	0.60
2:DB:24:G:OP2	2:DB:24:G:H8	1.84	0.60
2:DB:43:C:OP1	26:D4:6:HIS:CE1	2.43	0.60
7:DH:6:ARG:HB2	7:DH:66:GLY:HA2	1.84	0.60
9:DM:56:ASN:CB	9:DM:125:GLY:O	2.36	0.60
9:DM:39:ARG:C	9:DM:41:ASP:H	2.04	0.60
11:DO:86:LYS:HB3	11:DO:117:GLU:O	2.01	0.60
14:DQ:94:TYR:O	14:DQ:94:TYR:CD2	2.55	0.60
21:DV:40:ASP:HB3	21:DV:43:GLU:HG3	1.83	0.60
21:DV:44:PHE:O	21:DV:44:PHE:HD1	1.83	0.60
24:DW:6:VAL:HG23	24:DW:7:ARG:N	2.16	0.60
30:A8:35:GLN:O	30:A8:36:LYS:CB	2.50	0.60
1:AA:1204:A:O2'	56:AA:3409:OHX:N6	2.34	0.60
1:AA:1509:C:H2'	1:AA:1511:A:C8	2.36	0.60
1:AA:2168:G:N2	1:AA:2170:A:N6	2.49	0.60
1:AA:270(G):C:H2'	1:AA:270(H):C:O4'	2.01	0.60
1:AA:527:C:H4'	1:AA:528:A:H5'	1.82	0.60
1:AA:890:A:C8	1:AA:892:G:C8	2.85	0.60
8:AK:131:LYS:HA	8:AK:135:GLU:HB3	1.83	0.60
54:B1:10:G:H2'	54:B1:10:G:N3	2.16	0.60
31:BA:1133:G:H2'	31:BA:1134:G:O4'	2.01	0.60
31:BA:1387:G:H2'	31:BA:1388:C:C6	2.37	0.60
31:BA:439:A:C4	31:BA:496:A:C2	2.89	0.60
37:BJ:79:ARG:NH1	37:BJ:80:VAL:O	2.35	0.60
47:BT:101:ARG:HB2	47:BT:101:ARG:NH2	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BU:74:ARG:HA	48:BU:79:LEU:O	2.02	0.60
50:BW:53:LEU:HD12	50:BW:102:GLY:HA3	1.83	0.60
31:CA:1024:G:H2'	31:CA:1025:U:H6	1.63	0.60
31:CA:1056:U:H5'	33:CF:163:ALA:CB	2.29	0.60
31:CA:1111:A:C8	31:CA:1112:C:H5	2.19	0.60
31:CA:1251:A:O2'	31:CA:1252:A:H5'	2.02	0.60
31:CA:631:G:H1'	31:CA:632:A:OP1	2.01	0.60
52:CB:62:G:H4'	12:DP:56:ARG:HH21	1.66	0.60
52:CB:17:G:C6	52:CB:67:A:N6	2.70	0.60
53:CC:62:C:H2'	53:CC:63:C:C6	2.36	0.60
52:CD:30:A:H61	52:CD:42:U:H3	1.47	0.60
31:CA:1378:C:O2	37:CJ:76:ARG:NH2	2.33	0.60
39:CL:95:LYS:HE2	39:CL:95:LYS:O	2.01	0.60
31:CA:1226:C:H4'	49:CV:80:TYR:OH	2.01	0.60
1:DA:1003:G:N2	1:DA:1153:C:O2	2.35	0.60
1:DA:2150:U:H2'	1:DA:2151:G:H8	1.64	0.60
1:DA:2630:G:O4'	1:DA:2630:G:OP1	2.20	0.60
1:DA:2849:U:H4'	1:DA:2868:A:C2	2.37	0.60
1:DA:620:G:H2'	1:DA:620:G:N3	2.16	0.60
1:DA:947:G:O6	56:DA:3399:OHX:N3	2.35	0.60
3:DD:35:LYS:HG2	3:DD:64:ILE:CA	2.31	0.60
3:DD:85:ASP:HB2	3:DD:92:ILE:HD13	1.83	0.60
5:DF:3:GLU:O	5:DF:19:GLU:HB2	2.02	0.60
19:DT:80:ILE:HG13	19:DT:80:ILE:O	1.99	0.60
1:AA:1139:G:O2'	1:AA:1143:A:N1	2.32	0.60
1:AA:1417:C:N4	1:AA:1581:G:H1	1.98	0.60
1:AA:2309:A:C4	1:AA:2310:A:C8	2.89	0.60
1:AA:2314:C:H5"	6:AG:38:VAL:HG21	1.83	0.60
1:AA:2803:C:H2'	1:AA:2804:C:C6	2.36	0.60
1:AA:286:C:H2'	1:AA:287:C:H6	1.66	0.60
5:AF:28:ILE:HA	5:AF:112:MET:HE3	1.84	0.60
7:AH:83:TYR:HB2	7:AH:134:SER:CA	2.31	0.60
12:AP:65:PHE:O	12:AP:66:ILE:HG12	2.01	0.60
33:BF:173:VAL:O	33:BF:175:LEU:HD12	2.01	0.60
39:BL:43:ALA:C	39:BL:45:ALA:H	2.05	0.60
48:BU:53:ARG:HH21	48:BU:60:ALA:N	1.99	0.60
31:CA:1153:C:H2'	31:CA:1154:G:O4'	2.00	0.60
31:CA:1157:A:N6	31:CA:1180:A:C5	2.69	0.60
31:CA:1157:A:O2'	31:CA:1158:C:P	2.59	0.60
31:CA:1237:C:HO2'	31:CA:1300:G:H22	1.48	0.60
31:CA:201:C:H4'	31:CA:208:U:OP1	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:338:A:H2	31:CA:351:G:H22	1.50	0.60
31:CA:837:G:C2	31:CA:850:U:O2	2.55	0.60
31:CA:828:A:H5"	31:CA:859:A:C2	2.37	0.60
36:CI:45:LEU:HD21	36:CI:57:GLN:HB3	1.82	0.60
41:CN:93:GLN:CA	41:CN:93:GLN:HE21	2.14	0.60
49:CV:23:ASN:HA	49:CV:27:GLU:HG3	1.84	0.60
28:D6:17:LYS:O	28:D6:44:ARG:NH2	2.35	0.60
1:DA:1288:U:O4	13:D0:106:GLY:HA3	2.02	0.60
1:DA:1526:G:C6	1:DA:1527:G:C2	2.90	0.60
1:DA:1889:A:H2'	1:DA:1890:A:C8	2.35	0.60
1:DA:2136:C:N4	1:DA:2155:G:H1	1.93	0.60
1:DA:2473:U:O2	1:DA:2473:U:H2'	2.00	0.60
1:DA:289:A:H5'	1:DA:290:G:OP2	2.01	0.60
1:DA:674:G:P	5:DF:54:ARG:HH22	2.23	0.60
1:DA:9:U:H3	1:DA:2629:A:N6	1.89	0.60
6:DG:40:ASN:HD22	6:DG:91:ARG:HB2	1.67	0.60
11:DO:80:TYR:HE1	11:DO:111:ARG:HG2	1.65	0.60
12:DP:34:LEU:HB2	12:DP:118:LEU:HD22	1.83	0.60
14:DQ:36:TYR:CD2	14:DQ:52:SER:HB3	2.36	0.60
20:DU:76:CYS:HB3	20:DU:96:ILE:HD11	1.84	0.60
24:DW:10:LEU:HD13	24:DW:59:ARG:HD2	1.82	0.60
13:A0:118:GLU:HA	13:A0:118:GLU:OE1	2.01	0.60
16:A1:92:ARG:HH11	16:A1:95:LEU:HD11	1.67	0.60
1:AA:2419:U:P	30:A8:33:ASN:HD22	2.25	0.60
1:AA:1178:C:O2'	1:AA:1179:C:C6	2.53	0.60
1:AA:1219:G:OP2	16:A1:19:LYS:NZ	2.34	0.60
1:AA:1609:A:O2'	1:AA:1610:A:H5'	2.00	0.60
1:AA:1332:G:H21	1:AA:1610:A:H8	1.50	0.60
1:AA:163:U:C2'	1:AA:164:U:H5'	2.30	0.60
1:AA:1754:C:OP1	15:AR:96:ARG:NH1	2.34	0.60
1:AA:1991:U:H2'	1:AA:1992:G:H5"	1.83	0.60
1:AA:833:U:H2'	1:AA:834:C:H6	1.65	0.60
3:AD:35:LYS:CE	3:AD:104:TYR:CD1	2.85	0.60
6:AG:146:TYR:HD1	43:BP:3:ARG:HH21	1.50	0.60
7:AH:19:VAL:HG22	7:AH:43:VAL:HG23	1.84	0.60
9:AM:137:LYS:HE3	9:AM:138:LEU:N	2.14	0.60
9:AM:55:VAL:O	9:AM:57:ALA:N	2.35	0.60
11:AO:9:ASN:O	11:AO:10:PRO:C	2.40	0.60
20:AU:84:ARG:HH12	20:AU:97:ARG:CB	2.15	0.60
31:BA:1316:G:H22	31:BA:1319:A:P	2.25	0.60
52:BB:23:A:C6	52:BB:24:G:N7	2.69	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:49:A:C2	52:BB:50:U:H5"	2.37	0.60
32:BE:60:ASP:O	32:BE:64:ARG:NH1	2.35	0.60
39:BL:9:ARG:HD2	39:BL:14:VAL:HG13	1.83	0.60
31:CA:1256:A:N6	31:CA:1277:C:H3'	2.16	0.60
31:CA:1320:C:H2'	31:CA:1321:C:H6	1.66	0.60
31:CA:554:C:H2'	31:CA:555:C:C6	2.37	0.60
52:CD:79:A:O2'	52:CD:80:C:H5'	2.02	0.60
1:DA:581:C:OP1	16:D1:31:SER:HB2	2.01	0.60
1:DA:1026:U:O2	1:DA:1026:U:H3'	2.01	0.60
1:DA:1480:G:C4	1:DA:1482:U:O2	2.55	0.60
1:DA:1899:G:H21	1:DA:1902:C:H5	1.44	0.60
1:DA:2446:G:C3'	1:DA:2447:G:H5"	2.30	0.60
1:DA:299:A:N1	1:DA:322:A:O2'	2.23	0.60
1:DA:329:G:O6	20:DU:19:LYS:CG	2.50	0.60
3:DD:25:THR:HB	3:DD:82:ILE:H	1.65	0.60
5:DF:4:VAL:HA	5:DF:19:GLU:HB3	1.81	0.60
11:DO:57:THR:O	11:DO:59:LEU:N	2.34	0.60
19:DT:57:LEU:HD23	19:DT:78:LYS:O	2.00	0.60
1:AA:1579:A:H2'	1:AA:1580:A:C8	2.37	0.60
1:AA:2308:G:H22	1:AA:2311:A:H2	0.70	0.60
1:AA:2602:A:C6	53:BC:77:A:H4'	2.37	0.60
1:AA:1786:A:C2	1:AA:2606:C:H1'	2.35	0.60
1:AA:2846:G:H2'	1:AA:2847:U:C6	2.37	0.60
1:AA:511:U:C5	1:AA:512:G:C5	2.90	0.60
1:AA:966:G:H2'	1:AA:967:C:C6	2.37	0.60
7:AH:13:LYS:HA	7:AH:13:LYS:HE2	1.84	0.60
23:AZ:76:ARG:HD2	23:AZ:76:ARG:N	2.17	0.60
31:BA:115:G:OP2	56:BA:1733:OHX:N1	2.35	0.60
31:BA:942:G:OP2	56:BA:1735:OHX:N3	2.34	0.60
38:BK:102:ARG:HG3	38:BK:105:ARG:HH12	1.65	0.60
39:BL:17:VAL:HA	39:BL:63:ILE:HG12	1.83	0.60
41:BN:59:TYR:CE2	41:BN:63:LEU:HD11	2.37	0.60
56:BA:1805:OHX:N5	42:BO:116:SER:OG	2.34	0.60
43:BP:30:ALA:O	43:BP:32:GLU:N	2.35	0.60
47:BT:31:LEU:HD23	47:BT:32:TYR:CE1	2.37	0.60
31:CA:1075:C:H5'	32:CE:103:THR:HG21	1.83	0.60
33:CF:124:ILE:HD11	33:CF:130:VAL:HG13	1.84	0.60
39:CL:4:TYR:CZ	39:CL:59:PHE:HE2	2.20	0.60
43:CP:83:ASP:O	43:CP:84:ILE:HB	2.02	0.60
16:D1:91:ASP:O	16:D1:93:LYS:N	2.34	0.60
26:D4:24:THR:O	26:D4:25:TYR:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:7:PRO:HB3	26:D4:27:THR:HG21	1.83	0.60
1:DA:1309:G:H4'	29:D7:7:PRO:HB2	1.84	0.60
1:DA:1493:C:H4'	1:DA:1494:A:OP2	2.02	0.60
1:DA:1593:G:H2'	1:DA:1594:G:C8	2.37	0.60
1:DA:2816:C:O2	1:DA:2883:A:O2'	2.20	0.60
1:DA:362:U:H5'	1:DA:363:G:OP2	2.02	0.60
1:DA:729:G:C8	3:DD:208:LYS:HD2	2.37	0.60
3:DD:85:ASP:HB2	3:DD:92:ILE:CD1	2.31	0.60
4:DE:107:THR:O	4:DE:190:GLY:HA2	2.02	0.60
6:DG:56:ALA:HB2	6:DG:153:ARG:CZ	2.32	0.60
6:DG:56:ALA:HB2	6:DG:153:ARG:HE	1.67	0.60
7:DH:128:PRO:O	7:DH:129:THR:OG1	2.16	0.60
9:DM:137:LYS:HZ3	9:DM:137:LYS:HA	1.67	0.60
9:DM:94:HIS:HD2	9:DM:97:ARG:CZ	2.14	0.60
1:DA:2275:C:HO2'	12:DP:85:LYS:N	1.99	0.60
14:DQ:18:ILE:O	14:DQ:20:ARG:N	2.34	0.60
2:DB:50:G:OP1	14:DQ:63:THR:HG23	2.02	0.60
13:A0:12:ARG:CD	13:A0:16:HIS:CD2	2.85	0.60
26:A4:37:SER:O	26:A4:41:PRO:HD2	2.02	0.60
1:AA:1729:A:C8	1:AA:1730:U:C5	2.90	0.60
1:AA:2242:G:H2'	1:AA:2243:U:O5'	2.01	0.60
1:AA:2404:C:C2'	1:AA:2405:G:H5'	2.31	0.60
1:AA:2690:C:OP1	13:A0:17:ARG:NH1	2.29	0.60
1:AA:274:G:OP1	1:AA:274:G:N9	2.35	0.60
1:AA:287:C:H2'	1:AA:288:C:C6	2.33	0.60
3:AD:236:GLY:O	3:AD:237:GLU:CB	2.31	0.60
4:AE:61:ARG:HB2	4:AE:62:PRO:CD	2.30	0.60
9:AM:68:GLU:HG2	9:AM:88:GLU:OE1	2.01	0.60
11:AO:60:MET:O	11:AO:60:MET:HG3	2.02	0.60
12:AP:43:THR:HG22	12:AP:94:VAL:HG12	1.84	0.60
31:BA:1141:C:O2'	31:BA:1142:G:H5'	2.01	0.60
31:BA:439:A:OP2	31:BA:493:G:N1	2.35	0.60
31:BA:792:A:H2'	31:BA:792:A:N3	2.15	0.60
31:BA:81:G:C2	31:BA:88:C:N3	2.68	0.60
31:BA:958:A:C6	31:BA:959:A:C6	2.90	0.60
31:BA:975:A:C4'	31:BA:976:G:H5"	2.31	0.60
53:BC:26:C:H2'	53:BC:27:G:O4'	2.01	0.60
35:BH:16:THR:O	35:BH:17:ALA:CB	2.49	0.60
31:CA:1240:U:OP2	37:CJ:116:ALA:N	2.33	0.60
31:CA:1302:U:C5	43:CP:17:VAL:HG21	2.37	0.60
53:CC:21:U:O2	53:CC:21:U:H2'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CD:17:G:H4'	52:CD:18:G:OP1	2.00	0.60
52:CD:3:U:H2'	52:CD:4:G:H8	1.65	0.60
32:CE:82:ARG:CZ	32:CE:92:TYR:OH	2.49	0.60
44:CQ:23:ARG:HG3	44:CQ:28:GLY:O	2.02	0.60
16:D1:88:ILE:HG22	17:D2:49:THR:HA	1.83	0.60
29:D7:5:TRP:NE1	29:D7:7:PRO:HG3	2.16	0.60
30:D8:33:ASN:CG	30:D8:34:TRP:N	2.55	0.60
1:DA:2212:A:H1'	1:DA:2215:G:C6	2.36	0.60
1:DA:2823:A:OP1	4:DE:113:PHE:HB2	2.02	0.60
1:DA:670:A:O2'	56:DA:3428:OHX:N1	2.35	0.60
4:DE:111:ARG:HG2	13:D0:2:ARG:HH22	1.66	0.60
7:DH:123:PHE:CD2	7:DH:133:VAL:HG22	2.37	0.60
9:DM:56:ASN:HB3	9:DM:126:PRO:CD	2.32	0.60
10:DN:98:VAL:CG1	10:DN:117:LEU:HB2	2.32	0.60
11:DO:50:ARG:HG2	11:DO:50:ARG:HH11	1.67	0.60
20:DU:52:SER:N	20:DU:53:PRO:HD3	2.16	0.60
17:A2:35:LEU:C	17:A2:37:VAL:H	2.03	0.59
1:AA:2208:U:H4'	3:AD:151:LYS:HG2	1.83	0.59
1:AA:2401:U:O2	1:AA:2402:C:C5	2.54	0.59
1:AA:755:C:H2'	1:AA:756:C:C6	2.37	0.59
2:AB:71:C:N3	2:AB:72:G:C8	2.71	0.59
5:AF:195:ASP:O	5:AF:198:ALA:HB3	2.01	0.59
11:AO:16:ARG:HG3	11:AO:16:ARG:NH1	2.15	0.59
11:AO:19:VAL:HG23	11:AO:27:HIS:CA	2.32	0.59
14:AQ:51:ALA:HB3	14:AQ:73:LEU:HG	1.84	0.59
54:B1:13:A:C2'	54:B1:14:A:OP1	2.49	0.59
31:BA:1211:U:H4'	31:BA:1212:U:O5'	2.02	0.59
31:BA:186:C:H2'	31:BA:186(A):C:H6	1.66	0.59
52:BB:73:U:H2'	52:BB:74:C:H6	1.67	0.59
34:BG:12:CYS:HA	34:BG:19:LEU:HD21	1.84	0.59
34:BG:70:ILE:HG23	34:BG:75:PHE:HB2	1.84	0.59
31:BA:1346:A:C5'	39:BL:120:ARG:HH12	2.06	0.59
47:BT:64:PRO:HA	47:BT:70:ARG:HG3	1.83	0.59
49:BV:40:ILE:HG12	49:BV:41:VAL:HG13	1.83	0.59
54:C1:20:G:H2'	54:C1:21:C:O4'	2.02	0.59
31:CA:1137:C:H5"	31:CA:1138:G:OP1	2.01	0.59
31:CA:957:U:H2'	31:CA:959:A:OP2	2.01	0.59
36:CI:35:ALA:HB1	36:CI:65:VAL:HG11	1.83	0.59
35:CH:78:HIS:HB2	38:CK:104:ARG:HD2	1.83	0.59
49:CV:7:LYS:C	49:CV:7:LYS:HE3	2.21	0.59
13:D0:59:ASP:O	13:D0:62:ALA:N	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:37:SER:O	30:D8:39:LYS:O	2.19	0.59
1:DA:1039:G:H1	1:DA:1116:C:H42	1.50	0.59
1:DA:1442:G:C3'	1:DA:1443:G:H5"	2.32	0.59
1:DA:9:U:C4	1:DA:2629:A:C6	2.90	0.59
2:DB:40:U:C4	2:DB:43:C:P	2.95	0.59
6:DG:77:ILE:O	6:DG:81:LYS:O	2.20	0.59
8:DK:133:HIS:C	8:DK:133:HIS:CD2	2.75	0.59
9:DM:58:ASP:OD1	9:DM:124:ALA:HB1	2.02	0.59
10:DN:34:THR:O	10:DN:37:ASP:HB2	2.02	0.59
1:AA:7:G:H1	1:AA:2896:C:H42	1.50	0.59
4:AE:66:HIS:ND1	4:AE:66:HIS:O	2.34	0.59
5:AF:64:ILE:HG23	5:AF:65:TRP:CD1	2.37	0.59
7:AH:83:TYR:N	7:AH:83:TYR:CD2	2.69	0.59
8:AK:33:ARG:HB3	8:AK:35:LEU:HD23	1.83	0.59
1:AA:2469:A:O2'	12:AP:56:ARG:HG2	2.02	0.59
14:AQ:20:ARG:C	14:AQ:22:GLY:H	2.05	0.59
20:AU:46:LYS:HE3	20:AU:63:LYS:HB3	1.84	0.59
31:BA:1015:A:H2'	31:BA:1016:A:C8	2.37	0.59
31:BA:977:A:C8	31:BA:1223:C:N3	2.70	0.59
31:BA:543:C:O2'	31:BA:544:G:H5'	2.01	0.59
31:BA:73:G:H2'	31:BA:74:C:O4'	2.02	0.59
31:BA:776:G:O6	56:BA:1757:OHX:N6	2.36	0.59
52:BD:20:C:H3'	52:BD:68:A:H62	1.67	0.59
32:BE:200:ILE:N	32:BE:200:ILE:HD12	2.17	0.59
31:CA:1285:A:O2'	31:CA:1286:A:OP2	2.18	0.59
31:CA:398:C:OP2	56:CA:1738:OHX:N1	2.34	0.59
31:CA:838:G:N2	31:CA:849:C:C2	2.70	0.59
52:CB:73:U:C2'	52:CB:74:C:H5'	2.31	0.59
32:CE:73:THR:O	32:CE:73:THR:OG1	2.19	0.59
41:CN:59:TYR:O	41:CN:62:GLN:HB3	2.02	0.59
43:CP:28:ALA:C	43:CP:30:ALA:N	2.55	0.59
27:D5:6:VAL:HG13	27:D5:7:PRO:HD2	1.84	0.59
1:DA:1494:A:H2'	1:DA:1495:A:H8	1.67	0.59
1:DA:2157:G:O2'	1:DA:2158:A:O4'	2.15	0.59
1:DA:2184:G:C6	1:DA:2185:C:N4	2.70	0.59
1:DA:2292:C:OP1	14:DQ:17:ARG:NH2	2.34	0.59
1:DA:2459:A:C4	1:DA:2460:U:C6	2.90	0.59
1:DA:2648:C:H2'	1:DA:2649:U:C6	2.37	0.59
1:DA:2850:A:C2	1:DA:2851:A:C4	2.90	0.59
1:DA:6:A:N3	9:DM:131:GLN:HG3	2.17	0.59
3:DD:35:LYS:HG2	3:DD:64:ILE:CG2	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:112:MET:O	5:DF:115:ALA:HB3	2.01	0.59
9:DM:51:PHE:CZ	9:DM:119:ARG:HD3	2.37	0.59
11:DO:66:GLY:O	11:DO:67:MET:C	2.39	0.59
20:DU:17:SER:HB2	20:DU:71:LYS:HD2	1.84	0.59
17:A2:49:THR:O	17:A2:50:PRO:C	2.39	0.59
26:A4:37:SER:HB3	26:A4:42:PHE:HD1	1.64	0.59
1:AA:1385:G:H4'	1:AA:1386:C:OP1	2.01	0.59
1:AA:1545:A:O2'	1:AA:1545(A):A:H5'	2.01	0.59
1:AA:1900:A:O2'	1:AA:1901:A:OP1	2.17	0.59
1:AA:2313:C:H2'	1:AA:2314:C:H6	1.66	0.59
1:AA:2439:A:H8	1:AA:2439:A:H5'	1.67	0.59
1:AA:2481:G:HO2'	1:AA:2482:G:P	2.25	0.59
1:AA:509:C:OP1	56:AA:3365:OHX:N6	2.35	0.59
8:AK:96:ASP:O	8:AK:97:ILE:C	2.40	0.59
18:AS:46:PHE:O	18:AS:50:VAL:HG23	2.03	0.59
31:BA:113:G:H2'	31:BA:114:U:H6	1.67	0.59
31:BA:518:C:O2'	31:BA:530:G:C2	2.48	0.59
31:BA:67:C:H2'	31:BA:68:G:C8	2.37	0.59
33:BF:184:TYR:HD1	33:BF:201:TYR:HE2	1.49	0.59
34:BG:88:VAL:HG12	34:BG:88:VAL:O	2.02	0.59
36:BI:21:LEU:O	36:BI:25:ILE:HG12	2.02	0.59
31:BA:1524:C:OP1	41:BN:120:ARG:NH1	2.33	0.59
46:BS:47:ASP:O	46:BS:49:LEU:N	2.35	0.59
47:BT:13:ASP:H	47:BT:14:LYS:NZ	2.00	0.59
48:BU:26:LEU:HB3	48:BU:42:ARG:NH2	2.18	0.59
31:CA:1346:A:C8	31:CA:1348:U:O2	2.55	0.59
31:CA:1357:A:N7	31:CA:1358:U:C5	2.70	0.59
31:CA:56:U:H2'	31:CA:57:G:H8	1.66	0.59
32:CE:182:ILE:H	32:CE:182:ILE:HD12	1.66	0.59
41:CN:79:SER:HB2	41:CN:106:LYS:HD2	1.84	0.59
50:CW:51:GLU:HA	50:CW:54:LYS:HB3	1.84	0.59
50:CW:73:HIS:ND1	50:CW:74:LYS:N	2.50	0.59
30:D8:34:TRP:O	56:D8:101:OHX:N1	2.35	0.59
30:D8:49:VAL:CG1	30:D8:50:LEU:N	2.64	0.59
1:DA:1022:G:HO2'	1:DA:1023:U:P	2.15	0.59
1:DA:155:C:H42	1:DA:171:G:H1	0.62	0.59
1:DA:1735:C:C2'	1:DA:1741:C:H5'	2.31	0.59
1:DA:2212:A:H4'	1:DA:2213:U:C5	2.37	0.59
1:DA:2303:G:H2'	1:DA:2304:G:H5'	1.84	0.59
1:DA:2681:C:H6	1:DA:2683:C:H41	1.48	0.59
1:DA:2726:U:O2'	1:DA:2727:G:H8	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:95:G:O2'	24:DW:46:GLN:O	2.19	0.59
2:DB:44:G:C2	2:DB:48:A:C2	2.91	0.59
2:DB:45:A:OP2	6:DG:96:ARG:HD2	2.02	0.59
5:DF:8:GLN:HG2	5:DF:124:LEU:HD11	1.85	0.59
5:DF:23:ASP:O	5:DF:24:LEU:O	2.19	0.59
7:DH:33:LEU:HD21	7:DH:136:ILE:O	2.03	0.59
23:DZ:87:PRO:O	23:DZ:88:LYS:C	2.40	0.59
27:A5:40:LYS:CG	27:A5:47:PRO:HD2	2.20	0.59
1:AA:2286:A:H8	28:A6:37:ARG:HH11	1.49	0.59
1:AA:1485:G:H2'	1:AA:1486:A:H8	1.68	0.59
1:AA:2037:G:H2'	1:AA:2038:G:C8	2.37	0.59
1:AA:2845:G:O2'	1:AA:2846:G:H5'	2.01	0.59
1:AA:495:G:C1'	18:AS:57:ASN:OD1	2.50	0.59
1:AA:898:C:OP1	1:AA:898:C:H4'	2.02	0.59
2:AB:1:U:H2'	2:AB:2:C:C6	2.37	0.59
2:AB:71:C:C2	2:AB:72:G:C8	2.90	0.59
4:AE:38:THR:OG1	4:AE:39:PRO:HD2	2.02	0.59
31:BA:1503:A:N6	54:B1:12:A:C4	2.70	0.59
31:BA:814:A:N7	31:BA:816:A:C4	2.70	0.59
53:BC:73:A:N6	53:BC:74:A:C6	2.70	0.59
52:BD:41:C:H2'	52:BD:42:U:C6	2.37	0.59
32:BE:53:ARG:HA	32:BE:56:ARG:HH11	1.66	0.59
37:BJ:65:ALA:HB2	37:BJ:128:ALA:HB2	1.83	0.59
38:BK:38:ILE:HD13	38:BK:120:THR:HG22	1.83	0.59
43:BP:89:GLY:O	43:BP:92:HIS:HB2	2.03	0.59
31:CA:1134:G:H2'	31:CA:1135:U:H5'	1.83	0.59
35:CH:152:ARG:NH2	38:CK:107:LEU:O	2.33	0.59
27:D5:41:PRO:HG2	27:D5:44:THR:OG1	2.01	0.59
1:DA:84:A:N6	1:DA:102:G:O2'	2.23	0.59
1:DA:1091:G:C6	1:DA:1092:C:N4	2.71	0.59
1:DA:1331:A:O2'	1:DA:1332:G:C8	2.55	0.59
1:DA:2136:C:C4	1:DA:2155:G:N1	2.70	0.59
1:DA:2563:U:O2	1:DA:2565:A:H8	1.84	0.59
1:DA:889:C:C4	1:DA:890:A:H1'	2.38	0.59
5:DF:167:ALA:O	5:DF:168:ARG:C	2.40	0.59
11:DO:64:LYS:CG	11:DO:65:ARG:H	2.14	0.59
1:DA:2875:C:HO2'	15:DR:5:ALA:HB3	1.68	0.59
21:DV:107:THR:H	21:DV:108:PRO:HD2	1.66	0.59
21:DV:69:THR:HB	21:DV:88:PHE:HB3	1.84	0.59
25:DX:59:VAL:HG12	25:DX:60:GLU:H	1.67	0.59
1:AA:1264:G:H5'	27:A5:11:THR:CG2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:A7:6:GLN:HA	29:A7:6:GLN:OE1	2.01	0.59
1:AA:1081:U:HO2'	1:AA:1082:U:P	2.21	0.59
1:AA:2138:C:N3	1:AA:2153:G:N2	2.46	0.59
1:AA:637:A:H4'	1:AA:638:G:O5'	2.01	0.59
1:AA:637:A:O5'	11:AO:116:GLY:HA3	2.02	0.59
7:AH:106:THR:HG22	7:AH:112:PRO:HB3	1.83	0.59
9:AM:57:ALA:HB3	9:AM:123:TYR:O	2.03	0.59
1:AA:2470:G:H5'	12:AP:56:ARG:NH2	2.17	0.59
15:AR:120:ARG:HA	15:AR:123:GLN:HG2	1.85	0.59
18:AS:17:VAL:HG13	18:AS:76:VAL:HG11	1.83	0.59
19:AT:12:VAL:HG13	19:AT:27:THR:O	2.03	0.59
21:AV:158:PRO:HB3	21:AV:159:PRO:HD2	1.83	0.59
31:BA:1378:C:O2	31:BA:1379:G:O4'	2.19	0.59
31:BA:250:A:H4'	31:BA:251:G:C5'	2.33	0.59
31:BA:266:G:H5"	31:BA:267:C:H5	1.66	0.59
33:BF:114:PRO:O	33:BF:118:GLN:HG3	2.02	0.59
35:BH:68:GLU:OE2	35:BH:70:PRO:HG3	2.03	0.59
38:BK:64:LYS:HG2	38:BK:79:VAL:HG21	1.84	0.59
38:BK:8:ASP:OD2	38:BK:12:ARG:HD2	2.01	0.59
41:BN:59:TYR:CZ	41:BN:63:LEU:HD11	2.37	0.59
50:BW:26:ASN:HB2	50:BW:71:THR:CG2	2.32	0.59
31:CA:1128:C:C2'	31:CA:1129:C:O5'	2.49	0.59
31:CA:577:G:C8	31:CA:816:A:C6	2.90	0.59
33:CF:48:TYR:O	33:CF:51:GLY:N	2.30	0.59
49:CV:9:VAL:HG13	49:CV:10:PHE:N	2.17	0.59
1:DA:1278:A:OP1	13:D0:36:THR:HG22	2.03	0.59
16:D1:112:ARG:NH1	17:D2:47:VAL:HG13	2.17	0.59
16:D1:50:ARG:NH1	17:D2:72:VAL:HG23	2.14	0.59
2:DB:39:A:H2'	26:D4:1:MET:HE1	1.83	0.59
27:D5:57:VAL:HG12	27:D5:58:LEU:N	2.15	0.59
1:DA:1060:U:N3	1:DA:1088:A:H8	2.01	0.59
1:DA:120:U:H4'	1:DA:121:G:H5"	1.85	0.59
1:DA:2425:A:H5"	1:DA:2426:A:H3'	1.84	0.59
1:DA:744:G:H2'	1:DA:745:G:O5'	2.02	0.59
5:DF:117:ARG:HG2	5:DF:192:LEU:HD12	1.83	0.59
6:DG:60:LEU:HD21	6:DG:92:VAL:HG11	1.84	0.59
6:DG:36:LYS:HB2	6:DG:95:ARG:HH11	1.68	0.59
8:DK:74:ASN:CG	8:DK:75:LEU:H	2.06	0.59
11:DO:21:ARG:CA	11:DO:21:ARG:HE	2.00	0.59
15:DR:51:ARG:HB3	15:DR:62:THR:HG23	1.85	0.59
18:DS:17:VAL:C	18:DS:19:LEU:N	2.54	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1510:A:O2'	1:AA:1511:A:N7	2.33	0.59
1:AA:1534:G:N2	1:AA:1537:C:H42	1.99	0.59
1:AA:18:C:H2'	1:AA:19:C:C6	2.37	0.59
1:AA:572:A:C2	1:AA:2033:A:C2	2.90	0.59
1:AA:638:G:C5	1:AA:651:G:C2	2.90	0.59
3:AD:218:ARG:HB3	3:AD:219:PRO:HD2	1.85	0.59
5:AF:135:LYS:O	5:AF:137:LYS:N	2.36	0.59
15:AR:26:ASP:HB2	15:AR:91:ARG:HA	1.83	0.59
23:AZ:87:PRO:O	23:AZ:88:LYS:C	2.41	0.59
31:BA:49:U:O2'	31:BA:50:A:H3'	2.03	0.59
31:BA:544:G:C5	31:BA:545:C:C5	2.90	0.59
31:BA:581:G:N1	31:BA:759:A:OP2	2.26	0.59
33:BF:184:TYR:HD1	33:BF:201:TYR:CE2	2.21	0.59
43:BP:90:LEU:HA	43:BP:93:ARG:HD2	1.85	0.59
31:CA:1151:A:H1'	40:CM:39:PRO:HB2	1.84	0.59
31:CA:1179:A:N6	31:CA:1180:A:C2	2.71	0.59
31:CA:1204:A:OP2	56:CA:1739:OHX:N4	2.36	0.59
31:CA:1237:C:C5	31:CA:1336:C:C4	2.91	0.59
31:CA:1497:G:C2'	31:CA:1498:U:H5'	2.31	0.59
31:CA:200:G:OP1	56:CA:1770:OHX:N4	2.35	0.59
31:CA:781:A:H5'	31:CA:782:A:OP2	2.02	0.59
35:CH:152:ARG:HB3	38:CK:43:GLY:O	2.02	0.59
39:CL:11:LYS:H	39:CL:104:ARG:HH21	1.47	0.59
39:CL:33:PHE:HE2	39:CL:47:LEU:HD23	1.67	0.59
41:CN:84:VAL:CG1	41:CN:95:ILE:HD11	2.33	0.59
42:CO:34:ARG:CG	42:CO:35:GLY:N	2.65	0.59
42:CO:46:LYS:HZ2	42:CO:47:LYS:HB2	1.67	0.59
48:CU:70:ILE:HG23	48:CU:79:LEU:HD12	1.85	0.59
16:D1:66:ASN:HB2	16:D1:76:TYR:HB2	1.83	0.59
26:D4:34:GLU:CG	26:D4:35:VAL:N	2.65	0.59
28:D6:26:ASN:O	28:D6:28:ARG:NH1	2.35	0.59
1:DA:1899:G:H1	1:DA:1902:C:H41	1.50	0.59
1:DA:2646:C:H2'	1:DA:2647:U:O4'	2.02	0.59
1:DA:2712:U:HO2'	1:DA:2712(A):A:P	2.26	0.59
1:DA:289:A:H3'	1:DA:290:G:H8	1.68	0.59
1:DA:84:A:H61	1:DA:102:G:C2'	2.14	0.59
2:DB:14:U:H5'	2:DB:71:C:H1'	1.84	0.59
7:DH:12:PRO:HD2	7:DH:48:GLY:O	2.03	0.59
14:DQ:24:LEU:HB2	14:DQ:85:VAL:HG12	1.85	0.59
25:DX:26:LEU:HD21	25:DX:46:ASN:HB2	1.84	0.59
30:A8:29:LYS:HE2	30:A8:44:LYS:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1535:U:C2	1:AA:1536:A:H5"	2.37	0.59
1:AA:2335:A:C8	1:AA:2337:G:N7	2.70	0.59
1:AA:2347:C:O5'	28:A6:39:TYR:OH	2.16	0.59
1:AA:259:G:H21	1:AA:621:A:H8	1.50	0.59
1:AA:2864:G:H2'	1:AA:2865:U:O4'	2.03	0.59
1:AA:908:C:OP2	12:AP:22:LYS:HD3	2.03	0.59
1:AA:971:C:C2'	1:AA:972:G:H5'	2.31	0.59
3:AD:35:LYS:HG2	3:AD:64:ILE:HG23	1.84	0.59
20:AU:84:ARG:NH1	20:AU:84:ARG:HB2	2.18	0.59
20:AU:97:ARG:NH2	20:AU:98:VAL:HB	2.17	0.59
21:AV:167:PRO:O	21:AV:169:GLU:N	2.34	0.59
31:BA:1023:G:C3'	31:BA:1024:G:H5"	2.30	0.59
31:BA:1169:A:C6	31:BA:1170:A:C2	2.90	0.59
39:BL:3:GLN:HB3	39:BL:20:ARG:NH1	2.16	0.59
38:BK:91:ARG:HH12	47:BT:33:GLY:HA3	1.68	0.59
50:BW:71:THR:HG22	50:BW:72:LEU:N	2.17	0.59
31:CA:1446:A:C6	15:DR:118:ARG:NH2	2.70	0.59
31:CA:417:C:C2'	31:CA:418:C:H5'	2.32	0.59
31:CA:457:C:H2'	31:CA:458:C:H6	1.68	0.59
31:CA:501:C:H2'	31:CA:502:G:H8	1.67	0.59
52:CD:80:C:H2'	52:CD:81:C:C6	2.32	0.59
35:CH:41:VAL:HG13	35:CH:113:ALA:HA	1.84	0.59
38:CK:33:GLU:HG3	38:CK:59:LEU:HD11	1.85	0.59
38:CK:89:PRO:HA	38:CK:92:ARG:NH1	2.18	0.59
42:CO:70:ILE:CD1	42:CO:77:LEU:HD12	2.31	0.59
44:CQ:4:LYS:O	44:CQ:7:ILE:N	2.29	0.59
17:D2:87:HIS:CE1	17:D2:89:GLN:CB	2.74	0.59
30:D8:35:GLN:O	30:D8:35:GLN:NE2	2.36	0.59
28:D6:25:LYS:HD2	30:D8:35:GLN:OE1	2.01	0.59
1:DA:1098:A:H2'	1:DA:1099:G:H5'	1.85	0.59
1:DA:1003:G:N2	1:DA:1153:C:C2	2.71	0.59
1:DA:1620:G:O4'	29:D7:1:MET:N	2.35	0.59
1:DA:2472:G:C6	1:DA:2475:C:C5	2.91	0.59
1:DA:533:G:H5'	16:D1:24:TYR:CD2	2.37	0.59
1:DA:912:C:H2'	1:DA:912:C:O2	2.01	0.59
5:DF:161:GLU:HA	5:DF:164:ARG:HH12	1.67	0.59
5:DF:31:HIS:HB2	11:DO:9:ASN:HD21	1.63	0.59
9:DM:54:VAL:O	9:DM:54:VAL:HG12	2.02	0.59
11:DO:79:ARG:CB	11:DO:110:TYR:CD1	2.77	0.59
19:DT:53:LYS:HZ2	19:DT:55:ASN:HD21	1.50	0.59
1:AA:534:U:H5'	16:A1:42:ALA:HB1	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:56:GLU:O	30:A8:57:ARG:C	2.40	0.59
1:AA:1228:G:OP2	16:A1:16:LYS:NZ	2.15	0.59
1:AA:1385:G:O2'	1:AA:1396:U:C6	2.55	0.59
1:AA:1408:C:C2	1:AA:1595:G:N2	2.71	0.59
1:AA:2062:A:N3	1:AA:2062:A:H2'	2.17	0.59
1:AA:2428:G:N2	11:AO:60:MET:HE1	2.17	0.59
1:AA:2457:U:C2'	1:AA:2458:G:H5'	2.32	0.59
1:AA:527:C:O2	56:AA:3399:OHX:N1	2.36	0.59
1:AA:475:U:C4	1:AA:481:G:O6	2.56	0.59
5:AF:34:TRP:NE1	11:AO:8:PRO:HD3	2.17	0.59
12:AP:109:VAL:HG22	12:AP:110:THR:H	1.67	0.59
12:AP:66:ILE:CG1	12:AP:67:ARG:H	2.14	0.59
14:AQ:67:ARG:HH11	14:AQ:67:ARG:CB	2.16	0.59
1:AA:495:G:H1'	18:AS:57:ASN:OD1	2.03	0.59
21:AV:19:ARG:NH1	21:AV:84:GLU:O	2.34	0.59
31:BA:1336:C:H4'	31:BA:1336:C:OP1	2.02	0.59
52:BB:21:A:C2	52:BB:56:U:O2	2.55	0.59
53:BC:20:G:N2	53:BC:58:A:H1'	2.18	0.59
52:BD:17:G:C2'	52:BD:66:G:H22	2.16	0.59
32:BE:59:GLU:C	32:BE:61:LEU:N	2.55	0.59
32:BE:5:ILE:HG23	32:BE:224:GLN:OE1	2.03	0.59
33:BF:21:ARG:H	33:BF:21:ARG:HD3	1.68	0.59
35:BH:102:ALA:HB1	35:BH:106:PRO:HG2	1.84	0.59
45:BR:78:TYR:CZ	45:BR:82:ILE:HD11	2.38	0.59
50:BW:45:GLN:HB2	50:BW:91:LEU:HD13	1.83	0.59
31:CA:1004:A:C5'	31:CA:1025:U:O4	2.50	0.59
31:CA:1094:G:C2'	31:CA:1095:U:OP2	2.50	0.59
31:CA:663:A:H5'	31:CA:836:G:OP1	2.03	0.59
52:CB:37:A:OP2	56:CB:105:OHX:N4	2.36	0.59
32:CE:32:ILE:HD13	32:CE:40:HIS:HB3	1.85	0.59
31:CA:878:G:H5'	38:CK:89:PRO:HG2	1.84	0.59
26:D4:9:LEU:O	26:D4:10:VAL:HG12	2.02	0.59
29:D7:34:ARG:HH12	29:D7:39:ARG:CD	2.15	0.59
1:DA:214:G:OP1	1:DA:214:G:H4'	2.03	0.59
1:DA:427:U:OP2	56:DA:3403:OHX:N5	2.36	0.59
1:DA:826:U:H2'	1:DA:828:U:O4'	2.03	0.59
2:DB:40:U:O2'	2:DB:45:A:N6	2.35	0.59
5:DF:119:ARG:HH11	5:DF:119:ARG:HB3	1.68	0.59
11:DO:15:ARG:O	11:DO:16:ARG:O	2.21	0.59
12:DP:19:GLY:CA	12:DP:98:LYS:HD2	2.33	0.59
14:DQ:10:ARG:HH21	14:DQ:91:PRO:CB	2.12	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:DQ:110:LEU:HD23	14:DQ:112:PHE:CZ	2.37	0.59
21:DV:24:LEU:C	21:DV:24:LEU:HD12	2.23	0.59
22:A3:66:VAL:HG23	22:A3:67:VAL:N	2.17	0.59
28:A6:25:LYS:HE2	28:A6:27:LYS:HE2	1.85	0.59
1:AA:265:A:H1'	1:AA:266:G:O4'	2.03	0.59
1:AA:39:C:O2'	1:AA:40:C:H5'	2.03	0.59
1:AA:932:G:H4'	1:AA:933:A:O5'	2.03	0.59
2:AB:0:A:C2'	2:AB:1:U:H5'	2.32	0.59
2:AB:88:C:H2'	2:AB:89:G:O4'	2.03	0.59
3:AD:270:ILE:O	3:AD:271:ILE:HG12	2.02	0.59
3:AD:43:ARG:HD2	3:AD:44:ASN:OD1	2.03	0.59
4:AE:117:MET:O	4:AE:118:LYS:HB2	2.03	0.59
7:AH:50:VAL:O	7:AH:50:VAL:HG22	2.03	0.59
7:AH:83:TYR:N	7:AH:83:TYR:HD2	1.98	0.59
7:AH:86:GLU:O	7:AH:131:VAL:O	2.20	0.59
8:AK:21:VAL:HG22	8:AK:22:LYS:N	2.17	0.59
1:AA:2875:C:C4'	15:AR:5:ALA:HB2	2.29	0.59
19:AT:39:ILE:O	19:AT:43:VAL:HG23	2.03	0.59
31:BA:827:U:H5'	31:BA:828:A:OP2	2.03	0.59
31:BA:943:U:H2'	31:BA:944:G:H5'	1.85	0.59
35:BH:110:LEU:CD1	35:BH:118:ILE:HD13	2.31	0.59
37:BJ:49:ILE:O	37:BJ:53:LYS:HB2	2.02	0.59
35:BH:152:ARG:HA	38:BK:64:LYS:NZ	2.17	0.59
39:BL:50:LEU:HD22	39:BL:55:ALA:HB3	1.84	0.59
31:CA:1069:C:O2'	31:CA:1192:C:H1'	2.02	0.59
32:CE:54:THR:HG23	32:CE:199:TYR:HB3	1.85	0.59
35:CH:51:VAL:O	35:CH:55:VAL:HG23	2.02	0.59
1:DA:2820:A:O5'	13:D0:4:LEU:HD23	2.03	0.59
16:D1:69:CYS:HB3	16:D1:106:PHE:HZ	1.65	0.59
16:D1:52:ARG:HB3	16:D1:52:ARG:NH1	2.17	0.59
1:DA:1196:C:O4'	1:DA:1227:A:C2	2.55	0.59
1:DA:2166:G:N2	1:DA:2171:A:N7	2.51	0.59
1:DA:2468:G:C6	1:DA:2481:G:N1	2.71	0.59
1:DA:1786:A:C2	1:DA:2606:C:H1'	2.38	0.59
1:DA:751:A:H5'	18:DS:90:ARG:HA	1.85	0.59
4:DE:38:THR:C	4:DE:40:GLU:H	2.06	0.59
5:DF:16:GLY:O	5:DF:18:ARG:N	2.36	0.59
11:DO:86:LYS:HG3	11:DO:87:ASP:H	1.67	0.59
15:DR:24:PRO:HA	15:DR:49:VAL:CG2	2.29	0.59
15:DR:64:ARG:HB2	15:DR:73:GLU:CG	2.27	0.59
13:A0:29:LEU:O	13:A0:75:LEU:HD21	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:90:VAL:CG2	17:A2:39:LEU:HB3	2.33	0.59
27:A5:52:TYR:CD1	27:A5:53:ALA:N	2.70	0.59
30:A8:22:VAL:HB	30:A8:53:PRO:HB2	1.85	0.59
1:AA:2267:A:OP2	56:AA:3374:OHX:N5	2.36	0.59
1:AA:443:A:H1'	1:AA:1201:C:O4'	2.03	0.59
1:AA:588:U:C2	1:AA:589:C:C5	2.91	0.59
4:AE:4:ILE:HD13	4:AE:28:ALA:HB1	1.84	0.59
5:AF:9:ILE:HD11	5:AF:125:LEU:HG	1.84	0.59
6:AG:96:ARG:O	6:AG:97:ASP:HB2	2.03	0.59
8:AK:111:PRO:O	8:AK:112:LYS:C	2.41	0.59
8:AK:2:LYS:HB2	8:AK:39:ALA:HB3	1.85	0.59
9:AM:57:ALA:O	9:AM:58:ASP:CB	2.51	0.59
1:AA:2428:G:N2	11:AO:60:MET:CE	2.65	0.59
1:AA:2428:G:H21	11:AO:60:MET:HE2	1.67	0.59
21:AV:117:LEU:HD22	21:AV:118:GLN:H	1.67	0.59
23:AZ:80:LEU:HB2	23:AZ:82:LEU:HD23	1.84	0.59
23:AZ:8:SER:OG	23:AZ:10:LYS:HG3	2.03	0.59
31:BA:1129:C:N3	31:BA:1143:G:N2	2.51	0.59
31:BA:1269:A:C2	31:BA:1313:U:O4'	2.56	0.59
31:BA:1288:A:H2'	31:BA:1289:A:C8	2.38	0.59
31:BA:1513:A:H2'	31:BA:1514:C:C6	2.37	0.59
31:BA:632:A:C8	31:BA:633:G:C8	2.91	0.59
34:BG:196:LEU:C	34:BG:198:VAL:H	2.05	0.59
34:BG:207:TYR:C	34:BG:209:ARG:N	2.52	0.59
35:BH:152:ARG:HA	38:BK:64:LYS:HZ1	1.66	0.59
40:BM:50:ILE:HD13	40:BM:60:ARG:HD3	1.84	0.59
47:BT:70:ARG:O	47:BT:71:PHE:CD2	2.56	0.59
31:CA:1503:A:C5	54:C1:13:A:C2	2.91	0.59
31:CA:413:G:C2'	31:CA:428:G:N2	2.66	0.59
38:CK:72:PRO:O	38:CK:73:ASP:HB3	2.02	0.59
31:CA:363:A:C2	42:CO:31:PRO:HG2	2.37	0.59
1:DA:2355:C:O3'	22:D3:24:LYS:HE3	2.02	0.59
1:DA:1729:A:C6	1:DA:1731:G:N7	2.70	0.59
1:DA:1826:G:H4'	3:DD:242:ARG:HE	1.67	0.59
1:DA:2469:A:N7	1:DA:2482:G:N9	2.51	0.59
1:DA:312:G:C8	1:DA:312:G:OP2	2.56	0.59
1:DA:528:A:H2	1:DA:2043:C:C4'	2.15	0.59
2:DB:39:A:C2	26:D4:1:MET:SD	2.96	0.59
5:DF:119:ARG:NH1	5:DF:119:ARG:HB3	2.17	0.59
6:DG:124:SER:HB2	6:DG:131:TYR:CE1	2.38	0.59
8:DK:124:GLY:H	8:DK:142:VAL:CG1	2.14	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DK:79:ILE:O	8:DK:143:SER:HB2	2.03	0.59
21:DV:5:LEU:HD23	21:DV:6:LYS:HG2	1.83	0.59
13:A0:72:ASP:O	13:A0:76:VAL:HG23	2.03	0.58
17:A2:35:LEU:HB2	17:A2:37:VAL:CG2	2.33	0.58
1:AA:1173:G:C2	1:AA:1175:U:C4	2.91	0.58
1:AA:1441:G:H2'	1:AA:1442:G:C8	2.37	0.58
1:AA:2629:A:N6	1:AA:2895:U:C2	2.71	0.58
1:AA:681:G:N7	56:AA:3351:OHX:N1	2.50	0.58
7:AH:126:PRO:O	7:AH:127:GLU:CB	2.50	0.58
7:AH:56:SER:OG	7:AH:57:ASP:N	2.32	0.58
9:AM:46:VAL:CG1	9:AM:48:MET:HG3	2.34	0.58
14:AQ:67:ARG:CZ	14:AQ:67:ARG:HB2	2.33	0.58
18:AS:37:ARG:NH1	18:AS:38:TYR:OH	2.36	0.58
31:BA:1199:U:H5"	31:BA:1200:C:OP2	2.03	0.58
31:BA:960:U:N3	31:BA:1225:A:C4	2.63	0.58
31:BA:976:G:C8	31:BA:1358:U:O2	2.55	0.58
31:BA:1360:A:O2'	31:BA:1361:G:H5'	2.03	0.58
31:BA:67:C:H2'	31:BA:68:G:H8	1.67	0.58
33:BF:95:THR:CG2	33:BF:96:GLY:H	2.11	0.58
35:BH:110:LEU:HB3	35:BH:115:VAL:HG11	1.85	0.58
35:BH:87:SER:HB3	35:BH:125:SER:O	2.03	0.58
38:BK:64:LYS:C	38:BK:65:TYR:CD1	2.75	0.58
43:BP:5:ALA:HB3	43:BP:66:LEU:HD12	1.84	0.58
31:CA:1142:G:H3'	31:CA:1143:G:C8	2.38	0.58
31:CA:115:G:OP2	56:CA:1737:OHX:N5	2.36	0.58
34:CG:146:ILE:HD12	34:CG:146:ILE:N	2.18	0.58
43:CP:106:ASN:O	43:CP:107:ALA:HB3	2.02	0.58
2:DB:12:C:O2'	22:D3:74:ARG:HG2	2.03	0.58
28:D6:34:LEU:HD23	28:D6:34:LEU:H	1.68	0.58
1:DA:1666:G:C2'	1:DA:1667:G:H5'	2.32	0.58
1:DA:2111:C:H41	1:DA:2147:G:N2	2.01	0.58
1:DA:2450:A:C2	1:DA:2451:A:C4	2.91	0.58
1:DA:869:G:O2'	1:DA:870:A:H5'	2.02	0.58
1:DA:932:G:H4'	1:DA:933:A:O5'	2.01	0.58
2:DB:88:C:H3'	2:DB:89:G:C8	2.38	0.58
3:DD:27:THR:OG1	3:DD:81:ALA:HB1	2.03	0.58
3:DD:94:LEU:HG	3:DD:104:TYR:CE2	2.38	0.58
4:DE:120:TRP:CD2	4:DE:155:LYS:HD3	2.38	0.58
4:DE:38:THR:O	4:DE:40:GLU:N	2.36	0.58
5:DF:9:ILE:HG12	5:DF:13:SER:O	2.02	0.58
15:DR:99:LEU:HD12	15:DR:99:LEU:H	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:A0:100:LEU:HD13	13:A0:112:ALA:CA	2.33	0.58
13:A0:100:LEU:HD11	13:A0:113:LEU:CD1	2.33	0.58
22:A3:11:ARG:O	22:A3:14:ARG:NH2	2.36	0.58
1:AA:2294:C:C5	1:AA:2295:C:H5	2.21	0.58
1:AA:2897:U:H2'	1:AA:2898:U:O4'	2.03	0.58
1:AA:259:G:N7	56:AA:3506:OHX:N4	2.52	0.58
2:AB:57:A:H2'	2:AB:58:A:H5'	1.85	0.58
25:AX:59:VAL:CG1	25:AX:60:GLU:N	2.66	0.58
31:BA:1086:U:H3	31:BA:1099:G:N2	1.99	0.58
31:BA:1347:G:O2'	31:BA:1373:G:O6	2.17	0.58
31:BA:168:G:N2	31:BA:169:C:N3	2.50	0.58
31:BA:342:C:C2	31:BA:348:G:N2	2.71	0.58
31:BA:438:G:N2	31:BA:495:A:C8	2.71	0.58
31:BA:447:G:H2'	31:BA:485:G:N2	2.18	0.58
31:BA:958:A:C8	49:BV:55:LYS:HD2	2.38	0.58
53:BC:1:C:O2	53:BC:1:C:H2'	2.04	0.58
33:BF:83:ARG:O	33:BF:86:VAL:N	2.28	0.58
36:BI:86:ARG:O	36:BI:87:ARG:HG2	2.02	0.58
39:BL:81:ILE:O	39:BL:85:LEU:HG	2.03	0.58
31:CA:1124:G:O2'	31:CA:1145:C:C2	2.56	0.58
31:CA:1227:A:OP2	43:CP:111:LYS:HD3	2.03	0.58
31:CA:522:C:OP2	42:CO:69:TYR:OH	2.21	0.58
31:CA:690:G:H22	41:CN:55:LYS:CE	2.14	0.58
36:CI:15:ASP:OD1	36:CI:18:GLN:N	2.34	0.58
41:CN:44:SER:HB3	41:CN:47:VAL:HG23	1.83	0.58
43:CP:97:PRO:HA	43:CP:110:ARG:HD3	1.84	0.58
29:D7:12:ARG:NH2	29:D7:44:PRO:HB3	2.19	0.58
1:DA:752:A:H3'	29:D7:1:MET:SD	2.42	0.58
1:DA:196:A:H2'	1:DA:196:A:N3	2.18	0.58
1:DA:2153:G:O2'	1:DA:2154:G:O4'	2.13	0.58
1:DA:2766:G:N3	1:DA:2766:G:H2'	2.18	0.58
1:DA:2853:C:H2'	1:DA:2854:G:C8	2.37	0.58
1:DA:626:U:H5'	1:DA:627:A:C5'	2.32	0.58
1:DA:945:A:C6	1:DA:2448:A:C6	2.91	0.58
5:DF:158:THR:HB	5:DF:195:ASP:HB2	1.85	0.58
1:DA:2875:C:O2'	15:DR:5:ALA:CB	2.51	0.58
20:DU:81:LYS:HG2	20:DU:97:ARG:NE	2.19	0.58
13:A0:31:HIS:O	13:A0:33:ARG:N	2.36	0.58
22:A3:54:GLY:O	22:A3:56:ASP:N	2.36	0.58
1:AA:2347:C:C4'	28:A6:39:TYR:HE2	2.16	0.58
11:AO:61:ARG:HH12	30:A8:14:VAL:HG23	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2754:U:OP2	56:AA:3388:OHX:N6	2.36	0.58
1:AA:38:A:H2'	1:AA:39:C:C6	2.37	0.58
1:AA:583:G:H5"	16:A1:10:ARG:NH1	2.18	0.58
1:AA:2638:G:P	4:AE:82:ARG:NH2	2.76	0.58
5:AF:6:VAL:HG21	5:AF:119:ARG:HB2	1.83	0.58
6:AG:83:ARG:H	6:AG:86:MET:HE3	1.68	0.58
18:AS:88:ARG:NH1	18:AS:94:ASP:OD1	2.37	0.58
31:BA:1004:A:H5"	31:BA:1025:U:N3	2.17	0.58
31:BA:1034:G:N2	31:BA:1035:A:C6	2.72	0.58
31:BA:1076:C:C2	31:BA:1082:G:N2	2.71	0.58
36:BI:15:ASP:O	36:BI:17:SER:N	2.36	0.58
31:CA:1189:C:P	40:CM:51:ARG:NH2	2.75	0.58
31:CA:1331:G:OP1	31:CA:1331:G:C4'	2.51	0.58
31:CA:32:A:C2	31:CA:33:A:C4	2.91	0.58
13:D0:87:TYR:O	13:D0:89:ASP:N	2.35	0.58
49:CV:41:VAL:HG13	26:D4:63:TYR:HB3	1.84	0.58
28:D6:26:ASN:O	28:D6:27:LYS:HB2	2.03	0.58
1:DA:1666:G:H2'	1:DA:1667:G:H5'	1.85	0.58
1:DA:2133:G:H1'	1:DA:2158:A:N6	2.18	0.58
1:DA:2239:G:OP2	3:DD:244:ARG:NH2	2.35	0.58
1:DA:2752:C:O4'	1:DA:2752:C:OP2	2.21	0.58
1:DA:287:C:N3	1:DA:354:G:O6	2.36	0.58
1:DA:868:U:N3	1:DA:869:G:N7	2.51	0.58
1:DA:997:G:C2'	1:DA:998:C:H5'	2.33	0.58
2:DB:24:G:C8	2:DB:24:G:OP2	2.57	0.58
4:DE:101:ARG:O	4:DE:201:THR:OG1	2.20	0.58
4:DE:57:LYS:HZ2	4:DE:57:LYS:H	1.51	0.58
5:DF:51:THR:HB	5:DF:88:VAL:HG11	1.85	0.58
10:DN:4:PRO:O	10:DN:5:GLN:CB	2.48	0.58
25:DX:12:PRO:HA	25:DX:15:TYR:CD1	2.38	0.58
1:AA:1090:U:O4	1:AA:1101:U:O2	2.21	0.58
1:AA:1486:A:H2'	1:AA:1487:G:H8	1.69	0.58
1:AA:2173:A:N3	1:AA:2173:A:H2'	2.19	0.58
1:AA:2782:G:O6	56:AA:3350:OHX:N6	2.35	0.58
11:AO:15:ARG:O	11:AO:16:ARG:O	2.21	0.58
1:AA:496:G:H1'	18:AS:61:ASN:OD1	2.04	0.58
24:AW:46:GLN:O	24:AW:47:ASN:O	2.22	0.58
23:AZ:57:GLU:C	23:AZ:58:ILE:HD12	2.24	0.58
31:BA:872:A:C5	31:BA:874:G:C8	2.91	0.58
34:BG:25:ARG:NH1	34:BG:30:LYS:O	2.37	0.58
42:BO:8:ASN:HA	42:BO:11:VAL:HG23	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BT:70:ARG:C	47:BT:71:PHE:HD2	2.07	0.58
48:BU:44:LEU:HD11	48:BU:70:ILE:HG21	1.86	0.58
49:BV:65:ASN:H	49:BV:65:ASN:ND2	1.96	0.58
31:CA:266:G:H5'	31:CA:268:C:H41	1.68	0.58
31:CA:537:G:H2'	31:CA:538:G:H8	1.67	0.58
52:CB:3:U:HO2'	52:CB:4:G:H8	1.52	0.58
52:CD:16:C:H41	52:CD:68:A:H2'	1.67	0.58
32:CE:124:SER:C	32:CE:126:GLU:H	2.05	0.58
34:CG:11:LEU:O	34:CG:12:CYS:C	2.39	0.58
43:CP:3:ARG:HG2	43:CP:9:ILE:HG12	1.84	0.58
1:DA:2817:G:P	13:D0:99:LYS:HZ1	2.25	0.58
1:DA:533:G:H5'	16:D1:24:TYR:CE2	2.39	0.58
17:D2:14:VAL:HB	17:D2:96:ILE:HG13	1.85	0.58
22:D3:32:ARG:HG2	22:D3:33:ALA:N	2.16	0.58
28:D6:16:CYS:O	28:D6:17:LYS:HG3	2.03	0.58
1:DA:1000:A:C6	1:DA:1001:A:N1	2.71	0.58
1:DA:2459:A:C5	1:DA:2460:U:C5	2.91	0.58
1:DA:2469:A:O5'	1:DA:2476:A:H2	1.86	0.58
1:DA:27:G:H22	1:DA:512:G:HO2'	1.47	0.58
1:DA:2846:G:H2'	1:DA:2847:U:C6	2.39	0.58
1:DA:796:C:H2'	1:DA:797:C:C6	2.38	0.58
4:DE:31:CYS:SG	4:DE:51:PHE:HB2	2.44	0.58
6:DG:111:LEU:HB3	6:DG:117:PHE:CE2	2.38	0.58
7:DH:107:VAL:HG23	7:DH:109:PHE:CD1	2.37	0.58
7:DH:6:ARG:HD3	7:DH:6:ARG:N	2.18	0.58
11:DO:147:LEU:HD22	11:DO:148:LEU:N	2.16	0.58
19:DT:60:ARG:HG3	19:DT:60:ARG:HH11	1.68	0.58
21:DV:29:TYR:HB3	21:DV:34:ASN:HD22	1.69	0.58
6:AG:65:GLY:HA2	26:A4:7:PRO:CG	2.34	0.58
1:AA:2167:U:O2'	1:AA:2168:G:P	2.61	0.58
2:AB:63:G:OP1	56:AB:218:OHX:N3	2.36	0.58
3:AD:125:ILE:HG22	3:AD:125:ILE:O	2.02	0.58
1:AA:2032:G:H21	4:AE:146:THR:CG2	2.14	0.58
5:AF:45:ARG:HH11	5:AF:45:ARG:CG	2.15	0.58
8:AK:21:VAL:HG21	8:AK:25:TYR:CD1	2.39	0.58
14:AQ:101:LEU:HD12	14:AQ:101:LEU:C	2.23	0.58
21:AV:93:ASP:HA	21:AV:130:PRO:HG2	1.84	0.58
31:BA:1128:C:H2'	31:BA:1139:G:C6	2.38	0.58
52:BB:3:U:O2'	52:BB:4:G:H5"	2.03	0.58
52:BD:16:C:N4	52:BD:68:A:C4	2.71	0.58
43:BP:80:ARG:NH1	49:BV:65:ASN:O	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BS:40:ASP:O	46:BS:42:ARG:N	2.35	0.58
49:BV:53:ASN:O	49:BV:77:THR:HG22	2.02	0.58
50:BW:79:ARG:NH2	50:BW:80:ARG:HE	2.01	0.58
31:CA:232:G:H2'	31:CA:233:C:O4'	2.03	0.58
31:CA:452:A:O2'	31:CA:453:A:O5'	2.21	0.58
31:CA:930:C:C4	31:CA:931:C:C5	2.90	0.58
32:CE:24:TRP:CE3	32:CE:40:HIS:CE1	2.92	0.58
32:CE:58:ILE:O	32:CE:61:LEU:HB3	2.04	0.58
43:CP:57:ARG:O	43:CP:61:GLU:HB2	2.03	0.58
50:CW:90:GLN:O	50:CW:91:LEU:HD23	2.03	0.58
16:D1:65:ILE:HD11	16:D1:96:ALA:HB3	1.84	0.58
1:DA:1027:A:N6	1:DA:1126:A:C4	2.71	0.58
1:DA:2130:U:H2'	1:DA:2158:A:N1	2.19	0.58
1:DA:2273:A:H2'	1:DA:2274:A:H8	1.69	0.58
1:DA:2335:A:C8	1:DA:2337:G:C5	2.92	0.58
1:DA:2681:C:C2'	1:DA:2681:C:O2	2.47	0.58
1:DA:2702:U:C2'	1:DA:2703:C:H5	2.16	0.58
1:DA:696:G:H2'	1:DA:697:C:H6	1.68	0.58
4:DE:30:PRO:HD3	4:DE:180:ASN:OD1	2.04	0.58
1:DA:1257:C:H4'	5:DF:83:PHE:CE2	2.37	0.58
6:DG:136:ARG:O	6:DG:154:GLY:N	2.36	0.58
8:DK:56:LYS:HG3	8:DK:57:ARG:N	2.19	0.58
14:DQ:102:ALA:O	14:DQ:104:GLY:N	2.37	0.58
1:AA:1287:A:C5	1:AA:1288:U:C4	2.91	0.58
1:AA:1820:U:C2	3:AD:202:LYS:HB3	2.38	0.58
1:AA:184:C:O2	1:AA:184:C:H2'	2.01	0.58
1:AA:1931:U:H5	1:AA:1969:A:N7	2.01	0.58
1:AA:2210:G:H5'	1:AA:2211:G:C8	2.38	0.58
1:AA:2287:A:C2	1:AA:2346:A:N1	2.72	0.58
1:AA:2436:G:C5	1:AA:2437:U:C5	2.91	0.58
1:AA:2685:G:O2'	1:AA:2726:U:H5	1.86	0.58
1:AA:90:U:H1'	1:AA:91:A:N7	2.19	0.58
3:AD:44:ASN:HB3	3:AD:49:ILE:HA	1.84	0.58
6:AG:173:LEU:HD13	6:AG:178:PHE:CE2	2.39	0.58
9:AM:32:THR:HG22	9:AM:37:LYS:HB2	1.84	0.58
1:AA:389:G:N1	11:AO:71:VAL:HG12	2.19	0.58
21:AV:45:ASP:O	21:AV:49:ARG:HG2	2.04	0.58
31:BA:1028(A):C:N4	31:BA:1028(B):C:H41	2.01	0.58
31:BA:1143:G:N1	31:BA:1144:G:N2	2.51	0.58
31:BA:1213:A:N7	31:BA:1215:G:C4	2.71	0.58
31:BA:453:A:C6	31:BA:454:C:C4	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BD:67:A:H4'	52:BD:68:A:OP1	2.03	0.58
38:BK:122:ARG:HH11	38:BK:122:ARG:HB2	1.68	0.58
40:BM:49:VAL:O	40:BM:60:ARG:HB3	2.03	0.58
42:BO:6:THR:OG1	42:BO:9:GLN:HG3	2.04	0.58
31:CA:1145:C:C4'	31:CA:1146:A:OP1	2.46	0.58
52:CD:48:C:C2'	52:CD:49:A:C8	2.87	0.58
32:CE:132:LYS:HG3	32:CE:135:GLN:HE21	1.66	0.58
32:CE:163:PHE:HD2	32:CE:185:ILE:HG13	1.68	0.58
42:CO:32:PHE:HB2	42:CO:84:LEU:CD2	2.33	0.58
47:CT:67:LYS:HA	47:CT:70:ARG:NH1	2.18	0.58
1:DA:1005:C:C2	1:DA:1143:A:C5	2.92	0.58
1:DA:2798:C:H42	1:DA:2799:A:N6	2.01	0.58
3:DD:260:ARG:NH1	3:DD:267:SER:OG	2.36	0.58
3:DD:43:ARG:HD2	3:DD:44:ASN:CG	2.23	0.58
4:DE:87:GLU:O	4:DE:89:ASP:N	2.37	0.58
5:DF:66:PRO:O	5:DF:67:GLN:HB3	2.02	0.58
4:DE:27:LEU:HG	15:DR:1:MET:HE1	1.84	0.58
22:A3:70:GLN:NE2	22:A3:80:HIS:NE2	2.52	0.58
1:AA:1174:A:N6	1:AA:1175:U:H6	2.01	0.58
1:AA:53:A:H61	1:AA:117:G:C2'	2.17	0.58
1:AA:1464:C:O2'	1:AA:1465:G:H5'	2.03	0.58
4:AE:54:GLN:O	4:AE:55:ASN:HB2	2.03	0.58
5:AF:63:LYS:NZ	5:AF:67:GLN:HB2	2.18	0.58
6:AG:172:LEU:HD12	6:AG:172:LEU:O	2.04	0.58
11:AO:47:ASP:OD2	11:AO:49:ARG:HG2	2.03	0.58
19:AT:21:PHE:CD2	19:AT:26:TYR:CD2	2.91	0.58
31:BA:1374:A:H2'	31:BA:1375:A:C5'	2.32	0.58
52:BB:48:C:C3'	52:BB:49:A:H8	2.03	0.58
52:BB:75:C:O2'	52:BB:76:C:P	2.62	0.58
52:BD:68:A:H5"	52:BD:69:U:OP2	2.04	0.58
1:AA:888:C:H41	43:BP:93:ARG:HH22	1.52	0.58
31:CA:1285:A:H8	31:CA:1285:A:OP1	1.86	0.58
31:CA:136:C:O2'	46:CS:65:GLN:NE2	2.37	0.58
31:CA:192:U:H4'	50:CW:103:GLY:HA2	1.86	0.58
52:CB:27:A:H3'	52:CB:28:G:C8	2.39	0.58
52:CB:38:MIA:H163	52:CB:39:A:N1	2.18	0.58
52:CD:24:G:H2'	52:CD:25:G:C8	2.39	0.58
33:CF:15:THR:HG22	33:CF:16:ARG:N	2.18	0.58
49:CV:28:LYS:HD3	49:CV:29:ARG:N	2.14	0.58
50:CW:49:ALA:HB1	50:CW:100:ILE:HD13	1.85	0.58
13:D0:81:ASP:O	13:D0:82:GLU:CB	2.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1181:C:O2'	1:DA:1182:A:H5'	2.03	0.58
1:DA:142:G:H1'	19:DT:37:THR:HG22	1.85	0.58
1:DA:2138:C:N3	1:DA:2153:G:N2	2.40	0.58
1:DA:2520:C:H41	1:DA:2542:A:H62	1.50	0.58
1:DA:1705:G:O6	56:DA:3087:OHX:N5	2.37	0.58
1:DA:660:G:H21	11:DO:12:ALA:HA	1.67	0.58
1:DA:960:A:H5"	1:DA:961:C:OP1	2.03	0.58
5:DF:101:LEU:O	5:DF:106:ARG:NH1	2.37	0.58
9:DM:56:ASN:CA	9:DM:125:GLY:C	2.72	0.58
9:DM:87:LEU:C	9:DM:89:LYS:H	2.07	0.58
25:DX:12:PRO:HA	25:DX:15:TYR:HD1	1.69	0.58
13:A0:54:LEU:O	13:A0:62:ALA:HB1	2.04	0.58
16:A1:91:ASP:O	16:A1:92:ARG:C	2.41	0.58
30:A8:52:LYS:N	30:A8:53:PRO:HD2	2.19	0.58
1:AA:1047:G:H2'	1:AA:1110:G:C6	2.39	0.58
1:AA:1177:A:H4'	1:AA:1178:C:O5'	2.03	0.58
1:AA:1516:U:H2'	1:AA:1517:G:H8	1.69	0.58
1:AA:1550:C:OP1	1:AA:1727:U:O2'	2.22	0.58
1:AA:2126:A:C4	1:AA:2162:G:N2	2.71	0.58
1:AA:2427:C:H5"	1:AA:2428:G:OP1	2.04	0.58
1:AA:64:A:H1'	19:AT:66:LEU:HB2	1.85	0.58
1:AA:773:U:OP1	56:AA:3453:OHX:N2	2.37	0.58
1:AA:995:C:O2	9:AM:3:THR:OG1	2.21	0.58
5:AF:197:ASP:O	5:AF:198:ALA:C	2.41	0.58
7:AH:86:GLU:HG3	7:AH:165:ALA:H	1.67	0.58
21:AV:72:ARG:CG	21:AV:72:ARG:NH1	2.59	0.58
31:BA:149:A:H2'	31:BA:150:C:C6	2.39	0.58
31:BA:186:C:H2'	31:BA:186(A):C:C6	2.38	0.58
31:BA:415:A:H2'	31:BA:416:G:O4'	2.04	0.58
31:BA:722:A:H2'	31:BA:724:G:C8	2.39	0.58
31:BA:988:G:C2	31:BA:1218:C:O2	2.57	0.58
38:BK:65:TYR:CD1	38:BK:65:TYR:N	2.72	0.58
47:BT:48:GLU:O	47:BT:49:GLU:C	2.42	0.58
31:CA:1004:A:OP1	31:CA:1025:U:O4	2.22	0.58
31:CA:1118:C:OP1	39:CL:104:ARG:HD2	2.04	0.58
31:CA:182:U:C5	31:CA:183:G:C1'	2.86	0.58
31:CA:719:C:C5	31:CA:720:C:C4	2.91	0.58
31:CA:940:C:H2'	31:CA:941:G:H8	1.67	0.58
52:CB:85:A:H8	1:DA:2583:G:H21	1.52	0.58
32:CE:142:LEU:O	32:CE:146:GLN:HB2	2.03	0.58
35:CH:11:ILE:HD12	35:CH:31:LEU:HD13	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:68:GLU:OE2	35:CH:70:PRO:HG3	2.03	0.58
37:CJ:147:ALA:C	37:CJ:149:ARG:H	2.07	0.58
43:CP:20:THR:C	43:CP:22:ILE:H	2.06	0.58
13:D0:82:GLU:H	13:D0:85:PRO:HG2	1.69	0.58
1:DA:2370:G:H21	28:D6:45:LYS:HE3	1.69	0.58
1:DA:1149:G:H2'	1:DA:1150:C:C6	2.39	0.58
1:DA:2582:G:C2'	1:DA:2583:G:H5'	2.33	0.58
2:DB:15:A:H1'	2:DB:109:G:C8	2.39	0.58
4:DE:4:ILE:HD12	4:DE:28:ALA:CB	2.32	0.58
12:DP:2:LEU:O	12:DP:70:PRO:HG3	2.03	0.58
14:DQ:66:ALA:O	14:DQ:69:VAL:HG12	2.03	0.58
20:DU:46:LYS:O	20:DU:48:ALA:N	2.37	0.58
25:DX:4:LEU:O	25:DX:36:VAL:HA	2.04	0.58
23:DZ:2:SER:O	23:DZ:4:VAL:HG13	2.04	0.58
22:A3:27:GLU:OE2	56:A3:102:OHX:N1	2.37	0.58
26:A4:12:ALA:N	26:A4:24:THR:OG1	2.37	0.58
6:AG:65:GLY:HA2	26:A4:7:PRO:HG3	1.86	0.58
11:AO:62:LEU:HD11	30:A8:30:ARG:NH1	2.11	0.58
30:A8:34:TRP:CD2	30:A8:35:GLN:CG	2.86	0.58
1:AA:1864:U:O4	56:AA:3502:OHX:N4	2.37	0.58
1:AA:2309:A:C5	1:AA:2310:A:N7	2.72	0.58
1:AA:484:C:H2'	1:AA:485:C:C6	2.38	0.58
1:AA:652:C:N4	1:AA:653:A:N6	2.52	0.58
8:AK:140:LEU:CD2	8:AK:140:LEU:N	2.67	0.58
21:AV:104:PHE:CE1	21:AV:119:GLU:HB3	2.38	0.58
21:AV:76:LEU:H	21:AV:76:LEU:CD2	2.16	0.58
31:BA:106:C:C2'	31:BA:107:G:H5'	2.33	0.58
31:BA:1076:C:C2	31:BA:1082:G:C2	2.92	0.58
31:BA:1128:C:C5'	39:BL:16:ARG:HH22	2.17	0.58
31:BA:1178:G:HO2'	31:BA:1179:A:P	2.26	0.58
31:BA:149:A:C2	31:BA:150:C:C4	2.91	0.58
31:BA:960:U:C2'	31:BA:960:U:O2	2.51	0.58
52:BD:30:A:H61	52:BD:42:U:H3	1.50	0.58
36:BI:19:LEU:HD23	36:BI:19:LEU:O	2.04	0.58
31:BA:1322:C:H5'	43:BP:100:GLY:HA2	1.86	0.58
31:CA:1358:U:H3'	31:CA:1359:C:C6	2.39	0.58
31:CA:1503:A:C4	54:C1:13:A:N1	2.71	0.58
31:CA:266:G:O6	31:CA:270:A:N7	2.37	0.58
31:CA:413:G:C2'	31:CA:414:A:OP2	2.52	0.58
31:CA:601:C:H42	31:CA:637:G:H1	1.51	0.58
31:CA:766:A:H2'	31:CA:767:A:O5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:37:A:C6	54:C1:20:G:O6	2.57	0.58
53:CC:23:G:H2'	53:CC:24:C:H6	1.69	0.58
32:CE:19:HIS:CD2	32:CE:205:ASP:H	2.22	0.58
32:CE:28:PHE:CZ	32:CE:189:ASP:HA	2.39	0.58
38:CK:51:VAL:HG21	38:CK:60:ARG:HE	1.67	0.58
42:CO:18:VAL:O	42:CO:19:ARG:CB	2.52	0.58
42:CO:90:VAL:HG12	42:CO:90:VAL:O	2.03	0.58
16:D1:50:ARG:NH2	17:D2:72:VAL:CG2	2.53	0.58
1:DA:188:G:OP2	56:DA:3459:OHX:N1	2.37	0.58
1:DA:1942:C:OP2	1:DA:1943:U:O2'	2.19	0.58
1:DA:205:G:O2'	1:DA:206:U:P	2.62	0.58
1:DA:2274:A:N1	1:DA:2276:G:H1'	2.19	0.58
1:DA:1033:U:H1'	1:DA:2750:A:N1	2.18	0.58
1:DA:72:U:N3	24:DW:62:THR:HG22	2.18	0.58
1:DA:905:U:H2'	1:DA:906:G:H5'	1.86	0.58
3:DD:45:ASN:CG	3:DD:46:GLN:H	2.05	0.58
4:DE:37:ARG:CB	4:DE:42:ASP:OD2	2.51	0.58
5:DF:20:LEU:HD22	5:DF:21:ALA:H	1.69	0.58
5:DF:26:ALA:O	5:DF:27:GLU:HG3	2.04	0.58
5:DF:4:VAL:CG1	5:DF:17:ARG:HE	2.17	0.58
8:DK:118:LYS:O	8:DK:119:PRO:O	2.22	0.58
8:DK:136:VAL:HG13	8:DK:136:VAL:O	2.03	0.58
10:DN:24:VAL:HG23	10:DN:33:ALA:HB2	1.86	0.58
1:DA:495:G:H1'	18:DS:57:ASN:ND2	2.18	0.58
19:DT:12:VAL:HB	19:DT:29:TRP:CD1	2.36	0.58
20:DU:19:LYS:HB2	20:DU:20:TYR:HD1	1.68	0.58
20:DU:97:ARG:CG	20:DU:97:ARG:HH11	2.16	0.58
1:AA:1019:U:O2	1:AA:1144:G:N2	2.37	0.58
1:AA:1358:G:N2	1:AA:1372:U:C5	2.72	0.58
1:AA:141:A:C8	1:AA:1408:C:H1'	2.39	0.58
1:AA:2377:A:H2'	1:AA:2378:A:C8	2.39	0.58
1:AA:481:G:C4	1:AA:507:A:C2	2.92	0.58
4:AE:48:GLN:O	4:AE:49:LEU:HD12	2.04	0.58
9:AM:42:TRP:O	16:A1:64:ARG:HD2	2.04	0.58
1:AA:805:G:OP2	11:AO:41:ARG:HG2	2.04	0.58
18:AS:64:MET:O	18:AS:65:LEU:CB	2.51	0.58
20:AU:63:LYS:HD2	20:AU:64:GLU:N	2.19	0.58
21:AV:21:ALA:O	21:AV:23:LYS:N	2.37	0.58
31:BA:1073:U:H2'	31:BA:1074:G:C8	2.39	0.58
31:BA:1173:G:H2'	31:BA:1174:G:O4'	2.04	0.58
31:BA:156:G:H1	31:BA:165:C:N4	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:39:G:N7	31:BA:547:A:C8	2.72	0.58
36:BI:61:LEU:O	36:BI:62:TRP:HB2	2.04	0.58
37:BJ:79:ARG:HG2	37:BJ:84:ASN:CG	2.24	0.58
50:BW:76:ALA:O	50:BW:80:ARG:HG2	2.03	0.58
31:CA:1267:C:H2'	31:CA:1267:C:O2	2.02	0.58
31:CA:1399:C:H4'	31:CA:1400:C:O5'	2.04	0.58
53:CC:16:C:N4	56:CC:108:OHX:N3	2.51	0.58
52:CD:35:G:C2	54:C1:14:A:C2	2.92	0.58
35:CH:83:GLU:HB3	35:CH:88:LYS:HG2	1.85	0.58
42:CO:92:ASP:O	42:CO:93:LEU:HD23	2.03	0.58
43:CP:39:ILE:HG22	43:CP:40:ASN:N	2.19	0.58
22:D3:51:VAL:CG2	22:D3:81:VAL:HG23	2.34	0.58
26:D4:49:PHE:CE1	26:D4:50:VAL:HG22	2.39	0.58
27:D5:16:ARG:HG3	27:D5:17:ASP:N	2.19	0.58
1:DA:1448:G:N3	1:DA:1529:A:H2	2.02	0.58
1:DA:1939:U:OP1	1:DA:2604:U:O2'	2.19	0.58
1:DA:2233:U:H2'	1:DA:2234:G:C8	2.39	0.58
1:DA:948:G:C2	1:DA:970:C:O2	2.57	0.58
1:DA:990:A:H5'	1:DA:990:A:H8	1.69	0.58
5:DF:57:VAL:CG1	5:DF:58:ALA:H	2.17	0.58
8:DK:26:ALA:O	8:DK:31:LEU:HD13	2.04	0.58
20:DU:35:TYR:CD1	20:DU:69:ALA:HB3	2.39	0.58
17:A2:35:LEU:C	17:A2:37:VAL:N	2.58	0.57
11:AO:62:LEU:CD1	30:A8:30:ARG:HH11	1.66	0.57
30:A8:42:ARG:HG2	30:A8:42:ARG:HH11	1.69	0.57
1:AA:1018:C:H2'	1:AA:1019:U:H5'	1.86	0.57
1:AA:1049:C:C2'	1:AA:1050:A:C5'	2.82	0.57
1:AA:1138:G:H5"	1:AA:1139:G:OP2	2.04	0.57
1:AA:1542:G:O6	1:AA:1543:A:N6	2.36	0.57
1:AA:1665:A:C2'	1:AA:1666:G:H5'	2.34	0.57
1:AA:259:G:HO2'	1:AA:621:A:HO2'	1.41	0.57
15:AR:11:GLU:N	15:AR:11:GLU:OE1	2.37	0.57
15:AR:24:PRO:HD3	15:AR:52:ILE:HD12	1.84	0.57
15:AR:57:PHE:CD2	15:AR:58:ASN:N	2.70	0.57
18:AS:110:LYS:O	18:AS:112:GLY:N	2.37	0.57
21:AV:116:VAL:HG23	21:AV:174:VAL:HG13	1.86	0.57
21:AV:91:LEU:HD12	21:AV:96:VAL:HG11	1.86	0.57
31:BA:975:A:H5'	31:BA:1363:A:N6	2.19	0.57
31:BA:1366:C:H2'	31:BA:1367:C:H6	1.69	0.57
31:BA:964:A:N3	31:BA:969:A:O2'	2.35	0.57
32:BE:84:GLU:HB3	32:BE:219:VAL:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:51:VAL:HG21	38:BK:60:ARG:HH12	1.69	0.57
31:CA:1126:U:O2'	31:CA:1127:G:OP2	2.21	0.57
31:CA:321:A:C2	31:CA:333:G:C2	2.92	0.57
31:CA:363:A:C6	42:CO:31:PRO:HD2	2.38	0.57
31:CA:861:G:C5	31:CA:862:C:C5	2.92	0.57
31:CA:930:C:C2'	31:CA:931:C:H5'	2.33	0.57
52:CB:53:A:H2'	52:CB:54:C:O4'	2.04	0.57
32:CE:12:GLU:HB3	32:CE:213:LEU:CD1	2.34	0.57
33:CF:134:ILE:O	33:CF:137:ALA:N	2.37	0.57
46:CS:43:LYS:HG2	46:CS:48:TRP:NE1	2.19	0.57
1:DA:1011:G:OP1	16:D1:75:ASN:HB3	2.03	0.57
1:DA:1069:A:C4'	1:DA:1070:A:H5"	2.33	0.57
1:DA:1071:G:P	1:DA:1097:U:H5'	2.44	0.57
1:DA:2343:C:O2'	1:DA:2373:G:O2'	2.22	0.57
1:DA:2787:C:H1'	4:DE:62:PRO:HG3	1.84	0.57
1:DA:654(M):C:O2'	1:DA:654(N):G:OP1	2.23	0.57
1:DA:844:C:H42	1:DA:934:G:H1	1.51	0.57
4:DE:67:PHE:CG	4:DE:67:PHE:O	2.57	0.57
5:DF:79:GLY:HA2	5:DF:86:GLY:HA2	1.86	0.57
6:DG:106:LEU:O	6:DG:110:ALA:HB3	2.04	0.57
6:DG:7:LEU:O	6:DG:7:LEU:HD23	2.03	0.57
7:DH:117:PRO:HB3	7:DH:123:PHE:HZ	1.69	0.57
15:DR:61:PHE:CE2	15:DR:76:PHE:HB2	2.39	0.57
19:DT:18:TYR:HA	19:DT:21:PHE:CE2	2.38	0.57
21:DV:116:VAL:C	21:DV:117:LEU:HD22	2.24	0.57
16:A1:28:ARG:CG	16:A1:38:THR:OG1	2.52	0.57
1:AA:1357:U:H2'	1:AA:1358:G:O4'	2.04	0.57
1:AA:1299:G:H3'	1:AA:1639:U:O4	2.04	0.57
1:AA:2163:C:C2'	1:AA:2164:C:H5'	2.33	0.57
1:AA:280:C:C2'	1:AA:281:G:H5'	2.34	0.57
1:AA:2882:A:OP1	13:A0:96:ARG:NH1	2.31	0.57
1:AA:2781:A:OP2	56:AA:3505:OHX:N3	2.37	0.57
1:AA:875:G:N2	1:AA:903:C:C2	2.72	0.57
1:AA:2469:A:O2'	12:AP:56:ARG:CG	2.52	0.57
14:AQ:35:ILE:HD11	14:AQ:101:LEU:HD23	1.87	0.57
31:BA:1004:A:C5'	31:BA:1025:U:N3	2.66	0.57
31:BA:1027:C:C4'	31:BA:1028:C:OP1	2.52	0.57
31:BA:1129:C:C4	31:BA:1139:G:N1	2.72	0.57
31:BA:429:U:H4'	31:BA:430:A:OP1	2.04	0.57
31:BA:457:C:N4	31:BA:458:C:H41	2.02	0.57
31:BA:468:A:H2'	31:BA:474:G:C5'	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:11:C:H2'	52:BB:12:C:H6	1.69	0.57
52:BB:75:C:H3'	52:BB:76:C:H5	1.69	0.57
34:BG:98:GLU:OE1	34:BG:194:LEU:HD21	2.04	0.57
36:BI:8:ILE:HD11	36:BI:79:LEU:HD13	1.86	0.57
39:BL:43:ALA:HA	39:BL:74:ILE:HD13	1.86	0.57
31:CA:1206:G:C6	31:CA:1207:G:C6	2.92	0.57
31:CA:201:C:C4'	31:CA:208:U:OP1	2.52	0.57
31:CA:350:G:H5'	31:CA:351:G:OP2	2.04	0.57
31:CA:510:A:H5"	31:CA:511:C:OP2	2.04	0.57
35:CH:131:ILE:O	35:CH:134:ALA:HB3	2.04	0.57
46:CS:23:ASP:OD1	46:CS:25:ARG:HG3	2.04	0.57
47:CT:34:LYS:HG2	47:CT:35:VAL:H	1.69	0.57
50:CW:65:LYS:O	50:CW:68:LYS:HB2	2.04	0.57
22:D3:66:VAL:HG12	22:D3:67:VAL:N	2.19	0.57
26:D4:61:ARG:HG2	26:D4:62:ARG:NH1	2.19	0.57
27:D5:4:HIS:HB3	27:D5:5:PRO:HD2	0.62	0.57
29:D7:17:GLY:O	29:D7:20:ALA:N	2.36	0.57
5:DF:153:SER:HB2	5:DF:190:GLU:H	1.67	0.57
21:DV:9:TYR:OH	21:DV:61:LEU:HD13	2.04	0.57
24:DW:32:LEU:HD22	24:DW:57:ILE:CD1	2.34	0.57
28:A6:34:LEU:CB	28:A6:36:LEU:HD22	2.34	0.57
1:AA:138:G:H22	19:AT:44:GLU:CD	2.06	0.57
1:AA:1479:G:N2	1:AA:1480:G:H1'	2.20	0.57
1:AA:2140:C:C2	1:AA:2151:G:N2	2.72	0.57
1:AA:2475:C:N4	1:AA:2529:G:H22	2.02	0.57
1:AA:2556:C:O2	56:AA:3458:OHX:N3	2.37	0.57
1:AA:2458:G:OP2	56:AA:3330:OHX:N4	2.37	0.57
1:AA:439:G:O2'	1:AA:440:G:H5'	2.04	0.57
1:AA:663:G:H2'	1:AA:664:C:O4'	2.05	0.57
31:BA:1087:G:H2'	31:BA:1088:G:C8	2.40	0.57
31:BA:1176:A:C3'	31:BA:1177:G:H5"	2.34	0.57
31:BA:652:U:H1'	31:BA:653:A:H2	1.69	0.57
35:BH:80:ILE:HG12	35:BH:81:GLU:H	1.68	0.57
40:BM:50:ILE:HB	44:BQ:41:ARG:HE	1.68	0.57
46:BS:36:ILE:O	46:BS:36:ILE:HG13	2.04	0.57
50:BW:73:HIS:HB3	50:BW:74:LYS:HG2	1.86	0.57
31:CA:1503:A:C4	54:C1:13:A:C2	2.92	0.57
31:CA:1015:A:N6	31:CA:1016:A:C6	2.72	0.57
31:CA:1351:U:C4'	37:CJ:33:ASP:HB3	2.33	0.57
31:CA:956:U:C2	31:CA:1225:A:C2	2.93	0.57
52:CD:18:G:C5	52:CD:66:G:N2	2.73	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:43:ALA:O	39:CL:45:ALA:N	2.31	0.57
1:DA:2690:C:OP2	13:D0:14:SER:HB3	2.05	0.57
28:D6:12:GLU:CB	28:D6:23:THR:HG22	2.35	0.57
1:DA:1113:U:H2'	1:DA:1114:G:O4'	2.04	0.57
1:DA:2162:G:H5"	1:DA:2172:U:H5	1.70	0.57
1:DA:2298:A:N3	1:DA:2321:G:C2	2.71	0.57
1:DA:2401:U:H2'	1:DA:2402:C:H5"	1.85	0.57
1:DA:2522:U:C2'	1:DA:2523:G:H5"	2.34	0.57
1:DA:310:A:OP1	20:DU:17:SER:O	2.23	0.57
5:DF:29:ASN:N	5:DF:112:MET:HE3	2.19	0.57
21:DV:44:PHE:CD1	21:DV:48:PHE:HB2	2.39	0.57
23:DZ:87:PRO:C	23:DZ:89:GLU:H	2.07	0.57
27:A5:45:VAL:HG13	27:A5:50:GLY:HA3	1.86	0.57
1:AA:1929:G:H4'	1:AA:1930:G:OP1	2.04	0.57
1:AA:2147:G:N7	1:AA:2148:G:H1'	2.19	0.57
1:AA:2167:U:HO2'	1:AA:2168:G:P	2.27	0.57
1:AA:2500:U:H5"	1:AA:2501:C:OP2	2.04	0.57
1:AA:2809:A:N1	1:AA:2892:A:C4	2.73	0.57
1:AA:481:G:H4'	1:AA:482:A:O5'	2.03	0.57
1:AA:813:U:H2'	1:AA:814:C:C6	2.39	0.57
1:AA:879:G:O6	1:AA:898:C:N4	2.30	0.57
3:AD:35:LYS:HE3	3:AD:63:ARG:C	2.24	0.57
3:AD:64:ILE:O	3:AD:64:ILE:HG12	2.04	0.57
4:AE:13:ARG:HD3	4:AE:21:VAL:HG12	1.85	0.57
7:AH:92:ILE:HG22	7:AH:93:GLY:N	2.17	0.57
31:BA:791:G:C2'	31:BA:792:A:C5'	2.81	0.57
31:BA:939:G:H2'	31:BA:940:C:C6	2.40	0.57
31:BA:99:C:H2'	31:BA:101:A:C8	2.38	0.57
53:BC:20:G:H21	53:BC:58:A:H1'	1.68	0.57
32:BE:104:ASN:OD1	32:BE:107:THR:HB	2.03	0.57
38:BK:110:ALA:HB3	38:BK:121:ASP:HB3	1.85	0.57
38:BK:85:ARG:HA	38:BK:135:CYS:HB3	1.87	0.57
48:BU:18:ARG:N	48:BU:18:ARG:HD2	2.18	0.57
49:BV:40:ILE:O	49:BV:41:VAL:HG22	2.04	0.57
31:CA:1240:U:O3'	37:CJ:38:LEU:HD21	2.05	0.57
52:CB:71:C:H2'	52:CB:71:C:O2	2.04	0.57
53:CC:16:C:H5	56:CC:108:OHX:N5	2.02	0.57
32:CE:28:PHE:HD2	32:CE:194:PRO:HD3	1.69	0.57
33:CF:15:THR:HG21	33:CF:181:ASN:HA	1.87	0.57
38:CK:19:VAL:HG21	38:CK:21:LYS:HE3	1.87	0.57
40:CM:78:ASN:HD21	40:CM:81:THR:HG23	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CU:29:PHE:O	48:CU:29:PHE:CD2	2.58	0.57
16:D1:48:ALA:O	16:D1:52:ARG:HG3	2.04	0.57
1:DA:1162:G:H21	17:D2:89:GLN:HE22	1.50	0.57
1:DA:593:G:C1'	30:D8:4:MET:HE1	2.30	0.57
1:DA:10:G:C5	1:DA:2629:A:N6	2.72	0.57
1:DA:353:G:C2	1:DA:354:G:C8	2.93	0.57
1:DA:578:A:OP1	1:DA:1255:U:O2'	2.15	0.57
1:DA:780:G:H21	1:DA:783:A:H62	1.51	0.57
1:DA:875:G:H2'	1:DA:876:C:O4'	2.05	0.57
1:DA:2635:C:O2'	4:DE:80:GLU:OE2	2.18	0.57
14:DQ:74:ALA:HB1	14:DQ:107:GLU:HB3	1.86	0.57
19:DT:50:LYS:HG2	19:DT:84:ALA:HB2	1.86	0.57
30:A8:34:TRP:HB3	30:A8:35:GLN:CG	2.32	0.57
1:AA:2392:A:H2	1:AA:2424:C:N4	2.01	0.57
1:AA:2477:C:H6	1:AA:2477:C:O5'	1.87	0.57
1:AA:267:C:O2'	1:AA:268:C:H5'	2.05	0.57
1:AA:482:A:OP2	1:AA:507:A:N6	2.34	0.57
1:AA:530:G:O4'	1:AA:530:G:N3	2.33	0.57
1:AA:74:A:H5'	1:AA:75:G:O4'	2.04	0.57
3:AD:35:LYS:HB3	3:AD:64:ILE:H	1.69	0.57
5:AF:65:TRP:CB	5:AF:66:PRO:HD2	2.33	0.57
23:AZ:87:PRO:O	23:AZ:89:GLU:N	2.37	0.57
31:BA:145:G:N7	56:BA:1772:OHX:N1	2.53	0.57
31:BA:688:G:H2'	31:BA:689:C:H6	1.69	0.57
36:BI:14:LEU:HD22	36:BI:18:GLN:NE2	2.20	0.57
37:BJ:79:ARG:HG2	37:BJ:84:ASN:OD1	2.03	0.57
38:BK:6:ILE:HB	38:BK:85:ARG:HH12	1.70	0.57
31:BA:1128:C:H5"	39:BL:16:ARG:HH22	1.68	0.57
40:BM:78:ASN:O	40:BM:81:THR:OG1	2.19	0.57
31:CA:1160:G:C6	31:CA:1181:G:O6	2.54	0.57
31:CA:1346:A:C1'	31:CA:1347:G:OP2	2.52	0.57
31:CA:266:G:H1'	31:CA:267:C:OP2	2.05	0.57
52:CB:34:U:H2'	52:CB:36:U:H5	1.68	0.57
52:CB:61:G:H2'	52:CB:62:G:C8	2.39	0.57
38:CK:137:VAL:O	38:CK:138:TRP:HB3	2.04	0.57
39:CL:125:TYR:CD2	39:CL:126:SER:N	2.72	0.57
1:DA:1142(A):A:C8	1:DA:1144:G:N7	2.72	0.57
1:DA:1342:A:C6	1:DA:1602:U:N3	2.73	0.57
1:DA:2275:C:H5'	1:DA:2275:C:C6	2.36	0.57
1:DA:971:C:H2'	1:DA:972:G:H5'	1.85	0.57
4:DE:128:SER:OG	4:DE:129:HIS:N	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:10:PRO:HB3	5:DF:127:GLU:HG2	1.87	0.57
6:DG:61:ALA:HA	6:DG:64:THR:HG22	1.86	0.57
15:DR:132:LYS:HB3	15:DR:132:LYS:NZ	2.19	0.57
18:DS:9:TYR:H	18:DS:102:HIS:HD2	1.47	0.57
20:DU:89:PHE:CG	20:DU:90:LEU:N	2.73	0.57
24:DW:65:ASN:ND2	24:DW:69:ARG:HH21	1.84	0.57
28:A6:11:LEU:HD22	28:A6:26:ASN:HD22	1.69	0.57
1:AA:1021:A:H3'	1:AA:1021:A:H8	1.70	0.57
1:AA:1095:A:H2'	1:AA:1095:A:N3	2.18	0.57
1:AA:1332:G:N2	1:AA:1610:A:C8	2.73	0.57
1:AA:2023:G:H5'	1:AA:2617:C:H4'	1.86	0.57
1:AA:762:U:O4	56:AA:3361:OHX:N2	2.38	0.57
1:AA:881:G:N7	1:AA:882:G:C4	2.72	0.57
3:AD:158:ALA:O	3:AD:159:ALA:C	2.42	0.57
9:AM:58:ASP:OD1	9:AM:58:ASP:C	2.42	0.57
11:AO:46:LYS:O	11:AO:47:ASP:CB	2.52	0.57
12:AP:35:VAL:HG11	12:AP:130:LYS:HD2	1.84	0.57
14:AQ:35:ILE:C	14:AQ:36:TYR:HD1	2.07	0.57
18:AS:70:TYR:H	18:AS:70:TYR:HD2	1.50	0.57
20:AU:78:ALA:HB3	20:AU:81:LYS:NZ	2.18	0.57
32:BE:211:ILE:O	32:BE:215:LEU:HB2	2.04	0.57
41:BN:88:GLY:O	41:BN:91:ARG:HB2	2.04	0.57
45:BR:6:GLU:OE2	45:BR:6:GLU:N	2.28	0.57
31:CA:1241:G:C6	31:CA:1242:C:N4	2.73	0.57
31:CA:1246:C:H2'	31:CA:1247:U:O4'	2.04	0.57
31:CA:491:G:O2'	31:CA:492:G:H5'	2.05	0.57
31:CA:956:U:O4	56:CA:1774:OHX:N4	2.38	0.57
31:CA:979:C:H3'	31:CA:980:C:H5"	1.86	0.57
52:CB:3:U:O2'	52:CB:4:G:H8	1.88	0.57
32:CE:92:TYR:HD2	32:CE:151:GLY:HA3	1.67	0.57
32:CE:17:PHE:HZ	32:CE:47:THR:HG21	1.67	0.57
33:CF:88:ARG:HG3	33:CF:101:LEU:HD13	1.86	0.57
39:CL:113:LYS:N	39:CL:113:LYS:HD2	2.20	0.57
43:CP:46:LYS:HG2	43:CP:47:ASP:N	2.20	0.57
16:D1:91:ASP:C	16:D1:93:LYS:H	2.07	0.57
17:D2:37:VAL:HG21	17:D2:57:VAL:HG13	1.86	0.57
12:DP:85:LYS:HD3	22:D3:9:SER:CB	2.35	0.57
30:D8:52:LYS:O	30:D8:54:GLU:N	2.37	0.57
1:DA:1203:G:H3'	1:DA:1204:A:H5"	1.85	0.57
1:DA:2182:G:C2	1:DA:2183:C:C4	2.93	0.57
1:DA:2190:G:H2'	1:DA:2191:G:H5"	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:777:A:O2'	1:DA:778:G:H5'	2.05	0.57
6:DG:171:ALA:O	6:DG:175:LEU:HG	2.05	0.57
9:DM:42:TRP:HA	9:DM:48:MET:HE1	1.87	0.57
12:DP:2:LEU:HD11	12:DP:69:PHE:HE1	1.70	0.57
12:DP:92:GLY:O	12:DP:93:TYR:CG	2.57	0.57
15:DR:8:LYS:O	15:DR:11:GLU:N	2.38	0.57
1:DA:138:G:N2	19:DT:44:GLU:OE2	2.35	0.57
19:DT:65:ARG:CG	19:DT:65:ARG:HH11	2.05	0.57
21:DV:156:LYS:O	21:DV:157:LEU:HB2	2.04	0.57
28:A6:38:LYS:HE2	28:A6:46:HIS:HB3	1.86	0.57
29:A7:19:ARG:HH11	29:A7:19:ARG:HG2	1.70	0.57
1:AA:1329:U:H5"	1:AA:1330:C:H5	1.67	0.57
1:AA:2545:G:C2'	1:AA:2546:U:H5'	2.35	0.57
1:AA:299:A:N6	1:AA:300:A:N1	2.53	0.57
11:AO:108:LYS:C	11:AO:110:TYR:H	2.08	0.57
1:AA:811:U:O5'	11:AO:21:ARG:O	2.23	0.57
20:AU:97:ARG:HH21	20:AU:98:VAL:CG2	2.17	0.57
21:AV:58:VAL:O	21:AV:60:GLU:N	2.31	0.57
54:B1:13:A:HO2'	54:B1:14:A:P	2.16	0.57
31:BA:1078:U:C5	31:BA:1079:G:C5	2.93	0.57
31:BA:1157:A:N6	31:BA:1180:A:C5	2.73	0.57
31:BA:1497:G:C2'	31:BA:1498:U:H5'	2.35	0.57
31:BA:515:G:C2	31:BA:537:G:C2	2.93	0.57
52:BD:79:A:H2'	52:BD:80:C:O4'	2.04	0.57
38:BK:68:ARG:HD2	38:BK:69:ARG:O	2.03	0.57
42:BO:101:VAL:HG12	42:BO:104:VAL:HG23	1.87	0.57
47:BT:91:ARG:NH1	47:BT:91:ARG:HG2	2.20	0.57
31:CA:1441:G:H4'	31:CA:1442:G:C5	2.39	0.57
31:CA:362:G:N7	56:CA:1798:OHX:N1	2.53	0.57
31:CA:370:C:O2	31:CA:482:A:O2'	2.22	0.57
31:CA:683:G:H2'	31:CA:684:A:C8	2.40	0.57
31:CA:827:U:O4	31:CA:870:U:C2	2.57	0.57
31:CA:931:C:O2'	31:CA:932:C:O5'	2.16	0.57
31:CA:939:G:C6	31:CA:940:C:N4	2.73	0.57
53:CC:1:C:O2	53:CC:1:C:C2'	2.52	0.57
34:CG:150:GLU:C	34:CG:152:SER:H	2.08	0.57
35:CH:110:LEU:HD21	35:CH:139:LEU:HD21	1.85	0.57
37:CJ:13:GLN:HG2	37:CJ:14:PRO:HD2	1.87	0.57
39:CL:75:ASP:O	39:CL:78:LYS:HB3	2.05	0.57
31:CA:973:G:H1'	40:CM:55:LYS:HE3	1.83	0.57
42:CO:100:ILE:CG2	42:CO:101:VAL:N	2.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:65:ILE:HD11	16:D1:96:ALA:HB1	1.85	0.57
1:DA:593:G:H4'	30:D8:61:LEU:HD22	1.85	0.57
1:DA:1053:C:H2'	1:DA:1054:A:O4'	2.04	0.57
1:DA:1135:C:H2'	1:DA:1135:C:O2	2.04	0.57
1:DA:1967:C:C2'	1:DA:1968:G:H5'	2.34	0.57
1:DA:2703:C:N3	1:DA:2704:C:C5	2.72	0.57
1:DA:2723:C:OP1	13:D0:3:HIS:HD2	1.88	0.57
1:DA:2869:G:H2'	1:DA:2870:C:O4'	2.04	0.57
1:DA:803:U:O2'	1:DA:804:A:H5'	2.05	0.57
4:DE:102:VAL:HA	4:DE:200:GLU:O	2.05	0.57
1:DA:1006:C:H1'	9:DM:106:MET:HE3	1.85	0.57
1:DA:2318:G:N2	14:DQ:2:ALA:HA	2.17	0.57
19:DT:44:GLU:O	19:DT:46:ALA:N	2.33	0.57
12:DP:132:VAL:HG21	21:DV:81:ARG:NH1	2.20	0.57
1:AA:1279:G:H5'	13:A0:34:ILE:CD1	2.35	0.57
2:AB:89(A):A:C5	2:AB:90:C:H1'	2.40	0.57
3:AD:39:LYS:NZ	3:AD:60:ARG:HH11	2.02	0.57
3:AD:35:LYS:HG2	3:AD:64:ILE:CA	2.34	0.57
4:AE:70:ALA:O	4:AE:71:GLY:C	2.42	0.57
6:AG:131:TYR:HB3	6:AG:159:VAL:HG23	1.86	0.57
6:AG:41:GLN:HG2	6:AG:154:GLY:O	2.04	0.57
6:AG:25:TYR:O	6:AG:27:ASN:N	2.38	0.57
9:AM:55:VAL:HG12	9:AM:126:PRO:HA	1.85	0.57
9:AM:93:THR:HG22	9:AM:94:HIS:ND1	2.20	0.57
12:AP:109:VAL:CG1	12:AP:114:ALA:HB2	2.35	0.57
15:AR:102:ILE:HA	15:AR:105:LEU:HD21	1.87	0.57
23:AZ:97:LEU:HD23	23:AZ:98:LEU:H	1.68	0.57
31:BA:1133:G:C4	31:BA:1134:G:C8	2.93	0.57
31:BA:1234:C:O2'	31:BA:1235:U:H5'	2.05	0.57
31:BA:1288:A:H1'	31:BA:1352:C:O2'	2.05	0.57
31:BA:328:C:H4'	31:BA:329:A:C5'	2.35	0.57
31:BA:412:A:OP2	34:BG:35:ARG:NH2	2.38	0.57
32:BE:177:ALA:O	32:BE:179:LYS:N	2.37	0.57
34:BG:77:ASN:O	34:BG:80:GLU:HB2	2.05	0.57
36:BI:19:LEU:CD2	36:BI:23:LYS:HZ3	2.17	0.57
39:BL:53:VAL:O	39:BL:54:ASP:HB2	2.04	0.57
46:BS:4:ILE:HA	46:BS:20:VAL:O	2.05	0.57
51:BX:14:TRP:HE3	51:BX:15:ARG:HG2	1.70	0.57
31:CA:1323:G:H2'	31:CA:1324:A:C8	2.39	0.57
31:CA:1413:A:H2'	31:CA:1414:U:O4'	2.05	0.57
31:CA:135:C:O2'	56:CA:1768:OHX:N4	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:652:U:O2'	31:CA:653:A:N3	2.33	0.57
32:CE:162:ILE:O	32:CE:185:ILE:HG12	2.05	0.57
31:CA:1055:A:N1	33:CF:194:GLY:HA3	2.19	0.57
37:CJ:35:LYS:NZ	37:CJ:38:LEU:HD22	2.20	0.57
44:CQ:21:TYR:HD2	44:CQ:22:THR:O	1.88	0.57
1:DA:1105:U:H2'	1:DA:1106:G:H8	1.70	0.57
1:DA:2067:G:O2'	1:DA:2069:G:H5"	2.05	0.57
1:DA:2295:C:H2'	1:DA:2295:C:O2	2.04	0.57
1:DA:2494:G:C2'	1:DA:2495:G:H5'	2.34	0.57
1:DA:405:U:C2'	1:DA:406:G:OP1	2.52	0.57
1:DA:308:G:C8	1:DA:501:A:H1'	2.40	0.57
1:DA:744:G:C2'	1:DA:745:G:O5'	2.53	0.57
8:DK:5:LEU:HD21	8:DK:12:LEU:HD23	1.86	0.57
8:DK:81:VAL:H	8:DK:143:SER:CB	2.18	0.57
31:BA:368:U:P	8:DK:91:SER:OG	2.63	0.57
12:DP:79:LEU:CD1	12:DP:80:GLU:HB2	2.35	0.57
19:DT:29:TRP:CH2	19:DT:78:LYS:HE2	2.39	0.57
26:A4:9:LEU:HG	26:A4:26:SER:HA	1.86	0.57
1:AA:1227:A:H5"	1:AA:1228:G:OP2	2.05	0.57
1:AA:1419:A:H4'	1:AA:1420:U:OP1	2.05	0.57
1:AA:1509:C:H3'	1:AA:1510:A:C5'	2.33	0.57
1:AA:46:C:OP2	1:AA:215:G:H2'	2.05	0.57
1:AA:2284:C:H41	28:A6:25:LYS:HZ1	1.51	0.57
1:AA:299:A:H62	1:AA:300:A:H61	1.52	0.57
8:AK:37:VAL:HG12	8:AK:38:LEU:H	1.70	0.57
8:AK:94:ALA:HB1	8:AK:111:PRO:HG2	1.87	0.57
11:AO:19:VAL:HG23	11:AO:27:HIS:HB3	0.72	0.57
18:AS:19:LEU:O	27:A5:25:LEU:HD12	2.05	0.57
18:AS:7:ALA:HB2	18:AS:50:VAL:HG22	1.87	0.57
23:AZ:23:LYS:HB3	23:AZ:29:GLY:HA3	1.87	0.57
31:BA:145:G:C2	31:BA:178:C:O2	2.58	0.57
31:BA:292:G:N7	31:BA:293:G:H1'	2.20	0.57
52:BD:43:G:H2'	52:BD:44:C:C6	2.40	0.57
33:BF:14:ILE:O	33:BF:16:ARG:N	2.34	0.57
35:BH:26:PHE:N	35:BH:26:PHE:CD1	2.72	0.57
1:AA:888:C:N4	43:BP:93:ARG:HH22	2.02	0.57
51:BX:5:ASP:O	51:BX:11:GLY:HA3	2.05	0.57
31:CA:1357:A:C8	31:CA:1358:U:C5	2.92	0.57
31:CA:386:C:O2'	31:CA:387:U:H5'	2.05	0.57
32:CE:141:GLU:O	32:CE:145:LEU:HB2	2.03	0.57
33:CF:47:LEU:HD21	33:CF:68:VAL:HG11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:115:ARG:O	37:CJ:118:VAL:HG22	2.04	0.57
39:CL:104:ARG:O	39:CL:105:ASP:HB2	2.05	0.57
40:CM:40:LEU:HD13	40:CM:71:LEU:HD22	1.87	0.57
16:D1:25:TRP:CD1	16:D1:26:GLY:N	2.72	0.57
1:DA:1990:C:H2'	1:DA:1991:U:H6	1.70	0.57
1:DA:2210:G:H3'	1:DA:2211:G:C5	2.40	0.57
1:DA:2469:A:N3	1:DA:2469:A:H5"	2.18	0.57
1:DA:598:G:H1'	11:DO:12:ALA:CB	2.35	0.57
1:DA:875:G:N2	1:DA:903:C:C2	2.73	0.57
1:DA:91:A:C2'	1:DA:92:G:H5'	2.34	0.57
2:DB:116:G:H5'	14:DQ:55:ALA:HB2	1.87	0.57
2:DB:73:A:C4	2:DB:104:A:C2	2.93	0.57
3:DD:244:ARG:HB2	3:DD:245:PRO:HD2	1.87	0.57
4:DE:35:GLN:HG3	4:DE:36:ARG:H	1.68	0.57
2:DB:42:C:H4'	6:DG:67:LYS:HD3	1.86	0.57
1:AA:1432:C:H2'	1:AA:1433:U:O4'	2.03	0.57
1:AA:2069:G:N2	1:AA:2070:G:H1'	2.19	0.57
1:AA:2147:G:H2'	1:AA:2148:G:H4'	1.87	0.57
1:AA:2099:U:O4	56:AA:3553:OHX:N2	2.38	0.57
1:AA:474:G:O6	56:AA:3487:OHX:N1	2.38	0.57
1:AA:881:G:O6	1:AA:895:U:C2	2.56	0.57
1:AA:2638:G:OP2	4:AE:82:ARG:NH2	2.38	0.57
24:AW:4:SER:CB	24:AW:5:GLU:OE2	2.48	0.57
31:BA:1087:G:H2'	31:BA:1088:G:H8	1.70	0.57
31:BA:1154:G:C4	31:BA:1155:G:C8	2.93	0.57
31:BA:1176:A:H2'	31:BA:1177:G:H5"	1.87	0.57
31:BA:364:A:O2'	31:BA:365:U:O5'	2.20	0.57
31:BA:818:G:O2'	31:BA:819:A:H5'	2.05	0.57
31:BA:96:G:C6	31:BA:97:U:C2	2.93	0.57
47:BT:34:LYS:HD3	47:BT:36:ILE:HG22	1.87	0.57
50:BW:40:ALA:HB2	50:BW:55:ILE:HG22	1.85	0.57
31:CA:1478:C:C4	31:CA:1479:C:C5	2.93	0.57
31:CA:925:G:O6	56:CA:1785:OHX:N3	2.38	0.57
31:CA:827:U:C4	31:CA:870:U:N3	2.73	0.57
52:CB:75:C:O2'	52:CB:76:C:P	2.61	0.57
53:CC:20:G:C2	53:CC:58:A:C2	2.92	0.57
52:CD:17:G:C4'	52:CD:18:G:OP1	2.53	0.57
35:CH:91:LEU:CD1	35:CH:120:THR:HG22	2.31	0.57
39:CL:5:TYR:CD2	39:CL:18:PHE:CE2	2.92	0.57
43:CP:53:VAL:O	43:CP:57:ARG:HB2	2.04	0.57
17:D2:71:LEU:O	17:D2:72:VAL:HG12	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1049:C:H2'	1:DA:1050:A:H5'	1.86	0.57
1:DA:2500:U:H5"	1:DA:2501:C:OP2	2.04	0.57
1:DA:2537:U:C2	1:DA:2538:C:C5	2.93	0.57
1:DA:40:C:H2'	1:DA:41:C:C6	2.40	0.57
1:DA:513:A:C2	1:DA:514:A:C5	2.93	0.57
1:DA:65:C:H4'	19:DT:69:TYR:CD1	2.40	0.57
1:DA:69:C:H2'	1:DA:70:G:H8	1.70	0.57
1:DA:720:C:H2'	1:DA:721:C:H6	1.70	0.57
5:DF:16:GLY:O	5:DF:17:ARG:C	2.43	0.57
9:DM:38:HIS:CE1	9:DM:39:ARG:HG3	2.39	0.57
9:DM:42:TRP:HA	9:DM:48:MET:CE	2.35	0.57
11:DO:124:LYS:HA	11:DO:143:GLY:O	2.04	0.57
20:DU:97:ARG:CD	20:DU:97:ARG:H	2.18	0.57
21:DV:11:GLU:CG	21:DV:12:GLY:N	2.51	0.57
17:A2:47:VAL:O	17:A2:48:GLY:O	2.23	0.56
1:AA:1331:A:O2'	1:AA:1332:G:C8	2.58	0.56
1:AA:1359:A:H2	1:AA:1372:U:O4	1.87	0.56
1:AA:2475:C:H3'	1:AA:2476:A:C5'	2.35	0.56
1:AA:55:G:H2'	1:AA:56:A:H8	1.70	0.56
4:AE:143:ASN:HB2	4:AE:147:PRO:HD2	1.87	0.56
4:AE:16:ARG:O	4:AE:17:ASP:HB2	2.05	0.56
2:AB:43:C:H5'	6:AG:67:LYS:HE3	1.86	0.56
9:AM:15:LEU:HB3	9:AM:136:GLU:HA	1.86	0.56
14:AQ:9:ARG:O	14:AQ:11:LYS:N	2.38	0.56
23:AZ:76:ARG:CG	23:AZ:76:ARG:NH1	2.64	0.56
31:BA:1080:A:H5"	31:BA:1081:G:OP2	2.04	0.56
31:BA:1125:U:H2'	31:BA:1125:U:O2	2.04	0.56
31:BA:1130:A:O5'	31:BA:1131:G:P	2.63	0.56
31:BA:582:U:H2'	31:BA:583:A:O4'	2.04	0.56
31:BA:789:U:O4	31:BA:792:A:OP2	2.22	0.56
52:BD:14:A:H5"	56:BD:102:OHX:N3	2.19	0.56
34:BG:114:ARG:O	34:BG:117:ALA:HB3	2.05	0.56
42:BO:38:THR:O	42:BO:79:GLU:HG2	2.05	0.56
43:BP:87:TYR:C	43:BP:89:GLY:N	2.59	0.56
31:CA:1298:C:O2'	31:CA:1299:A:C4	2.56	0.56
31:CA:1401:G:C2	31:CA:1402:C:H1'	2.39	0.56
31:CA:35:G:C2	31:CA:550:G:N3	2.73	0.56
32:CE:47:THR:O	32:CE:51:LEU:HB2	2.05	0.56
33:CF:71:ALA:HA	33:CF:106:VAL:HB	1.87	0.56
34:CG:98:GLU:HG3	34:CG:194:LEU:HD11	1.86	0.56
49:CV:10:PHE:O	49:CV:11:VAL:O	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:67:GLY:O	17:D2:88:ARG:CD	2.53	0.56
28:D6:25:LYS:HB3	30:D8:34:TRP:CZ3	2.40	0.56
1:DA:1007:C:H5"	9:DM:35:ARG:HH11	1.68	0.56
1:DA:1166:C:O2	1:DA:1184:G:C2	2.58	0.56
1:DA:2125:G:N2	1:DA:2172:U:O5'	2.34	0.56
1:DA:2133:G:H1'	1:DA:2158:A:H62	1.70	0.56
1:DA:2162:G:O2'	1:DA:2163:C:H5'	2.05	0.56
1:DA:2016:U:OP1	56:DA:3362:OHX:N3	2.37	0.56
1:DA:487:C:C2'	1:DA:488:G:H5'	2.35	0.56
1:DA:833:U:H1'	11:DO:55:ARG:NH1	2.19	0.56
4:DE:26:ILE:O	4:DE:27:LEU:CB	2.53	0.56
11:DO:55:ARG:O	11:DO:57:THR:N	2.38	0.56
12:DP:42:ILE:HD13	12:DP:97:VAL:HG21	1.87	0.56
14:DQ:9:ARG:O	14:DQ:12:PHE:N	2.38	0.56
15:DR:16:ARG:HB3	15:DR:18:ASP:OD1	2.04	0.56
1:AA:1019:U:C5	1:AA:1020:A:N7	2.73	0.56
1:AA:1496:A:C8	1:AA:1577:C:O2'	2.22	0.56
1:AA:1786:A:H1'	1:AA:1938:A:N6	2.21	0.56
1:AA:1956:U:H2'	1:AA:1957:C:H5'	1.85	0.56
1:AA:2171:A:O2'	1:AA:2172:U:O5'	2.17	0.56
1:AA:2405:G:P	11:AO:77:ARG:HH21	2.28	0.56
1:AA:2761:G:O6	56:AA:3463:OHX:N2	2.38	0.56
1:AA:864:G:O2'	1:AA:865:C:H5'	2.06	0.56
2:AB:44:G:C2	2:AB:48:A:C2	2.93	0.56
2:AB:70:C:H2'	2:AB:71:C:H6	1.70	0.56
2:AB:73:A:C3'	2:AB:74:U:H5'	2.33	0.56
3:AD:238:GLY:O	3:AD:239:ARG:HB2	2.05	0.56
5:AF:136:THR:HG22	5:AF:166:ALA:O	2.05	0.56
11:AO:11:GLY:O	11:AO:13:ASN:N	2.38	0.56
14:AQ:41:ASP:OD2	14:AQ:44:LYS:HD2	2.05	0.56
24:AW:59:ARG:O	24:AW:62:THR:HG23	2.05	0.56
23:AZ:78:LYS:HZ3	23:AZ:94:LEU:HD11	1.69	0.56
31:BA:1030:C:H6	31:BA:1030:C:O5'	1.88	0.56
31:BA:173:U:H4'	31:BA:174:C:OP2	2.04	0.56
31:BA:954:G:C2	31:BA:955:U:C2	2.93	0.56
31:BA:963:G:H21	40:BM:55:LYS:CE	2.18	0.56
52:BB:53:A:H2'	52:BB:54:C:H6	1.70	0.56
34:BG:31:CYS:HB3	34:BG:33:MET:HB2	1.87	0.56
37:BJ:79:ARG:HH12	37:BJ:82:GLY:H	1.50	0.56
31:BA:1125:U:H3	40:BM:5:ARG:HH21	1.53	0.56
43:BP:4:ILE:HG22	43:BP:5:ALA:N	2.14	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BR:73:GLU:HA	45:BR:73:GLU:OE1	2.05	0.56
49:BV:63:THR:CG2	49:BV:65:ASN:HD21	2.17	0.56
31:CA:1297:C:C1'	31:CA:1298:C:OP2	2.53	0.56
31:CA:259:G:H1	31:CA:267:C:H42	1.53	0.56
32:CE:216:SER:C	32:CE:218:ALA:H	2.08	0.56
34:CG:191:ARG:NH1	34:CG:200:GLU:OE1	2.37	0.56
34:CG:8:VAL:HG11	34:CG:21:LEU:HB2	1.87	0.56
35:CH:62:ALA:O	35:CH:64:ARG:N	2.37	0.56
40:CM:40:LEU:HB3	40:CM:69:ASN:HB3	1.86	0.56
50:CW:88:VAL:O	50:CW:92:LEU:HG	2.05	0.56
17:D2:13:ARG:NH1	17:D2:15:GLU:OE1	2.38	0.56
1:DA:1188:U:C5'	17:D2:79:VAL:HB	2.34	0.56
1:DA:1488:G:N1	1:DA:1489:U:O2	2.38	0.56
1:DA:2182:G:H2'	1:DA:2183:C:C6	2.41	0.56
1:DA:2417:C:N4	1:DA:2418:A:H62	2.03	0.56
1:DA:262:A:H2'	1:DA:263:C:H5'	1.86	0.56
1:DA:753:C:H2'	1:DA:754:C:H6	1.70	0.56
3:DD:61:LEU:HB3	3:DD:63:ARG:NH1	2.20	0.56
4:DE:23:VAL:HA	4:DE:184:VAL:O	2.04	0.56
7:DH:11:VAL:HB	7:DH:13:LYS:CD	2.35	0.56
12:DP:31:ASP:OD1	12:DP:134:ARG:NH2	2.38	0.56
12:DP:97:VAL:HG12	12:DP:97:VAL:O	2.05	0.56
2:DB:8:U:O2'	14:DQ:40:ILE:HD13	2.05	0.56
20:DU:62:GLU:OE1	20:DU:63:LYS:NZ	2.38	0.56
24:DW:6:VAL:HG23	24:DW:7:ARG:H	1.70	0.56
16:A1:97:ASP:O	16:A1:100:VAL:N	2.37	0.56
22:A3:56:ASP:O	22:A3:57:PHE:HB2	2.04	0.56
1:AA:1557:C:H5"	1:AA:1558:A:OP2	2.04	0.56
1:AA:1575:C:H2'	1:AA:1576:U:H6	1.70	0.56
1:AA:164:U:O2	1:AA:164:U:H2'	2.03	0.56
1:AA:528:A:H2	1:AA:2043:C:H5'	1.69	0.56
1:AA:2801:A:C2'	1:AA:2802:G:O5'	2.52	0.56
2:AB:28:C:O2'	2:AB:29:A:H5'	2.05	0.56
2:AB:71:C:C4	2:AB:72:G:N7	2.73	0.56
4:AE:64:LYS:O	4:AE:70:ALA:HB2	2.05	0.56
15:AR:39:ARG:HH22	31:BA:346:G:C1'	2.17	0.56
20:AU:43:ASN:CB	20:AU:64:GLU:HA	2.35	0.56
31:BA:1002:G:N3	31:BA:1003:G:C8	2.73	0.56
31:BA:1129:C:C4	31:BA:1139:G:C6	2.94	0.56
31:BA:1134:G:H2'	31:BA:1134:G:N3	2.20	0.56
31:BA:1157:A:H1'	31:BA:1158:C:C4	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1176:A:N6	31:BA:1177:G:N7	2.53	0.56
31:BA:1277:C:O2'	31:BA:1279:A:H1'	2.05	0.56
31:BA:1295:G:C6	31:BA:1296:C:C4	2.94	0.56
31:BA:1452:C:C2'	31:BA:1453:G:OP2	2.53	0.56
31:BA:789:U:H1'	31:BA:792:A:C2	2.40	0.56
31:BA:962:C:O2'	56:BA:1806:OHX:N1	2.38	0.56
52:BB:13:G:H5'	52:BB:14:A:OP1	2.04	0.56
34:BG:11:LEU:O	34:BG:12:CYS:C	2.43	0.56
35:BH:33:VAL:HG11	35:BH:109:ILE:HG12	1.86	0.56
39:BL:3:GLN:OE1	39:BL:20:ARG:NH1	2.38	0.56
51:BX:9:ARG:HH12	51:BX:23:PRO:HD2	1.68	0.56
31:CA:1116:C:H42	31:CA:1184:G:H1	1.53	0.56
31:CA:1128:C:C4	31:CA:1139:G:C2	2.93	0.56
31:CA:345:C:HO2'	31:CA:346:G:P	2.28	0.56
52:CB:53:A:C2'	52:CB:54:C:H5'	2.34	0.56
32:CE:137:ARG:C	32:CE:137:ARG:HD3	2.25	0.56
33:CF:83:ARG:HG3	33:CF:84:ILE:N	2.19	0.56
39:CL:4:TYR:CB	39:CL:19:LEU:HB2	2.36	0.56
39:CL:47:LEU:CB	39:CL:50:LEU:HD12	2.35	0.56
39:CL:95:LYS:HZ3	39:CL:96:LEU:HB2	1.69	0.56
42:CO:23:LYS:CD	42:CO:23:LYS:H	2.18	0.56
17:D2:29:PRO:HA	17:D2:61:VAL:CG1	2.35	0.56
2:DB:46:A:H2'	2:DB:47:C:H6	1.69	0.56
3:DD:177:LEU:O	3:DD:180:GLY:N	2.24	0.56
4:DE:55:ASN:O	4:DE:57:LYS:NZ	2.36	0.56
5:DF:59:TYR:HD1	5:DF:78:ILE:HG13	1.70	0.56
6:DG:15:VAL:HG13	6:DG:175:LEU:CB	2.35	0.56
7:DH:7:LEU:N	7:DH:8:PRO:HD2	2.19	0.56
8:DK:114:LEU:O	8:DK:115:ALA:HB3	2.04	0.56
9:DM:43:THR:H	9:DM:48:MET:HE3	1.69	0.56
12:DP:134:ARG:HH11	12:DP:134:ARG:HG2	1.70	0.56
12:DP:52:VAL:HG13	12:DP:56:ARG:HH12	1.70	0.56
14:DQ:26:LEU:HD12	14:DQ:39:ILE:HD11	1.86	0.56
15:DR:99:LEU:N	15:DR:99:LEU:HD12	2.21	0.56
19:DT:49:VAL:HB	19:DT:83:VAL:HG21	1.87	0.56
13:A0:24:GLN:HE22	13:A0:36:THR:CG2	2.19	0.56
1:AA:107:C:O2	1:AA:107:C:H2'	2.06	0.56
1:AA:1210:A:H5"	1:AA:1212:G:O4'	2.05	0.56
1:AA:143:C:H5'	19:AT:35:THR:HG21	1.87	0.56
1:AA:1952:A:C2	10:AN:22:ILE:CD1	2.88	0.56
1:AA:214:G:OP1	1:AA:214:G:H4'	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2682:U:C6	4:AE:11:MET:HE2	2.40	0.56
1:AA:878:A:C6	1:AA:900:A:C8	2.93	0.56
1:AA:2773:C:OP1	4:AE:166:THR:OG1	2.23	0.56
7:AH:169:VAL:HG13	7:AH:170:ARG:N	2.20	0.56
7:AH:30:LYS:HE3	7:AH:81:GLU:H	1.70	0.56
9:AM:75:TYR:CD1	9:AM:75:TYR:C	2.78	0.56
1:AA:805:G:O4'	11:AO:38:GLN:NE2	2.37	0.56
14:AQ:74:ALA:HB1	14:AQ:107:GLU:O	2.06	0.56
21:AV:105:VAL:HG13	21:AV:140:ASP:HA	1.88	0.56
1:AA:1364:G:C8	23:AZ:2:SER:HB3	2.40	0.56
31:BA:54:C:N4	31:BA:353:A:OP2	2.30	0.56
31:BA:378:G:N2	31:BA:386:C:O2	2.38	0.56
52:BB:41:C:H2'	52:BB:41:C:O2	2.05	0.56
34:BG:110:PHE:CD2	34:BG:148:VAL:HG23	2.40	0.56
34:BG:5:ILE:CG2	34:BG:6:GLY:N	2.66	0.56
35:BH:35:GLY:HA3	35:BH:112:LEU:O	2.05	0.56
37:BJ:109:ASN:OD1	37:BJ:119:ARG:NH2	2.38	0.56
43:BP:9:ILE:O	43:BP:9:ILE:HG22	2.06	0.56
31:CA:179:A:C4	31:CA:180:U:C5	2.92	0.56
52:CB:10:C:H2'	52:CB:11:C:C6	2.41	0.56
52:CD:13:G:H1'	52:CD:23:A:N6	2.20	0.56
52:CD:41:C:H2'	52:CD:42:U:H6	1.69	0.56
52:CD:46:G:H2'	52:CD:47:U:O4'	2.06	0.56
52:CD:1:G:C2	52:CD:82:A:C2	2.93	0.56
32:CE:16:HIS:CD2	32:CE:209:ARG:O	2.59	0.56
39:CL:3:GLN:HE21	39:CL:20:ARG:HH11	1.49	0.56
45:CR:4:THR:HB	45:CR:7:GLU:H	1.70	0.56
47:CT:78:GLU:OE2	47:CT:81:ARG:HD2	2.05	0.56
16:D1:83:LEU:HD23	16:D1:88:ILE:HG13	1.85	0.56
26:D4:49:PHE:CD1	26:D4:50:VAL:HG22	2.40	0.56
1:DA:228:A:C8	1:DA:228:A:C3'	2.87	0.56
1:DA:2287:A:H2	1:DA:2346:A:N1	2.03	0.56
1:DA:1470:G:N7	56:DA:3343:OHX:N1	2.53	0.56
2:DB:93:C:O2'	2:DB:94:C:H5'	2.06	0.56
5:DF:69:HIS:C	5:DF:70:THR:HG23	2.26	0.56
11:DO:84:ASN:C	11:DO:86:LYS:H	2.08	0.56
14:DQ:39:ILE:HG21	14:DQ:82:ILE:HD13	1.86	0.56
20:DU:11:ASP:O	20:DU:27:VAL:HG22	2.06	0.56
21:DV:168:GLU:O	21:DV:170:THR:N	2.38	0.56
21:DV:40:ASP:O	21:DV:43:GLU:HB2	2.06	0.56
16:A1:115:ALA:O	16:A1:116:ALA:CB	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:A4:49:PHE:O	26:A4:50:VAL:HB	2.05	0.56
1:AA:1045:A:H1'	1:AA:1047:G:N3	2.21	0.56
1:AA:1081:U:C2'	1:AA:1082:U:O4'	2.53	0.56
1:AA:1551:C:H2'	1:AA:1552:G:C5'	2.32	0.56
1:AA:1796:U:H2'	1:AA:1797:C:C6	2.39	0.56
1:AA:34:C:HO2'	1:AA:35:G:P	2.27	0.56
4:AE:49:LEU:HD21	4:AE:91:VAL:HG21	1.86	0.56
6:AG:66:GLN:OE1	6:AG:98:ARG:NH1	2.39	0.56
7:AH:83:TYR:CA	7:AH:135:GLY:H	2.18	0.56
7:AH:137:ASP:HB3	7:AH:140:LYS:HB3	1.87	0.56
7:AH:55:PRO:HD2	7:AH:61:HIS:ND1	2.20	0.56
11:AO:112:LEU:H	11:AO:128:HIS:HD2	1.49	0.56
15:AR:132:LYS:O	15:AR:136:GLN:HG2	2.05	0.56
24:AW:32:LEU:HD12	24:AW:57:ILE:HD12	1.87	0.56
31:BA:1176:A:N1	31:BA:1177:G:C4	2.74	0.56
31:BA:1176:A:H3'	31:BA:1177:G:C5'	2.35	0.56
31:BA:1370:G:O2'	31:BA:1371:G:H5'	2.05	0.56
31:BA:266:G:C2	31:BA:269:C:C5	2.93	0.56
31:BA:599:C:N3	31:BA:600:C:C5	2.73	0.56
52:BB:73:U:H2'	52:BB:74:C:C6	2.40	0.56
33:BF:7:PRO:O	33:BF:11:ARG:NH1	2.38	0.56
34:BG:146:ILE:HD12	34:BG:146:ILE:N	2.20	0.56
39:BL:98:PRO:C	39:BL:100:GLY:H	2.08	0.56
39:BL:3:GLN:HB3	39:BL:20:ARG:HH11	1.71	0.56
47:BT:45:HIS:CD2	47:BT:47:PRO:HG3	2.41	0.56
31:CA:1003:G:H2'	31:CA:1004:A:H5'	1.86	0.56
31:CA:1227:A:O3'	43:CP:115:LYS:HE2	2.05	0.56
31:CA:584:G:N7	56:CA:1741:OHX:N2	2.54	0.56
31:CA:1190:G:O6	56:CA:1762:OHX:N6	2.38	0.56
31:CA:281:G:H8	31:CA:281:G:OP2	1.88	0.56
31:CA:631:G:H5"	31:CA:632:A:N7	2.19	0.56
31:CA:833:U:O2	31:CA:854:G:C2	2.59	0.56
32:CE:12:GLU:HB3	32:CE:213:LEU:HD13	1.87	0.56
37:CJ:53:LYS:HB3	37:CJ:53:LYS:NZ	2.21	0.56
42:CO:117:ARG:NH2	42:CO:124:LYS:HB2	2.21	0.56
16:D1:25:TRP:O	16:D1:25:TRP:HD1	1.89	0.56
30:D8:31:HIS:O	30:D8:32:LEU:C	2.44	0.56
1:DA:1075:C:H2'	1:DA:1076:C:C6	2.41	0.56
1:DA:2191:G:HO2'	1:DA:2192:G:P	2.28	0.56
1:DA:2427:C:C5'	1:DA:2428:G:OP1	2.50	0.56
1:DA:91:A:H2'	1:DA:92:G:H5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:46:A:H2'	2:DB:47:C:C6	2.40	0.56
3:DD:70:TRP:CZ3	3:DD:146:GLU:OE2	2.58	0.56
3:DD:35:LYS:HE3	3:DD:64:ILE:H	1.70	0.56
3:DD:35:LYS:CB	3:DD:64:ILE:HG23	2.35	0.56
6:DG:66:GLN:OE1	6:DG:98:ARG:NH1	2.39	0.56
8:DK:125:GLU:OE1	8:DK:141:LYS:HA	2.06	0.56
21:DV:175:VAL:HG22	21:DV:176:PRO:HB3	1.88	0.56
27:A5:31:VAL:HG22	27:A5:32:PRO:O	2.05	0.56
1:AA:1729:A:C5	1:AA:1731:G:C5	2.93	0.56
1:AA:2572:A:C4	4:AE:144:ARG:NH1	2.74	0.56
1:AA:2740:A:C6	1:AA:2764:A:C8	2.93	0.56
1:AA:2886:G:C2	1:AA:2887:U:C6	2.93	0.56
1:AA:404:C:H1'	1:AA:405:U:OP2	2.05	0.56
1:AA:527:C:H4'	1:AA:528:A:C5'	2.34	0.56
7:AH:83:TYR:HA	7:AH:135:GLY:H	1.70	0.56
7:AH:4:ILE:HG13	7:AH:6:ARG:NH2	2.21	0.56
9:AM:96:GLU:H	9:AM:98:VAL:HG12	1.70	0.56
14:AQ:92:TYR:CB	14:AQ:98:VAL:HG11	2.33	0.56
31:BA:1169:A:N6	31:BA:1170:A:N1	2.53	0.56
31:BA:1236:A:O2'	31:BA:1304:G:H4'	2.04	0.56
31:BA:1310:G:O2'	31:BA:1311:G:H5'	2.05	0.56
31:BA:1309:G:C5	31:BA:1329:A:C2	2.94	0.56
31:BA:475:G:N7	56:BA:1790:OHX:N3	2.54	0.56
31:BA:575:G:H4'	31:BA:576:G:C5'	2.35	0.56
31:BA:750:G:N3	31:BA:751:U:C6	2.73	0.56
32:BE:25:ASN:O	32:BE:27:LYS:N	2.38	0.56
39:BL:10:ARG:HD3	39:BL:11:LYS:HB2	1.88	0.56
49:BV:39:THR:HG22	49:BV:40:ILE:H	1.71	0.56
33:CF:164:ARG:NH2	54:C1:25:A:O2'	2.34	0.56
31:CA:166:G:C2'	31:CA:167:G:H5'	2.36	0.56
53:CC:17:C:O2	53:CC:17:C:C2'	2.54	0.56
52:CD:11:C:H2'	52:CD:12:C:H5'	1.88	0.56
33:CF:88:ARG:HD3	33:CF:100:ALA:O	2.05	0.56
40:CM:55:LYS:O	40:CM:56:HIS:CG	2.58	0.56
13:D0:52:ILE:HG21	13:D0:94:TYR:CG	2.40	0.56
30:D8:33:ASN:HD21	30:D8:41:ILE:HG12	1.69	0.56
1:DA:1257:C:O2'	5:DF:83:PHE:O	2.24	0.56
1:DA:1567:A:H5'	3:DD:58:HIS:CD2	2.41	0.56
1:DA:2294:C:H2'	1:DA:2295:C:H6	1.70	0.56
1:DA:2298:A:H61	1:DA:2318:G:C2'	2.19	0.56
1:DA:2469:A:C5'	1:DA:2469:A:N3	2.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:675:A:C4	1:DA:804:A:C2	2.92	0.56
1:DA:71:A:H4'	1:DA:72:U:H5"	1.88	0.56
1:DA:743:G:C2'	1:DA:744:G:H5'	2.36	0.56
1:DA:617:G:OP1	5:DF:40:GLN:CG	2.54	0.56
1:DA:2311:A:C2	6:DG:44:GLY:CA	2.88	0.56
12:DP:111:GLU:O	12:DP:115:MET:HG2	2.06	0.56
15:DR:55:ASN:H	15:DR:59:THR:HG22	1.70	0.56
21:DV:59:LEU:CD2	21:DV:61:LEU:HG	2.36	0.56
21:DV:59:LEU:O	21:DV:60:GLU:CB	2.52	0.56
21:DV:75:ASN:O	21:DV:84:GLU:HG3	2.04	0.56
16:A1:92:ARG:CB	17:A2:11:GLN:NE2	2.68	0.56
1:AA:1126:A:H4'	1:AA:1127:A:O5'	2.04	0.56
1:AA:2133:G:C6	1:AA:2157:G:O6	2.58	0.56
1:AA:2213:U:O2'	1:AA:2215:G:OP1	2.15	0.56
1:AA:2416:C:H6	1:AA:2416:C:O5'	1.87	0.56
1:AA:2580:U:H5"	1:AA:2581:G:OP2	2.06	0.56
1:AA:2855:C:H2'	1:AA:2856:C:H6	1.71	0.56
1:AA:755:C:H2'	1:AA:756:C:H6	1.69	0.56
1:AA:861:A:C2	1:AA:917:A:C5	2.94	0.56
2:AB:103:U:O3'	21:AV:72:ARG:HD3	2.05	0.56
2:AB:72:G:O2'	2:AB:104:A:N6	2.33	0.56
3:AD:25:THR:OG1	3:AD:113:VAL:HG21	2.05	0.56
4:AE:38:THR:CG2	4:AE:41:LYS:H	2.19	0.56
6:AG:16:ARG:HG3	6:AG:16:ARG:NH1	2.20	0.56
9:AM:17:ASP:O	9:AM:18:ALA:HB3	2.06	0.56
10:AN:113:LYS:HD2	10:AN:117:LEU:HD11	1.87	0.56
12:AP:4:PRO:HD3	12:AP:70:PRO:O	2.05	0.56
21:AV:117:LEU:HD13	21:AV:117:LEU:H	1.70	0.56
21:AV:151:HIS:HD2	21:AV:168:GLU:HA	1.71	0.56
31:BA:1285:A:H4'	31:BA:1286:A:O5'	2.04	0.56
31:BA:1293:G:H2'	31:BA:1294:G:O4'	2.06	0.56
31:BA:200:G:C2	31:BA:218:C:N3	2.73	0.56
36:BI:45:LEU:HD23	36:BI:46:ARG:N	2.20	0.56
31:BA:1240:U:O2'	37:BJ:38:LEU:HG	2.06	0.56
54:C1:19:U:O2'	54:C1:20:G:H5'	2.06	0.56
31:CA:1348:U:C4	31:CA:1374:A:H2	2.23	0.56
31:CA:1442:G:C5	31:CA:1446:A:N1	2.74	0.56
31:CA:1480:G:C5	31:CA:1481:U:C5	2.94	0.56
31:CA:475:G:C2	31:CA:476:G:C8	2.93	0.56
31:CA:605:U:O4	56:CA:1809:OHX:N3	2.39	0.56
33:CF:17:ASP:OD2	33:CF:18:TRP:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:75:THR:HG23	35:CH:76:ILE:N	2.20	0.56
38:CK:77:GLU:HG3	38:CK:78:GLN:H	1.67	0.56
40:CM:9:ARG:NH2	40:CM:95:GLU:HG2	2.13	0.56
42:CO:83:VAL:O	42:CO:105:TYR:CD1	2.59	0.56
13:D0:37:THR:HB	13:D0:39:PRO:HD2	1.88	0.56
17:D2:76:LYS:HB2	17:D2:81:TYR:CD1	2.40	0.56
22:D3:51:VAL:CA	22:D3:62:LEU:HD12	2.35	0.56
29:D7:8:ASN:HD22	29:D7:11:LYS:N	1.95	0.56
30:D8:33:ASN:HA	30:D8:36:LYS:HE3	1.85	0.56
1:DA:1331:A:O2'	1:DA:1332:G:H8	1.87	0.56
1:DA:1386:C:H2'	1:DA:1387:C:H6	1.70	0.56
1:DA:1397:U:O2'	1:DA:1398:C:P	2.64	0.56
1:DA:1464:C:O2'	1:DA:1528:A:H8	1.86	0.56
1:DA:1537:C:H2'	1:DA:1538:G:H8	1.68	0.56
1:DA:2095:C:H2'	1:DA:2096:U:O4'	2.06	0.56
1:DA:2180:U:H2'	1:DA:2181:G:O4'	2.05	0.56
1:DA:277:C:O2	1:DA:277:C:H2'	2.06	0.56
1:DA:929:G:H8	1:DA:929:G:O5'	1.89	0.56
3:DD:96:HIS:CE1	3:DD:102:LYS:HD3	2.40	0.56
1:DA:2513:G:N2	4:DE:143:ASN:HD21	2.02	0.56
4:DE:61:ARG:HB3	4:DE:62:PRO:CD	2.36	0.56
5:DF:160:ASN:HB3	5:DF:163:VAL:HB	1.87	0.56
6:DG:109:VAL:HG11	6:DG:142:PRO:HB3	1.88	0.56
14:DQ:11:LYS:CG	14:DQ:91:PRO:HD3	2.31	0.56
19:DT:47:PHE:O	19:DT:49:VAL:HG13	2.06	0.56
20:DU:84:ARG:O	20:DU:85:VAL:HB	2.06	0.56
20:DU:97:ARG:N	20:DU:97:ARG:HD3	2.20	0.56
23:DZ:80:LEU:HD12	23:DZ:82:LEU:HD21	1.88	0.56
1:AA:2080:G:H5'	23:AZ:19:GLN:HG2	1.88	0.56
1:AA:2396:G:O2'	1:AA:2397:G:H5'	2.06	0.56
3:AD:35:LYS:CG	3:AD:64:ILE:H	2.17	0.56
3:AD:43:ARG:HH11	3:AD:44:ASN:CG	2.00	0.56
4:AE:105:THR:HB	4:AE:197:ILE:HG12	1.88	0.56
5:AF:119:ARG:HG2	5:AF:119:ARG:O	2.06	0.56
5:AF:40:GLN:HE22	5:AF:182:ASN:HB2	1.71	0.56
8:AK:86:THR:HA	8:AK:123:LEU:HD13	1.88	0.56
15:AR:107:ASP:O	15:AR:108:ARG:C	2.44	0.56
15:AR:53:ARG:O	15:AR:59:THR:HB	2.06	0.56
21:AV:105:VAL:HG11	21:AV:138:GLU:OE1	2.06	0.56
31:BA:977:A:H8	31:BA:1223:C:N3	2.02	0.56
31:BA:1450:U:O2	31:BA:1452:C:H5"	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:198:G:OP1	56:BA:1772:OHX:N2	2.39	0.56
31:BA:721:G:H4'	31:BA:722:A:O4'	2.05	0.56
52:BB:10:C:N4	52:BB:26:G:H1	2.03	0.56
52:BD:30:A:N6	52:BD:42:U:H3	2.04	0.56
34:BG:101:LEU:HD23	34:BG:121:VAL:CG1	2.35	0.56
34:BG:134:ASP:HB2	34:BG:135:LEU:HD13	1.87	0.56
34:BG:173:TRP:HA	34:BG:187:ARG:HD3	1.88	0.56
37:BJ:113:GLU:HB3	37:BJ:118:VAL:HG13	1.87	0.56
38:BK:20:TYR:HD1	38:BK:65:TYR:CE2	2.23	0.56
38:BK:39:LEU:HB3	38:BK:45:ILE:HG12	1.87	0.56
39:BL:113:LYS:HD3	39:BL:119:ALA:HA	1.88	0.56
43:BP:6:GLY:O	43:BP:7:VAL:HG23	2.06	0.56
46:BS:82:GLN:O	46:BS:83:GLU:HB2	2.05	0.56
31:CA:1002:G:H2'	31:CA:1003:G:C8	2.40	0.56
31:CA:1111:A:H2'	31:CA:1112:C:H6	1.71	0.56
31:CA:1442:G:HO2'	31:CA:1443:G:P	2.29	0.56
31:CA:382:A:H2'	31:CA:383:A:H8	1.68	0.56
31:CA:861:G:C4	31:CA:862:C:C5	2.94	0.56
31:CA:972:C:O3'	40:CM:57:LYS:HG3	2.06	0.56
32:CE:92:TYR:CE2	32:CE:151:GLY:HA3	2.40	0.56
32:CE:217:ARG:NH1	32:CE:217:ARG:HB2	2.21	0.56
33:CF:102:ASN:O	33:CF:103:VAL:HG23	2.06	0.56
40:CM:27:ALA:HA	40:CM:81:THR:HB	1.87	0.56
31:CA:273:A:H1'	47:CT:16:GLN:NE2	2.17	0.56
16:D1:29:SER:C	16:D1:30:LYS:HD3	2.24	0.56
17:D2:77:ALA:C	17:D2:78:LYS:HG2	2.26	0.56
1:DA:1268:A:H2'	1:DA:1269:A:O4'	2.05	0.56
1:DA:1404:C:H2'	1:DA:1405:U:H5'	1.86	0.56
1:DA:2119:A:N1	1:DA:2170:A:N7	2.52	0.56
1:DA:2467:C:N4	1:DA:2468:G:C2	2.73	0.56
1:DA:1786:A:H2	1:DA:2606:C:H1'	1.69	0.56
1:DA:729:G:OP2	3:DD:13:ARG:NH1	2.38	0.56
3:DD:35:LYS:CE	3:DD:64:ILE:H	2.19	0.56
5:DF:102:PRO:HB2	5:DF:105:VAL:HG23	1.86	0.56
5:DF:57:VAL:CG1	5:DF:58:ALA:N	2.69	0.56
11:DO:46:LYS:HD3	11:DO:51:PHE:CZ	2.41	0.56
14:DQ:29:PHE:HD2	14:DQ:30:ARG:H	1.50	0.56
21:DV:30:ASN:O	21:DV:33:LEU:N	2.27	0.56
1:AA:1142(A):A:C8	1:AA:1144:G:C5	2.93	0.56
1:AA:16:G:H2'	1:AA:17:G:H8	1.71	0.56
1:AA:1725:G:OP2	56:AA:3527:OHX:N2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2307:G:N9	1:AA:2311:A:C2	2.73	0.56
1:AA:2610:C:H4'	1:AA:2611:U:OP2	2.04	0.56
1:AA:325:G:O2'	1:AA:326:G:H5'	2.06	0.56
1:AA:922:U:H2'	1:AA:923:C:C6	2.41	0.56
2:AB:75:G:N2	21:AV:85:HIS:CE1	2.73	0.56
3:AD:71:ASP:HB3	3:AD:103:ARG:HH22	1.69	0.56
12:AP:43:THR:HA	12:AP:94:VAL:HG12	1.87	0.56
21:AV:30:ASN:HD22	21:AV:33:LEU:H	1.52	0.56
31:BA:1176:A:C2'	31:BA:1177:G:H5"	2.36	0.56
31:BA:1468:A:O5'	31:BA:1468:A:H8	1.88	0.56
31:BA:156:G:H1	31:BA:165:C:H42	1.54	0.56
31:BA:181:G:O2'	31:BA:182:U:O5'	2.24	0.56
31:BA:173:U:C4	31:BA:197:A:C2	2.94	0.56
31:BA:353:A:C2'	31:BA:354:G:OP2	2.53	0.56
31:BA:81:G:C2	31:BA:88:C:C4	2.93	0.56
53:BC:41:C:O2'	53:BC:42:C:H5'	2.05	0.56
33:BF:19:GLU:HA	33:BF:54:ARG:NH1	2.21	0.56
34:BG:8:VAL:HG21	34:BG:115:ARG:NH1	2.20	0.56
35:BH:8:GLU:HG3	35:BH:34:VAL:HG22	1.87	0.56
42:BO:90:VAL:HG12	42:BO:91:LYS:N	2.21	0.56
31:CA:987:G:N2	31:CA:1218:C:N3	2.47	0.56
31:CA:978:A:O2'	31:CA:1322:C:C4	2.58	0.56
31:CA:616:G:C2	31:CA:617:G:C8	2.94	0.56
31:CA:695:A:OP1	41:CN:52:GLY:HA3	2.05	0.56
31:CA:1280:A:O5'	40:CM:40:LEU:HD21	2.06	0.56
48:CU:55:ARG:NH1	48:CU:55:ARG:HG3	2.18	0.56
1:DA:1015:G:N1	1:DA:1016:G:C5	2.73	0.56
1:DA:1926:U:H2'	1:DA:1928:A:OP2	2.06	0.56
1:DA:2402:C:H41	1:DA:2416:C:H1'	1.70	0.56
1:DA:2537:U:O4	56:DA:3439:OHX:N4	2.38	0.56
1:DA:2051:A:H5'	1:DA:2578:G:O4'	2.06	0.56
1:DA:2689:U:P	1:DA:2719:G:H22	2.29	0.56
1:DA:266:G:OP1	56:DA:3426:OHX:N5	2.39	0.56
1:DA:774:A:H2	1:DA:787:U:O2'	1.86	0.56
1:DA:863:A:O2'	1:DA:864:G:H5'	2.05	0.56
1:DA:902:C:C2'	1:DA:903:C:H5'	2.36	0.56
3:DD:267:SER:C	3:DD:269:PHE:H	2.09	0.56
3:DD:271:ILE:O	3:DD:272:ALA:HB2	2.06	0.56
4:DE:42:ASP:CB	4:DE:43:GLY:CA	2.36	0.56
1:DA:617:G:OP1	5:DF:40:GLN:HG3	2.05	0.56
7:DH:9:ILE:HD12	7:DH:49:VAL:HG12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DZ:92:LYS:HB2	23:DZ:93:GLU:OE1	2.06	0.56
1:AA:1091:G:C2'	1:AA:1092:C:H5'	2.36	0.56
1:AA:1131:G:C8	9:AM:75:TYR:CD2	2.94	0.56
1:AA:1516:U:H2'	1:AA:1517:G:C8	2.41	0.56
1:AA:2887:U:H2'	1:AA:2887:U:O2	2.06	0.56
1:AA:775:G:C4	1:AA:794:G:C8	2.93	0.56
8:AK:93:THR:H	8:AK:96:ASP:HB2	1.71	0.56
21:AV:60:GLU:O	21:AV:61:LEU:CB	2.53	0.56
25:AX:10:LYS:HD3	25:AX:53:LEU:HD23	1.87	0.56
31:BA:411:A:H62	31:BA:413:G:N2	2.04	0.56
35:BH:43:LEU:HD23	35:BH:133:TYR:CE1	2.41	0.56
39:BL:125:TYR:HD2	39:BL:126:SER:N	2.04	0.56
45:BR:74:ASP:C	45:BR:76:GLU:H	2.09	0.56
47:BT:88:TYR:HD2	47:BT:89:LEU:HD23	1.70	0.56
31:CA:1394:A:OP2	56:CA:1797:OHX:N4	2.38	0.56
31:CA:426:G:H2'	31:CA:427:U:C6	2.41	0.56
31:CA:560:U:H5'	31:CA:566:G:N2	2.20	0.56
31:CA:688:G:H2'	31:CA:689:C:H6	1.71	0.56
52:CB:61:G:H2'	52:CB:62:G:H8	1.71	0.56
33:CF:164:ARG:HH12	33:CF:166:GLU:CD	2.09	0.56
35:CH:99:GLY:O	35:CH:117:ASP:HA	2.06	0.56
42:CO:83:VAL:CG1	42:CO:100:ILE:HD12	2.33	0.56
42:CO:90:VAL:C	42:CO:92:ASP:H	2.07	0.56
46:CS:9:PHE:HE2	46:CS:18:ARG:HE	1.52	0.56
49:CV:66:MET:CA	49:CV:67:VAL:HB	2.35	0.56
49:CV:66:MET:HA	49:CV:67:VAL:O	2.05	0.56
51:CX:15:ARG:HG3	51:CX:15:ARG:O	2.06	0.56
30:D8:30:ARG:HD2	30:D8:31:HIS:H	1.71	0.56
1:DA:1244:G:H4'	11:DO:7:ARG:HB2	1.88	0.56
1:DA:2469:A:O5'	1:DA:2476:A:C2	2.58	0.56
1:DA:1954:G:C2	1:DA:2551:C:H5"	2.40	0.56
1:DA:812:C:H5"	1:DA:1250:G:O2'	2.06	0.56
1:DA:958:U:H5"	12:DP:14:ARG:HD3	1.86	0.56
2:DB:8:U:H5"	2:DB:8:U:H6	1.71	0.56
1:DA:773:U:C4'	3:DD:47:GLY:HA3	2.36	0.56
5:DF:197:ASP:OD1	5:DF:197:ASP:C	2.42	0.56
7:DH:103:LEU:HD23	7:DH:103:LEU:N	2.20	0.56
9:DM:15:LEU:HD22	9:DM:53:VAL:HB	1.88	0.56
9:DM:91:LEU:O	9:DM:95:PRO:HB3	2.06	0.56
14:DQ:27:SER:HA	14:DQ:88:ASP:CB	2.36	0.56
15:DR:23:ARG:HB2	15:DR:24:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:DT:31:HIS:ND1	19:DT:32:PRO:HD2	2.19	0.56
22:A3:42:GLY:O	22:A3:57:PHE:CD2	2.59	0.56
30:A8:52:LYS:CG	30:A8:52:LYS:O	2.51	0.56
1:AA:528:A:OP2	9:AM:114:ARG:NH1	2.39	0.56
1:AA:531:C:H4'	1:AA:532:A:H5"	1.88	0.56
1:AA:851:U:O2'	25:AX:45:GLY:HA3	2.05	0.56
3:AD:147:LEU:HD13	3:AD:155:LEU:HD21	1.86	0.56
4:AE:68:ALA:C	4:AE:70:ALA:N	2.52	0.56
5:AF:108:LYS:NZ	5:AF:112:MET:SD	2.69	0.56
9:AM:55:VAL:C	9:AM:57:ALA:N	2.59	0.56
1:AA:811:U:P	11:AO:21:ARG:O	2.64	0.56
12:AP:136:ALA:HB1	21:AV:52:SER:HB2	1.88	0.56
20:AU:18:GLY:C	20:AU:20:TYR:H	2.08	0.56
21:AV:16:SER:O	21:AV:20:ARG:N	2.38	0.56
31:BA:1291:G:H2'	31:BA:1292:U:H6	1.71	0.56
31:BA:262:A:H2'	31:BA:263:A:C8	2.41	0.56
31:BA:595:G:H22	31:BA:643:C:H41	1.53	0.56
31:BA:652:U:O2'	31:BA:653:A:C5'	2.54	0.56
52:BD:48:C:H2'	52:BD:49:A:C8	2.41	0.56
32:BE:100:GLY:O	32:BE:102:LEU:N	2.39	0.56
35:BH:9:LYS:O	35:BH:33:VAL:HG23	2.05	0.56
38:BK:20:TYR:HA	38:BK:65:TYR:CE2	2.40	0.56
38:BK:8:ASP:O	38:BK:12:ARG:HG3	2.05	0.56
40:BM:50:ILE:CD1	40:BM:60:ARG:HH11	2.19	0.56
50:BW:82:SER:O	50:BW:86:ARG:HB2	2.06	0.56
50:BW:45:GLN:HA	50:BW:91:LEU:HB3	1.86	0.56
31:CA:1128:C:C2	31:CA:1139:G:C6	2.94	0.56
32:CE:7:VAL:O	32:CE:8:LYS:HB2	2.05	0.56
35:CH:75:THR:HA	35:CH:115:VAL:HG12	1.88	0.56
35:CH:75:THR:OG1	35:CH:117:ASP:O	2.15	0.56
17:D2:88:ARG:O	17:D2:89:GLN:C	2.43	0.56
1:DA:1260:G:H2'	1:DA:1261:C:C6	2.41	0.56
1:DA:1558:A:H4'	1:DA:1559:G:O5'	2.06	0.56
1:DA:2466:C:H2'	1:DA:2467:C:H5'	1.88	0.56
1:DA:2591:C:C2'	1:DA:2592:G:H5'	2.36	0.56
1:DA:2720:U:H2'	1:DA:2721:A:O4'	2.06	0.56
1:DA:2797:U:H2'	1:DA:2798:C:C5'	2.33	0.56
1:DA:2843:G:C3'	1:DA:2844:G:H5"	2.35	0.56
1:DA:315:G:H2'	1:DA:316:C:C6	2.41	0.56
1:DA:909:A:C4	1:DA:912:C:C5	2.94	0.56
2:DB:20:C:C2'	2:DB:21:G:H5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:29:TRP:O	6:DG:31:VAL:N	2.39	0.56
7:DH:136:ILE:HD12	7:DH:136:ILE:N	2.21	0.56
7:DH:58:GLU:HB2	7:DH:61:HIS:CE1	2.41	0.56
10:DN:88:ASN:O	10:DN:91:LEU:N	2.28	0.56
12:DP:102:VAL:HG12	12:DP:102:VAL:O	2.04	0.56
12:DP:19:GLY:HA3	12:DP:98:LYS:CD	2.35	0.56
14:DQ:73:LEU:HD13	14:DQ:73:LEU:O	2.05	0.56
15:DR:57:PHE:O	15:DR:57:PHE:CD2	2.59	0.56
19:DT:14:SER:O	19:DT:16:LYS:N	2.38	0.56
19:DT:18:TYR:HD1	19:DT:21:PHE:HE2	1.53	0.56
13:A0:48:VAL:O	13:A0:51:LEU:N	2.39	0.55
28:A6:42:TRP:N	28:A6:42:TRP:HD1	2.01	0.55
1:AA:1591:G:H2'	1:AA:1592:C:C6	2.41	0.55
1:AA:2102:U:O4	56:AA:3566:OHX:N2	2.39	0.55
1:AA:2259:G:C2	1:AA:2282:G:C6	2.94	0.55
1:AA:2797:U:H5"	1:AA:2798:C:OP2	2.06	0.55
1:AA:658:C:H2'	1:AA:659:C:H6	1.69	0.55
1:AA:2303:G:O2'	6:AG:132:ASN:HB2	2.06	0.55
7:AH:12:PRO:O	7:AH:13:LYS:HB2	2.06	0.55
11:AO:106:LEU:O	11:AO:107:LYS:HB2	2.05	0.55
21:AV:111:VAL:HG11	21:AV:146:ILE:HG12	1.86	0.55
31:BA:1191:A:H2'	31:BA:1192:C:H6	1.68	0.55
31:BA:552:U:O2'	31:BA:553:A:H5'	2.06	0.55
52:BB:75:C:O2'	52:BB:76:C:OP1	2.23	0.55
52:BD:17:G:H1'	52:BD:18:G:P	2.46	0.55
52:BD:40:U:C2'	52:BD:41:C:H5'	2.35	0.55
34:BG:114:ARG:NH1	34:BG:114:ARG:HG3	2.17	0.55
31:CA:1079:G:H2'	31:CA:1080:A:C8	2.40	0.55
31:CA:1239:A:O2'	31:CA:1298:C:N4	2.34	0.55
31:CA:1362(A):C:H5'	31:CA:1363:A:O5'	2.05	0.55
31:CA:1387:G:H2'	31:CA:1388:C:H6	1.70	0.55
31:CA:948:C:O2'	31:CA:949:A:H5'	2.06	0.55
52:CD:60:A:C2	52:CD:73:U:O2	2.58	0.55
52:CD:79:A:H2'	52:CD:80:C:H5'	1.87	0.55
35:CH:68:GLU:O	35:CH:68:GLU:HG3	2.05	0.55
40:CM:56:HIS:C	40:CM:58:ASP:H	2.10	0.55
48:CU:26:LEU:N	48:CU:26:LEU:HD13	2.21	0.55
16:D1:111:GLU:C	16:D1:113:ALA:H	2.10	0.55
16:D1:92:ARG:CZ	17:D2:11:GLN:H	2.20	0.55
29:D7:43:THR:HG22	29:D7:44:PRO:O	2.05	0.55
1:DA:1000:A:N6	1:DA:1001:A:N1	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1022:G:C2'	1:DA:1023:U:OP2	2.54	0.55
1:DA:1286:A:H1'	1:DA:1288:U:OP2	2.05	0.55
1:DA:1358:G:N2	1:DA:1372:U:C5	2.74	0.55
1:DA:2118:U:H3	1:DA:2147:G:HO2'	1.54	0.55
1:DA:829:A:N7	1:DA:2247:A:O2'	2.38	0.55
1:DA:2308:G:HO2'	1:DA:2309:A:P	2.29	0.55
1:DA:574:C:N3	4:DE:145:LYS:NZ	2.46	0.55
1:DA:648:G:C2'	1:DA:649:G:H5'	2.37	0.55
1:DA:915:C:H2'	1:DA:916:G:O5'	2.07	0.55
1:DA:946:G:C2'	1:DA:947:G:C5'	2.84	0.55
3:DD:124:PRO:HG2	3:DD:129:ASN:ND2	2.21	0.55
5:DF:17:ARG:HD3	5:DF:17:ARG:O	2.06	0.55
5:DF:37:VAL:HG13	5:DF:184:TYR:CD1	2.40	0.55
5:DF:68:LYS:O	5:DF:69:HIS:C	2.45	0.55
11:DO:121:LYS:O	11:DO:123:LEU:HD23	2.06	0.55
1:DA:2404:C:H1'	11:DO:67:MET:HE1	1.84	0.55
19:DT:63:LYS:HZ3	19:DT:63:LYS:H	1.54	0.55
21:DV:48:PHE:CZ	21:DV:52:SER:HB2	2.41	0.55
13:A0:85:PRO:C	13:A0:87:TYR:H	2.09	0.55
28:A6:41:PRO:HB2	28:A6:44:ARG:NH1	2.21	0.55
1:AA:1024:G:C3'	1:AA:1025:G:H5"	2.37	0.55
1:AA:550:G:O2'	1:AA:1220:A:N3	2.34	0.55
1:AA:1864:U:C2'	1:AA:1869:G:H5"	2.36	0.55
1:AA:1889:A:N1	1:AA:2234:G:H1'	2.21	0.55
1:AA:2320:A:H2'	1:AA:2320:A:N3	2.21	0.55
1:AA:2420:C:H5	30:A8:31:HIS:HA	1.72	0.55
1:AA:2591:C:H2'	1:AA:2592:G:C8	2.42	0.55
1:AA:270(L):U:H3	8:AK:50:ARG:HD2	1.71	0.55
1:AA:329:G:H4'	1:AA:330:A:OP2	2.05	0.55
1:AA:890:A:H3'	1:AA:892:G:H8	1.69	0.55
3:AD:69:ARG:NH2	3:AD:128:GLY:O	2.32	0.55
3:AD:33:LEU:HD13	3:AD:34:VAL:N	2.21	0.55
4:AE:21:VAL:HB	4:AE:22:PRO:HA	1.87	0.55
4:AE:66:HIS:ND1	4:AE:66:HIS:C	2.59	0.55
5:AF:107:LYS:HE3	5:AF:207:GLY:H	1.71	0.55
5:AF:59:TYR:CG	5:AF:78:ILE:HD12	2.40	0.55
7:AH:4:ILE:HG13	7:AH:6:ARG:NE	2.21	0.55
8:AK:133:HIS:O	8:AK:134:PRO:C	2.43	0.55
15:AR:125:ARG:HH12	31:BA:1446:A:H1'	1.71	0.55
1:AA:64:A:C2	19:AT:66:LEU:HD23	2.41	0.55
31:BA:1028(B):C:N3	31:BA:1032(A):G:C2	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1322:C:O2'	31:BA:1323:G:P	2.65	0.55
31:BA:465:A:N7	31:BA:467:G:N7	2.54	0.55
33:BF:43:LEU:O	33:BF:47:LEU:HB2	2.06	0.55
36:BI:10:LEU:HD22	36:BI:61:LEU:HD11	1.88	0.55
31:CA:1094:G:H2'	31:CA:1095:U:OP2	2.05	0.55
31:CA:1329:A:OP2	51:CX:7:ARG:NH1	2.36	0.55
31:CA:13:U:OP2	56:CA:1733:OHX:N3	2.40	0.55
31:CA:452:A:O2'	31:CA:453:A:P	2.64	0.55
31:CA:509:A:C8	31:CA:509:A:H3'	2.41	0.55
31:CA:533:A:O2'	31:CA:534:U:H5'	2.06	0.55
34:CG:105:VAL:O	34:CG:105:VAL:HG12	2.04	0.55
35:CH:101:ILE:HG12	35:CH:101:ILE:O	2.05	0.55
35:CH:92:LYS:HE2	38:CK:102:ARG:HH21	1.69	0.55
39:CL:114:TYR:CD2	39:CL:114:TYR:N	2.71	0.55
39:CL:88:TYR:O	39:CL:90:PRO:HD3	2.06	0.55
43:CP:29:ARG:HD3	43:CP:64:TRP:CD2	2.41	0.55
45:CR:17:ARG:HH11	45:CR:17:ARG:HG3	1.71	0.55
16:D1:44:ASN:OD1	17:D2:74:LYS:CA	2.52	0.55
1:DA:1657:C:H2'	1:DA:1658:C:C6	2.41	0.55
1:DA:2275:C:HO2'	1:DA:2276:G:P	2.29	0.55
1:DA:2320:A:H61	1:DA:2333:A:H2'	1.71	0.55
1:DA:2398:U:O2'	28:D6:53:LYS:NZ	2.39	0.55
1:DA:2439:A:O2'	1:DA:2440:C:OP2	2.24	0.55
1:DA:2761:G:H1'	7:DH:143:GLN:OE1	2.05	0.55
1:DA:813:U:C2	1:DA:1195:G:C2	2.94	0.55
2:DB:39:A:O2'	2:DB:46:A:N1	2.32	0.55
2:DB:83:G:H1	2:DB:93:C:N4	2.04	0.55
3:DD:35:LYS:HD3	3:DD:104:TYR:CD1	2.40	0.55
10:DN:14:THR:O	10:DN:51:ALA:HB3	2.07	0.55
14:DQ:27:SER:HA	14:DQ:88:ASP:HB2	1.86	0.55
24:DW:40:SER:O	24:DW:42:GLY:N	2.39	0.55
26:A4:39:CYS:C	26:A4:41:PRO:HD3	2.25	0.55
1:AA:1643:G:N2	1:AA:1644:C:H1'	2.22	0.55
1:AA:2236:C:H2'	1:AA:2237:G:H5'	1.88	0.55
1:AA:2481:G:O2'	1:AA:2482:G:O5'	2.23	0.55
56:AA:3365:OHX:N5	56:AA:3530:OHX:N2	2.54	0.55
1:AA:557:U:H2'	1:AA:558:G:C8	2.39	0.55
1:AA:623:G:H2'	1:AA:624:C:C6	2.41	0.55
1:AA:828:U:H2'	1:AA:829:A:C8	2.41	0.55
1:AA:673:C:H5"	5:AF:81:PRO:HD2	1.89	0.55
7:AH:46:GLU:HB2	7:AH:49:VAL:HG22	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:69:LYS:HE3	8:AK:73:GLU:OE2	2.07	0.55
20:AU:42:VAL:HB	20:AU:67:LEU:CD1	2.36	0.55
31:BA:10:A:H2'	31:BA:11:G:H8	1.71	0.55
31:BA:1213:A:C8	31:BA:1215:G:C5	2.95	0.55
31:BA:1328:C:OP1	51:BX:20:LYS:HE2	2.06	0.55
31:BA:1408:A:H61	57:BA:1715:PAR:H11	1.71	0.55
31:BA:832:C:O2	31:BA:855:G:C2	2.59	0.55
35:BH:90:VAL:HG12	35:BH:121:LYS:H	1.71	0.55
31:BA:1379:G:O6	37:BJ:2:ALA:HB3	2.05	0.55
31:BA:1226:C:H5'	49:BV:80:TYR:CE1	2.41	0.55
31:CA:1505:G:H5"	31:CA:1506:U:O5'	2.06	0.55
52:CD:38:MIA:H152	52:CD:39:A:N1	2.21	0.55
37:CJ:81:GLY:C	37:CJ:83:ALA:H	2.08	0.55
38:CK:47:GLY:O	38:CK:48:TYR:HB3	2.06	0.55
31:CA:1343:G:H1'	39:CL:121:ARG:HH11	1.71	0.55
31:CA:1152:A:H5'	40:CM:13:HIS:HD2	1.68	0.55
44:CQ:25:VAL:O	44:CQ:26:ARG:HB2	2.06	0.55
45:CR:82:ILE:HD11	45:CR:87:ILE:O	2.07	0.55
1:DA:2880:C:O3'	13:D0:90:ARG:NH1	2.39	0.55
17:D2:67:GLY:O	17:D2:88:ARG:HD3	2.05	0.55
1:DA:1056:G:H4'	1:DA:1086:A:H1'	1.88	0.55
1:DA:1542:G:H3'	1:DA:1543:A:H5"	1.88	0.55
1:DA:2131:G:OP1	1:DA:2133:G:H4'	2.06	0.55
1:DA:2218:G:O2'	3:DD:148:GLU:HG2	2.06	0.55
1:DA:2219:G:C2'	1:DA:2224:G:H5'	2.36	0.55
1:DA:2335:A:O2'	1:DA:2336:A:P	2.63	0.55
1:DA:2702:U:OP1	1:DA:2702:U:O4'	2.24	0.55
1:DA:2798:C:N4	1:DA:2799:A:N6	2.54	0.55
1:DA:669:G:O2'	1:DA:670:A:P	2.64	0.55
1:DA:870:A:C2	1:DA:908:C:C2	2.95	0.55
1:DA:90:U:H3	20:DU:33:LYS:NZ	2.04	0.55
1:DA:975:G:H1'	1:DA:990:A:C2	2.40	0.55
2:DB:40:U:O4	2:DB:43:C:OP1	2.24	0.55
3:DD:30:GLU:OE1	3:DD:63:ARG:NE	2.40	0.55
17:A2:35:LEU:HD22	17:A2:35:LEU:N	2.20	0.55
26:A4:37:SER:CB	26:A4:42:PHE:CD1	2.88	0.55
30:A8:52:LYS:H	30:A8:53:PRO:CD	2.19	0.55
1:AA:11:G:C2'	1:AA:12:U:H5'	2.36	0.55
1:AA:945:A:C5	1:AA:2448:A:C2	2.94	0.55
1:AA:1027:A:C2	1:AA:2488:A:H5'	2.42	0.55
1:AA:2699:C:H2'	1:AA:2700:C:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:84:A:N1	1:AA:98:G:O2'	2.31	0.55
1:AA:885:C:C2	1:AA:890:A:N6	2.71	0.55
3:AD:12:SER:O	3:AD:16:MET:HB2	2.07	0.55
14:AQ:29:PHE:HD2	14:AQ:29:PHE:C	2.09	0.55
18:AS:24:ILE:HG21	18:AS:36:LEU:HD21	1.87	0.55
31:BA:1126:U:O4	31:BA:1127:G:C2	2.59	0.55
31:BA:142:G:H2'	31:BA:143:A:C8	2.36	0.55
31:BA:397:A:N6	31:BA:548:G:C8	2.74	0.55
31:BA:701:C:O2	31:BA:703:G:N1	2.40	0.55
52:BB:21:A:H8	52:BB:46:G:C8	2.24	0.55
52:BD:17:G:C6	52:BD:67:A:N6	2.75	0.55
32:BE:6:THR:OG1	32:BE:7:VAL:N	2.40	0.55
38:BK:63:LEU:HB3	38:BK:65:TYR:HE1	1.70	0.55
31:CA:1178:G:H2'	31:CA:1179:A:O5'	2.07	0.55
31:CA:1266:G:H8	31:CA:1266:G:O5'	1.89	0.55
31:CA:316:G:OP2	31:CA:351:G:O2'	2.24	0.55
31:CA:575:G:OP1	31:CA:575:G:H4'	2.07	0.55
31:CA:652:U:C4	31:CA:752:G:N3	2.75	0.55
52:CB:28:G:C2'	52:CB:29:C:H5'	2.36	0.55
32:CE:63:MET:CG	32:CE:225:ALA:HB1	2.35	0.55
33:CF:52:LEU:H	33:CF:52:LEU:HD23	1.70	0.55
35:CH:91:LEU:HG	35:CH:118:ILE:HD11	1.89	0.55
31:CA:1379:G:OP2	37:CJ:6:ARG:HD2	2.07	0.55
26:D4:38:LYS:HA	26:D4:44:THR:HG21	1.88	0.55
1:DA:107:C:H2'	1:DA:108:U:C6	2.36	0.55
1:DA:2401:U:C2'	1:DA:2402:C:H5"	2.37	0.55
1:DA:2755:C:HO2'	1:DA:2756:U:H6	1.55	0.55
1:DA:2807:G:C6	1:DA:2808:U:C5	2.95	0.55
6:DG:60:LEU:HD21	6:DG:92:VAL:CG1	2.37	0.55
21:DV:48:PHE:HA	21:DV:51:ALA:HB3	1.89	0.55
4:AE:111:ARG:HA	13:A0:1:MET:SD	2.47	0.55
17:A2:34:GLU:HB2	17:A2:58:VAL:HG22	1.87	0.55
26:A4:62:ARG:O	26:A4:66:SER:HA	2.07	0.55
30:A8:13:ARG:O	30:A8:14:VAL:HG23	2.07	0.55
1:AA:1082:U:O4	1:AA:1083:U:N3	2.39	0.55
1:AA:1264:G:H5'	27:A5:11:THR:HG21	1.88	0.55
1:AA:171:G:O2'	1:AA:172:C:H5'	2.06	0.55
1:AA:2206:C:H2'	1:AA:2207:C:H6	1.71	0.55
1:AA:2310:A:C5'	1:AA:2311:A:OP2	2.55	0.55
1:AA:2472:G:C4	1:AA:2475:C:N4	2.74	0.55
1:AA:250:G:C6	1:AA:251:A:C6	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2512:C:H4'	4:AE:122:PHE:CE2	2.41	0.55
1:AA:277:C:H3'	1:AA:278:A:C4'	2.37	0.55
1:AA:2788:C:O2'	1:AA:2809:A:N3	2.40	0.55
1:AA:654(H):G:N3	1:AA:654(H):G:H2'	2.20	0.55
3:AD:36:PRO:HA	3:AD:62:TYR:O	2.06	0.55
5:AF:123:LEU:HD13	5:AF:192:LEU:HD22	1.88	0.55
6:AG:99:MET:HG3	6:AG:100:TRP:N	2.21	0.55
23:AZ:81:LYS:HE2	23:AZ:81:LYS:N	2.22	0.55
54:B1:11:U:O2'	54:B1:12:A:C4	2.55	0.55
31:BA:1206:G:C6	31:BA:1207:G:C5	2.95	0.55
31:BA:1503:A:H2	31:BA:1507:A:OP2	1.89	0.55
31:BA:628:G:H2'	31:BA:629:G:H8	1.71	0.55
52:BB:51:C:C2	52:BB:52:G:H1'	2.42	0.55
52:BB:6:G:C2'	52:BB:7:G:OP1	2.54	0.55
34:BG:98:GLU:O	34:BG:103:ASN:ND2	2.40	0.55
31:BA:620:C:C6	34:BG:135:LEU:HD23	2.42	0.55
36:BI:96:PRO:HB3	48:BU:30:ASP:CG	2.27	0.55
37:BJ:50:ILE:HB	37:BJ:58:PRO:HG3	1.89	0.55
37:BJ:90:GLU:H	37:BJ:90:GLU:CD	2.09	0.55
40:BM:4:ILE:HD12	40:BM:77:PRO:HB3	1.89	0.55
44:BQ:11:LYS:O	44:BQ:13:THR:N	2.36	0.55
46:BS:12:LYS:C	46:BS:14:ASN:H	2.09	0.55
46:BS:1:MET:HG3	46:BS:65:GLN:HG3	1.89	0.55
31:CA:1124:G:O2'	31:CA:1145:C:C4	2.59	0.55
31:CA:1364:U:O2'	31:CA:1365:G:H5'	2.06	0.55
31:CA:157:G:C2	31:CA:165:C:C2	2.94	0.55
31:CA:36:C:O2'	31:CA:37:U:H5'	2.06	0.55
31:CA:943:U:H2'	31:CA:944:G:H5'	1.87	0.55
52:CD:51:C:H2'	52:CD:52:G:O4'	2.07	0.55
34:CG:30:LYS:HB2	34:CG:35:ARG:HH11	1.71	0.55
38:CK:6:ILE:O	38:CK:8:ASP:N	2.40	0.55
31:CA:1186:G:N2	44:CQ:61:TRP:OXT	2.29	0.55
45:CR:48:LYS:NZ	45:CR:48:LYS:HA	2.22	0.55
50:CW:8:ARG:NH1	50:CW:8:ARG:CG	2.66	0.55
1:DA:1342:A:C8	1:DA:1345:C:C4	2.94	0.55
1:DA:1441:G:H2'	1:DA:1442:G:C8	2.42	0.55
1:DA:2259:G:C2	1:DA:2282:G:N1	2.74	0.55
1:DA:2330:G:OP1	56:DA:3215:OHX:N4	2.40	0.55
1:DA:246:C:H2'	1:DA:247:G:H5'	1.89	0.55
1:DA:2605:U:O4	56:DA:3214:OHX:N6	2.38	0.55
1:DA:654(B):C:H2'	1:DA:654(C):G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:819:A:OP2	1:DA:1187:G:N2	2.33	0.55
1:DA:900:A:H3'	1:DA:901:A:C8	2.36	0.55
2:DB:40:U:C2	26:D4:1:MET:SD	3.00	0.55
5:DF:32:LEU:O	5:DF:36:VAL:HG23	2.07	0.55
6:DG:16:ARG:HB3	6:DG:17:PRO:HD3	1.88	0.55
7:DH:118:PRO:HG2	7:DH:121:ILE:HG13	1.87	0.55
9:DM:28:THR:HG22	9:DM:29:LYS:N	2.22	0.55
9:DM:17:ASP:CA	9:DM:55:VAL:HG22	2.20	0.55
10:DN:102:VAL:HG23	10:DN:121:VAL:HG22	1.88	0.55
11:DO:105:LEU:O	11:DO:106:LEU:CB	2.54	0.55
14:DQ:10:ARG:NH2	14:DQ:91:PRO:HB2	2.16	0.55
15:DR:122:ASP:O	15:DR:126:ALA:HB3	2.06	0.55
15:DR:61:PHE:N	15:DR:61:PHE:CD2	2.74	0.55
18:DS:84:ARG:HB2	18:DS:96:ILE:HD13	1.89	0.55
1:DA:1599:C:H5"	19:DT:35:THR:HG22	1.88	0.55
21:DV:6:LYS:O	21:DV:7:ALA:HB3	2.07	0.55
23:DZ:29:GLY:O	23:DZ:30:VAL:HG22	2.05	0.55
26:A4:24:THR:OG1	26:A4:25:TYR:N	2.40	0.55
1:AA:1509:C:N3	1:AA:1511:A:N6	2.54	0.55
1:AA:1678:G:N2	1:AA:1989:G:N2	2.45	0.55
1:AA:2564:A:C2	1:AA:2647:U:H4'	2.42	0.55
1:AA:270(B):A:H2'	1:AA:270(C):C:H5'	1.89	0.55
1:AA:580:C:H2'	1:AA:581:C:C6	2.41	0.55
3:AD:268:ARG:HG3	3:AD:268:ARG:O	2.05	0.55
8:AK:56:LYS:O	8:AK:58:LEU:N	2.40	0.55
10:AN:3:GLN:HG3	10:AN:4:PRO:HD2	1.88	0.55
12:AP:19:GLY:CA	12:AP:98:LYS:CD	2.85	0.55
25:AX:54:VAL:HG22	25:AX:55:ARG:H	1.71	0.55
31:BA:1104:G:OP1	32:BE:144:ARG:NH2	2.39	0.55
31:BA:1126:U:O2'	31:BA:1127:G:OP1	2.21	0.55
31:BA:1485:U:O2'	31:BA:1486:G:H5'	2.07	0.55
31:BA:73:G:C6	31:BA:97:U:O2	2.58	0.55
45:BR:86:GLY:O	45:BR:87:ILE:HD13	2.07	0.55
50:BW:10:LEU:O	50:BW:10:LEU:HD23	2.06	0.55
31:CA:1276:G:H2'	31:CA:1277:C:H6	1.72	0.55
31:CA:1503:A:C1'	31:CA:1504:G:OP1	2.53	0.55
31:CA:485:G:N7	56:CA:1734:OHX:N6	2.54	0.55
31:CA:6:G:O2'	31:CA:7:G:O5'	2.24	0.55
53:CC:16:C:O2	53:CC:61:U:H4'	2.06	0.55
41:CN:54:ARG:O	41:CN:57:THR:OG1	2.24	0.55
42:CO:92:ASP:C	42:CO:93:LEU:HD23	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CS:8:ARG:HD2	46:CS:17:TYR:CE2	2.42	0.55
30:D8:14:VAL:HG12	30:D8:15:LYS:N	2.21	0.55
30:D8:22:VAL:HG12	30:D8:50:LEU:HD23	1.87	0.55
1:DA:1111:A:H4'	7:DH:3:ARG:HG2	1.89	0.55
1:DA:1146:C:O2'	1:DA:1147:C:H5'	2.07	0.55
1:DA:1241:A:C2'	1:DA:1242:A:O5'	2.55	0.55
1:DA:1480:G:C2	1:DA:1482:U:O2	2.60	0.55
1:DA:1592:C:H2'	1:DA:1593:G:H8	1.71	0.55
1:DA:246:C:C2'	1:DA:247:G:H5'	2.36	0.55
1:DA:2612:C:C5	1:DA:2613:U:H5	2.25	0.55
1:DA:868:U:C2	1:DA:869:G:C8	2.95	0.55
1:DA:960:A:C8	1:DA:962:G:C8	2.95	0.55
4:DE:37:ARG:HD2	4:DE:80:GLU:OE2	2.07	0.55
5:DF:21:ALA:O	5:DF:23:ASP:N	2.34	0.55
8:DK:52:ARG:O	8:DK:52:ARG:HD2	2.07	0.55
10:DN:113:LYS:O	10:DN:117:LEU:HD13	2.07	0.55
10:DN:68:GLU:HB3	10:DN:78:ARG:HH11	1.65	0.55
11:DO:52:GLU:OE1	11:DO:55:ARG:NE	2.36	0.55
4:DE:14:ILE:HB	15:DR:14:TYR:CZ	2.42	0.55
23:DZ:7:ILE:HD12	23:DZ:62:VAL:CG1	2.36	0.55
26:A4:14:ILE:HG22	26:A4:21:VAL:HB	1.88	0.55
26:A4:42:PHE:CE1	26:A4:43:TYR:HB3	2.42	0.55
30:A8:43:GLN:C	30:A8:44:LYS:HD2	2.27	0.55
1:AA:1799:G:H5'	1:AA:1819:A:N6	2.21	0.55
1:AA:2402:C:HO2'	1:AA:2403:C:P	2.30	0.55
1:AA:298:G:H5"	1:AA:299:A:OP1	2.06	0.55
3:AD:35:LYS:CA	3:AD:64:ILE:HG22	2.37	0.55
5:AF:129:PHE:O	5:AF:130:ALA:CB	2.55	0.55
7:AH:4:ILE:HB	7:AH:6:ARG:HG2	1.89	0.55
7:AH:86:GLU:O	7:AH:87:LEU:HB2	2.07	0.55
9:AM:120:LEU:HD22	9:AM:120:LEU:C	2.27	0.55
21:AV:4:ARG:HG2	21:AV:58:VAL:HG21	1.87	0.55
31:BA:1124:G:C8	31:BA:1145:C:C5	2.95	0.55
31:BA:1272:G:H2'	31:BA:1273:G:O4'	2.07	0.55
31:BA:407:G:H2'	31:BA:408:A:H8	1.72	0.55
31:BA:575:G:H4'	31:BA:576:G:O5'	2.06	0.55
52:BB:8:U:O2'	52:BB:22:A:N1	2.36	0.55
39:BL:9:ARG:HB3	39:BL:14:VAL:HG13	1.89	0.55
31:CA:1366:C:OP1	39:CL:117:HIS:HE1	1.90	0.55
31:CA:1182:G:O6	56:CA:1792:OHX:N6	2.40	0.55
32:CE:62:ALA:O	32:CE:64:ARG:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:119:GLN:O	34:CG:123:HIS:HD2	1.90	0.55
36:CI:53:ALA:O	36:CI:54:LYS:HB2	2.05	0.55
30:D8:60:LEU:O	30:D8:61:LEU:HD12	2.07	0.55
1:DA:1215:G:C2'	1:DA:1216:G:H5'	2.37	0.55
1:DA:1382:G:C2'	1:DA:1383:C:H5'	2.37	0.55
1:DA:1582:C:O2'	1:DA:1586:A:H8	1.89	0.55
1:DA:172:C:H2'	1:DA:173:G:H8	1.69	0.55
1:DA:2567:G:H2'	1:DA:2568:C:C6	2.42	0.55
1:DA:2785:C:H5'	4:DE:41:LYS:HZ1	1.71	0.55
1:DA:795:C:H2'	1:DA:796:C:H6	1.72	0.55
1:DA:972:G:OP2	1:DA:973:A:O2'	2.09	0.55
3:DD:45:ASN:C	3:DD:46:GLN:OE1	2.45	0.55
4:DE:81:ILE:HG21	4:DE:84:PHE:CD1	2.42	0.55
5:DF:158:THR:O	5:DF:177:ALA:HA	2.07	0.55
6:DG:4:ASP:OD2	6:DG:9:ARG:NH2	2.40	0.55
8:DK:124:GLY:N	8:DK:142:VAL:HG12	2.17	0.55
19:DT:5:TYR:CZ	24:DW:30:ARG:HG3	2.42	0.55
24:DW:47:ASN:C	24:DW:49:LYS:N	2.56	0.55
28:A6:25:LYS:HE2	28:A6:27:LYS:CE	2.37	0.55
1:AA:1478:G:H2'	1:AA:1479:G:H8	1.71	0.55
1:AA:1591:G:H2'	1:AA:1592:C:H6	1.72	0.55
1:AA:1637:A:H4'	1:AA:2711:A:O2'	2.07	0.55
1:AA:2712:U:O2'	1:AA:2712(A):A:P	2.65	0.55
1:AA:508:G:C6	18:AS:9:TYR:CE2	2.94	0.55
3:AD:213:ARG:O	3:AD:216:GLY:N	2.32	0.55
4:AE:167:VAL:HG21	4:AE:187:ALA:CB	2.37	0.55
4:AE:7:VAL:HG21	15:AR:1:MET:CE	2.36	0.55
5:AF:114:VAL:HG21	5:AF:202:PHE:CZ	2.42	0.55
6:AG:16:ARG:N	6:AG:17:PRO:HD2	2.22	0.55
8:AK:92:VAL:HG13	8:AK:120:ILE:CG2	2.37	0.55
14:AQ:30:ARG:CG	14:AQ:30:ARG:HH11	2.11	0.55
31:BA:1071:C:H2'	31:BA:1072:G:H8	1.72	0.55
31:BA:1176:A:H8	31:BA:1176:A:O5'	1.88	0.55
31:BA:1193:G:N2	31:BA:1194:U:C2	2.74	0.55
31:BA:129(A):G:C2	31:BA:188:U:O2'	2.58	0.55
31:BA:1356:G:H2'	31:BA:1357:A:C8	2.41	0.55
31:BA:149:A:C2	31:BA:150:C:C2	2.94	0.55
31:BA:452:A:HO2'	31:BA:453:A:C5'	2.20	0.55
32:BE:109:SER:O	32:BE:112:VAL:HB	2.06	0.55
32:BE:204:ASN:C	32:BE:204:ASN:HD22	2.10	0.55
32:BE:82:ARG:O	32:BE:85:ALA:HB3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:173:TRP:CD1	34:BG:174:LEU:HG	2.42	0.55
46:BS:74:LEU:O	46:BS:79:VAL:HB	2.06	0.55
31:CA:1126:U:C4	31:CA:1281:U:C6	2.94	0.55
31:CA:1357:A:C5	31:CA:1358:U:C4	2.94	0.55
31:CA:830:G:N2	31:CA:857:C:C2	2.74	0.55
52:CD:5:G:H1	52:CD:77:C:H42	1.54	0.55
32:CE:208:ILE:HG12	32:CE:211:ILE:HD12	1.89	0.55
36:CI:24:GLU:O	36:CI:28:ARG:HB2	2.07	0.55
43:CP:4:ILE:HG12	43:CP:5:ALA:N	2.21	0.55
42:CO:8:ASN:HB2	47:CT:34:LYS:NZ	2.22	0.55
16:D1:50:ARG:HE	17:D2:70:ILE:HG21	1.72	0.55
22:D3:36:ILE:HD13	22:D3:36:ILE:C	2.26	0.55
26:D4:51:ASP:O	26:D4:52:THR:C	2.44	0.55
1:DA:1165:U:O2'	1:DA:1166:C:H5'	2.06	0.55
1:DA:1327:C:H2'	1:DA:1328:G:O4'	2.07	0.55
1:DA:1408:C:C2	1:DA:1595:G:N2	2.75	0.55
1:DA:2322:A:H2'	1:DA:2323:G:O4'	2.06	0.55
1:DA:2418:A:C4	1:DA:2419:U:C5	2.94	0.55
1:DA:2720:U:C2	1:DA:2721:A:C8	2.95	0.55
1:DA:322:A:H5'	1:DA:340:A:C1'	2.36	0.55
1:DA:329:G:H4'	1:DA:330:A:OP2	2.06	0.55
1:DA:813:U:H2'	1:DA:814:C:C6	2.42	0.55
4:DE:31:CYS:HB2	4:DE:91:VAL:HG22	1.89	0.55
6:DG:63:ILE:HD12	6:DG:141:PHE:CG	2.42	0.55
6:DG:56:ALA:HB2	6:DG:153:ARG:NH2	2.22	0.55
9:DM:130:HIS:CD2	9:DM:130:HIS:H	2.22	0.55
11:DO:81:GLN:CD	11:DO:106:LEU:O	2.45	0.55
14:DQ:29:PHE:CD2	14:DQ:29:PHE:C	2.72	0.55
1:AA:1018:C:C2'	1:AA:1019:U:H5'	2.37	0.55
1:AA:1055:G:N7	1:AA:1056:G:C5	2.74	0.55
1:AA:1279:G:N2	1:AA:1292:U:C2	2.75	0.55
1:AA:2307:G:H1'	1:AA:2308:G:N2	2.22	0.55
1:AA:2291:U:O2'	1:AA:2374:C:O2	2.25	0.55
1:AA:2345:G:H1'	1:AA:2382:G:H5'	1.88	0.55
8:AK:102:SER:O	8:AK:104:GLN:N	2.37	0.55
11:AO:75:ILE:N	11:AO:75:ILE:HD13	2.07	0.55
21:AV:7:ALA:HB2	21:AV:59:LEU:CD2	2.37	0.55
31:BA:1124:G:C8	31:BA:1145:C:C6	2.95	0.55
31:BA:1346:A:C5	37:BJ:10:ARG:NH1	2.72	0.55
31:BA:152:A:N6	31:BA:170:U:C2	2.75	0.55
31:BA:177:C:OP1	50:BW:65:LYS:NZ	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:559:A:H4'	31:BA:560:U:H3'	1.87	0.55
31:BA:577:G:N7	56:BA:1784:OHX:N1	2.55	0.55
31:BA:719:C:H5	31:BA:720:C:C4	2.23	0.55
53:BC:66:C:O2'	53:BC:67:C:H5'	2.07	0.55
32:BE:165:VAL:HG23	32:BE:166:ASP:N	2.17	0.55
32:BE:206:ASP:O	32:BE:207:ALA:HB3	2.07	0.55
33:BF:113:ALA:C	33:BF:115:LEU:H	2.09	0.55
33:BF:173:VAL:N	33:BF:174:PRO:HD3	2.21	0.55
39:BL:22:GLY:HA3	39:BL:60:ASP:OD2	2.06	0.55
40:BM:15:THR:O	40:BM:19:SER:HB2	2.07	0.55
45:BR:78:TYR:CE1	45:BR:82:ILE:HD11	2.42	0.55
46:BS:7:ALA:O	46:BS:9:PHE:CD2	2.59	0.55
31:CA:1022:G:C2	31:CA:1023:G:H1'	2.42	0.55
31:CA:1263:C:C2	31:CA:1273:G:N2	2.75	0.55
31:CA:1391:U:H2'	31:CA:1392:G:C8	2.42	0.55
31:CA:57:G:H2'	31:CA:58:C:C6	2.42	0.55
52:CB:9:U:O2	52:CB:9:U:H2'	2.06	0.55
35:CH:27:ARG:O	35:CH:28:PHE:CD1	2.60	0.55
43:CP:29:ARG:HB3	43:CP:64:TRP:CH2	2.42	0.55
16:D1:104:GLN:HE21	16:D1:104:GLN:HA	1.71	0.55
1:DA:559:G:H22	16:D1:49:HIS:CD2	2.25	0.55
17:D2:46:VAL:HG22	17:D2:46:VAL:O	2.07	0.55
17:D2:77:ALA:C	17:D2:78:LYS:CG	2.74	0.55
26:D4:31:ILE:HG22	26:D4:32:TYR:N	2.22	0.55
1:DA:2345:G:OP2	28:D6:39:TYR:HA	2.07	0.55
1:DA:2238:G:N3	1:DA:2238:G:H2'	2.22	0.55
1:DA:2277:G:OP1	12:DP:86:GLY:HA2	2.07	0.55
1:DA:2286:A:C8	1:DA:2287:A:N6	2.75	0.55
1:DA:2439:A:C8	1:DA:2439:A:C5'	2.89	0.55
3:DD:227:ASN:HB3	3:DD:228:PRO:HD2	1.89	0.55
4:DE:116:VAL:HG13	4:DE:122:PHE:HB2	1.89	0.55
6:DG:135:LEU:CD2	6:DG:140:ILE:HD11	2.29	0.55
1:DA:389:G:H22	11:DO:72:PRO:CD	2.20	0.55
14:DQ:84:GLN:HB3	14:DQ:109:GLY:HA3	1.88	0.55
14:DQ:39:ILE:HG22	14:DQ:39:ILE:O	2.05	0.55
14:DQ:86:ALA:O	14:DQ:87:PHE:CB	2.55	0.55
18:DS:65:LEU:CD1	18:DS:68:ARG:HD2	2.35	0.55
20:DU:77:PRO:O	20:DU:78:ALA:HB2	2.07	0.55
16:A1:112:ARG:CG	16:A1:112:ARG:HH11	1.93	0.55
17:A2:35:LEU:HD22	17:A2:57:VAL:O	2.06	0.55
17:A2:3:ALA:HB3	17:A2:14:VAL:HG23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:44:LYS:O	17:A2:46:VAL:HG12	2.07	0.55
17:A2:41:GLY:H	17:A2:46:VAL:HG13	1.72	0.55
16:A1:44:ASN:HD21	17:A2:75:PHE:N	2.05	0.55
1:AA:1079:C:N4	1:AA:1080:A:N6	2.55	0.55
1:AA:1107:G:H2'	1:AA:1108:U:C6	2.39	0.55
1:AA:147:U:O4	56:AA:3347:OHX:N4	2.40	0.55
1:AA:1579:A:OP1	56:AA:3514:OHX:N2	2.40	0.55
1:AA:1936:A:C8	1:AA:1940:U:O2	2.60	0.55
1:AA:2277:G:OP1	12:AP:86:GLY:HA2	2.07	0.55
1:AA:270(J):G:N1	1:AA:270(K):C:O2	2.40	0.55
1:AA:55:G:H2'	1:AA:56:A:C8	2.41	0.55
1:AA:637:A:P	11:AO:116:GLY:HA3	2.47	0.55
5:AF:48:THR:O	5:AF:48:THR:HG23	2.07	0.55
1:AA:444:C:C4'	5:AF:49:ALA:HB2	2.37	0.55
6:AG:111:LEU:HD21	6:AG:120:LEU:HD21	1.89	0.55
7:AH:135:GLY:HA3	7:AH:141:VAL:CG2	2.37	0.55
7:AH:158:HIS:N	7:AH:158:HIS:ND1	2.53	0.55
20:AU:20:TYR:CZ	20:AU:42:VAL:HA	2.41	0.55
31:BA:1154:G:H2'	31:BA:1155:G:H8	1.72	0.55
31:BA:837:G:C2	31:BA:850:U:O2	2.60	0.55
52:BB:8:U:H3'	52:BB:13:G:O6	2.06	0.55
53:BC:54:G:H2'	53:BC:55:U:C6	2.40	0.55
32:BE:108:ILE:O	32:BE:108:ILE:HD13	2.06	0.55
33:BF:161:GLU:CD	33:BF:161:GLU:C	2.65	0.55
40:BM:40:LEU:HB2	40:BM:69:ASN:HB2	1.88	0.55
41:BN:84:VAL:HG11	41:BN:95:ILE:HD11	1.89	0.55
43:BP:108:ARG:HH11	43:BP:108:ARG:CG	2.04	0.55
31:CA:1050:G:N2	31:CA:1209:C:C2	2.75	0.55
31:CA:1109:C:OP2	33:CF:176:HIS:ND1	2.28	0.55
31:CA:1126:U:C4	31:CA:1281:U:H6	2.25	0.55
31:CA:1129:C:C2	31:CA:1132:C:N4	2.74	0.55
31:CA:1310:G:H5'	43:CP:77:ASN:ND2	2.18	0.55
31:CA:243:A:C2	31:CA:245:C:C2	2.94	0.55
31:CA:29:G:C5	31:CA:30:U:C5	2.95	0.55
31:CA:1112:C:O2	33:CF:179:ARG:HG2	2.06	0.55
33:CF:39:ILE:O	33:CF:43:LEU:HB2	2.06	0.55
34:CG:26:CYS:HA	34:CG:31:CYS:CB	2.37	0.55
34:CG:59:ARG:HH22	34:CG:66:ARG:NH1	2.04	0.55
35:CH:72:GLN:C	35:CH:74:GLY:H	2.10	0.55
37:CJ:44:TYR:HA	37:CJ:47:CYS:CB	2.37	0.55
40:CM:71:LEU:O	40:CM:72:VAL:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CM:3:LYS:HB2	40:CM:77:PRO:HG3	1.89	0.55
41:CN:105:VAL:O	41:CN:105:VAL:HG22	2.07	0.55
43:CP:22:ILE:HB	43:CP:25:ILE:HG13	1.89	0.55
43:CP:16:ASP:OD1	43:CP:31:LYS:HE2	2.06	0.55
29:D7:34:ARG:HH11	29:D7:34:ARG:HG2	1.72	0.55
1:DA:1043:C:H2'	1:DA:1044:G:H5'	1.88	0.55
1:DA:1735:C:H2'	1:DA:1741:C:H5'	1.88	0.55
1:DA:2516:G:C6	1:DA:2517:C:C4	2.94	0.55
1:DA:225:A:O2'	1:DA:257:A:H4'	2.08	0.55
1:DA:2694:G:C5	1:DA:2695:C:C5	2.95	0.55
1:DA:370:G:H4'	1:DA:371:A:OP2	2.06	0.55
1:DA:443:A:H1'	1:DA:1201:C:O4'	2.07	0.55
1:DA:991:C:O2'	1:DA:992:C:H5'	2.07	0.55
2:DB:3:C:C2	2:DB:118:G:C2	2.95	0.55
2:DB:82:G:C6	2:DB:83:G:C5	2.95	0.55
5:DF:153:SER:HB2	5:DF:190:GLU:N	2.22	0.55
1:DA:2303:G:O2'	6:DG:132:ASN:HB2	2.07	0.55
12:DP:77:LYS:HB3	12:DP:78:PRO:HD2	1.88	0.55
2:DB:114:G:O2'	14:DQ:50:SER:OG	2.25	0.55
20:DU:75:ILE:HG12	20:DU:76:CYS:N	2.22	0.55
21:DV:150:LEU:HD23	21:DV:150:LEU:O	2.07	0.55
21:DV:93:ASP:HB2	21:DV:131:ARG:HH21	1.71	0.55
16:A1:83:LEU:HG	16:A1:88:ILE:HB	1.88	0.54
22:A3:70:GLN:NE2	22:A3:80:HIS:CE1	2.75	0.54
22:A3:49:LYS:HB2	22:A3:80:HIS:HB3	1.89	0.54
27:A5:51:TYR:HD2	27:A5:52:TYR:CZ	2.26	0.54
30:A8:34:TRP:CD2	30:A8:35:GLN:HG2	2.32	0.54
1:AA:1026:U:C1'	1:AA:1027:A:O5'	2.49	0.54
1:AA:1081:U:O2'	1:AA:1082:U:P	2.64	0.54
1:AA:996:A:C6	1:AA:1160:G:C2	2.94	0.54
1:AA:1443:G:C2'	1:AA:1444:G:H5'	2.37	0.54
1:AA:1983:C:O2'	1:AA:1984:G:H5'	2.07	0.54
1:AA:2126:A:N6	1:AA:2163:C:O2'	2.40	0.54
1:AA:2242:G:C2'	1:AA:2243:U:O5'	2.55	0.54
1:AA:2682:U:O2'	15:AR:58:ASN:ND2	2.40	0.54
1:AA:2712:U:OP1	1:AA:2714:G:H4'	2.07	0.54
1:AA:427:U:OP2	56:AA:3415:OHX:N1	2.40	0.54
56:AA:3416:OHX:N3	56:AA:3504:OHX:N5	2.55	0.54
1:AA:732:C:C2'	1:AA:733:G:H5'	2.37	0.54
3:AD:231:HIS:CD2	3:AD:232:PRO:HD2	2.42	0.54
3:AD:35:LYS:CB	3:AD:64:ILE:H	2.20	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AM:68:GLU:HA	9:AM:88:GLU:OE1	2.07	0.54
11:AO:96:THR:HG22	11:AO:126:VAL:CG2	2.37	0.54
12:AP:65:PHE:O	12:AP:67:ARG:N	2.40	0.54
14:AQ:67:ARG:O	14:AQ:71:ARG:HG3	2.06	0.54
21:AV:107:THR:HB	21:AV:108:PRO:HD2	1.89	0.54
31:BA:1025:U:O2'	31:BA:1026:G:O5'	2.21	0.54
31:BA:1192:C:OP2	33:BF:4:LYS:NZ	2.40	0.54
31:BA:1295:G:O3'	43:BP:14:ARG:NH1	2.40	0.54
31:BA:1336:C:O2'	31:BA:1337:G:N3	2.35	0.54
31:BA:295:C:H2'	31:BA:296:U:O4'	2.08	0.54
31:BA:38:G:H22	31:BA:397:A:P	2.28	0.54
31:BA:798:G:C2'	31:BA:799:G:O5'	2.55	0.54
46:BS:49:LEU:HD12	46:BS:50:LYS:N	2.22	0.54
49:BV:18:LYS:O	49:BV:22:LEU:HD13	2.07	0.54
50:BW:29:LYS:O	50:BW:33:ILE:HG12	2.07	0.54
31:CA:1095:U:C4	31:CA:1096:C:N4	2.75	0.54
31:CA:1272:G:H2'	31:CA:1273:G:O4'	2.07	0.54
31:CA:1306:A:N6	31:CA:1331:G:H1'	2.22	0.54
31:CA:1309:G:C6	31:CA:1329:A:C2	2.95	0.54
31:CA:284:G:H2'	31:CA:285:G:H8	1.72	0.54
31:CA:953:G:C6	31:CA:954:G:C4	2.95	0.54
31:CA:973:G:H1'	40:CM:55:LYS:NZ	2.22	0.54
38:CK:109:ILE:HG23	38:CK:137:VAL:HB	1.89	0.54
1:DA:2820:A:C6	13:D0:4:LEU:HD11	2.42	0.54
13:D0:75:LEU:HD13	13:D0:75:LEU:C	2.27	0.54
16:D1:21:ALA:HA	16:D1:24:TYR:CE1	2.42	0.54
1:DA:1115:G:C6	1:DA:1116:C:C4	2.95	0.54
1:DA:1946:U:H2'	1:DA:1947:C:C6	2.42	0.54
1:DA:1982:C:O2	1:DA:1982:C:H2'	2.07	0.54
1:DA:2080:G:H4'	23:DZ:36:GLY:HA3	1.89	0.54
1:DA:2320:A:C6	1:DA:2333:A:C8	2.96	0.54
1:DA:2728:U:C2'	1:DA:2729:G:H5'	2.37	0.54
1:DA:528:A:H2	1:DA:2043:C:C5'	2.19	0.54
1:DA:91:A:OP1	1:DA:91:A:H4'	2.06	0.54
1:DA:957:A:N6	1:DA:959:A:C2	2.74	0.54
3:DD:131:LEU:N	3:DD:131:LEU:HD12	2.22	0.54
7:DH:156:ALA:O	7:DH:158:HIS:N	2.39	0.54
1:DA:1049:C:H42	7:DH:2:SER:HB2	1.71	0.54
8:DK:78:THR:OG1	8:DK:104:GLN:OE1	2.21	0.54
11:DO:105:LEU:O	11:DO:105:LEU:CD1	2.49	0.54
11:DO:46:LYS:HD3	11:DO:51:PHE:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DW:12:GLU:HG3	24:DW:16:LEU:CD2	2.36	0.54
16:A1:69:CYS:HG	16:A1:79:PHE:HD1	1.55	0.54
1:AA:468:G:N7	29:A7:39:ARG:NH2	2.55	0.54
1:AA:1654:A:OP2	13:A0:2:ARG:HD3	2.08	0.54
1:AA:2114:A:C6	1:AA:2115:G:C6	2.95	0.54
1:AA:2286:A:H4'	1:AA:2287:A:O4'	2.07	0.54
1:AA:2852:G:C2	1:AA:2853:C:C2	2.95	0.54
1:AA:879:G:OP2	1:AA:879:G:H8	1.90	0.54
4:AE:67:PHE:HD2	4:AE:69:LYS:NZ	2.04	0.54
5:AF:65:TRP:CH2	5:AF:72:ARG:HB3	2.43	0.54
6:AG:78:SER:O	6:AG:80:PHE:N	2.40	0.54
7:AH:151:ILE:O	7:AH:153:LYS:CD	2.54	0.54
7:AH:88:LEU:HD11	7:AH:165:ALA:HA	1.88	0.54
10:AN:34:THR:CG2	10:AN:35:VAL:N	2.68	0.54
14:AQ:38:GLN:HG3	14:AQ:47:THR:HG21	1.89	0.54
54:B1:12:A:O2'	54:B1:13:A:P	2.65	0.54
31:BA:1047:G:O2'	31:BA:1048:G:H5'	2.07	0.54
31:BA:1129:C:N4	31:BA:1139:G:N1	2.55	0.54
31:BA:1363:A:H1'	31:BA:1365:G:N7	2.21	0.54
31:BA:575:G:H4'	31:BA:576:G:H5"	1.89	0.54
53:BC:52:C:H2'	53:BC:53:G:O4'	2.08	0.54
32:BE:21:ARG:HH11	32:BE:38:GLY:HA3	1.71	0.54
31:CA:390:C:H2'	31:CA:391:G:C8	2.42	0.54
31:CA:373:A:C2	31:CA:482:A:C6	2.94	0.54
31:CA:800:G:O5'	31:CA:800:G:H8	1.90	0.54
31:CA:89:U:H1'	31:CA:90:C:OP1	2.07	0.54
31:CA:941:G:N2	31:CA:942:G:H1'	2.22	0.54
52:CB:29:C:H2'	52:CB:30:A:C8	2.42	0.54
52:CB:48:C:H2'	52:CB:49:A:C8	2.41	0.54
52:CB:50:U:C2'	52:CB:51:C:C6	2.83	0.54
52:CD:30:A:N6	52:CD:42:U:H3	2.05	0.54
34:CG:176:LEU:HG	34:CG:178:VAL:HG22	1.89	0.54
37:CJ:58:PRO:O	37:CJ:60:LYS:N	2.40	0.54
38:CK:17:THR:HG22	38:CK:78:GLN:OE1	2.07	0.54
49:CV:69:HIS:HB3	49:CV:73:GLU:OE1	2.08	0.54
50:CW:48:LYS:O	50:CW:50:GLU:N	2.41	0.54
1:DA:1420:U:O5'	1:DA:1420:U:O2	2.25	0.54
1:DA:1510:A:OP2	1:DA:1510:A:C8	2.55	0.54
1:DA:2056:G:C2	1:DA:2057:A:C8	2.95	0.54
1:DA:2141:G:O6	1:DA:2150:U:O2	2.25	0.54
52:CD:85:A:O2'	1:DA:2394:C:N3	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2786:U:C4'	4:DE:65:GLY:H	2.20	0.54
21:DV:60:GLU:O	21:DV:61:LEU:HB2	2.07	0.54
24:DW:43:GLN:HG2	24:DW:43:GLN:O	2.07	0.54
1:AA:1161:C:O2'	17:A2:8:GLY:HA2	2.07	0.54
22:A3:35:ASN:N	22:A3:35:ASN:HD22	2.01	0.54
1:AA:2213:U:O4'	23:AZ:52:ARG:NH2	2.40	0.54
1:AA:814:C:OP1	17:A2:84:LYS:N	2.34	0.54
4:AE:21:VAL:HB	4:AE:22:PRO:CA	2.36	0.54
4:AE:67:PHE:HD2	4:AE:69:LYS:HZ1	1.53	0.54
6:AG:131:TYR:HE2	6:AG:133:LEU:HD23	1.73	0.54
8:AK:56:LYS:C	8:AK:58:LEU:H	2.11	0.54
31:BA:1113:C:H2'	31:BA:1114:C:C6	2.38	0.54
31:BA:1161:C:C2	31:BA:1177:G:N2	2.76	0.54
31:BA:1315:U:O2'	31:BA:1360:A:N3	2.32	0.54
31:BA:515:G:N2	31:BA:537:G:C5	2.75	0.54
31:BA:712:A:H2'	31:BA:713:G:C8	2.42	0.54
31:BA:750:G:C2	31:BA:751:U:C5	2.95	0.54
31:BA:979:C:C5	31:BA:980:C:C5	2.96	0.54
53:BC:72:C:H6	53:BC:72:C:O5'	1.91	0.54
52:BD:79:A:C2'	52:BD:80:C:H5'	2.37	0.54
34:BG:4:TYR:CE2	34:BG:11:LEU:HD11	2.36	0.54
35:BH:74:GLY:O	35:BH:115:VAL:HA	2.08	0.54
31:BA:1349:A:OP2	39:BL:118:LYS:NZ	2.41	0.54
42:BO:7:ILE:O	42:BO:7:ILE:HD13	2.06	0.54
31:CA:1135:U:H2'	31:CA:1137:C:C2	2.42	0.54
31:CA:197:A:H1'	31:CA:198:G:OP2	2.07	0.54
31:CA:619:U:O2	34:CG:135:LEU:HD22	2.08	0.54
52:CB:84:C:H2'	52:CB:85:A:C5	2.43	0.54
42:CO:24:VAL:HG12	42:CO:26:ALA:HB2	1.88	0.54
43:CP:49:THR:HG22	43:CP:50:GLU:H	1.72	0.54
16:D1:11:ARG:CG	16:D1:11:ARG:HH11	2.19	0.54
16:D1:25:TRP:C	16:D1:25:TRP:HD1	2.05	0.54
16:D1:83:LEU:CD2	16:D1:88:ILE:HG13	2.37	0.54
1:DA:1097:U:H2'	1:DA:1098:A:O4'	2.07	0.54
1:DA:1142:U:C2'	1:DA:1142:U:O2	2.55	0.54
1:DA:2473:U:O2	1:DA:2473:U:C2'	2.54	0.54
1:DA:249:C:H4'	1:DA:250:G:O5'	2.07	0.54
1:DA:262:A:C2'	1:DA:263:C:H5'	2.36	0.54
1:DA:487:C:H2'	1:DA:488:G:H5'	1.89	0.54
1:DA:547:A:N6	1:DA:548:A:N1	2.55	0.54
1:DA:196:A:O2'	1:DA:805:G:O6	2.09	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:45:ASN:OD1	3:DD:46:GLN:N	2.39	0.54
2:DB:45:A:H1'	6:DG:95:ARG:HH21	1.72	0.54
11:DO:81:GLN:OE1	11:DO:106:LEU:CA	2.55	0.54
11:DO:65:ARG:CG	11:DO:65:ARG:NH1	2.52	0.54
1:DA:2415:G:H4'	11:DO:66:GLY:CA	2.37	0.54
20:DU:63:LYS:HA	20:DU:63:LYS:NZ	2.22	0.54
24:DW:24:LEU:O	24:DW:24:LEU:HD23	2.07	0.54
27:A5:40:LYS:HZ3	27:A5:46:CYS:CB	2.19	0.54
30:A8:29:LYS:HG2	30:A8:44:LYS:HG2	1.90	0.54
1:AA:1298:C:H5"	1:AA:1299:G:OP2	2.08	0.54
1:AA:1379:A:C1'	1:AA:1380:G:OP1	2.55	0.54
1:AA:1694:C:H4'	1:AA:1695:G:O5'	2.07	0.54
1:AA:15:G:H2'	1:AA:16:G:H5'	1.90	0.54
1:AA:1255:U:O2	56:AA:3367:OHX:N6	2.40	0.54
1:AA:439:G:C2'	1:AA:440:G:H5'	2.37	0.54
1:AA:889:C:C3'	1:AA:890:A:H4'	2.26	0.54
1:AA:900:A:N3	1:AA:900:A:H2'	2.21	0.54
1:AA:958:U:O2	2:AB:89(A):A:H4'	2.07	0.54
1:AA:2636:U:OP1	4:AE:79:ARG:HG3	2.08	0.54
4:AE:45:THR:O	4:AE:83:ASP:N	2.40	0.54
7:AH:7:LEU:N	7:AH:8:PRO:CD	2.70	0.54
8:AK:96:ASP:O	8:AK:99:GLU:N	2.40	0.54
15:AR:27:THR:HG23	15:AR:90:GLN:HB3	1.89	0.54
31:BA:1238:A:H62	31:BA:1301:U:H3	1.54	0.54
31:BA:1429:C:H2'	31:BA:1430:C:H6	1.72	0.54
31:BA:335:C:O2'	31:BA:1433:A:N3	2.39	0.54
31:BA:452:A:O2'	31:BA:453:A:O4'	2.25	0.54
31:BA:880:C:OP1	42:BO:8:ASN:ND2	2.41	0.54
52:BB:48:C:H5"	52:BB:49:A:OP2	2.06	0.54
52:BD:30:A:C6	52:BD:43:G:C6	2.95	0.54
33:BF:12:LEU:C	33:BF:14:ILE:H	2.11	0.54
33:BF:133:ALA:O	33:BF:134:ILE:C	2.46	0.54
33:BF:181:ASN:ND2	33:BF:204:LEU:HB2	2.23	0.54
38:BK:126:LYS:NZ	38:BK:126:LYS:HB3	2.22	0.54
43:BP:44:ARG:C	43:BP:46:LYS:H	2.10	0.54
43:BP:47:ASP:O	43:BP:48:LEU:CB	2.56	0.54
44:BQ:43:CYS:HA	44:BQ:46:GLU:HG3	1.89	0.54
47:BT:49:GLU:HG3	47:BT:49:GLU:O	2.07	0.54
31:CA:1163:C:H2'	31:CA:1164:G:H8	1.72	0.54
31:CA:1465:C:H2'	31:CA:1466:C:O4'	2.06	0.54
31:CA:198:G:H2'	31:CA:199:G:C8	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:640:A:C2'	31:CA:641:U:H5'	2.38	0.54
31:CA:723:U:HO2'	31:CA:724:G:P	2.31	0.54
52:CB:55:U:H2'	52:CB:56:U:C6	2.43	0.54
52:CD:21:A:C4'	52:CD:22:A:O5'	2.54	0.54
34:CG:200:GLU:O	34:CG:204:ILE:HG12	2.07	0.54
34:CG:72:GLU:HA	34:CG:72:GLU:OE1	2.06	0.54
38:CK:33:GLU:HG3	38:CK:59:LEU:CD1	2.37	0.54
42:CO:62:SER:OG	42:CO:62:SER:O	2.22	0.54
45:CR:75:PRO:O	45:CR:78:TYR:HB3	2.07	0.54
50:CW:70:SER:O	50:CW:71:THR:C	2.46	0.54
1:DA:1248:G:OP1	16:D1:2:PRO:HD2	2.08	0.54
28:D6:52:VAL:HG13	28:D6:53:LYS:N	2.23	0.54
30:D8:30:ARG:CD	30:D8:31:HIS:H	2.19	0.54
1:DA:13:A:O2'	56:DA:3410:OHX:N6	2.41	0.54
1:DA:1728:G:C5	1:DA:1730:U:OP2	2.60	0.54
1:DA:2591:C:OP1	3:DD:239:ARG:HG3	2.07	0.54
1:DA:2745:C:H2'	1:DA:2746:U:O4'	2.08	0.54
1:DA:2818:G:OP2	13:D0:42:LYS:NZ	2.40	0.54
1:DA:576:U:H2'	1:DA:577:G:C8	2.43	0.54
9:DM:35:ARG:HB3	9:DM:116:LEU:HD13	1.89	0.54
1:DA:671:C:OP1	11:DO:42:SER:O	2.25	0.54
14:DQ:110:LEU:HB2	14:DQ:112:PHE:CE1	2.42	0.54
15:DR:55:ASN:N	15:DR:59:THR:HG22	2.21	0.54
19:DT:60:ARG:HG3	19:DT:60:ARG:NH1	2.22	0.54
20:DU:14:LEU:HD12	20:DU:15:VAL:N	2.22	0.54
21:DV:145:GLU:HA	21:DV:174:VAL:CG1	2.37	0.54
21:DV:27:VAL:CG1	21:DV:87:ASP:HB3	2.33	0.54
16:A1:5:LYS:HB2	16:A1:5:LYS:NZ	2.23	0.54
1:AA:592:G:H21	30:A8:4:MET:HE1	1.71	0.54
1:AA:1047:G:C8	1:AA:1110:G:O6	2.60	0.54
1:AA:1496:A:H8	1:AA:1577:C:HO2'	0.58	0.54
1:AA:2151:G:H2'	1:AA:2152:G:H8	1.68	0.54
1:AA:2283:C:H2'	1:AA:2284:C:O4'	2.08	0.54
1:AA:2559:C:H2'	1:AA:2560:C:H6	1.72	0.54
1:AA:613:U:O2	1:AA:613:U:O4'	2.24	0.54
1:AA:646:A:C2'	1:AA:647:G:O5'	2.56	0.54
5:AF:160:ASN:OD1	5:AF:163:VAL:HG23	2.07	0.54
5:AF:114:VAL:HG21	5:AF:202:PHE:CE1	2.43	0.54
6:AG:51:ARG:HH11	6:AG:51:ARG:HG2	1.73	0.54
1:AA:1131:G:C8	9:AM:75:TYR:CE2	2.96	0.54
10:AN:88:ASN:HD21	10:AN:92:GLU:CG	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:26:LEU:O	14:AQ:26:LEU:HD23	2.08	0.54
15:AR:102:ILE:HA	15:AR:105:LEU:HD22	1.90	0.54
15:AR:90:GLN:OE1	15:AR:121:ILE:HD11	2.07	0.54
31:BA:1277:C:HO2'	31:BA:1279:A:C1'	2.21	0.54
31:BA:244:U:H4'	31:BA:245:C:C5'	2.37	0.54
31:BA:323:U:H5'	50:BW:23:ARG:HB2	1.90	0.54
52:BB:1:G:OP2	52:BB:1:G:H8	1.90	0.54
32:BE:83:MET:C	32:BE:85:ALA:N	2.61	0.54
34:BG:104:VAL:C	34:BG:106:TYR:H	2.10	0.54
36:BI:100:ASN:HB2	48:BU:28:GLU:HA	1.90	0.54
38:BK:35:ILE:HG22	38:BK:36:LEU:N	2.22	0.54
41:BN:54:ARG:O	41:BN:57:THR:HG22	2.07	0.54
47:BT:16:GLN:O	47:BT:17:LYS:HB2	2.07	0.54
49:BV:42:PRO:C	49:BV:44:MET:H	2.09	0.54
49:BV:7:LYS:HG2	49:BV:7:LYS:O	2.08	0.54
31:CA:1158:C:C4	31:CA:1160:G:N7	2.76	0.54
31:CA:920:U:H2'	31:CA:921:U:C6	2.42	0.54
53:CC:18:C:O2	53:CC:18:C:C2'	2.55	0.54
52:CD:46:G:C2	52:CD:47:U:C2	2.96	0.54
33:CF:29:TYR:HD2	33:CF:29:TYR:O	1.91	0.54
37:CJ:72:ARG:O	37:CJ:91:VAL:HG23	2.07	0.54
38:CK:20:TYR:HD1	38:CK:65:TYR:CD2	2.25	0.54
38:CK:33:GLU:OE1	38:CK:50:ARG:HD2	2.07	0.54
39:CL:119:ALA:O	39:CL:120:ARG:HB2	2.06	0.54
42:CO:111:LYS:O	42:CO:112:ASP:HB2	2.06	0.54
50:CW:30:LYS:O	50:CW:32:ALA:N	2.40	0.54
22:D3:72:ARG:HH21	22:D3:75:LEU:CD1	2.21	0.54
1:DA:125:G:C6	29:D7:10:ARG:HG3	2.43	0.54
1:DA:1073:A:H2'	1:DA:1074:G:O4'	2.06	0.54
1:DA:1021:A:H61	1:DA:1142(A):A:H61	1.54	0.54
1:DA:1810:A:H2'	1:DA:1811:G:O4'	2.07	0.54
1:DA:2153:G:H2'	1:DA:2154:G:H8	1.70	0.54
1:DA:2469:A:C5'	1:DA:2476:A:H2	2.20	0.54
1:DA:2865:U:C4	1:DA:2866:U:C4	2.95	0.54
1:DA:296:C:H2'	1:DA:297:C:H6	1.72	0.54
1:DA:315:G:H2'	1:DA:316:C:H6	1.73	0.54
1:DA:600:G:H5'	5:DF:32:LEU:HD12	1.88	0.54
3:DD:36:PRO:HB3	3:DD:61:LEU:CG	2.37	0.54
5:DF:125:LEU:O	5:DF:125:LEU:HG	2.08	0.54
5:DF:69:HIS:C	5:DF:70:THR:CG2	2.76	0.54
7:DH:6:ARG:HH21	7:DH:54:ARG:NH2	2.02	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:101:VAL:C	11:DO:103:ALA:H	2.10	0.54
11:DO:9:ASN:CB	11:DO:10:PRO:HD2	2.28	0.54
12:DP:132:VAL:HG22	12:DP:133:ARG:N	2.20	0.54
14:DQ:23:ARG:NH2	14:DQ:84:GLN:OE1	2.40	0.54
15:DR:80:SER:HB3	15:DR:83:ILE:HD12	1.90	0.54
1:AA:857:C:H4'	22:A3:23:VAL:HG21	1.89	0.54
1:AA:1021:A:C8	1:AA:1021:A:H3'	2.42	0.54
1:AA:1405:U:H2'	1:AA:1406:U:C6	2.43	0.54
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.41	0.54
1:AA:2094:G:H2'	1:AA:2095:C:H5'	1.89	0.54
1:AA:2695:C:H2'	1:AA:2696:U:C6	2.42	0.54
1:AA:62:C:N4	1:AA:92:G:H1	2.03	0.54
1:AA:760:G:H2'	1:AA:761:A:O4'	2.08	0.54
5:AF:191:ARG:HB3	5:AF:191:ARG:NH1	2.21	0.54
6:AG:107:LEU:HD21	6:AG:178:PHE:CE1	2.43	0.54
9:AM:126:PRO:O	9:AM:127:ASP:HB2	2.06	0.54
23:AZ:29:GLY:C	23:AZ:31:GLY:H	2.11	0.54
31:BA:1129:C:H42	31:BA:1143:G:H1	1.55	0.54
31:BA:1216:G:O2'	31:BA:1217:C:H5'	2.08	0.54
31:BA:1229:A:OP1	43:BP:116:THR:HG23	2.07	0.54
31:BA:130:A:P	31:BA:189:U:C5	3.01	0.54
31:BA:255:G:H1'	47:BT:16:GLN:NE2	2.23	0.54
31:BA:356:A:C2'	31:BA:357:G:O5'	2.56	0.54
31:BA:515:G:H2'	31:BA:516:U:O4'	2.07	0.54
31:BA:668:G:C5	31:BA:669:U:C5	2.95	0.54
52:BB:48:C:C3'	52:BB:49:A:C8	2.82	0.54
32:BE:162:ILE:N	32:BE:162:ILE:HD13	2.22	0.54
34:BG:199:ASN:C	34:BG:201:GLN:H	2.10	0.54
37:BJ:20:ASP:O	37:BJ:23:VAL:HG23	2.08	0.54
38:BK:112:LEU:O	38:BK:112:LEU:HG	2.08	0.54
31:BA:1349:A:P	39:BL:118:LYS:NZ	2.80	0.54
40:BM:24:VAL:HG23	40:BM:34:VAL:HG11	1.90	0.54
40:BM:61:GLU:OE1	44:BQ:58:LYS:HD2	2.07	0.54
46:BS:19:ILE:HB	46:BS:36:ILE:O	2.08	0.54
31:CA:1072:G:O6	31:CA:1102:A:N6	2.39	0.54
31:CA:1292:U:H2'	31:CA:1293:G:H8	1.72	0.54
31:CA:1362(A):C:OP1	56:CA:1786:OHX:N3	2.40	0.54
31:CA:686:U:HO2'	31:CA:687:A:P	2.27	0.54
53:CC:19:G:C4	53:CC:59:A:C2	2.96	0.54
32:CE:102:LEU:CD1	32:CE:102:LEU:H	2.20	0.54
32:CE:79:ASP:O	32:CE:81:VAL:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:119:GLN:O	34:CG:123:HIS:CD2	2.61	0.54
35:CH:13:ILE:HD12	35:CH:13:ILE:N	2.22	0.54
35:CH:9:LYS:CB	35:CH:112:LEU:HD11	2.37	0.54
39:CL:14:VAL:HB	39:CL:66:ARG:O	2.08	0.54
45:CR:56:LEU:O	45:CR:56:LEU:HD12	2.08	0.54
49:CV:28:LYS:CD	49:CV:29:ARG:H	2.13	0.54
49:CV:73:GLU:O	49:CV:74:PHE:HD2	1.91	0.54
13:D0:52:ILE:HG21	13:D0:94:TYR:CD2	2.42	0.54
17:D2:69:LYS:HG2	17:D2:88:ARG:HG3	1.88	0.54
22:D3:75:LEU:O	22:D3:78:TYR:HE1	1.90	0.54
28:D6:14:THR:HB	28:D6:21:TYR:CD2	2.43	0.54
30:D8:37:SER:O	30:D8:38:GLY:C	2.46	0.54
1:DA:1071:G:OP2	1:DA:1097:U:H5'	2.08	0.54
1:DA:414:C:O2	1:DA:1864:U:O2'	2.26	0.54
1:DA:2316:C:O2'	1:DA:2317:C:H5'	2.07	0.54
1:DA:9:U:C2	1:DA:2629:A:N6	2.75	0.54
1:DA:603:A:C2	1:DA:655:A:C2	2.95	0.54
3:DD:71:ASP:N	3:DD:71:ASP:OD2	2.40	0.54
4:DE:137:HIS:ND1	4:DE:138:PRO:HD3	2.22	0.54
4:DE:170:LEU:HD11	4:DE:185:LYS:O	2.08	0.54
5:DF:89:VAL:O	5:DF:91:GLY:N	2.34	0.54
6:DG:15:VAL:HG22	6:DG:175:LEU:O	2.08	0.54
11:DO:46:LYS:O	11:DO:48:PRO:HA	2.07	0.54
30:A8:34:TRP:CG	30:A8:35:GLN:CB	2.83	0.54
30:A8:56:GLU:C	30:A8:58:ILE:N	2.61	0.54
1:AA:1067:A:C8	1:AA:1068:G:C5	2.95	0.54
1:AA:1506:C:O2	1:AA:1506:C:H2'	2.07	0.54
1:AA:1668:A:N6	1:AA:1676:A:H61	2.04	0.54
1:AA:1765:C:H2'	1:AA:1766:U:H6	1.73	0.54
1:AA:2086:U:H2'	1:AA:2087:G:H8	1.72	0.54
1:AA:2871:C:H5"	1:AA:2872:G:OP1	2.07	0.54
1:AA:606:U:H4'	1:AA:658:C:H4'	1.90	0.54
1:AA:882:G:N2	1:AA:894:C:C2	2.75	0.54
5:AF:63:LYS:HZ1	5:AF:67:GLN:HB2	1.70	0.54
11:AO:37:GLY:O	11:AO:38:GLN:C	2.44	0.54
2:AB:7:G:O5'	14:AQ:29:PHE:CE1	2.61	0.54
21:AV:110:GLY:O	21:AV:111:VAL:HG22	2.08	0.54
1:AA:1159:U:P	25:AX:30:ARG:HH12	2.31	0.54
25:AX:51:ALA:HA	25:AX:54:VAL:HG12	1.90	0.54
31:BA:1178:G:H3'	31:BA:1178:G:H8	1.72	0.54
31:BA:1250:A:H2'	31:BA:1251:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1309:G:C6	31:BA:1329:A:C2	2.96	0.54
31:BA:601:C:H2'	31:BA:602:A:C8	2.42	0.54
31:BA:93:U:H2'	31:BA:95:G:C4'	2.38	0.54
43:BP:49:THR:C	43:BP:51:ALA:N	2.61	0.54
44:BQ:53:LEU:HB3	44:BQ:56:VAL:HG21	1.88	0.54
31:CA:1028(B):C:N3	31:CA:1032(A):G:N2	2.55	0.54
31:CA:1182:G:H4'	31:CA:1183:A:H5"	1.89	0.54
31:CA:128:G:H4'	47:CT:3:LYS:HG2	1.88	0.54
31:CA:186(F):C:H2'	31:CA:187:C:O4'	2.06	0.54
31:CA:328:C:C2'	31:CA:328:C:O2	2.55	0.54
31:CA:455:C:H6	31:CA:455:C:O5'	1.91	0.54
31:CA:458:C:C2	31:CA:464:G:C8	2.95	0.54
31:CA:595:G:H22	31:CA:643:C:H41	1.54	0.54
32:CE:81:VAL:HG12	32:CE:81:VAL:O	2.07	0.54
36:CI:14:LEU:HB2	36:CI:18:GLN:OE1	2.06	0.54
38:CK:38:ILE:HD12	38:CK:118:VAL:HG12	1.90	0.54
31:CA:1321:C:H4'	43:CP:87:TYR:CZ	2.43	0.54
49:CV:80:TYR:CE1	49:CV:82:GLY:HA2	2.42	0.54
26:D4:18:CYS:CB	26:D4:19:GLY:HA2	2.37	0.54
30:D8:30:ARG:C	30:D8:31:HIS:HD2	2.11	0.54
1:DA:184:C:H2'	1:DA:185:U:C6	2.42	0.54
1:DA:2031:A:C6	1:DA:2498:C:H1'	2.42	0.54
1:DA:2185:C:H2'	1:DA:2186:G:H8	1.73	0.54
1:DA:2318:G:H5'	1:DA:2319:G:OP2	2.08	0.54
1:DA:2418:A:C6	1:DA:2419:U:C4	2.95	0.54
1:DA:2836:U:C4	1:DA:2883:A:N6	2.76	0.54
1:DA:362:U:H6	1:DA:362:U:H3'	1.73	0.54
1:DA:547:A:H3'	1:DA:548:A:C8	2.42	0.54
1:DA:5:A:C2	1:DA:2899:G:C2	2.96	0.54
3:DD:267:SER:O	3:DD:269:PHE:N	2.40	0.54
1:DA:2727:G:O2'	10:DN:70:LYS:HE2	2.08	0.54
25:DX:59:VAL:CG1	25:DX:60:GLU:H	2.20	0.54
1:AA:1771:C:C1'	1:AA:1786:A:C8	2.91	0.54
1:AA:1771:C:C1'	1:AA:1786:A:H8	2.21	0.54
1:AA:2286:A:OP1	28:A6:28:ARG:HG3	2.08	0.54
1:AA:2287:A:N3	1:AA:2289:G:C8	2.75	0.54
1:AA:2295:C:H2'	1:AA:2295:C:O2	2.08	0.54
1:AA:1050:A:C8	1:AA:2751:G:C5	2.96	0.54
1:AA:2869:G:H2'	1:AA:2870:C:C6	2.43	0.54
1:AA:1370:C:OP1	56:AA:3453:OHX:N6	2.40	0.54
1:AA:845:G:H8	1:AA:845:G:OP2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:848:G:H2'	1:AA:849:A:C8	2.43	0.54
1:AA:986:C:H2'	1:AA:987:G:H5'	1.89	0.54
4:AE:17:ASP:O	4:AE:19:ARG:N	2.39	0.54
11:AO:108:LYS:O	11:AO:110:TYR:N	2.36	0.54
31:BA:773:G:N1	31:BA:774:G:C5	2.76	0.54
32:BE:28:PHE:CD1	32:BE:190:THR:HA	2.42	0.54
35:BH:110:LEU:HD13	35:BH:118:ILE:HG21	1.89	0.54
39:BL:111:ARG:CG	39:BL:112:LYS:H	2.11	0.54
39:BL:53:VAL:O	39:BL:54:ASP:CB	2.55	0.54
48:BU:48:GLY:O	48:BU:74:ARG:NH2	2.41	0.54
52:CB:37:A:C6	54:C1:20:G:C6	2.96	0.54
31:CA:247:G:O6	31:CA:278:G:C6	2.61	0.54
31:CA:345:C:O2	31:CA:346:G:N2	2.41	0.54
31:CA:534:U:H5'	31:CA:535:A:OP2	2.07	0.54
31:CA:537:G:H2'	31:CA:538:G:C8	2.43	0.54
31:CA:648:A:C2	31:CA:649:G:C4	2.95	0.54
31:CA:97:U:O2'	31:CA:99:C:H5'	2.07	0.54
52:CD:35:G:H2'	52:CD:36:U:C6	2.43	0.54
32:CE:233:SER:CB	32:CE:234:PRO:CD	2.84	0.54
36:CI:45:LEU:HD23	36:CI:46:ARG:N	2.22	0.54
37:CJ:143:ARG:HH11	52:CD:43:G:H5'	1.73	0.54
31:CA:375:U:OP1	46:CS:69:THR:HG21	2.08	0.54
50:CW:25:ARG:HH11	50:CW:25:ARG:CG	2.20	0.54
1:DA:1146:C:C2'	1:DA:1147:C:H5'	2.38	0.54
1:DA:996:A:H61	1:DA:1159:U:H3	1.54	0.54
1:DA:1349:A:N6	1:DA:1598:C:H42	2.06	0.54
1:DA:2168:G:H2'	1:DA:2168:G:N3	2.23	0.54
1:DA:2275:C:O2'	12:DP:85:LYS:N	2.40	0.54
8:DK:31:LEU:HD21	8:DK:38:LEU:HD12	1.90	0.54
14:DQ:66:ALA:O	14:DQ:68:GLN:N	2.40	0.54
15:DR:105:LEU:HG	15:DR:105:LEU:O	2.08	0.54
25:DX:12:PRO:O	25:DX:15:TYR:N	2.37	0.54
25:DX:59:VAL:CG1	25:DX:60:GLU:N	2.71	0.54
1:AA:1053:C:N4	1:AA:1106:G:H1	2.05	0.54
1:AA:1575:C:H2'	1:AA:1576:U:C6	2.43	0.54
1:AA:1600:C:O2'	1:AA:1601:G:H5'	2.08	0.54
1:AA:1963:U:O2	1:AA:1963:U:H2'	2.06	0.54
1:AA:2389:G:OP2	56:AA:3551:OHX:N3	2.41	0.54
1:AA:2855:C:H2'	1:AA:2856:C:C6	2.43	0.54
1:AA:654:A:N3	1:AA:654:A:H2'	2.21	0.54
3:AD:62:TYR:CE1	3:AD:64:ILE:HA	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:39:LYS:HA	11:AO:45:LEU:HD22	1.88	0.54
14:AQ:42:ASP:O	14:AQ:43:GLU:HB2	2.08	0.54
21:AV:150:LEU:HD21	21:AV:154:ASP:HB2	1.89	0.54
24:AW:15:LYS:H	24:AW:67:LYS:HE2	1.72	0.54
31:BA:1239:A:H62	31:BA:1299:A:H62	1.55	0.54
31:BA:1379:G:C6	31:BA:1380:U:O4	2.60	0.54
31:BA:179:A:C2	31:BA:180:U:C2	2.96	0.54
32:BE:212:GLN:CG	32:BE:235:SER:HB2	2.38	0.54
33:BF:159:GLY:HA2	33:BF:193:TYR:CG	2.42	0.54
35:BH:11:ILE:CD1	35:BH:31:LEU:HD13	2.30	0.54
36:BI:48:LEU:HG	36:BI:57:GLN:HA	1.89	0.54
37:BJ:156:TRP:HD1	37:BJ:156:TRP:H	1.56	0.54
39:BL:78:LYS:HE2	39:BL:101:PHE:CE2	2.42	0.54
43:BP:108:ARG:NH1	43:BP:112:GLY:O	2.40	0.54
45:BR:15:PHE:HE2	45:BR:84:LYS:HD3	1.73	0.54
45:BR:39:LEU:HD13	45:BR:56:LEU:HB2	1.89	0.54
31:CA:1512:U:H2'	31:CA:1513:A:H8	1.73	0.54
31:CA:408:A:H2'	31:CA:409:G:O4'	2.08	0.54
53:CC:1:C:O2	53:CC:2:G:C8	2.61	0.54
35:CH:48:ALA:HB1	35:CH:49:PRO:HD2	1.90	0.54
36:CI:32:ASN:ND2	36:CI:32:ASN:N	2.54	0.54
16:D1:47:TYR:HA	16:D1:50:ARG:NH2	2.23	0.54
1:DA:2331:G:H4'	22:D3:43:THR:H	1.73	0.54
1:DA:1204:A:C2	1:DA:1241:A:N1	2.76	0.54
1:DA:1962:C:O2'	1:DA:1964:G:OP2	2.22	0.54
1:DA:2252:G:H2'	1:DA:2253:G:O4'	2.07	0.54
1:DA:270(X):G:OP2	56:DA:3346:OHX:N4	2.40	0.54
1:DA:2748:A:C8	1:DA:2754:U:O4	2.61	0.54
1:DA:2748:A:H2'	1:DA:2749:A:C8	2.38	0.54
4:DE:169:ASN:O	4:DE:169:ASN:ND2	2.40	0.54
4:DE:77:ILE:O	4:DE:78:LEU:O	2.26	0.54
7:DH:92:ILE:HG22	7:DH:93:GLY:H	1.70	0.54
8:DK:76:THR:CG2	8:DK:77:LEU:H	2.20	0.54
20:DU:52:SER:CB	20:DU:56:PRO:HA	2.38	0.54
13:A0:94:TYR:N	13:A0:94:TYR:HD2	2.02	0.54
26:A4:18:CYS:HB3	26:A4:39:CYS:CB	2.36	0.54
27:A5:51:TYR:HD2	27:A5:52:TYR:CE2	2.25	0.54
28:A6:43:CYS:HB3	28:A6:44:ARG:HH11	1.70	0.54
1:AA:1281:G:O2'	1:AA:1282:U:H5'	2.08	0.54
1:AA:1331:A:HO2'	1:AA:1332:G:H8	1.55	0.54
1:AA:1914:C:H2'	1:AA:1915:U:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2144:U:O2	1:AA:2148:G:C2	2.61	0.54
1:AA:2461:C:H2'	1:AA:2462:U:C6	2.43	0.54
1:AA:2689:U:H4'	1:AA:2690:C:C5'	2.26	0.54
3:AD:19:ALA:HB3	3:AD:21:PHE:CZ	2.43	0.54
3:AD:27:THR:O	3:AD:28:GLU:OE2	2.26	0.54
1:AA:2445:G:OP1	5:AF:74:ARG:NH2	2.40	0.54
6:AG:38:VAL:CG2	6:AG:93:THR:HG23	2.37	0.54
8:AK:144:VAL:CG2	8:AK:145:VAL:N	2.71	0.54
12:AP:7:MET:CE	12:AP:73:PRO:HG3	2.36	0.54
15:AR:100:TYR:O	15:AR:102:ILE:N	2.41	0.54
21:AV:143:GLY:HA2	21:AV:144:LEU:CB	2.38	0.54
31:BA:1003:G:N2	31:BA:1004:A:O3'	2.39	0.54
31:BA:1133:G:H1	31:BA:1141:C:N4	2.02	0.54
31:BA:1431:C:H2'	31:BA:1432:G:O4'	2.08	0.54
31:BA:148:G:O2'	31:BA:149:A:H5'	2.08	0.54
31:BA:414:A:OP2	31:BA:428:G:N2	2.39	0.54
31:BA:655:A:C2	31:BA:754:C:C4	2.95	0.54
31:BA:726:C:O2'	31:BA:727:G:H5'	2.08	0.54
31:BA:812:C:H4'	31:BA:813:U:O5'	2.07	0.54
34:BG:25:ARG:C	34:BG:27:TYR:H	2.09	0.54
41:BN:57:THR:HG23	41:BN:60:ALA:H	1.73	0.54
42:BO:93:LEU:O	42:BO:94:PRO:C	2.47	0.54
45:BR:18:PHE:HB2	45:BR:19:PRO:CD	2.37	0.54
31:CA:1195:C:O2	31:CA:1197:G:H1'	2.08	0.54
31:CA:1227:A:H8	31:CA:1227:A:H3'	1.73	0.54
31:CA:980:C:O2	44:CQ:21:TYR:HD1	1.91	0.54
34:CG:64:LEU:HD13	34:CG:198:VAL:HG21	1.89	0.54
40:CM:6:ILE:HG22	40:CM:98:ILE:HG23	1.89	0.54
16:D1:92:ARG:HH22	17:D2:10:LYS:HB3	1.71	0.54
1:DA:1936:A:C8	1:DA:1940:U:O2	2.61	0.54
1:DA:2275:C:O2'	12:DP:84:GLY:C	2.42	0.54
1:DA:2887:U:C2'	1:DA:2888:C:H5'	2.38	0.54
1:DA:825:C:O2	11:DO:55:ARG:NH2	2.41	0.54
1:DA:888:C:H1'	1:DA:889:C:P	2.48	0.54
2:DB:52:A:H62	14:DQ:33:LYS:HG2	1.72	0.54
2:DB:55:U:H1'	6:DG:29:TRP:HE1	1.73	0.54
8:DK:82:ARG:NH1	8:DK:146:ALA:O	2.41	0.54
11:DO:101:VAL:HG21	11:DO:108:LYS:HG2	1.90	0.54
18:DS:40:ASN:O	18:DS:41:LYS:HG2	2.08	0.54
24:DW:33:MET:HG3	24:DW:37:PHE:HE1	1.72	0.54
27:A5:31:VAL:HG13	27:A5:40:LYS:O	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1049:C:C2'	1:AA:1050:A:H5"	2.38	0.53
1:AA:1411:C:H2'	1:AA:1412:A:O4'	2.09	0.53
1:AA:1332:G:N2	1:AA:1610:A:H8	2.06	0.53
1:AA:749:C:C4	1:AA:1618:A:C2	2.96	0.53
1:AA:2306:C:H3'	1:AA:2307:G:C5'	2.38	0.53
1:AA:2287:A:N6	1:AA:2344:U:C2	2.75	0.53
1:AA:792:G:C4'	1:AA:793:A:H5'	2.38	0.53
1:AA:981:A:H5"	1:AA:982:C:OP2	2.08	0.53
4:AE:40:GLU:HA	4:AE:40:GLU:OE1	2.07	0.53
5:AF:132:VAL:CG2	5:AF:133:ASN:N	2.71	0.53
1:AA:558:G:OP1	9:AM:111:PRO:HD2	2.07	0.53
9:AM:120:LEU:CD2	9:AM:120:LEU:C	2.76	0.53
12:AP:54:MET:C	12:AP:56:ARG:N	2.61	0.53
14:AQ:88:ASP:OD2	14:AQ:90:GLY:N	2.42	0.53
21:AV:44:PHE:CE1	21:AV:48:PHE:HB2	2.43	0.53
31:BA:1175:G:C2'	31:BA:1176:A:C8	2.78	0.53
31:BA:1286:A:C8	31:BA:1287:A:H4'	2.43	0.53
31:BA:19:C:H2'	31:BA:20:U:H6	1.73	0.53
31:BA:210:U:C2'	31:BA:216:G:OP2	2.56	0.53
31:BA:475:G:H2'	31:BA:476:G:O4'	2.09	0.53
31:BA:811:C:H4'	31:BA:900:A:N6	2.22	0.53
31:BA:920:U:O4'	31:BA:1080:A:C2	2.61	0.53
52:BD:21:A:C1'	52:BD:22:A:O5'	2.56	0.53
32:BE:155:LEU:C	32:BE:157:ARG:H	2.11	0.53
38:BK:73:ASP:OD2	38:BK:75:ARG:NE	2.38	0.53
40:BM:9:ARG:NH2	40:BM:97:GLU:HG3	2.17	0.53
44:BQ:12:ARG:C	44:BQ:14:PRO:HD2	2.29	0.53
45:BR:45:VAL:HG12	45:BR:46:HIS:ND1	2.23	0.53
45:BR:29:VAL:HG11	45:BR:81:LEU:HD21	1.90	0.53
31:CA:1212:U:HO2'	31:CA:1213:A:H8	1.55	0.53
31:CA:1316:G:N2	31:CA:1319:A:O5'	2.41	0.53
31:CA:273:A:H2'	31:CA:274:A:H5'	1.90	0.53
31:CA:741:G:H2'	31:CA:742:G:O4'	2.08	0.53
31:CA:986:A:H1'	49:CV:54:GLY:O	2.09	0.53
52:CD:59:A:C2	52:CD:74:C:O2	2.61	0.53
32:CE:185:ILE:CG2	32:CE:199:TYR:HB2	2.36	0.53
36:CI:18:GLN:O	36:CI:21:LEU:HB3	2.07	0.53
37:CJ:109:ASN:H	37:CJ:109:ASN:HD22	1.56	0.53
40:CM:4:ILE:HG12	40:CM:100:THR:CG2	2.38	0.53
43:CP:79:LYS:O	43:CP:79:LYS:HD3	2.08	0.53
17:D2:37:VAL:HG21	17:D2:57:VAL:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:51:ALA:CB	30:D8:52:LYS:HD2	2.38	0.53
1:DA:2266:A:H5'	1:DA:2267:A:C5	2.44	0.53
1:DA:2699:C:H2'	1:DA:2700:C:O4'	2.08	0.53
1:DA:844:C:N4	1:DA:845:G:C2	2.76	0.53
3:DD:95:LEU:HD11	3:DD:105:ILE:HD12	1.90	0.53
4:DE:203:LYS:O	4:DE:204:ALA:HB2	2.08	0.53
5:DF:34:TRP:NE1	11:DO:8:PRO:HD3	2.23	0.53
9:DM:38:HIS:ND1	9:DM:39:ARG:HG3	2.23	0.53
14:DQ:29:PHE:O	14:DQ:35:ILE:HD12	2.08	0.53
1:DA:481:G:OP2	20:DU:47:LYS:HD3	2.08	0.53
21:DV:147:GLY:C	21:DV:149:SER:H	2.11	0.53
16:A1:24:TYR:CD1	16:A1:38:THR:HG21	2.43	0.53
1:AA:1162:G:O4'	17:A2:23:GLU:HG3	2.08	0.53
1:AA:174:C:H2'	1:AA:175:G:O4'	2.08	0.53
1:AA:2287:A:C4	1:AA:2289:G:C8	2.96	0.53
1:AA:2820:A:O5'	13:A0:4:LEU:HD23	2.09	0.53
1:AA:337:C:H2'	1:AA:338:G:O5'	2.08	0.53
1:AA:607:U:N3	1:AA:621:A:C2	2.71	0.53
1:AA:978:G:N2	1:AA:986:C:C2	2.76	0.53
4:AE:13:ARG:HB2	4:AE:21:VAL:CB	2.38	0.53
4:AE:7:VAL:O	4:AE:8:LYS:C	2.45	0.53
8:AK:35:LEU:O	8:AK:36:ALA:HB2	2.07	0.53
12:AP:81:VAL:HG23	12:AP:82:ARG:N	2.22	0.53
18:AS:12:ILE:HG12	18:AS:13:SER:N	2.23	0.53
31:BA:1088:G:H1	31:BA:1097:C:H42	1.55	0.53
31:BA:419:C:H5'	31:BA:420:U:OP2	2.08	0.53
31:BA:690:G:H2'	31:BA:691:G:O4'	2.08	0.53
31:BA:575:G:O2'	31:BA:821:G:OP2	2.16	0.53
31:BA:950:U:H2'	31:BA:951:G:C8	2.39	0.53
52:BB:49:A:H2'	52:BB:49:A:N3	2.23	0.53
1:AA:2583:G:N2	52:BB:85:A:H8	2.03	0.53
33:BF:107:GLN:H	33:BF:107:GLN:CD	2.09	0.53
43:BP:30:ALA:C	43:BP:32:GLU:N	2.61	0.53
43:BP:87:TYR:C	43:BP:89:GLY:H	2.12	0.53
31:BA:1202:G:C2	44:BQ:42:ILE:HG21	2.43	0.53
45:BR:15:PHE:CE2	45:BR:84:LYS:HD3	2.44	0.53
31:CA:1151:A:N6	31:CA:1152:A:N6	2.56	0.53
31:CA:1209:C:O2	31:CA:1209:C:C2'	2.55	0.53
31:CA:200:G:H1	31:CA:217:C:N4	2.02	0.53
31:CA:570:G:H2'	31:CA:571:U:C6	2.43	0.53
31:CA:1205:U:O2'	33:CF:194:GLY:HA2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:36:ASP:OD2	33:CF:57:ILE:HD12	2.08	0.53
35:CH:139:LEU:C	35:CH:141:GLN:H	2.11	0.53
39:CL:119:ALA:O	39:CL:120:ARG:CB	2.56	0.53
40:CM:4:ILE:HG12	40:CM:100:THR:HG22	1.89	0.53
31:CA:994:A:C2	44:CQ:5:ALA:HB2	2.44	0.53
51:CX:3:LYS:O	51:CX:14:TRP:CE3	2.61	0.53
1:DA:2817:G:OP1	13:D0:99:LYS:NZ	2.40	0.53
22:D3:40:GLN:HE22	22:D3:45:PHE:HB2	1.73	0.53
1:DA:1024:G:C3'	1:DA:1025:G:H5"	2.35	0.53
1:DA:1204:A:O2'	56:DA:3400:OHX:N5	2.41	0.53
1:DA:1996:C:OP1	10:DN:31:LYS:HE3	2.08	0.53
1:DA:2136:C:N4	1:DA:2137:C:N3	2.56	0.53
1:DA:2131:G:O4'	1:DA:2158:A:N1	2.41	0.53
1:DA:2191:G:O2'	1:DA:2192:G:P	2.66	0.53
1:DA:2291:U:H2'	1:DA:2292:C:C6	2.43	0.53
1:DA:237:C:C2'	1:DA:238:C:H5'	2.37	0.53
1:DA:449:A:OP1	5:DF:84:VAL:O	2.26	0.53
1:DA:895:U:O2'	1:DA:896:A:C8	2.56	0.53
1:DA:898:C:N4	1:DA:899:A:C2	2.76	0.53
11:DO:57:THR:C	11:DO:59:LEU:N	2.62	0.53
12:DP:110:THR:CG2	12:DP:113:GLN:HG3	2.34	0.53
14:DQ:30:ARG:CG	14:DQ:35:ILE:HD13	2.38	0.53
18:DS:44:ALA:O	18:DS:45:TYR:C	2.46	0.53
21:DV:44:PHE:HE1	21:DV:48:PHE:CG	2.26	0.53
1:AA:183:C:H42	1:AA:213:A:H61	1.57	0.53
1:AA:2146:C:H4'	1:AA:2147:G:N7	2.24	0.53
1:AA:2298:A:H2'	1:AA:2299:G:O4'	2.08	0.53
1:AA:304:G:O2'	1:AA:305:U:H5'	2.09	0.53
6:AG:145:THR:O	6:AG:146:TYR:CB	2.56	0.53
2:AB:42:C:O3'	6:AG:67:LYS:NZ	2.42	0.53
10:AN:113:LYS:O	10:AN:117:LEU:HD12	2.08	0.53
12:AP:50:ALA:O	12:AP:51:ARG:C	2.46	0.53
14:AQ:38:GLN:CG	14:AQ:47:THR:HG21	2.38	0.53
21:AV:128:VAL:HA	21:AV:161:VAL:CG2	2.39	0.53
31:BA:124:G:C6	31:BA:125:U:N3	2.76	0.53
31:BA:1391:U:H2'	31:BA:1392:G:C8	2.43	0.53
32:BE:187:LEU:HD13	32:BE:187:LEU:O	2.08	0.53
32:BE:233:SER:OG	32:BE:234:PRO:HD2	2.08	0.53
36:BI:97:PHE:HZ	48:BU:61:LYS:HD3	1.73	0.53
37:BJ:120:ILE:CG2	37:BJ:124:LEU:HD12	2.39	0.53
43:BP:22:ILE:HD12	43:BP:25:ILE:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:94:ARG:O	43:BP:96:LEU:HG	2.08	0.53
31:CA:1288:A:H1'	31:CA:1352:C:O2'	2.08	0.53
31:CA:943:U:C2'	31:CA:944:G:H5'	2.38	0.53
52:CB:35:G:H8	52:CB:35:G:O5'	1.91	0.53
52:CB:50:U:H2'	52:CB:51:C:H6	1.68	0.53
53:CC:16:C:C5	56:CC:108:OHX:N5	2.76	0.53
39:CL:4:TYR:OH	39:CL:89:ASN:ND2	2.40	0.53
39:CL:53:VAL:C	39:CL:55:ALA:N	2.58	0.53
43:CP:69:GLU:O	43:CP:72:ALA:HB3	2.08	0.53
49:CV:18:LYS:HG2	49:CV:31:ILE:HD13	1.90	0.53
2:DB:39:A:C4	26:D4:1:MET:HE3	2.44	0.53
1:DA:1773:A:H2'	1:DA:1774:C:H5'	1.90	0.53
1:DA:43:G:N2	1:DA:438:G:C4	2.76	0.53
1:DA:662:G:H5"	11:DO:16:ARG:HG2	1.90	0.53
2:DB:39:A:H2'	26:D4:1:MET:HE3	1.89	0.53
4:DE:55:ASN:O	4:DE:57:LYS:N	2.35	0.53
9:DM:134:ARG:CG	9:DM:134:ARG:O	2.56	0.53
1:DA:1022:G:O6	9:DM:66:LYS:HE2	2.07	0.53
11:DO:107:LYS:C	11:DO:109:GLY:N	2.61	0.53
1:DA:566:U:OP1	11:DO:29:LYS:HD2	2.07	0.53
11:DO:46:LYS:O	11:DO:48:PRO:N	2.41	0.53
14:DQ:94:TYR:HD2	14:DQ:94:TYR:O	1.90	0.53
1:AA:1264:G:H3'	1:AA:1265:A:H5"	1.91	0.53
1:AA:1470:G:H5"	1:AA:1471:A:OP1	2.08	0.53
1:AA:1536:A:C2	56:AA:3507:OHX:N1	2.76	0.53
1:AA:2356:C:H2'	1:AA:2357:U:O4'	2.08	0.53
1:AA:2364:C:C2'	1:AA:2365:G:H5'	2.38	0.53
1:AA:2473:U:O2	1:AA:2473:U:H2'	2.07	0.53
1:AA:2590:A:C2	1:AA:2605:U:C2	2.97	0.53
1:AA:2864:G:OP1	15:AR:119:LYS:HD2	2.08	0.53
1:AA:1320:C:OP2	56:AA:3375:OHX:N2	2.42	0.53
1:AA:672:C:O2'	1:AA:673:C:H5'	2.08	0.53
5:AF:165:ARG:HA	5:AF:168:ARG:HB2	1.88	0.53
6:AG:25:TYR:CD2	6:AG:31:VAL:HB	2.43	0.53
7:AH:86:GLU:HG3	7:AH:165:ALA:N	2.23	0.53
8:AK:40:THR:O	8:AK:44:LEU:HB2	2.09	0.53
9:AM:62:VAL:HG13	9:AM:62:VAL:O	2.08	0.53
1:AA:2405:G:P	11:AO:77:ARG:NH2	2.81	0.53
21:AV:127:LYS:C	21:AV:161:VAL:HG21	2.28	0.53
31:BA:1218:C:H2'	31:BA:1219:U:C6	2.43	0.53
31:BA:1314:C:O2'	31:BA:1315:U:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1350:A:C6	31:BA:1351:U:N3	2.77	0.53
31:BA:1397:C:C6	31:BA:1397:C:H3'	2.40	0.53
31:BA:517:G:N1	31:BA:533:A:OP2	2.39	0.53
31:BA:544:G:C6	31:BA:545:C:C4	2.97	0.53
31:BA:791:G:C6	31:BA:792:A:N6	2.75	0.53
32:BE:167:PRO:CG	32:BE:188:ALA:HB2	2.37	0.53
32:BE:21:ARG:NH1	32:BE:37:ASN:O	2.41	0.53
33:BF:181:ASN:HD21	33:BF:204:LEU:HB2	1.73	0.53
37:BJ:84:ASN:O	52:BD:38:MIA:H151	2.08	0.53
48:BU:73:ALA:HB3	48:BU:79:LEU:HD12	1.89	0.53
31:CA:1053:G:C2'	31:CA:1054:C:OP2	2.56	0.53
31:CA:1239:A:H4'	31:CA:1240:U:H5'	1.90	0.53
31:CA:1269:A:C2	31:CA:1313:U:H1'	2.43	0.53
31:CA:262:A:C6	31:CA:263:A:C6	2.96	0.53
31:CA:801:U:H2'	31:CA:802:A:H8	1.74	0.53
31:CA:804:U:H5"	31:CA:805:C:OP2	2.08	0.53
31:CA:852:G:C2'	31:CA:853:G:H5'	2.38	0.53
32:CE:6:THR:OG1	32:CE:7:VAL:N	2.39	0.53
33:CF:22:TRP:CH2	33:CF:32:LEU:HB2	2.44	0.53
35:CH:40:ARG:HH11	35:CH:40:ARG:HG2	1.74	0.53
40:CM:16:LEU:HB3	40:CM:70:ARG:CD	2.38	0.53
45:CR:39:LEU:CD1	45:CR:56:LEU:HD13	2.38	0.53
48:CU:29:PHE:N	48:CU:29:PHE:CD2	2.74	0.53
16:D1:50:ARG:CZ	17:D2:72:VAL:HG21	2.38	0.53
30:D8:50:LEU:H	30:D8:50:LEU:CD2	2.16	0.53
1:DA:1314:C:C2	1:DA:1339:G:N2	2.77	0.53
1:DA:2297:C:C6	1:DA:2333:A:N1	2.76	0.53
1:DA:275:G:C8	1:DA:275:G:OP2	2.62	0.53
1:DA:2872:G:N7	1:DA:2873:A:C2	2.77	0.53
1:DA:324:A:H2'	1:DA:325:G:O4'	2.08	0.53
1:DA:35:G:C1'	1:DA:454:A:N3	2.72	0.53
1:DA:35:G:H1'	1:DA:454:A:N3	2.24	0.53
1:DA:824:A:H1'	1:DA:2358:G:N7	2.23	0.53
2:DB:79:C:H2'	2:DB:80:U:O4'	2.08	0.53
3:DD:35:LYS:HG3	3:DD:64:ILE:HG12	1.88	0.53
4:DE:39:PRO:CG	4:DE:45:THR:CG2	2.84	0.53
7:DH:136:ILE:O	7:DH:136:ILE:HG22	2.08	0.53
12:DP:54:MET:O	12:DP:57:HIS:N	2.40	0.53
18:DS:26:GLY:HA2	18:DS:71:VAL:O	2.09	0.53
21:DV:52:SER:C	21:DV:54:HIS:H	2.11	0.53
16:A1:60:LEU:HD13	16:A1:60:LEU:C	2.29	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1188:U:C2'	1:AA:1189:A:H5'	2.38	0.53
1:AA:1486:A:H2'	1:AA:1487:G:C8	2.43	0.53
1:AA:1687:G:O2'	1:AA:1688:U:H5'	2.09	0.53
1:AA:2018:G:H2'	1:AA:2019:A:O4'	2.08	0.53
1:AA:2346:A:H5"	1:AA:2383:G:O4'	2.09	0.53
1:AA:247:G:H4'	1:AA:386:G:C5	2.44	0.53
1:AA:879:G:H1	1:AA:898:C:H42	1.56	0.53
1:AA:981:A:N1	1:AA:2027:G:O2'	2.37	0.53
1:AA:978:G:C2	1:AA:986:C:C2	2.97	0.53
3:AD:136:ILE:O	3:AD:168:ARG:NH2	2.42	0.53
4:AE:15:PHE:HA	4:AE:20:ALA:HA	1.91	0.53
5:AF:20:LEU:HD12	5:AF:21:ALA:N	2.23	0.53
1:AA:1614:A:N6	18:AS:88:ARG:H	2.05	0.53
19:AT:65:ARG:HB3	19:AT:65:ARG:NH1	2.24	0.53
1:AA:2397:G:H5"	23:AZ:28:GLY:HA2	1.91	0.53
31:BA:1073:U:H2'	31:BA:1074:G:H8	1.74	0.53
31:BA:200:G:N2	31:BA:218:C:N3	2.56	0.53
31:BA:477:G:N7	56:BA:1813:OHX:N3	2.57	0.53
31:BA:816:A:OP1	31:BA:1526:G:O2'	2.19	0.53
32:BE:72:GLY:HA2	32:BE:165:VAL:HG22	1.91	0.53
34:BG:138:TYR:C	34:BG:138:TYR:HD2	2.12	0.53
31:BA:1297:C:H1'	37:BJ:114:ARG:NH1	2.23	0.53
37:BJ:148:ASN:HD22	37:BJ:148:ASN:H	1.57	0.53
31:BA:797:C:OP1	41:BN:124:LYS:HE2	2.08	0.53
31:CA:1149:C:H2'	31:CA:1150:U:O4'	2.08	0.53
31:CA:622:A:C8	31:CA:623:C:C6	2.96	0.53
31:CA:76:G:C6	31:CA:77:C:C4	2.97	0.53
32:CE:233:SER:CB	32:CE:234:PRO:HD2	2.37	0.53
32:CE:32:ILE:HD12	32:CE:33:TYR:N	2.23	0.53
34:CG:178:VAL:CG1	34:CG:179:GLU:H	2.10	0.53
34:CG:62:GLN:O	34:CG:66:ARG:HD2	2.08	0.53
39:CL:110:GLU:O	39:CL:111:ARG:O	2.27	0.53
46:CS:55:ARG:NH2	46:CS:58:TYR:CD1	2.76	0.53
28:D6:36:LEU:CD2	28:D6:50:ARG:HD3	2.39	0.53
1:DA:1028:A:N6	1:DA:1125:G:H2'	2.24	0.53
1:DA:1000:A:C2	1:DA:1155:A:C5	2.96	0.53
1:DA:17:G:C4	1:DA:18:C:C5	2.96	0.53
1:DA:2037:G:H2'	1:DA:2038:G:C8	2.44	0.53
1:DA:2057:A:H2'	1:DA:2058:A:O4'	2.09	0.53
1:DA:16:G:O6	56:DA:3410:OHX:N2	2.41	0.53
3:DD:127:VAL:HA	3:DD:193:VAL:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:120:LEU:CD2	9:DM:122:VAL:HG23	2.38	0.53
11:DO:50:ARG:HG2	11:DO:50:ARG:NH1	2.23	0.53
11:DO:61:ARG:HB3	11:DO:62:LEU:HD22	1.91	0.53
20:DU:84:ARG:NH2	20:DU:97:ARG:HB2	2.23	0.53
24:DW:23:LYS:HE2	24:DW:27:GLU:OE2	2.08	0.53
13:A0:52:ILE:O	13:A0:55:ALA:N	2.35	0.53
1:AA:1065:U:H6	1:AA:1065:U:OP2	1.91	0.53
1:AA:1130:U:O2	4:AE:149:ARG:NH2	2.28	0.53
1:AA:1510:A:C2'	1:AA:1510:A:N3	2.69	0.53
1:AA:1530:G:C5	1:AA:1531:C:C4	2.96	0.53
1:AA:188:G:H1	1:AA:208:C:H42	1.56	0.53
1:AA:2623:G:N2	27:A5:22:HIS:CE1	2.70	0.53
1:AA:2678:C:H2'	1:AA:2679:A:O4'	2.08	0.53
1:AA:2698:U:H2'	1:AA:2699:C:C6	2.43	0.53
1:AA:303:U:H2'	1:AA:304:G:H8	1.72	0.53
1:AA:529:A:C8	1:AA:530:G:O6	2.61	0.53
4:AE:101:ARG:NE	4:AE:171:GLU:HB3	2.23	0.53
5:AF:11:VAL:HB	5:AF:18:ARG:O	2.08	0.53
6:AG:13:GLU:HG3	6:AG:13:GLU:O	2.09	0.53
1:AA:1012:U:O4	9:AM:25:ARG:HA	2.08	0.53
10:AN:24:VAL:HA	10:AN:39:ILE:HG22	1.90	0.53
11:AO:49:ARG:HD2	30:A8:58:ILE:CG2	2.39	0.53
15:AR:125:ARG:O	15:AR:128:GLU:N	2.36	0.53
15:AR:26:ASP:CB	15:AR:91:ARG:HA	2.37	0.53
19:AT:29:TRP:CE3	19:AT:78:LYS:HB3	2.44	0.53
1:AA:483:A:O2'	20:AU:59:GLY:HA2	2.08	0.53
31:BA:158:G:C2'	31:BA:159:G:H5'	2.39	0.53
31:BA:619:U:H5"	31:BA:620:C:OP2	2.09	0.53
31:BA:729:A:H2'	31:BA:730:G:O4'	2.08	0.53
31:BA:82:U:O4	31:BA:87:A:N1	2.42	0.53
53:BC:73:A:N6	53:BC:74:A:N6	2.56	0.53
38:BK:27:PRO:O	38:BK:32:LYS:NZ	2.20	0.53
38:BK:94:TYR:HE1	38:BK:132:GLU:HB2	1.73	0.53
46:BS:40:ASP:C	46:BS:42:ARG:H	2.10	0.53
49:BV:10:PHE:N	49:BV:10:PHE:CD1	2.76	0.53
49:BV:10:PHE:HD1	49:BV:10:PHE:H	1.53	0.53
31:CA:1122:U:O4	31:CA:1123:A:N6	2.41	0.53
31:CA:1212:U:O2'	31:CA:1213:A:H8	1.91	0.53
31:CA:960:U:N3	31:CA:1225:A:C4	2.72	0.53
32:CE:137:ARG:CZ	32:CE:140:HIS:HB3	2.38	0.53
33:CF:68:VAL:HG12	33:CF:70:VAL:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:125:TYR:HD2	39:CL:126:SER:N	2.02	0.53
39:CL:99:LEU:HB3	39:CL:101:PHE:CE1	2.44	0.53
47:CT:46:ASP:OD1	47:CT:51:TYR:HD1	1.92	0.53
48:CU:43:PHE:HD2	48:CU:56:THR:HG22	1.74	0.53
31:CA:192:U:C4'	50:CW:103:GLY:HA2	2.39	0.53
1:DA:1108:U:C5	1:DA:1109:C:C4	2.96	0.53
1:DA:1998:G:HO2'	1:DA:2724:C:HO2'	1.54	0.53
1:DA:2210:G:H4'	1:DA:2211:G:OP2	2.09	0.53
1:DA:2286:A:H4'	1:DA:2287:A:O4'	2.08	0.53
1:DA:2681:C:H5	1:DA:2727:G:C2	2.26	0.53
1:DA:57:C:H2'	1:DA:58:G:O4'	2.08	0.53
3:DD:239:ARG:O	3:DD:240:ALA:HB2	2.08	0.53
3:DD:35:LYS:CB	3:DD:63:ARG:HA	2.39	0.53
4:DE:120:TRP:CE3	4:DE:155:LYS:HD3	2.43	0.53
5:DF:53:THR:C	5:DF:55:GLY:H	2.11	0.53
5:DF:7:TYR:CD2	5:DF:18:ARG:HB3	2.44	0.53
5:DF:95:ARG:HG3	5:DF:97:TYR:CE2	2.44	0.53
7:DH:152:ARG:NE	7:DH:153:LYS:HG3	2.23	0.53
10:DN:2:ILE:HD11	10:DN:82:ASN:HB3	1.90	0.53
11:DO:104:GLY:O	11:DO:105:LEU:HB3	2.09	0.53
12:DP:78:PRO:O	12:DP:79:LEU:CG	2.57	0.53
1:DA:2378:A:H5"	14:DQ:23:ARG:NH1	2.23	0.53
19:DT:38:GLU:O	19:DT:42:ALA:HB2	2.09	0.53
13:A0:103:ARG:NH1	18:AS:40:ASN:HD22	2.06	0.53
27:A5:51:TYR:C	27:A5:56:LYS:HE2	2.29	0.53
1:AA:1071:G:N2	1:AA:1090:U:C5	2.76	0.53
1:AA:1155:A:O2'	1:AA:1156:A:H2'	2.09	0.53
1:AA:1342:A:N6	1:AA:1397:U:C5	2.77	0.53
1:AA:1805:U:O2	3:AD:50:THR:HB	2.09	0.53
1:AA:2421:G:H5"	1:AA:2422:A:OP2	2.09	0.53
1:AA:186:G:N7	56:AA:3371:OHX:N1	2.56	0.53
3:AD:119:ALA:HA	3:AD:130:ALA:O	2.09	0.53
7:AH:152:ARG:CG	7:AH:153:LYS:H	2.18	0.53
7:AH:86:GLU:HG3	7:AH:165:ALA:CB	2.39	0.53
11:AO:28:GLY:O	11:AO:31:ALA:N	2.29	0.53
14:AQ:10:ARG:O	14:AQ:14:VAL:HG13	2.09	0.53
21:AV:128:VAL:CA	21:AV:161:VAL:HG21	2.39	0.53
31:BA:1187:G:P	39:BL:113:LYS:NZ	2.82	0.53
31:BA:138:G:H1	31:BA:225:C:H42	1.57	0.53
31:BA:356:A:H1'	31:BA:368:U:O2'	2.09	0.53
31:BA:773:G:H1	31:BA:806:C:N4	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:947:G:C2	31:BA:948:C:C2	2.96	0.53
31:BA:976:G:H4'	31:BA:977:A:OP1	2.09	0.53
38:BK:1:MET:O	38:BK:2:LEU:O	2.27	0.53
46:BS:7:ALA:O	46:BS:9:PHE:HD2	1.91	0.53
48:BU:21:LYS:HE3	48:BU:21:LYS:HA	1.89	0.53
31:CA:1011:G:C5	31:CA:1012:U:C4	2.97	0.53
31:CA:1493:A:H2'	1:DA:1913:A:H61	1.74	0.53
31:CA:526:C:P	42:CO:91:LYS:NZ	2.81	0.53
31:CA:748:C:C1'	31:CA:749:C:OP2	2.56	0.53
31:CA:861:G:C5	31:CA:862:C:H5	2.27	0.53
52:CD:46:G:H2'	52:CD:47:U:C6	2.44	0.53
32:CE:100:GLY:N	32:CE:176:GLU:OE2	2.41	0.53
42:CO:32:PHE:HB3	42:CO:85:ILE:O	2.07	0.53
43:CP:54:VAL:O	43:CP:58:GLU:HG2	2.09	0.53
44:CQ:15:LYS:C	44:CQ:16:PHE:HD2	2.12	0.53
31:CA:1319:A:P	49:CV:10:PHE:HB3	2.48	0.53
13:D0:38:VAL:N	13:D0:39:PRO:CD	2.71	0.53
17:D2:15:GLU:HG2	17:D2:16:PRO:HD2	1.90	0.53
1:DA:1187:G:H5'	17:D2:81:TYR:OH	2.09	0.53
1:DA:1061:U:H4'	1:DA:1070:A:C1'	2.38	0.53
1:DA:1022:G:C5	1:DA:1140:C:N4	2.77	0.53
1:DA:1464:C:O2'	1:DA:1528:A:C8	2.58	0.53
1:DA:1577:C:H2'	1:DA:1578:U:O4'	2.09	0.53
1:DA:2059:A:C5'	1:DA:2060:A:OP2	2.57	0.53
1:DA:827:U:O2	1:DA:2246:G:H4'	2.09	0.53
1:DA:2565:A:H5"	1:DA:2566:A:OP2	2.08	0.53
1:DA:2002:G:O6	56:DA:3364:OHX:N4	2.42	0.53
1:DA:1204:A:C8	56:DA:3400:OHX:N2	2.76	0.53
1:DA:579:G:H2'	1:DA:580:C:C6	2.44	0.53
1:DA:6:A:O2'	9:DM:129:PRO:HB2	2.08	0.53
1:DA:835:A:H5'	30:D8:52:LYS:HE3	1.90	0.53
1:DA:864:G:O2'	1:DA:865:C:H5'	2.08	0.53
1:DA:973:A:H5'	1:DA:1188:U:H1'	1.90	0.53
2:DB:45:A:C2	2:DB:46:A:C1'	2.91	0.53
5:DF:132:VAL:HG13	5:DF:133:ASN:N	2.23	0.53
7:DH:70:THR:HG22	7:DH:74:ASN:HD21	1.73	0.53
9:DM:99:LEU:O	9:DM:103:VAL:HG23	2.09	0.53
9:DM:71:ILE:C	9:DM:71:ILE:HD12	2.28	0.53
11:DO:107:LYS:C	11:DO:109:GLY:H	2.11	0.53
11:DO:84:ASN:C	11:DO:86:LYS:N	2.62	0.53
12:DP:63:LYS:HG2	12:DP:65:PHE:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A5:2:ALA:C	27:A5:3:LYS:CD	2.78	0.53
27:A5:56:LYS:CD	27:A5:56:LYS:N	2.66	0.53
1:AA:1153:C:C5	1:AA:1154:G:C5	2.95	0.53
1:AA:1504:C:O2'	1:AA:1505:C:H5'	2.08	0.53
1:AA:2131:G:C4	1:AA:2158:A:C8	2.96	0.53
1:AA:2394:C:N3	52:BD:85:A:O2'	2.34	0.53
1:AA:2457:U:H2'	1:AA:2458:G:H5'	1.89	0.53
1:AA:270(O):U:H2'	1:AA:270(O):U:O2	2.08	0.53
1:AA:2805:G:H2'	1:AA:2807:G:C8	2.44	0.53
1:AA:2809:A:C2	1:AA:2892:A:C2	2.97	0.53
1:AA:479:A:N3	1:AA:481:G:H5'	2.24	0.53
1:AA:524:U:H4'	1:AA:554:U:H4'	1.91	0.53
1:AA:646:A:C8	1:AA:647:G:C1'	2.92	0.53
1:AA:638:G:C6	1:AA:651:G:C2	2.97	0.53
1:AA:873:G:N2	1:AA:904:C:N3	2.43	0.53
3:AD:238:GLY:O	3:AD:239:ARG:CB	2.57	0.53
4:AE:3:GLY:HA3	4:AE:81:ILE:CG2	2.37	0.53
5:AF:192:LEU:CD2	5:AF:194:MET:HG3	2.39	0.53
5:AF:95:ARG:HG3	5:AF:97:TYR:CE2	2.43	0.53
9:AM:35:ARG:O	9:AM:42:TRP:HZ3	1.92	0.53
14:AQ:50:SER:O	14:AQ:51:ALA:HB2	2.08	0.53
19:AT:21:PHE:CE2	19:AT:26:TYR:HD2	2.26	0.53
20:AU:18:GLY:C	20:AU:20:TYR:N	2.62	0.53
21:AV:141:VAL:HG21	21:AV:150:LEU:HD12	1.89	0.53
23:AZ:87:PRO:C	23:AZ:89:GLU:N	2.62	0.53
31:BA:273:A:H2'	31:BA:274:A:O5'	2.08	0.53
31:BA:411:A:C6	31:BA:429:U:C4	2.97	0.53
31:BA:450:G:N7	31:BA:481:G:C6	2.76	0.53
35:BH:20:GLN:NE2	35:BH:22:GLY:H	2.07	0.53
35:BH:78:HIS:CE1	35:BH:142:LEU:HA	2.43	0.53
36:BI:100:ASN:HB3	48:BU:28:GLU:HG2	1.89	0.53
37:BJ:23:VAL:CG1	37:BJ:43:PHE:CE2	2.92	0.53
38:BK:38:ILE:HD11	38:BK:118:VAL:O	2.08	0.53
31:CA:1014:A:H2'	31:CA:1015:A:C8	2.43	0.53
31:CA:1024:G:H3'	31:CA:1024:G:N3	2.23	0.53
31:CA:1003:G:N1	31:CA:1037:C:N4	2.45	0.53
31:CA:1299:A:C2	31:CA:1301:U:C5	2.96	0.53
31:CA:447:G:C6	31:CA:485:G:C8	2.97	0.53
31:CA:503:C:C2'	31:CA:504:C:H5'	2.39	0.53
31:CA:583:A:H2'	31:CA:584:G:O4'	2.09	0.53
31:CA:830:G:N2	31:CA:857:C:O2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CD:51:C:C5	52:CD:52:G:N3	2.77	0.53
32:CE:7:VAL:CG1	32:CE:8:LYS:HD3	2.35	0.53
37:CJ:80:VAL:O	37:CJ:80:VAL:HG13	2.09	0.53
39:CL:46:ALA:HA	39:CL:78:LYS:NZ	2.24	0.53
49:CV:9:VAL:HG13	26:D4:63:TYR:OH	2.09	0.53
2:DB:40:U:C2	26:D4:1:MET:CE	2.92	0.53
1:DA:1078:U:H5"	1:DA:1079:C:OP1	2.09	0.53
1:DA:1543:A:H1'	1:DA:1545:A:H1'	1.90	0.53
1:DA:1588:C:O2	1:DA:1588:C:H2'	2.08	0.53
1:DA:1652:A:C2'	1:DA:1653:G:H5'	2.39	0.53
1:DA:2054:A:H5"	1:DA:2055:C:O5'	2.07	0.53
1:DA:2065:C:H2'	1:DA:2066:C:C6	2.44	0.53
1:DA:2118:U:C4	1:DA:2148:G:H4'	2.43	0.53
1:DA:2239:G:H5'	3:DD:251:GLY:HA3	1.90	0.53
1:DA:2298:A:N6	1:DA:2318:G:C2'	2.72	0.53
1:DA:2842:G:C4	1:DA:2876:G:N2	2.76	0.53
1:DA:977:G:O2'	1:DA:978:G:H5'	2.08	0.53
5:DF:119:ARG:NH1	5:DF:119:ARG:HG2	2.22	0.53
11:DO:61:ARG:HB3	11:DO:62:LEU:CD2	2.39	0.53
11:DO:80:TYR:HD1	11:DO:111:ARG:HB3	1.72	0.53
1:DA:2378:A:C4'	14:DQ:23:ARG:HH11	2.11	0.53
15:DR:134:GLU:O	15:DR:136:GLN:NE2	2.41	0.53
15:DR:86:ILE:HG12	15:DR:86:ILE:O	2.08	0.53
20:DU:43:ASN:HB3	20:DU:64:GLU:CA	2.39	0.53
24:DW:67:LYS:O	24:DW:68:ARG:C	2.46	0.53
17:A2:35:LEU:CB	17:A2:37:VAL:HG22	2.34	0.53
1:AA:1566:A:O2'	1:AA:1567:A:H5'	2.09	0.53
1:AA:2096:U:H2'	1:AA:2097:C:H6	1.72	0.53
1:AA:2288:A:C2	1:AA:2325:G:C8	2.97	0.53
1:AA:2519:U:H4'	1:AA:2520:C:OP1	2.08	0.53
1:AA:2652:C:H2'	1:AA:2653:U:O4'	2.09	0.53
1:AA:277:C:H3'	1:AA:278:A:H4'	1.91	0.53
1:AA:971:C:H2'	1:AA:972:G:C5'	2.39	0.53
5:AF:192:LEU:HD21	5:AF:194:MET:CE	2.39	0.53
7:AH:125:VAL:HG22	7:AH:131:VAL:HG23	1.91	0.53
11:AO:72:PRO:O	56:AO:202:OHX:N2	2.42	0.53
14:AQ:9:ARG:O	14:AQ:10:ARG:C	2.48	0.53
10:AN:75:SER:HB2	15:AR:75:ILE:O	2.09	0.53
15:AR:93:ARG:NH1	15:AR:93:ARG:HG3	2.24	0.53
18:AS:12:ILE:HG12	18:AS:13:SER:H	1.74	0.53
23:AZ:83:GLU:O	23:AZ:85:LEU:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1006:C:N3	31:BA:1023:G:N2	2.48	0.53
31:BA:1052:U:H2'	31:BA:1055:A:OP1	2.08	0.53
31:BA:355:C:C2'	31:BA:356:A:H5'	2.39	0.53
31:BA:49:U:C4	31:BA:364:A:C6	2.96	0.53
31:BA:637:G:O2'	31:BA:638:G:H5'	2.09	0.53
40:BM:78:ASN:HB2	40:BM:81:THR:HG23	1.91	0.53
41:BN:48:ILE:HG12	41:BN:63:LEU:HB2	1.91	0.53
31:CA:1015:A:C5	31:CA:1016:A:C5	2.97	0.53
31:CA:1190:G:H3'	31:CA:1190:G:H8	1.74	0.53
31:CA:1289:A:P	51:CX:9:ARG:HH22	2.32	0.53
31:CA:1418:A:H5"	31:CA:1419:G:OP2	2.09	0.53
31:CA:677:U:OP1	56:CA:1811:OHX:N3	2.42	0.53
31:CA:983:A:C2	31:CA:984:C:C6	2.96	0.53
52:CB:30:A:H2'	52:CB:31:G:H8	1.69	0.53
53:CC:23:G:C2	53:CC:24:C:C5	2.96	0.53
53:CC:24:C:H2'	53:CC:25:U:C6	2.44	0.53
52:CD:16:C:N4	52:CD:68:A:C8	2.72	0.53
32:CE:193:ASP:OD2	32:CE:196:LEU:HD11	2.09	0.53
34:CG:105:VAL:O	34:CG:105:VAL:CG1	2.56	0.53
31:CA:438:G:H4'	34:CG:123:HIS:HD1	1.73	0.53
36:CI:11:ASN:O	36:CI:14:LEU:HD22	2.08	0.53
36:CI:2:ARG:HG3	36:CI:69:GLU:OE1	2.09	0.53
36:CI:32:ASN:HD22	36:CI:32:ASN:N	2.06	0.53
43:CP:3:ARG:HB2	26:D4:34:GLU:HG3	1.90	0.53
26:D4:53:GLU:OE2	26:D4:58:ARG:HB2	2.09	0.53
1:DA:1288:U:C2	1:DA:1327:C:O2	2.62	0.53
1:DA:2464:C:C2	1:DA:2487:G:N2	2.77	0.53
1:DA:2658:C:OP1	7:DH:160:LYS:NZ	2.42	0.53
1:DA:2762:G:H5"	56:DA:3379:OHX:N4	2.24	0.53
1:DA:479:A:H4'	1:DA:480:A:OP1	2.09	0.53
1:DA:675:A:N6	1:DA:676:A:N6	2.57	0.53
3:DD:147:LEU:HD23	3:DD:155:LEU:CD1	2.38	0.53
4:DE:200:GLU:HG2	4:DE:201:THR:N	2.24	0.53
10:DN:88:ASN:O	10:DN:90:GLN:N	2.42	0.53
11:DO:9:ASN:CB	11:DO:10:PRO:CD	2.78	0.53
11:DO:127:ALA:O	11:DO:147:LEU:HA	2.09	0.53
12:DP:43:THR:OG1	12:DP:45:GLN:HG2	2.09	0.53
1:DA:2276:G:OP2	12:DP:84:GLY:HA2	2.08	0.53
14:DQ:67:ARG:CZ	14:DQ:67:ARG:HB2	2.39	0.53
23:DZ:23:LYS:HD3	23:DZ:28:GLY:CA	2.36	0.53
23:DZ:91:LYS:HG3	23:DZ:92:LYS:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1652:A:C2'	1:AA:1653:G:H5'	2.39	0.53
1:AA:1830:C:C2'	1:AA:1831:G:H5'	2.39	0.53
1:AA:2181:G:C2	1:AA:2182:G:N7	2.77	0.53
1:AA:314:A:O2'	1:AA:315:G:H5'	2.08	0.53
1:AA:346:A:C4	1:AA:347:A:C8	2.97	0.53
1:AA:861:A:N3	1:AA:917:A:C6	2.77	0.53
6:AG:125:PHE:HB3	6:AG:166:ASP:OD2	2.09	0.53
8:AK:7:GLU:HA	8:AK:15:VAL:CG2	2.34	0.53
1:AA:806:C:OP2	11:AO:41:ARG:HD3	2.09	0.53
2:AB:116:G:H4'	14:AQ:54:LEU:HD13	1.90	0.53
18:AS:11:ARG:HH21	18:AS:99:ARG:N	2.05	0.53
19:AT:90:GLU:HA	19:AT:90:GLU:OE1	2.09	0.53
24:AW:32:LEU:HD12	24:AW:57:ILE:CD1	2.39	0.53
31:BA:1492:A:OP1	42:BO:47:LYS:HB3	2.09	0.53
31:BA:1523:G:OP1	41:BN:123:LYS:NZ	2.35	0.53
31:BA:516:U:OP2	56:BA:1791:OHX:N3	2.42	0.53
31:BA:22:G:H2'	31:BA:23:C:H6	1.71	0.53
31:BA:655:A:H61	31:BA:751:U:H3	1.55	0.53
31:BA:562:C:N4	31:BA:884:U:C6	2.78	0.53
1:AA:1923:U:O2'	53:BC:12:G:H1'	2.09	0.53
52:BD:49:A:H8	52:BD:49:A:O5'	1.91	0.53
32:BE:32:ILE:HD11	32:BE:40:HIS:HB3	1.91	0.53
32:BE:68:ILE:HG22	32:BE:70:PHE:CE1	2.44	0.53
33:BF:8:ILE:C	33:BF:10:PHE:N	2.60	0.53
33:BF:165:THR:O	33:BF:165:THR:CG2	2.57	0.53
34:BG:141:ARG:CZ	34:BG:141:ARG:HB2	2.38	0.53
36:BI:13:ASN:ND2	36:BI:55:ASP:OD2	2.38	0.53
41:BN:34:ASP:HB3	41:BN:40:ILE:HD11	1.91	0.53
42:BO:83:VAL:CG1	42:BO:84:LEU:N	2.72	0.53
44:BQ:21:TYR:HE2	44:BQ:23:ARG:NH1	2.07	0.53
31:BA:128:G:H5'	47:BT:2:PRO:O	2.09	0.53
54:C1:13:A:C2'	54:C1:14:A:OP1	2.57	0.53
31:CA:1206:G:H4'	33:CF:192:THR:C	2.28	0.53
31:CA:1442:G:O2'	31:CA:1443:G:P	2.67	0.53
31:CA:328:C:O2'	31:CA:329:A:P	2.67	0.53
31:CA:541:G:N7	56:CA:1740:OHX:N4	2.57	0.53
31:CA:543:C:C2'	31:CA:544:G:H5'	2.39	0.53
31:CA:986:A:H2'	31:CA:987:G:O4'	2.08	0.53
52:CD:25:G:C2'	52:CD:26:G:H5'	2.38	0.53
37:CJ:69:VAL:HG12	37:CJ:69:VAL:O	2.09	0.53
31:CA:521:G:OP1	42:CO:73:GLU:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1317:C:C6	44:CQ:16:PHE:CD1	2.97	0.53
31:CA:976:G:P	44:CQ:32:SER:H	2.32	0.53
49:CV:47:HIS:O	49:CV:62:ILE:HD13	2.08	0.53
16:D1:50:ARG:CZ	17:D2:72:VAL:CG2	2.87	0.53
17:D2:66:ARG:HB2	17:D2:88:ARG:O	2.09	0.53
1:DA:1651:G:OP2	13:D0:40:LYS:NZ	2.39	0.53
1:DA:1728:G:C6	1:DA:1730:U:OP2	2.62	0.53
1:DA:2151:G:H2'	1:DA:2152:G:H8	1.74	0.53
1:DA:2164:C:H2'	1:DA:2165:G:O4'	2.09	0.53
1:DA:2720:U:C4	1:DA:2873:A:N1	2.77	0.53
1:DA:71:A:H5"	1:DA:73:A:C8	2.44	0.53
1:DA:857:C:N4	1:DA:858:U:O4	2.42	0.53
9:DM:126:PRO:O	9:DM:127:ASP:CB	2.57	0.53
9:DM:55:VAL:O	9:DM:56:ASN:C	2.47	0.53
11:DO:104:GLY:O	11:DO:105:LEU:HD23	2.08	0.53
12:DP:2:LEU:CD1	12:DP:69:PHE:HE1	2.22	0.53
1:DA:64:A:C4	19:DT:66:LEU:HD12	2.44	0.53
17:A2:35:LEU:O	17:A2:37:VAL:HG22	2.09	0.52
28:A6:25:LYS:HE2	28:A6:27:LYS:CD	2.39	0.52
1:AA:2344:U:O2'	28:A6:37:ARG:HG2	2.09	0.52
1:AA:106:C:H2'	1:AA:107:C:C6	2.45	0.52
1:AA:2136:C:N3	1:AA:2155:G:N2	2.44	0.52
1:AA:2543:G:C8	1:AA:2543:G:H5"	2.41	0.52
1:AA:271(C):U:C2'	1:AA:271:G:OP1	2.57	0.52
1:AA:2814:C:O2'	27:A5:29:THR:HG21	2.09	0.52
1:AA:471:A:H8	1:AA:471:A:OP2	1.92	0.52
1:AA:57:C:H2'	1:AA:58:G:O4'	2.09	0.52
1:AA:780:G:N2	1:AA:783:A:N6	2.39	0.52
1:AA:879:G:N1	1:AA:898:C:N4	2.55	0.52
3:AD:35:LYS:CE	3:AD:104:TYR:HB2	2.38	0.52
3:AD:149:PRO:O	3:AD:150:LYS:HB2	2.08	0.52
3:AD:18:VAL:HG12	3:AD:19:ALA:N	2.24	0.52
2:AB:42:C:H4'	6:AG:67:LYS:HD3	1.91	0.52
7:AH:46:GLU:OE1	7:AH:51:ARG:NH1	2.41	0.52
7:AH:80:SER:C	7:AH:81:GLU:HG3	2.30	0.52
8:AK:133:HIS:CB	8:AK:134:PRO:HD2	2.38	0.52
11:AO:66:GLY:HA2	11:AO:68:GLN:HE22	1.74	0.52
31:BA:1124:G:O2'	40:BM:38:ILE:HD12	2.09	0.52
31:BA:1198:G:HO2'	40:BM:54:PHE:HD2	1.55	0.52
15:AR:39:ARG:NH2	31:BA:346:G:O4'	2.42	0.52
31:BA:567:G:H2'	31:BA:568:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:757:U:OP2	56:BA:1716:OHX:N3	2.42	0.52
52:BB:17:G:HO2'	52:BB:66:G:H1	1.57	0.52
32:BE:47:THR:O	32:BE:51:LEU:HD12	2.08	0.52
33:BF:112:SER:O	33:BF:115:LEU:HB2	2.09	0.52
35:BH:9:LYS:NZ	35:BH:112:LEU:HD21	2.24	0.52
31:BA:939:G:H5"	37:BJ:102:ARG:NH2	2.24	0.52
37:BJ:43:PHE:C	37:BJ:43:PHE:CD1	2.80	0.52
41:BN:66:LEU:HD21	41:BN:97:ALA:HB1	1.90	0.52
44:BQ:4:LYS:C	44:BQ:6:LEU:H	2.12	0.52
46:BS:75:ARG:C	46:BS:77:ALA:N	2.61	0.52
48:BU:37:VAL:HG12	48:BU:41:LYS:HD3	1.91	0.52
31:CA:1008:C:H1'	31:CA:1022:G:N2	2.24	0.52
31:CA:1276:G:C4	31:CA:1277:C:C5	2.96	0.52
31:CA:1356:G:H2'	31:CA:1357:A:C8	2.44	0.52
52:CD:60:A:H2'	52:CD:61:G:O4'	2.08	0.52
32:CE:163:PHE:HE1	32:CE:215:LEU:HD21	1.74	0.52
41:CN:54:ARG:CB	41:CN:54:ARG:HH11	2.22	0.52
44:CQ:16:PHE:N	44:CQ:16:PHE:HD2	2.07	0.52
40:CM:47:PHE:CE2	44:CQ:37:PHE:HE2	2.26	0.52
13:D0:55:ALA:O	13:D0:57:ARG:N	2.39	0.52
28:D6:21:TYR:CD2	28:D6:21:TYR:N	2.76	0.52
1:DA:1292:U:H2'	1:DA:1293:C:H6	1.74	0.52
1:DA:1689:A:N7	1:DA:1698:A:N1	2.57	0.52
1:DA:1717:G:C4	1:DA:1743:G:C2	2.97	0.52
1:DA:1921:G:C5	56:DA:3064:OHX:N2	2.77	0.52
1:DA:2046:G:N7	56:DA:3411:OHX:N5	2.57	0.52
1:DA:2154:G:H2'	1:DA:2155:G:H8	1.74	0.52
1:DA:2190:G:C2'	1:DA:2191:G:H5"	2.39	0.52
1:DA:2321:G:N3	1:DA:2321:G:H2'	2.23	0.52
1:DA:2766:G:H5"	1:DA:2767:C:OP2	2.09	0.52
1:DA:2099:U:O4	56:DA:3461:OHX:N4	2.42	0.52
2:DB:42:C:C2	6:DG:91:ARG:NH2	2.78	0.52
10:DN:47:ILE:HG13	10:DN:48:PRO:CD	2.32	0.52
11:DO:62:LEU:HD23	11:DO:62:LEU:N	2.19	0.52
11:DO:90:ARG:HG3	11:DO:91:PHE:H	1.74	0.52
20:DU:39:VAL:C	20:DU:40:GLU:OE2	2.48	0.52
13:A0:48:VAL:O	13:A0:49:ASP:C	2.47	0.52
26:A4:50:VAL:O	26:A4:50:VAL:CG1	2.57	0.52
1:AA:1005:C:O2'	9:AM:28:THR:HG21	2.08	0.52
1:AA:1210:A:C8	1:AA:1210:A:C5'	2.83	0.52
1:AA:1677:A:H2'	1:AA:1678:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:18:C:H2'	1:AA:19:C:H6	1.74	0.52
1:AA:2098:U:C4	1:AA:2099:U:C4	2.96	0.52
1:AA:349:G:H2'	1:AA:350:U:O4'	2.09	0.52
1:AA:883:G:N1	1:AA:893:C:N4	2.21	0.52
1:AA:899:A:OP2	1:AA:899:A:H8	1.92	0.52
1:AA:860:U:C4	1:AA:917:A:H2	2.27	0.52
1:AA:988:A:O5'	1:AA:988:A:H8	1.92	0.52
3:AD:70:TRP:CH2	3:AD:150:LYS:HA	2.44	0.52
1:AA:2572:A:C8	4:AE:144:ARG:HD2	2.43	0.52
8:AK:9:LEU:O	8:AK:10:GLU:O	2.27	0.52
10:AN:4:PRO:O	10:AN:5:GLN:CB	2.56	0.52
10:AN:96:THR:O	10:AN:97:ARG:O	2.26	0.52
1:AA:494:G:N2	18:AS:57:ASN:HD21	1.97	0.52
23:AZ:76:ARG:CD	23:AZ:76:ARG:N	2.72	0.52
31:BA:1038:C:C2'	31:BA:1039:C:H5'	2.38	0.52
15:AR:108:ARG:NH2	56:BA:1720:OHX:N5	2.56	0.52
31:BA:963:G:H21	40:BM:55:LYS:NZ	2.08	0.52
52:BB:51:C:H2'	52:BB:52:G:O4'	2.09	0.52
36:BI:6:VAL:HG22	36:BI:90:VAL:HG22	1.91	0.52
48:BU:56:THR:HB	48:BU:58:LEU:HD13	1.91	0.52
50:BW:25:ARG:HG2	50:BW:29:LYS:HE3	1.91	0.52
31:CA:1099:G:C6	31:CA:1100:C:N3	2.76	0.52
31:CA:1177:G:O2'	31:CA:1178:G:C4	2.59	0.52
31:CA:1178:G:C8	31:CA:1180:A:OP2	2.61	0.52
31:CA:1330:U:H4'	43:CP:23:TYR:CE2	2.45	0.52
31:CA:1527:C:O2'	31:CA:1528:U:H5'	2.09	0.52
31:CA:495:A:H4'	31:CA:496:A:OP1	2.09	0.52
31:CA:947:G:H2'	31:CA:948:C:H6	1.74	0.52
52:CB:78:C:C4'	52:CB:79:A:OP1	2.57	0.52
52:CD:28:G:H2'	52:CD:29:C:C6	2.44	0.52
32:CE:87:ARG:NH2	32:CE:233:SER:H	2.08	0.52
33:CF:170:GLN:HG2	33:CF:171:GLY:N	2.23	0.52
36:CI:96:PRO:HB3	48:CU:30:ASP:OD1	2.09	0.52
30:D8:31:HIS:CD2	30:D8:31:HIS:N	2.77	0.52
1:DA:1006:C:C2	1:DA:1138:G:N2	2.77	0.52
1:DA:1288:U:H4'	1:DA:1289:C:OP2	2.09	0.52
1:DA:185:U:H4'	1:DA:218:A:H4'	1.91	0.52
1:DA:2749:A:O2'	7:DH:59:ARG:HD3	2.09	0.52
1:DA:2874:C:H2'	1:DA:2874:C:O2	2.08	0.52
1:DA:1945:G:P	56:DA:3103:OHX:N6	2.82	0.52
1:DA:361:G:N2	1:DA:362:U:H1'	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:323:G:C5'	5:DF:169:ASN:HD21	2.22	0.52
5:DF:68:LYS:O	5:DF:70:THR:CG2	2.32	0.52
9:DM:76:SER:HB3	9:DM:81:GLY:HA3	1.90	0.52
1:DA:389:G:H22	11:DO:71:VAL:HG12	1.75	0.52
28:A6:25:LYS:HB2	30:A8:34:TRP:HE1	1.74	0.52
1:AA:1581:G:H2'	1:AA:1582:C:O4'	2.08	0.52
1:AA:1687:G:C2'	1:AA:1688:U:H5'	2.39	0.52
1:AA:1727:U:H2'	1:AA:1728:G:O4'	2.10	0.52
1:AA:2210:G:C5'	1:AA:2211:G:N7	2.71	0.52
1:AA:2619:C:O2'	1:AA:2620:C:H5'	2.08	0.52
1:AA:267:C:C2'	1:AA:268:C:H5'	2.39	0.52
1:AA:524:U:H5'	1:AA:540:G:N2	2.24	0.52
1:AA:930:U:O5'	1:AA:930:U:O2	2.27	0.52
2:AB:1:U:H2'	2:AB:2:C:H6	1.74	0.52
5:AF:42:ALA:C	5:AF:44:ARG:H	2.11	0.52
6:AG:114:ILE:CD1	6:AG:140:ILE:HD12	2.39	0.52
6:AG:61:ALA:HB2	6:AG:68:PRO:HD3	1.91	0.52
8:AK:104:GLN:O	8:AK:105:HIS:HD2	1.91	0.52
11:AO:144:GLU:N	11:AO:144:GLU:CD	2.62	0.52
20:AU:74:PRO:O	20:AU:80:GLY:HA2	2.09	0.52
31:BA:1211:U:H1'	31:BA:1213:A:C2	2.45	0.52
31:BA:1348:U:N3	31:BA:1374:A:C2	2.66	0.52
31:BA:1428:A:H2'	31:BA:1429:C:C6	2.45	0.52
31:BA:279:A:H4'	31:BA:280:C:H5"	1.92	0.52
31:BA:78:G:C6	31:BA:91:C:N4	2.75	0.52
31:BA:942:G:H21	31:BA:943:U:H1'	1.75	0.52
53:BC:19:G:C6	53:BC:59:A:C6	2.97	0.52
32:BE:77:ALA:HB1	32:BE:165:VAL:HG11	1.90	0.52
31:BA:1298:C:P	37:BJ:114:ARG:HH22	2.31	0.52
37:BJ:121:ALA:O	37:BJ:125:MET:HG3	2.08	0.52
41:BN:41:THR:HG21	41:BN:71:LYS:HB3	1.90	0.52
31:CA:1095:U:P	31:CA:1108:G:H1	2.32	0.52
31:CA:1508:G:H2'	31:CA:1509:C:O4'	2.09	0.52
31:CA:186(E):C:C2	31:CA:191(C):G:N2	2.78	0.52
31:CA:314:C:O2'	31:CA:315:A:H5'	2.09	0.52
31:CA:328:C:C1'	31:CA:329:A:OP2	2.57	0.52
31:CA:389:A:H2'	31:CA:389:A:N3	2.23	0.52
31:CA:599:C:OP1	56:CK:201:OHX:N4	2.42	0.52
31:CA:690:G:O2'	31:CA:691:G:H5'	2.08	0.52
31:CA:900:A:H2'	31:CA:901:A:C8	2.44	0.52
52:CB:53:A:O2'	52:CB:54:C:H5'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:81:C:H2'	52:CB:81:C:O2	2.09	0.52
33:CF:164:ARG:HG2	33:CF:165:THR:N	2.23	0.52
33:CF:23:TYR:CE1	40:CM:10:GLY:HA2	2.44	0.52
34:CG:126:ILE:CG2	34:CG:127:THR:N	2.72	0.52
34:CG:19:LEU:HB2	34:CG:21:LEU:CD1	2.39	0.52
37:CJ:59:LEU:O	37:CJ:59:LEU:HG	2.09	0.52
39:CL:99:LEU:HB3	39:CL:101:PHE:HE1	1.74	0.52
39:CL:37:PHE:HB3	39:CL:43:ALA:CB	2.40	0.52
39:CL:95:LYS:HZ3	39:CL:96:LEU:HD13	1.73	0.52
17:D2:35:LEU:O	17:D2:37:VAL:HG22	2.09	0.52
22:D3:27:GLU:OE1	22:D3:69:PHE:N	2.28	0.52
26:D4:29:PRO:O	26:D4:30:GLU:HG3	2.09	0.52
26:D4:39:CYS:O	26:D4:40:HIS:HB2	2.10	0.52
1:DA:2815:C:H5'	27:D5:29:THR:HG21	1.91	0.52
1:DA:2097:C:H2'	1:DA:2098:U:O4'	2.09	0.52
1:DA:274:G:OP1	1:DA:274:G:C8	2.62	0.52
1:DA:530:G:O2'	1:DA:532:A:N7	2.37	0.52
1:DA:99:U:H1'	1:DA:102:G:N3	2.24	0.52
2:DB:89:G:OP2	2:DB:89:G:H8	1.91	0.52
3:DD:34:VAL:HG22	3:DD:35:LYS:HZ3	1.74	0.52
5:DF:122:LYS:O	5:DF:123:LEU:HB3	2.09	0.52
5:DF:148:LEU:HD22	5:DF:154:VAL:HG21	1.90	0.52
11:DO:113:LYS:HG2	11:DO:115:LEU:HD21	1.91	0.52
1:DA:389:G:H22	11:DO:72:PRO:HD3	1.74	0.52
23:DZ:19:GLN:O	23:DZ:35:THR:O	2.28	0.52
22:A3:49:LYS:CA	22:A3:80:HIS:HB3	2.39	0.52
28:A6:15:GLU:OE2	28:A6:44:ARG:NH2	2.42	0.52
1:AA:1220:A:C3'	1:AA:1221:C:H5'	2.39	0.52
1:AA:1899:G:N2	1:AA:1901:A:C5	2.77	0.52
1:AA:1900:A:C5'	1:AA:1900:A:H8	2.11	0.52
1:AA:1920:C:O2	1:AA:1920:C:H2'	2.08	0.52
1:AA:2689:U:H4'	1:AA:2690:C:OP2	2.10	0.52
1:AA:270(F):U:H2'	1:AA:270(G):C:C6	2.44	0.52
1:AA:2757:A:H2'	1:AA:2758:A:H5'	1.90	0.52
1:AA:529:A:H8	1:AA:530:G:O6	1.92	0.52
1:AA:945:A:N3	1:AA:945:A:C2'	2.73	0.52
4:AE:50:GLY:CA	4:AE:77:ILE:HG22	2.38	0.52
6:AG:5:VAL:HG12	6:AG:7:LEU:H	1.74	0.52
8:AK:96:ASP:O	8:AK:98:ALA:N	2.42	0.52
9:AM:96:GLU:C	9:AM:98:VAL:N	2.59	0.52
11:AO:140:ALA:O	11:AO:141:ALA:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:62:PRO:O	21:AV:63:ASP:CB	2.57	0.52
31:BA:1004:A:O4'	31:BA:1036:G:C6	2.62	0.52
31:BA:1366:C:H2'	31:BA:1367:C:C6	2.44	0.52
31:BA:1508:G:H2'	31:BA:1509:C:C6	2.45	0.52
31:BA:192:U:H4'	50:BW:103:GLY:HA2	1.91	0.52
31:BA:192:U:O2'	31:BA:193:C:H5'	2.10	0.52
31:BA:298:A:C6	31:BA:299:G:C2	2.97	0.52
31:BA:46:G:O2'	31:BA:365:U:H1'	2.09	0.52
31:BA:956:U:H2'	31:BA:957:U:H5'	1.91	0.52
53:BC:22:A:N6	53:BC:47:G:H2'	2.24	0.52
41:BN:54:ARG:NH1	52:BD:40:U:O3'	2.39	0.52
34:BG:134:ASP:C	34:BG:135:LEU:HD13	2.30	0.52
35:BH:112:LEU:O	35:BH:113:ALA:HB2	2.08	0.52
31:CA:89:U:C1'	31:CA:90:C:OP1	2.58	0.52
52:CB:33:C:O2'	52:CB:38:MIA:H152	2.09	0.52
32:CE:225:ALA:O	32:CE:226:ARG:HB2	2.09	0.52
33:CF:11:ARG:O	33:CF:14:ILE:N	2.21	0.52
33:CF:134:ILE:O	33:CF:135:LYS:C	2.48	0.52
34:CG:110:PHE:CD1	34:CG:110:PHE:N	2.76	0.52
37:CJ:26:PHE:CE2	37:CJ:30:ILE:HD11	2.45	0.52
44:CQ:53:LEU:HD13	44:CQ:56:VAL:HG21	1.91	0.52
49:CV:12:ASP:O	49:CV:16:LEU:HD13	2.10	0.52
27:D5:4:HIS:O	27:D5:5:PRO:C	2.47	0.52
1:DA:99:U:H4'	1:DA:102:G:H1'	1.91	0.52
1:DA:1247:A:O2'	1:DA:1248:G:H5"	2.10	0.52
1:DA:1449:A:H5'	1:DA:1449(A):G:OP2	2.09	0.52
1:DA:2113:U:C5	1:DA:2114:A:H1'	2.43	0.52
1:DA:2135:A:O2'	1:DA:2160:G:H4'	2.09	0.52
1:DA:2216:G:O6	56:DA:3340:OHX:N6	2.42	0.52
1:DA:2391:G:O6	1:DA:2425:A:H8	1.92	0.52
1:DA:2515:C:O2	1:DA:2570:G:C2	2.63	0.52
1:DA:2716:U:O2'	1:DA:2717:G:H5'	2.09	0.52
1:DA:311:A:O4'	1:DA:332:A:C8	2.62	0.52
1:DA:588:U:H1'	5:DF:90:PHE:HB3	1.90	0.52
1:DA:639:U:H2'	1:DA:640:C:C6	2.43	0.52
1:DA:795:C:H2'	1:DA:796:C:C6	2.45	0.52
1:DA:857:C:C4	1:DA:858:U:O4	2.62	0.52
1:DA:905:U:C2'	1:DA:906:G:H5'	2.39	0.52
4:DE:37:ARG:HB3	4:DE:42:ASP:OD2	2.09	0.52
5:DF:116:ASP:O	5:DF:120:GLU:HG2	2.10	0.52
14:DQ:88:ASP:OD2	14:DQ:89:ARG:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:DU:89:PHE:CD1	20:DU:89:PHE:C	2.83	0.52
27:A5:42:PRO:O	27:A5:44:THR:N	2.42	0.52
28:A6:14:THR:OG1	28:A6:15:GLU:N	2.43	0.52
1:AA:120:U:C5	1:AA:149:A:N6	2.78	0.52
1:AA:1236:G:N7	56:AA:3464:OHX:N4	2.57	0.52
1:AA:1420:U:O2'	1:AA:1421:G:OP1	2.24	0.52
1:AA:1888:G:H5'	1:AA:1888:G:N3	2.24	0.52
1:AA:1131:G:H8	1:AA:2025:C:H4'	1.75	0.52
1:AA:2563:U:H4'	10:AN:28:SER:HA	1.91	0.52
1:AA:2877:G:O2'	1:AA:2878:U:H5'	2.10	0.52
1:AA:760:G:C2'	1:AA:761:A:H5'	2.39	0.52
1:AA:996:A:H4'	16:A1:92:ARG:HE	1.74	0.52
4:AE:137:HIS:HB3	4:AE:138:PRO:CD	2.39	0.52
6:AG:84:LYS:HG2	6:AG:84:LYS:O	2.09	0.52
8:AK:1:MET:O	8:AK:20:ASP:HA	2.09	0.52
9:AM:96:GLU:N	9:AM:98:VAL:HG12	2.24	0.52
11:AO:24:GLY:O	11:AO:25:SER:CB	2.58	0.52
15:AR:36:GLU:OE1	15:AR:41:ARG:HD2	2.09	0.52
31:BA:1122:U:O4	31:BA:1123:A:C6	2.62	0.52
31:BA:627:G:H2'	31:BA:628:G:H8	1.75	0.52
31:BA:864:A:H3'	31:BA:865:A:C8	2.44	0.52
32:BE:8:LYS:H	32:BE:8:LYS:CD	2.23	0.52
33:BF:8:ILE:O	33:BF:11:ARG:N	2.25	0.52
34:BG:31:CYS:SG	34:BG:31:CYS:O	2.67	0.52
34:BG:49:ARG:O	34:BG:50:ARG:C	2.46	0.52
35:BH:20:GLN:HG2	35:BH:21:ALA:H	1.73	0.52
48:BU:66:LEU:HD11	48:BU:70:ILE:HD11	1.91	0.52
50:BW:61:SER:O	50:BW:65:LYS:HB2	2.10	0.52
31:CA:1105:A:H2'	31:CA:1106:G:H8	1.73	0.52
31:CA:1289:A:OP1	51:CX:9:ARG:NH2	2.36	0.52
31:CA:927:G:OP2	31:CA:927:G:H4'	2.08	0.52
52:CD:9:U:O2'	52:CD:10:C:H5	1.92	0.52
33:CF:9:GLY:N	44:CQ:49:HIS:O	2.42	0.52
35:CH:59:GLY:O	35:CH:63:ARG:HG2	2.09	0.52
36:CI:11:ASN:OD1	36:CI:12:PRO:HD2	2.10	0.52
37:CJ:40:ALA:O	37:CJ:44:TYR:CD1	2.62	0.52
39:CL:10:ARG:HH21	39:CL:11:LYS:HE2	1.74	0.52
40:CM:32:ALA:HB2	40:CM:76:ASN:O	2.08	0.52
43:CP:15:VAL:HA	43:CP:18:ALA:HB3	1.92	0.52
43:CP:8:GLU:OE1	43:CP:22:ILE:HG12	2.10	0.52
47:CT:66:SER:O	47:CT:68:ARG:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:42:PRO:HA	49:CV:45:VAL:HG13	1.89	0.52
1:DA:1239:G:H2'	1:DA:1240:U:O4'	2.08	0.52
1:DA:1525:G:H2'	1:DA:1526:G:O4'	2.10	0.52
1:DA:1131:G:O6	1:DA:2040:C:H1'	2.09	0.52
1:DA:2334:G:H8	1:DA:2334:G:OP1	1.93	0.52
1:DA:2526:G:H2'	1:DA:2527:C:O4'	2.10	0.52
1:DA:270(E):G:C6	1:DA:270(V):G:C6	2.97	0.52
1:DA:343:C:O2'	1:DA:344:G:H5'	2.10	0.52
1:DA:580:C:H2'	1:DA:581:C:C6	2.44	0.52
1:DA:917:A:O2'	1:DA:918:A:H5'	2.09	0.52
3:DD:49:ILE:HD11	3:DD:52:ARG:HA	1.92	0.52
4:DE:111:ARG:HB2	4:DE:160:TYR:O	2.10	0.52
6:DG:29:TRP:C	6:DG:31:VAL:H	2.13	0.52
6:DG:44:GLY:C	6:DG:46:ALA:H	2.13	0.52
7:DH:159:GLU:O	7:DH:163:TYR:OH	2.22	0.52
12:DP:29:PHE:CD2	12:DP:65:PHE:CE1	2.97	0.52
14:DQ:106:ARG:CZ	14:DQ:106:ARG:O	2.58	0.52
18:DS:12:ILE:HD13	18:DS:17:VAL:CG2	2.40	0.52
18:DS:47:VAL:O	18:DS:48:ALA:C	2.46	0.52
19:DT:26:TYR:O	19:DT:28:PHE:HE1	1.88	0.52
19:DT:65:ARG:NH1	19:DT:65:ARG:CG	2.69	0.52
20:DU:35:TYR:CE1	20:DU:69:ALA:HB3	2.45	0.52
20:DU:92:ASN:OD1	20:DU:92:ASN:N	2.43	0.52
27:A5:40:LYS:HZ3	27:A5:46:CYS:C	2.13	0.52
1:AA:1022:G:N2	1:AA:1142(A):A:C2	2.65	0.52
1:AA:2114:A:N1	1:AA:2168:G:N2	2.58	0.52
1:AA:2287:A:C2	1:AA:2346:A:C2	2.98	0.52
1:AA:436:C:H2'	1:AA:438:G:C8	2.44	0.52
5:AF:78:ILE:HA	5:AF:83:PHE:CD1	2.44	0.52
7:AH:16:SER:O	7:AH:17:VAL:HG23	2.10	0.52
31:BA:1009:G:C2	31:BA:1010:G:C8	2.97	0.52
31:BA:1133:G:C2	31:BA:1142:G:C5	2.97	0.52
31:BA:1349:A:O2'	31:BA:1350:A:O5'	2.27	0.52
57:BA:1715:PAR:O33	57:BA:1715:PAR:H642	2.10	0.52
31:BA:210:U:H2'	31:BA:216:G:OP2	2.09	0.52
31:BA:222:U:C2	31:BA:223:U:C5	2.97	0.52
31:BA:55:A:C4	31:BA:56:U:C6	2.98	0.52
31:BA:632:A:N7	31:BA:633:G:C4	2.77	0.52
31:BA:942:G:N3	31:BA:943:U:C6	2.77	0.52
31:BA:953:G:H5'	31:BA:965:A:H61	1.74	0.52
52:BD:21:A:C4'	52:BD:22:A:O5'	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:148:VAL:HG13	35:BH:152:ARG:NE	2.25	0.52
36:BI:39:LYS:HB3	36:BI:62:TRP:CZ3	2.42	0.52
31:BA:255:G:H1'	47:BT:16:GLN:HE21	1.74	0.52
50:BW:69:GLY:O	50:BW:73:HIS:CD2	2.63	0.52
31:CA:1124:G:O2'	31:CA:1145:C:N3	2.43	0.52
31:CA:1213:A:C5	31:CA:1215:G:C4	2.98	0.52
31:CA:545:C:OP1	34:CG:61:LYS:NZ	2.42	0.52
31:CA:914:A:C2'	31:CA:915:A:H5'	2.40	0.52
52:CD:7:G:OP1	56:CD:101:OHX:N2	2.42	0.52
37:CJ:43:PHE:CD1	37:CJ:43:PHE:C	2.83	0.52
31:CA:1128:C:C5'	39:CL:16:ARG:HH22	2.22	0.52
39:CL:53:VAL:HG23	39:CL:55:ALA:HB3	1.92	0.52
43:CP:19:LEU:O	43:CP:22:ILE:HG13	2.09	0.52
46:CS:39:TYR:CD2	46:CS:73:LEU:HD11	2.44	0.52
49:CV:11:VAL:CG2	49:CV:12:ASP:H	2.14	0.52
13:D0:23:ASN:HD22	13:D0:23:ASN:N	2.07	0.52
1:DA:592:G:N3	30:D8:4:MET:HE2	2.25	0.52
1:DA:1014:U:H3	1:DA:1148:A:N6	2.07	0.52
2:DB:88:C:H3'	2:DB:89:G:H8	1.75	0.52
4:DE:8:LYS:O	4:DE:9:VAL:HG23	2.10	0.52
5:DF:107:LYS:HG3	5:DF:206:ILE:HG22	1.91	0.52
21:DV:110:GLY:HA2	21:DV:144:LEU:H	1.74	0.52
21:DV:14:LYS:HZ2	21:DV:14:LYS:H	1.58	0.52
21:DV:4:ARG:CZ	21:DV:58:VAL:HG11	2.39	0.52
16:A1:86:ALA:HB3	16:A1:88:ILE:HG12	1.91	0.52
22:A3:36:ILE:C	22:A3:36:ILE:HD13	2.30	0.52
1:AA:2886:G:O2'	27:A5:31:VAL:HG23	2.09	0.52
1:AA:1079:C:C4	1:AA:1080:A:C6	2.97	0.52
1:AA:1227:A:H5"	16:A1:16:LYS:NZ	2.25	0.52
1:AA:1291:C:H2'	1:AA:1292:U:C6	2.44	0.52
1:AA:2745:C:C4	1:AA:2746:U:C4	2.98	0.52
1:AA:2869:G:H2'	1:AA:2870:C:H6	1.73	0.52
1:AA:2895:U:H6	1:AA:2895:U:O5'	1.92	0.52
1:AA:301:G:N2	1:AA:315:G:H22	2.08	0.52
1:AA:473:G:O2'	1:AA:474:G:H5'	2.10	0.52
9:AM:46:VAL:HG12	9:AM:48:MET:HG3	1.90	0.52
21:AV:111:VAL:O	21:AV:111:VAL:HG23	2.10	0.52
31:BA:186(F):C:H2'	31:BA:187:C:O4'	2.10	0.52
31:BA:197:A:N6	31:BA:221:C:H5'	2.24	0.52
31:BA:264:U:O2'	47:BT:63:ARG:HG3	2.09	0.52
31:BA:321:A:C2	31:BA:333:G:N2	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:594:G:OP2	56:BA:1732:OHX:N1	2.43	0.52
52:BD:79:A:O2'	52:BD:80:C:H5'	2.10	0.52
32:BE:168:THR:O	32:BE:171:ALA:N	2.42	0.52
32:BE:80:ILE:HD11	32:BE:208:ILE:CG2	2.37	0.52
34:BG:47:ARG:O	34:BG:47:ARG:HG2	2.09	0.52
35:BH:153:LYS:HD3	35:BH:154:GLY:N	2.25	0.52
36:BI:99:ALA:O	36:BI:100:ASN:HB2	2.10	0.52
31:BA:1189:C:P	40:BM:51:ARG:HH22	2.33	0.52
43:BP:81:LEU:O	43:BP:84:ILE:HG22	2.10	0.52
44:BQ:15:LYS:O	44:BQ:16:PHE:O	2.27	0.52
46:BS:47:ASP:C	46:BS:49:LEU:H	2.13	0.52
49:BV:51:VAL:O	49:BV:57:HIS:HA	2.10	0.52
31:CA:1299:A:C6	31:CA:1301:U:C2	2.97	0.52
31:CA:412:A:HO2'	31:CA:413:G:P	2.27	0.52
31:CA:946:A:H2'	31:CA:947:G:C8	2.45	0.52
33:CF:18:TRP:NE1	44:CQ:55:GLY:N	2.56	0.52
36:CI:8:ILE:HG23	36:CI:85:VAL:HG13	1.91	0.52
31:CA:1298:C:H41	37:CJ:114:ARG:HB3	1.75	0.52
39:CL:104:ARG:O	39:CL:105:ASP:CB	2.57	0.52
26:D4:15:ILE:HG22	26:D4:15:ILE:O	2.08	0.52
1:DA:128:C:H2'	1:DA:129:C:H6	1.74	0.52
1:DA:1324:G:C5	1:DA:1328:G:O6	2.62	0.52
1:DA:1857:G:N1	1:DA:1858:G:C2	2.78	0.52
1:DA:189:G:H1	1:DA:205:G:HO2'	1.56	0.52
1:DA:2489:G:C2'	1:DA:2490:G:H5'	2.40	0.52
1:DA:2627:G:N3	1:DA:2781:A:H2	2.08	0.52
1:DA:645:C:O2	1:DA:645:C:C2'	2.57	0.52
1:DA:817:C:C5	1:DA:818:G:N7	2.78	0.52
2:DB:13:A:H2'	2:DB:70:C:O2'	2.09	0.52
3:DD:242:ARG:H	3:DD:242:ARG:HH11	1.57	0.52
6:DG:29:TRP:C	6:DG:31:VAL:N	2.63	0.52
6:DG:64:THR:CG2	6:DG:66:GLN:H	2.22	0.52
7:DH:120:GLY:O	7:DH:121:ILE:HD13	2.10	0.52
12:DP:134:ARG:NH1	12:DP:134:ARG:HG2	2.25	0.52
14:DQ:42:ASP:O	14:DQ:43:GLU:HB2	2.10	0.52
20:DU:4:LYS:CE	20:DU:4:LYS:HA	2.26	0.52
1:AA:2347:C:P	28:A6:39:TYR:HH	2.33	0.52
1:AA:1169:G:N2	1:AA:1181:C:C2	2.78	0.52
1:AA:1319:G:O2'	1:AA:1320:C:H5'	2.10	0.52
1:AA:2058:A:H5"	1:AA:2059:A:OP2	2.10	0.52
1:AA:2216:G:C2	1:AA:2217:G:C8	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2346:A:N1	1:AA:2383:G:C2	2.78	0.52
1:AA:2498:C:O2'	1:AA:2499:C:H5'	2.10	0.52
1:AA:1663:C:O2'	1:AA:2686:G:H4'	2.09	0.52
1:AA:612:G:C6	1:AA:613:U:C4	2.98	0.52
1:AA:725:G:O6	56:AA:3414:OHX:N6	2.42	0.52
1:AA:899:A:C8	1:AA:899:A:OP2	2.63	0.52
4:AE:127:ASP:O	4:AE:128:SER:HB3	2.09	0.52
4:AE:20:ALA:C	4:AE:21:VAL:HG13	2.30	0.52
4:AE:61:ARG:CB	4:AE:62:PRO:HD3	2.33	0.52
6:AG:67:LYS:CE	26:A4:6:HIS:NE2	2.73	0.52
7:AH:4:ILE:HB	7:AH:6:ARG:CG	2.39	0.52
9:AM:96:GLU:HG2	9:AM:97:ARG:N	2.23	0.52
12:AP:64:ILE:HG22	12:AP:65:PHE:N	2.25	0.52
12:AP:7:MET:CE	12:AP:93:TYR:HE2	2.22	0.52
14:AQ:27:SER:HA	14:AQ:88:ASP:HB3	1.91	0.52
21:AV:127:LYS:O	21:AV:161:VAL:HG11	2.10	0.52
24:AW:35:LEU:H	24:AW:35:LEU:HD22	1.74	0.52
31:BA:1034:G:N2	31:BA:1035:A:N6	2.57	0.52
31:BA:12:U:O4	56:BA:1717:OHX:N4	2.43	0.52
31:BA:1301:U:C3'	31:BA:1302:U:H5'	2.30	0.52
31:BA:1349:A:P	39:BL:118:LYS:HZ3	2.33	0.52
31:BA:68:G:O4'	31:BA:171:A:H1'	2.10	0.52
31:BA:425:G:C6	31:BA:426:G:N7	2.78	0.52
31:BA:872:A:C8	31:BA:874:G:C8	2.98	0.52
52:BB:53:A:H2'	52:BB:54:C:O4'	2.10	0.52
32:BE:210:SER:O	32:BE:214:ILE:HG12	2.10	0.52
33:BF:48:TYR:HE2	33:BF:122:GLU:OE2	1.93	0.52
38:BK:38:ILE:HG21	38:BK:120:THR:HG22	1.92	0.52
31:CA:1503:A:O2'	31:CA:1504:G:P	2.63	0.52
31:CA:464:G:C5	31:CA:466:C:OP2	2.62	0.52
31:CA:728:A:C6	45:CR:54:ARG:HD2	2.44	0.52
31:CA:802:A:H2'	31:CA:803:G:O4'	2.09	0.52
31:CA:812:C:H1'	31:CA:813:U:OP2	2.10	0.52
31:CA:92:G:C2'	31:CA:93:U:H5'	2.40	0.52
33:CF:117:ALA:O	33:CF:119:ARG:N	2.43	0.52
37:CJ:22:LEU:HG	37:CJ:97:GLN:NE2	2.25	0.52
41:CN:21:ILE:CG2	41:CN:84:VAL:HG12	2.40	0.52
43:CP:78:ILE:HG12	43:CP:92:HIS:CD2	2.45	0.52
1:DA:1050:A:H2'	1:DA:1051:G:O4'	2.10	0.52
1:DA:1098:A:C2'	1:DA:1099:G:H5'	2.39	0.52
1:DA:1495:A:N3	1:DA:1578:U:O2'	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1753:G:N1	1:DA:1756:G:C2	2.78	0.52
1:DA:2218:G:H5"	3:DD:186:HIS:CE1	2.44	0.52
1:DA:284:U:O2'	1:DA:285:C:H5'	2.09	0.52
1:DA:2861:G:C2'	1:DA:2862:G:H5'	2.40	0.52
1:DA:311:A:C8	1:DA:332:A:N7	2.78	0.52
1:DA:351:G:N7	56:DA:3374:OHX:N2	2.58	0.52
1:DA:908:C:OP1	12:DP:22:LYS:CB	2.57	0.52
1:DA:960:A:N7	1:DA:962:G:C4	2.78	0.52
3:DD:34:VAL:HG12	3:DD:34:VAL:O	2.10	0.52
4:DE:101:ARG:HD2	4:DE:169:ASN:HD21	1.71	0.52
7:DH:102:ALA:HB1	7:DH:115:VAL:O	2.09	0.52
18:DS:29:LEU:O	18:DS:33:ARG:HG3	2.10	0.52
20:DU:39:VAL:HG23	20:DU:41:GLY:H	1.74	0.52
17:A2:35:LEU:HD23	17:A2:35:LEU:O	2.10	0.52
30:A8:7:HIS:CD2	30:A8:59:LYS:HE3	2.45	0.52
1:AA:1177:A:H5"	1:AA:1178:C:OP1	2.10	0.52
1:AA:2141:G:H2'	1:AA:2142:C:O4'	2.10	0.52
1:AA:303:U:O2'	1:AA:304:G:H5'	2.10	0.52
1:AA:2059:A:OP2	56:AA:3367:OHX:N2	2.43	0.52
1:AA:547:A:C2'	1:AA:548:A:C8	2.90	0.52
1:AA:847:U:C5	1:AA:933:A:N1	2.78	0.52
6:AG:37:VAL:O	6:AG:94:LEU:CD2	2.55	0.52
10:AN:120:GLU:HG2	10:AN:122:LEU:HG	1.91	0.52
14:AQ:43:GLU:OE1	22:A3:49:LYS:HD3	2.09	0.52
20:AU:17:SER:OG	20:AU:71:LYS:HD3	2.09	0.52
20:AU:27:VAL:O	20:AU:27:VAL:CG2	2.58	0.52
21:AV:30:ASN:O	21:AV:31:ARG:C	2.49	0.52
23:AZ:91:LYS:HA	23:AZ:91:LYS:NZ	2.24	0.52
31:BA:1238:A:C8	31:BA:1301:U:O4	2.63	0.52
31:BA:380:G:N2	31:BA:384:G:C4	2.77	0.52
31:BA:515:G:H1	31:BA:536:C:H42	1.58	0.52
31:BA:714:G:H2'	31:BA:715:A:C8	2.45	0.52
52:BB:1:G:H1	52:BB:81:C:H42	1.57	0.52
52:BB:20:C:H5"	52:BB:22:A:H5'	1.91	0.52
53:BC:44:A:H2'	53:BC:45:A:C8	2.44	0.52
32:BE:187:LEU:CD1	32:BE:205:ASP:HA	2.40	0.52
33:BF:22:TRP:CE3	33:BF:22:TRP:O	2.63	0.52
34:BG:76:ARG:CD	34:BG:207:TYR:CE2	2.92	0.52
51:BX:12:LYS:HD2	51:BX:17:THR:OG1	2.09	0.52
31:CA:1301:U:O4	31:CA:1303:C:H1'	2.09	0.52
31:CA:1417:G:C6	31:CA:1482:G:C6	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:862:C:C1'	31:CA:874:G:H5"	2.26	0.52
52:CD:22:A:C8	52:CD:57:C:N4	2.77	0.52
52:CD:11:C:H42	52:CD:25:G:H1	1.58	0.52
32:CE:7:VAL:HG22	32:CE:8:LYS:N	2.19	0.52
33:CF:113:ALA:HB2	33:CF:183:ASP:HB3	1.91	0.52
37:CJ:76:ARG:NH1	37:CJ:76:ARG:HG2	2.23	0.52
40:CM:27:ALA:O	40:CM:30:SER:N	2.30	0.52
42:CO:27:LEU:HB3	42:CO:33:ARG:HD3	1.92	0.52
31:CA:520:A:OP1	42:CO:52:LEU:HB2	2.09	0.52
43:CP:68:GLY:O	43:CP:72:ALA:HB2	2.10	0.52
31:CA:994:A:C6	44:CQ:5:ALA:HB2	2.45	0.52
46:CS:6:LEU:HD12	46:CS:6:LEU:N	2.24	0.52
50:CW:50:GLU:CA	50:CW:100:ILE:HG12	2.40	0.52
16:D1:95:LEU:C	16:D1:97:ASP:H	2.12	0.52
22:D3:27:GLU:OE2	56:D3:101:OHX:N3	2.43	0.52
29:D7:34:ARG:HH12	29:D7:39:ARG:NE	2.08	0.52
1:DA:2105:C:H6	1:DA:2105:C:H3'	1.74	0.52
1:DA:184:C:O2	1:DA:213:A:C2	2.63	0.52
1:DA:2298:A:C8	1:DA:2299:G:C8	2.98	0.52
1:DA:2377:A:H4'	14:DQ:111:GLU:O	2.10	0.52
1:DA:287:C:H2'	1:DA:288:C:C6	2.45	0.52
1:DA:513:A:C2	1:DA:514:A:C4	2.97	0.52
2:DB:78:A:C2	2:DB:99:A:C4	2.98	0.52
5:DF:114:VAL:HG21	5:DF:202:PHE:CZ	2.45	0.52
5:DF:125:LEU:HD12	5:DF:196:LEU:HD22	1.92	0.52
1:DA:2394:C:OP1	11:DO:63:PRO:CD	2.55	0.52
18:DS:36:LEU:HD13	18:DS:48:ALA:N	2.25	0.52
21:DV:44:PHE:CE1	21:DV:48:PHE:CD2	2.91	0.52
16:A1:108:GLU:HG3	17:A2:44:LYS:HE3	1.91	0.52
1:AA:1188:U:H4'	17:A2:79:VAL:HG22	1.91	0.52
1:AA:1057:A:H2'	1:AA:1058:U:H6	1.74	0.52
1:AA:1813:G:H1'	3:AD:50:THR:OG1	2.09	0.52
1:AA:2171:A:HO2'	1:AA:2172:U:P	2.33	0.52
1:AA:271(C):U:H2'	1:AA:271:G:OP1	2.11	0.52
1:AA:372:G:O2'	1:AA:373:U:OP2	2.27	0.52
2:AB:74:U:H2'	2:AB:75:G:O4'	2.10	0.52
3:AD:32:SER:HA	3:AD:36:PRO:HD2	1.92	0.52
3:AD:35:LYS:CE	3:AD:64:ILE:C	2.78	0.52
3:AD:35:LYS:HE3	3:AD:65:ILE:N	2.25	0.52
7:AH:86:GLU:OE1	7:AH:86:GLU:N	2.43	0.52
8:AK:102:SER:C	8:AK:104:GLN:H	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:104:GLN:O	8:AK:104:GLN:HG2	2.09	0.52
8:AK:144:VAL:HG22	8:AK:145:VAL:HG13	1.91	0.52
9:AM:120:LEU:CD2	9:AM:122:VAL:HG22	2.40	0.52
11:AO:20:GLY:HA2	11:AO:31:ALA:HB2	1.92	0.52
15:AR:94:ALA:O	15:AR:95:ARG:CB	2.57	0.52
1:AA:456:C:C5	19:AT:69:TYR:CD1	2.98	0.52
21:AV:54:HIS:CE1	21:AV:123:ASP:OD2	2.63	0.52
23:AZ:73:LEU:HD13	23:AZ:90:ILE:HG22	1.91	0.52
31:BA:1138:G:N2	31:BA:1140:C:C4	2.78	0.52
31:BA:1226:C:OP2	43:BP:103:THR:OG1	2.20	0.52
31:BA:131:C:O2'	31:BA:262:A:N3	2.43	0.52
31:BA:342:C:H2'	31:BA:343:U:O4'	2.10	0.52
31:BA:55:A:C5	31:BA:56:U:C5	2.98	0.52
31:BA:630:G:O3'	31:BA:631:G:H4'	2.09	0.52
31:BA:8:A:H4'	31:BA:9:G:OP1	2.09	0.52
43:BP:94:ARG:C	43:BP:96:LEU:N	2.64	0.52
44:BQ:26:ARG:HH11	44:BQ:43:CYS:HB3	1.75	0.52
44:BQ:4:LYS:C	44:BQ:6:LEU:N	2.63	0.52
50:BW:30:LYS:NZ	50:BW:80:ARG:HH12	2.08	0.52
50:BW:73:HIS:C	50:BW:74:LYS:HG2	2.30	0.52
31:CA:1004:A:H5"	31:CA:1025:U:C4	2.43	0.52
31:CA:1161:C:O2'	31:CA:1162:C:H5'	2.09	0.52
31:CA:1223:C:H3'	31:CA:1224:G:H5"	1.92	0.52
31:CA:35:G:C2	31:CA:550:G:C2	2.97	0.52
31:CA:631:G:C2'	31:CA:632:A:OP1	2.58	0.52
31:CA:930:C:H2'	31:CA:931:C:C5'	2.39	0.52
32:CE:63:MET:HG3	32:CE:225:ALA:HB1	1.91	0.52
36:CI:20:ALA:HA	36:CI:23:LYS:HD3	1.91	0.52
39:CL:33:PHE:CE1	39:CL:37:PHE:HD1	2.27	0.52
40:CM:49:VAL:HG12	44:CQ:41:ARG:HB2	1.91	0.52
45:CR:39:LEU:HD11	45:CR:56:LEU:CB	2.40	0.52
26:D4:34:GLU:HG2	26:D4:35:VAL:HG23	1.90	0.52
26:D4:38:LYS:O	26:D4:40:HIS:HD2	1.92	0.52
1:DA:1332:G:C8	1:DA:1332:G:H5'	2.45	0.52
1:DA:1416:G:O2'	1:DA:1417:C:P	2.67	0.52
1:DA:2274:A:C2	1:DA:2276:G:H1'	2.44	0.52
1:DA:2511:U:O4	1:DA:2575:C:N3	2.43	0.52
1:DA:620:G:H4'	1:DA:621:A:H5"	1.91	0.52
1:DA:971:C:C2'	1:DA:972:G:H5'	2.40	0.52
1:DA:986:C:O2'	1:DA:987:G:H5'	2.10	0.52
5:DF:101:LEU:HD23	5:DF:106:ARG:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:61:ALA:HB2	6:DG:67:LYS:HA	1.91	0.52
10:DN:24:VAL:CG2	10:DN:33:ALA:HB2	2.39	0.52
14:DQ:109:GLY:O	14:DQ:110:LEU:HD13	2.10	0.52
18:DS:56:ALA:O	18:DS:57:ASN:C	2.46	0.52
21:DV:100:VAL:O	21:DV:124:ILE:HG22	2.10	0.52
13:A0:31:HIS:C	13:A0:33:ARG:H	2.11	0.51
1:AA:2285:C:OP1	28:A6:28:ARG:HD3	2.11	0.51
1:AA:2779:U:OP1	56:AA:3399:OHX:N5	2.43	0.51
1:AA:2865:U:C4	1:AA:2866:U:C4	2.98	0.51
1:AA:674:G:C1'	5:AF:74:ARG:HD3	2.40	0.51
3:AD:134:ARG:HG3	3:AD:135:PHE:CD2	2.45	0.51
3:AD:35:LYS:N	3:AD:64:ILE:CG2	2.73	0.51
4:AE:14:ILE:O	4:AE:15:PHE:CB	2.58	0.51
5:AF:32:LEU:CD2	5:AF:105:VAL:HG13	2.40	0.51
5:AF:42:ALA:O	5:AF:44:ARG:N	2.43	0.51
8:AK:8:PRO:HD3	8:AK:15:VAL:CG2	2.40	0.51
31:BA:1392:G:O2'	31:BA:1502:A:H5"	2.09	0.51
31:BA:166:G:O2'	31:BA:167:G:H5'	2.10	0.51
31:BA:262:A:H3'	31:BA:263:A:H8	1.75	0.51
31:BA:87:A:H4'	31:BA:87:A:OP1	2.10	0.51
33:BF:35:GLU:O	33:BF:39:ILE:HG13	2.10	0.51
34:BG:61:LYS:HD2	34:BG:207:TYR:OH	2.11	0.51
34:BG:72:GLU:OE1	34:BG:207:TYR:OH	2.28	0.51
41:BN:38:ASN:H	41:BN:38:ASN:HD22	1.57	0.51
42:BO:101:VAL:CG1	42:BO:104:VAL:HG23	2.39	0.51
45:BR:80:ALA:O	45:BR:84:LYS:HB2	2.10	0.51
41:BN:110:ASP:HB3	48:BU:85:LEU:HB3	1.92	0.51
31:CA:1125:U:OP2	31:CA:1125:U:H4'	2.10	0.51
31:CA:440:A:N7	31:CA:442:C:C2	2.78	0.51
31:CA:516:U:C4	31:CA:517:G:C6	2.99	0.51
31:CA:75:C:H2'	31:CA:76:G:O4'	2.10	0.51
52:CB:70:C:H2'	52:CB:70:C:O2	2.09	0.51
52:CD:53:A:C2'	52:CD:54:C:H5'	2.40	0.51
37:CJ:26:PHE:O	37:CJ:30:ILE:HG13	2.10	0.51
38:CK:123:GLU:O	38:CK:127:LEU:HD23	2.10	0.51
43:CP:84:ILE:C	43:CP:86:CYS:H	2.13	0.51
45:CR:18:PHE:CE1	45:CR:21:ASP:HB2	2.44	0.51
16:D1:108:GLU:O	16:D1:111:GLU:HB2	2.10	0.51
17:D2:24:LYS:HA	17:D2:92:THR:OG1	2.10	0.51
22:D3:49:LYS:HG3	22:D3:80:HIS:HB3	1.92	0.51
28:D6:52:VAL:HG22	28:D6:53:LYS:N	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1341:U:OP2	1:DA:1394:U:O2'	2.20	0.51
1:DA:130:C:O3'	1:DA:1349:A:H1'	2.10	0.51
1:DA:2704:C:C2	1:DA:2705:A:C8	2.98	0.51
1:DA:479:A:N3	1:DA:481:G:H5"	2.25	0.51
1:DA:68:G:H2'	1:DA:69:C:C6	2.45	0.51
1:DA:844:C:H2'	1:DA:845:G:H5'	1.92	0.51
1:DA:915:C:H2'	1:DA:916:G:C5'	2.41	0.51
6:DG:50:ALA:HA	6:DG:53:LEU:HD22	1.91	0.51
6:DG:79:ASN:H	6:DG:79:ASN:ND2	2.07	0.51
11:DO:64:LYS:O	11:DO:66:GLY:N	2.43	0.51
12:DP:19:GLY:CA	12:DP:98:LYS:CD	2.88	0.51
14:DQ:17:ARG:HH11	14:DQ:17:ARG:HG2	1.69	0.51
1:DA:495:G:N2	18:DS:61:ASN:HD21	2.08	0.51
24:DW:16:LEU:CD1	24:DW:16:LEU:O	2.55	0.51
16:A1:88:ILE:C	16:A1:90:VAL:H	2.14	0.51
1:AA:1175:U:O3'	1:AA:1176:G:H4'	2.09	0.51
1:AA:1826:G:H4'	3:AD:242:ARG:NH2	2.25	0.51
1:AA:2038:G:H2'	1:AA:2039:C:H6	1.75	0.51
1:AA:2661:G:H2'	1:AA:2662:A:C8	2.45	0.51
1:AA:30:G:H2'	1:AA:31:C:C6	2.45	0.51
2:AB:37:C:H2'	2:AB:38:C:H5'	1.92	0.51
2:AB:89:G:C6	2:AB:89(A):A:C6	2.99	0.51
3:AD:9:TYR:CD2	3:AD:10:THR:HG22	2.45	0.51
3:AD:206:LEU:O	3:AD:211:ARG:HD3	2.11	0.51
7:AH:30:LYS:CE	7:AH:81:GLU:H	2.23	0.51
11:AO:11:GLY:C	11:AO:13:ASN:N	2.64	0.51
31:BA:1014:A:C2	31:BA:1219:U:H1'	2.45	0.51
31:BA:1414:U:H2'	31:BA:1415:G:H8	1.75	0.51
31:BA:620:C:H5"	31:BA:621:A:OP2	2.11	0.51
52:BB:51:C:C5	52:BB:52:G:N3	2.78	0.51
52:BD:21:A:O4'	52:BD:22:A:O5'	2.29	0.51
34:BG:146:ILE:H	34:BG:146:ILE:HD12	1.75	0.51
38:BK:26:VAL:O	38:BK:26:VAL:HG22	2.11	0.51
41:BN:18:ARG:HB3	41:BN:33:THR:OG1	2.10	0.51
31:CA:1004:A:C1'	31:CA:1036:G:C6	2.94	0.51
31:CA:1163:C:H2'	31:CA:1164:G:C8	2.45	0.51
31:CA:1206:G:H2'	31:CA:1207:G:H8	1.75	0.51
31:CA:1505:G:H4'	54:C1:13:A:H62	1.76	0.51
53:CC:12:G:C6	53:CC:13:C:C4	2.98	0.51
32:CE:97:TRP:CZ3	32:CE:98:LEU:O	2.63	0.51
32:CE:96:ARG:O	32:CE:98:LEU:HD23	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:16:ARG:O	39:CL:63:ILE:HG23	2.10	0.51
40:CM:27:ALA:HB1	40:CM:32:ALA:HB3	1.92	0.51
40:CM:47:PHE:CB	44:CQ:34:TYR:HE2	2.23	0.51
41:CN:20:TYR:CZ	41:CN:83:ILE:HD12	2.45	0.51
16:D1:47:TYR:CE2	17:D2:74:LYS:HD2	2.45	0.51
1:DA:1441:G:H2'	1:DA:1442:G:H8	1.74	0.51
1:DA:1668:A:C8	1:DA:1674:G:C6	2.98	0.51
1:DA:1999:C:H4'	1:DA:2723:C:O2	2.10	0.51
1:DA:221:A:C4	1:DA:266:G:N7	2.78	0.51
1:DA:2564:A:OP1	1:DA:2648:C:H4'	2.09	0.51
1:DA:2693:A:H2'	1:DA:2694:G:H8	1.75	0.51
31:CA:784:C:OP1	56:DA:3111:OHX:N1	2.42	0.51
1:DA:445:C:O2'	1:DA:446:G:H5'	2.10	0.51
1:DA:773:U:OP1	56:DA:3419:OHX:N2	2.42	0.51
3:DD:30:GLU:CD	3:DD:63:ARG:NH2	2.63	0.51
5:DF:46:ARG:CG	5:DF:46:ARG:NH1	2.65	0.51
6:DG:44:GLY:C	6:DG:46:ALA:N	2.63	0.51
6:DG:79:ASN:HD22	6:DG:79:ASN:H	1.56	0.51
7:DH:129:THR:HG22	7:DH:130:ARG:N	2.25	0.51
8:DK:77:LEU:HD13	8:DK:141:LYS:HB3	1.93	0.51
14:DQ:3:ARG:HG3	14:DQ:4:LEU:N	2.26	0.51
20:DU:96:ILE:HG12	20:DU:101:LYS:CD	2.41	0.51
20:DU:68:HIS:O	20:DU:71:LYS:N	2.38	0.51
21:DV:110:GLY:HA2	21:DV:144:LEU:N	2.25	0.51
17:A2:65:GLY:HA3	17:A2:91:TYR:CZ	2.45	0.51
1:AA:2356:C:O3'	22:A3:20:ARG:HD3	2.10	0.51
29:A7:21:ARG:HH11	29:A7:21:ARG:HG2	1.75	0.51
1:AA:1790:C:H5"	1:AA:1791:A:OP1	2.09	0.51
1:AA:2134:A:C5	1:AA:2158:A:C2	2.98	0.51
1:AA:2168:G:N3	1:AA:2168:G:H3'	2.25	0.51
1:AA:2808:U:C5	1:AA:2891:G:C5	2.95	0.51
1:AA:361:G:OP1	56:AA:3333:OHX:N4	2.44	0.51
1:AA:385:C:O2	1:AA:390:A:C2	2.63	0.51
1:AA:779:U:OP1	3:AD:49:ILE:HG13	2.10	0.51
1:AA:917:A:H2'	1:AA:918:A:O5'	2.10	0.51
4:AE:132:HIS:O	4:AE:132:HIS:CG	2.60	0.51
6:AG:101:ILE:O	6:AG:105:LYS:HE2	2.09	0.51
7:AH:153:LYS:HB3	7:AH:162:ILE:H	1.74	0.51
11:AO:21:ARG:HE	11:AO:21:ARG:HA	1.75	0.51
18:AS:95:ILE:HG13	18:AS:95:ILE:O	2.10	0.51
31:BA:1277:C:O2'	31:BA:1279:A:C1'	2.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1336:C:OP1	31:BA:1336:C:C4'	2.58	0.51
31:BA:123:C:OP1	31:BA:312:C:H5'	2.10	0.51
31:BA:395:C:N3	31:BA:396:G:N7	2.59	0.51
31:BA:518:C:H4'	31:BA:519:C:O5'	2.10	0.51
31:BA:975:A:H5'	31:BA:1363:A:H62	1.74	0.51
38:BK:87:SER:HA	38:BK:93:VAL:CG2	2.40	0.51
31:BA:1307:U:OP1	43:BP:101:GLN:OE1	2.29	0.51
43:BP:45:VAL:O	43:BP:45:VAL:HG22	2.09	0.51
31:CA:1130:A:N6	31:CA:1144:G:H21	2.09	0.51
31:CA:1250:A:C2	31:CA:1287:A:C2	2.98	0.51
31:CA:1368:G:C2'	31:CA:1369:C:H5'	2.40	0.51
31:CA:259:G:C6	31:CA:260:G:C6	2.99	0.51
31:CA:766:A:C2'	31:CA:767:A:O5'	2.58	0.51
52:CD:13:G:H1'	52:CD:23:A:H61	1.74	0.51
40:CM:6:ILE:CD1	40:CM:72:VAL:HB	2.40	0.51
44:CQ:18:VAL:C	44:CQ:20:ALA:N	2.61	0.51
31:CA:135:C:O2	46:CS:1:MET:HB3	2.09	0.51
49:CV:14:HIS:CD2	49:CV:15:LEU:N	2.78	0.51
50:CW:71:THR:CG2	50:CW:72:LEU:H	2.20	0.51
31:CA:1286:A:H2	51:CX:18:TYR:OH	1.93	0.51
27:D5:6:VAL:CG1	27:D5:7:PRO:HD2	2.41	0.51
1:DA:1309:G:P	29:D7:9:ARG:HD3	2.51	0.51
1:DA:1047:G:H2'	1:DA:1110:G:H1	1.74	0.51
1:DA:442:G:N2	1:DA:444:C:C2	2.78	0.51
1:DA:52:A:C2'	1:DA:53:A:H5'	2.41	0.51
1:DA:783:A:H2'	1:DA:784:A:O3'	2.10	0.51
1:DA:860:U:H2'	1:DA:861:A:H8	1.74	0.51
1:DA:917:A:H2'	1:DA:918:A:H5'	1.90	0.51
1:DA:997:G:H2'	1:DA:998:C:H6	1.74	0.51
1:DA:729:G:C5	3:DD:208:LYS:HB2	2.45	0.51
3:DD:3:VAL:H	3:DD:20:ASP:HB2	1.75	0.51
3:DD:78:LYS:HA	3:DD:115:GLN:O	2.10	0.51
4:DE:38:THR:HG22	4:DE:41:LYS:HG2	1.92	0.51
7:DH:7:LEU:H	7:DH:8:PRO:CD	2.23	0.51
8:DK:75:LEU:HG	8:DK:139:GLN:OE1	2.10	0.51
9:DM:19:GLU:HB2	9:DM:59:LYS:HE3	1.91	0.51
11:DO:101:VAL:O	11:DO:103:ALA:N	2.43	0.51
1:DA:660:G:N2	11:DO:12:ALA:HA	2.26	0.51
11:DO:9:ASN:HD22	11:DO:9:ASN:N	2.08	0.51
14:DQ:108:GLY:O	14:DQ:110:LEU:HD12	2.10	0.51
20:DU:23:ARG:CG	20:DU:23:ARG:HH11	2.21	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:DU:62:GLU:CD	20:DU:63:LYS:H	2.13	0.51
16:A1:108:GLU:HG3	17:A2:44:LYS:CE	2.41	0.51
28:A6:40:CYS:SG	28:A6:45:LYS:HD2	2.50	0.51
1:AA:1167:U:H2'	1:AA:1168:G:H8	1.75	0.51
1:AA:1498:C:O4'	1:AA:1577:C:H4'	2.10	0.51
1:AA:2114:A:H2'	1:AA:2168:G:H5"	1.92	0.51
1:AA:2378:A:H4'	14:AQ:23:ARG:HH11	1.75	0.51
1:AA:2507:C:H1'	52:BB:85:A:C8	2.46	0.51
1:AA:2848:G:H1'	1:AA:2867:G:N2	2.25	0.51
1:AA:711:G:N7	56:AA:3418:OHX:N5	2.58	0.51
7:AH:84:SER:H	7:AH:134:SER:HA	1.75	0.51
9:AM:75:TYR:HD1	9:AM:76:SER:N	2.07	0.51
15:AR:26:ASP:OD2	15:AR:120:ARG:NH2	2.39	0.51
1:AA:85:G:OP2	20:AU:9:LYS:HB2	2.10	0.51
21:AV:152:ALA:C	21:AV:154:ASP:H	2.14	0.51
31:BA:1060:C:C5	33:BF:2:GLY:HA2	2.44	0.51
31:BA:1085:U:C2	31:BA:1094:G:O6	2.63	0.51
31:BA:1378:C:O2	31:BA:1378:C:C2'	2.59	0.51
31:BA:1449:C:C4	31:BA:1450:U:C5	2.99	0.51
31:BA:186(B):C:O2'	31:BA:186(C):G:H5'	2.10	0.51
31:BA:395:C:O2	31:BA:395:C:C2'	2.56	0.51
31:BA:437:U:H2'	31:BA:438:G:O4'	2.10	0.51
31:BA:397:A:N7	31:BA:548:G:C8	2.78	0.51
31:BA:5:U:O2'	31:BA:6:G:C4	2.64	0.51
52:BB:17:G:O6	52:BB:64:U:H1'	2.11	0.51
52:BB:70:C:O2	52:BB:70:C:H2'	2.10	0.51
32:BE:155:LEU:HB3	32:BE:157:ARG:O	2.10	0.51
33:BF:12:LEU:C	33:BF:14:ILE:N	2.64	0.51
34:BG:155:LEU:O	34:BG:156:GLU:C	2.47	0.51
35:BH:10:MET:O	35:BH:10:MET:HG3	2.09	0.51
35:BH:80:ILE:HG12	35:BH:81:GLU:N	2.25	0.51
40:BM:30:SER:OG	40:BM:81:THR:HG22	2.11	0.51
44:BQ:37:PHE:CE1	44:BQ:53:LEU:HD13	2.45	0.51
45:BR:62:GLN:O	45:BR:63:ARG:C	2.48	0.51
31:BA:254:G:OP1	47:BT:67:LYS:O	2.28	0.51
31:CA:1072:G:H2'	31:CA:1073:U:O4'	2.10	0.51
31:CA:1175:G:H2'	31:CA:1176:A:C8	2.46	0.51
31:CA:949:A:C2	31:CA:1233:G:N3	2.78	0.51
31:CA:130:A:C8	47:CT:63:ARG:HG3	2.46	0.51
31:CA:1429:C:O2'	31:CA:1430:C:H5'	2.11	0.51
31:CA:528:C:H41	42:CO:49:ASN:ND2	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:715:A:C2'	31:CA:716:A:O5'	2.59	0.51
52:CB:27:A:H3'	52:CB:28:G:H8	1.73	0.51
52:CB:6:G:HO2'	52:CB:7:G:P	2.32	0.51
52:CD:42:U:H2'	52:CD:43:G:C8	2.45	0.51
52:CD:65:C:C6	1:DA:2169:A:N7	2.78	0.51
31:CA:512:U:O4'	34:CG:43:HIS:HE1	1.93	0.51
35:CH:26:PHE:N	35:CH:26:PHE:CD1	2.77	0.51
38:CK:51:VAL:HG21	38:CK:60:ARG:NH2	2.24	0.51
40:CM:30:SER:CB	40:CM:81:THR:HG22	2.39	0.51
42:CO:46:LYS:NZ	42:CO:47:LYS:HB2	2.26	0.51
31:CA:585:G:H4'	42:CO:8:ASN:HD21	1.74	0.51
44:CQ:41:ARG:HG3	44:CQ:42:ILE:HD13	1.92	0.51
17:D2:78:LYS:C	17:D2:79:VAL:HG13	2.30	0.51
1:DA:2409:G:H2'	1:DA:2410:G:O4'	2.11	0.51
1:DA:2528:U:O2'	1:DA:2530:A:OP1	2.21	0.51
1:DA:455:C:N3	1:DA:473:G:H5'	2.26	0.51
1:DA:641:C:C2'	1:DA:642:G:H5'	2.40	0.51
1:DA:69:C:H2'	1:DA:70:G:C8	2.45	0.51
1:DA:719:C:O2'	1:DA:720:C:H5'	2.10	0.51
4:DE:37:ARG:CD	4:DE:44:TYR:OH	2.58	0.51
5:DF:4:VAL:HA	5:DF:19:GLU:HB2	1.93	0.51
9:DM:35:ARG:HB3	9:DM:116:LEU:CD1	2.40	0.51
19:DT:5:TYR:HB3	24:DW:33:MET:HB2	1.91	0.51
20:DU:20:TYR:CD1	20:DU:20:TYR:N	2.78	0.51
24:DW:14:ARG:HD2	24:DW:66:GLU:OE1	2.11	0.51
1:AA:1043:C:C2'	1:AA:1044:G:H5'	2.40	0.51
1:AA:11:G:H2'	1:AA:12:U:H5'	1.92	0.51
1:AA:1479:G:N7	1:AA:1510:A:N6	2.58	0.51
1:AA:1536:A:H2'	1:AA:1537:C:OP1	2.10	0.51
1:AA:1778:U:C2'	1:AA:1784:A:N6	2.62	0.51
1:AA:2100:G:C5	1:AA:2190:G:C6	2.99	0.51
1:AA:2140:C:O2'	1:AA:2141:G:H5'	2.11	0.51
1:AA:2511:U:O4	1:AA:2575:C:N3	2.44	0.51
1:AA:273(E):U:N3	1:AA:363(B):G:N1	2.59	0.51
1:AA:2801:A:H2'	1:AA:2802:G:C4'	2.41	0.51
1:AA:2490:G:N1	56:AA:3330:OHX:N6	2.58	0.51
1:AA:628:G:C6	1:AA:636:G:C2	2.99	0.51
1:AA:840:C:H2'	1:AA:841:A:C8	2.45	0.51
1:AA:868:U:C4	1:AA:869:G:N7	2.79	0.51
2:AB:61:G:C6	2:AB:62:C:C4	2.98	0.51
4:AE:17:ASP:C	4:AE:19:ARG:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:8:PRO:HG3	8:AK:14:ASP:CB	2.41	0.51
11:AO:85:LEU:HA	11:AO:88:LEU:CD2	2.39	0.51
31:BA:1076:C:O2	31:BA:1082:G:C2	2.64	0.51
31:BA:1178:G:H3'	31:BA:1178:G:C8	2.45	0.51
31:BA:1348:U:H4'	39:BL:120:ARG:HD2	1.92	0.51
31:BA:384:G:H2'	31:BA:385:C:C6	2.45	0.51
31:BA:437:U:O3'	34:BG:125:HIS:NE2	2.42	0.51
31:BA:513:C:H42	31:BA:538:G:H1	1.59	0.51
31:BA:797:C:O2'	31:BA:798:G:H5'	2.11	0.51
35:BH:122:GLU:OE1	35:BH:131:ILE:HG13	2.11	0.51
36:BI:19:LEU:HD22	36:BI:23:LYS:HZ3	1.75	0.51
37:BJ:147:ALA:C	37:BJ:149:ARG:H	2.14	0.51
40:BM:8:LEU:HB3	40:BM:16:LEU:HD21	1.91	0.51
41:BN:108:ILE:HG22	48:BU:88:LYS:HB2	1.91	0.51
50:BW:31:SER:HA	50:BW:34:LYS:CE	2.27	0.51
31:CA:1128:C:N3	31:CA:1139:G:N1	2.58	0.51
31:CA:1213:A:C6	31:CA:1215:G:H1'	2.46	0.51
53:CC:36:A:O2'	53:CC:37:U:H5'	2.11	0.51
33:CF:11:ARG:O	33:CF:13:GLY:N	2.43	0.51
34:CG:173:TRP:HB3	34:CG:187:ARG:NH1	2.21	0.51
34:CG:34:GLU:O	34:CG:35:ARG:HB2	2.09	0.51
38:CK:4:ASP:CG	38:CK:85:ARG:HH21	2.14	0.51
45:CR:18:PHE:CD1	45:CR:21:ASP:HB2	2.45	0.51
46:CS:25:ARG:HH11	46:CS:25:ARG:CG	2.24	0.51
46:CS:69:THR:O	46:CS:69:THR:HG22	2.09	0.51
49:CV:66:MET:H	49:CV:67:VAL:HB	1.73	0.51
31:CA:262:A:H5'	50:CW:74:LYS:HG3	1.91	0.51
16:D1:66:ASN:CB	16:D1:76:TYR:HB2	2.41	0.51
16:D1:36:ARG:NH2	17:D2:82:ARG:NH2	2.58	0.51
29:D7:24:THR:O	29:D7:28:ARG:HG3	2.11	0.51
1:DA:1385:G:H4'	1:DA:1386:C:OP1	2.09	0.51
1:DA:1935:G:H1'	1:DA:1964:G:N2	2.26	0.51
1:DA:2191:G:C4	1:DA:2192:G:C8	2.98	0.51
1:DA:910:A:H2	1:DA:2264:C:O2	1.93	0.51
1:DA:2266:A:H5'	1:DA:2267:A:N7	2.26	0.51
1:DA:260:G:O4'	1:DA:621:A:H1'	2.10	0.51
1:DA:26:G:C6	1:DA:27:G:N1	2.78	0.51
1:DA:2745:C:H4'	7:DH:142:GLY:O	2.10	0.51
1:DA:2840:C:O3'	13:D0:53:HIS:NE2	2.44	0.51
1:DA:287:C:O2	1:DA:354:G:N1	2.37	0.51
1:DA:670:A:O3'	56:DA:3428:OHX:N1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:600:G:N2	1:DA:605:C:O3'	2.44	0.51
1:DA:720:C:H2'	1:DA:721:C:C6	2.45	0.51
1:DA:803:U:H2'	1:DA:804:A:C5'	2.40	0.51
1:DA:869:G:C2'	1:DA:870:A:H5'	2.40	0.51
6:DG:55:LYS:HZ1	6:DG:148:MET:CE	2.24	0.51
11:DO:46:LYS:HZ3	11:DO:46:LYS:CB	2.23	0.51
12:DP:56:ARG:CB	12:DP:56:ARG:HH11	2.14	0.51
12:DP:54:MET:O	12:DP:56:ARG:N	2.43	0.51
14:DQ:102:ALA:C	14:DQ:104:GLY:N	2.64	0.51
15:DR:15:VAL:CG2	15:DR:16:ARG:N	2.74	0.51
15:DR:7:ILE:O	15:DR:7:ILE:HG12	2.09	0.51
1:DA:24:G:O2'	18:DS:78:GLU:O	2.28	0.51
21:DV:165:VAL:HG23	21:DV:166:SER:N	2.25	0.51
21:DV:80:ARG:O	21:DV:81:ARG:CB	2.59	0.51
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.11	0.51
1:AA:1268:A:H2'	1:AA:1269:A:O5'	2.11	0.51
1:AA:1299:G:H5"	1:AA:1300:U:P	2.51	0.51
1:AA:1332:G:N2	1:AA:1609:A:HO2'	2.08	0.51
1:AA:1538:G:H2'	1:AA:1539:G:H8	1.75	0.51
1:AA:1530:G:O6	1:AA:1542:G:N2	2.43	0.51
1:AA:1635:G:C2	1:AA:1636:C:C2	2.99	0.51
1:AA:1668:A:H4'	1:AA:1669:A:O5'	2.10	0.51
1:AA:16:G:C4	1:AA:17:G:C8	2.98	0.51
1:AA:2129:C:C2'	1:AA:2130:U:H5'	2.39	0.51
1:AA:2111:C:H5	1:AA:2147:G:H22	1.57	0.51
1:AA:2807:G:H3'	1:AA:2808:U:H5"	1.92	0.51
1:AA:329:G:OP1	20:AU:71:LYS:HE3	2.11	0.51
1:AA:340:A:O2'	1:AA:341:G:H5'	2.11	0.51
1:AA:1912:A:OP2	56:AA:3422:OHX:N1	2.43	0.51
1:AA:1331:A:OP1	56:AA:3507:OHX:N2	2.42	0.51
1:AA:363(A):A:H2'	1:AA:363(B):G:H8	1.74	0.51
1:AA:880:G:O6	1:AA:895:U:N3	2.44	0.51
3:AD:34:VAL:CG1	3:AD:34:VAL:O	2.59	0.51
10:AN:7:TYR:HE1	10:AN:20:MET:HE3	1.75	0.51
10:AN:8:LEU:HD23	10:AN:8:LEU:N	2.25	0.51
1:AA:482:A:H4'	20:AU:47:LYS:HD3	1.92	0.51
23:AZ:82:LEU:N	23:AZ:82:LEU:HD22	2.25	0.51
23:AZ:86:SER:N	23:AZ:87:PRO:CD	2.74	0.51
31:BA:1091:U:H2'	31:BA:1093:A:OP2	2.09	0.51
31:BA:1143:G:N1	31:BA:1144:G:C2	2.79	0.51
31:BA:1272:G:C2	31:BA:1273:G:H1'	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:857:C:OP2	56:BA:1802:OHX:N1	2.44	0.51
31:BA:325:A:OP2	50:BW:70:SER:HB3	2.10	0.51
31:BA:362:G:N7	56:BA:1770:OHX:N3	2.59	0.51
31:BA:540:G:H2'	31:BA:541:G:O4'	2.11	0.51
31:BA:555:C:H2'	31:BA:556:C:C6	2.45	0.51
36:BI:9:VAL:HB	36:BI:87:ARG:HB2	1.92	0.51
40:BM:54:PHE:CE1	40:BM:55:LYS:HE3	2.46	0.51
40:BM:6:ILE:HG12	40:BM:72:VAL:O	2.10	0.51
40:BM:29:ARG:HH22	40:BM:84:GLN:CD	2.13	0.51
48:BU:76:LEU:O	48:BU:76:LEU:HD12	2.11	0.51
31:CA:1127:G:H1'	31:CA:1147:C:H42	1.76	0.51
31:CA:1131:G:H2'	31:CA:1132:C:C6	2.46	0.51
31:CA:1347:G:N2	31:CA:1373:G:H2'	2.25	0.51
31:CA:1442:G:C2'	31:CA:1443:G:O5'	2.58	0.51
31:CA:167:G:O2'	31:CA:168:G:H5'	2.10	0.51
31:CA:230:G:H2'	31:CA:231:G:O4'	2.10	0.51
53:CC:19:G:C1'	53:CC:20:G:OP1	2.59	0.51
52:CD:23:A:H2'	52:CD:24:G:C8	2.46	0.51
49:CV:73:GLU:C	49:CV:74:PHE:HD2	2.14	0.51
49:CV:7:LYS:CG	49:CV:8:GLY:N	2.73	0.51
50:CW:50:GLU:HA	50:CW:100:ILE:CG2	2.31	0.51
50:CW:69:GLY:O	50:CW:73:HIS:HD2	1.94	0.51
50:CW:94:ALA:O	50:CW:95:ALA:HB2	2.10	0.51
1:DA:1001:A:C8	1:DA:1002:G:C8	2.98	0.51
1:DA:1070:A:H5'	1:DA:1071:G:H5"	1.93	0.51
1:DA:1142(A):A:N7	1:DA:1144:G:C5	2.79	0.51
1:DA:1328:G:H2'	1:DA:1330:C:C5	2.45	0.51
1:DA:1404:C:O2	1:DA:1404:C:H2'	2.10	0.51
1:DA:1496:A:H1'	1:DA:1577:C:O2'	2.10	0.51
1:DA:1763:G:OP1	1:DA:1763:G:C4'	2.58	0.51
1:DA:2263:C:N4	22:D3:15:ASP:OD2	2.44	0.51
1:DA:644:A:C2	1:DA:646:A:C4	2.98	0.51
2:DB:29:A:H2'	2:DB:30:C:C6	2.46	0.51
2:DB:48:A:H4'	14:DQ:95:HIS:CD2	2.45	0.51
3:DD:106:ILE:HD13	3:DD:157:ARG:HB3	1.93	0.51
5:DF:31:HIS:O	5:DF:31:HIS:CD2	2.63	0.51
6:DG:2:PRO:C	6:DG:4:ASP:H	2.14	0.51
7:DH:125:VAL:HG23	7:DH:126:PRO:CB	2.37	0.51
7:DH:149:ARG:HG3	7:DH:162:ILE:O	2.10	0.51
11:DO:101:VAL:C	11:DO:103:ALA:N	2.64	0.51
15:DR:85:LYS:NZ	15:DR:87:ASP:OD2	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DX:7:LYS:HA	25:DX:33:GLN:O	2.10	0.51
13:A0:56:LYS:NZ	13:A0:90:ARG:O	2.44	0.51
29:A7:8:ASN:ND2	29:A7:11:LYS:HB3	2.25	0.51
1:AA:1167:U:C2	1:AA:1183:G:N2	2.78	0.51
1:AA:1505:C:H2'	1:AA:1506:C:O4'	2.11	0.51
1:AA:1547:C:H2'	1:AA:1548:C:C6	2.46	0.51
1:AA:1833:U:C4	1:AA:1834:U:C5	2.99	0.51
1:AA:2346:A:C2	1:AA:2383:G:C2	2.98	0.51
1:AA:245:G:O6	30:A8:8:LYS:HE2	2.10	0.51
1:AA:270(M):U:O2'	1:AA:270(N):G:O5'	2.28	0.51
1:AA:2832:U:C5	1:AA:2884:U:H5"	2.46	0.51
1:AA:628:G:C5	1:AA:636:G:N2	2.79	0.51
1:AA:676:A:C2	1:AA:802:A:N6	2.74	0.51
4:AE:203:LYS:HD2	4:AE:203:LYS:O	2.11	0.51
5:AF:133:ASN:HA	5:AF:162:LEU:HD22	1.92	0.51
5:AF:57:VAL:HG13	5:AF:58:ALA:H	1.76	0.51
8:AK:9:LEU:HD22	8:AK:9:LEU:N	2.26	0.51
12:AP:39:PRO:HA	12:AP:97:VAL:O	2.11	0.51
21:AV:110:GLY:HA3	21:AV:145:GLU:HG2	1.91	0.51
24:AW:50:ILE:HD12	24:AW:51:ARG:H	1.76	0.51
31:BA:1004:A:H8	31:BA:1036:G:N2	2.09	0.51
31:BA:1287:A:H2'	31:BA:1288:A:C8	2.46	0.51
31:BA:1525:G:OP2	41:BN:120:ARG:NH2	2.44	0.51
31:BA:187:C:O2	31:BA:191(A):G:C6	2.63	0.51
31:BA:345:C:O2'	31:BA:346:G:C2	2.63	0.51
31:BA:316:G:OP2	31:BA:351:G:O2'	2.27	0.51
32:BE:204:ASN:HD22	32:BE:205:ASP:N	2.09	0.51
34:BG:138:TYR:C	34:BG:138:TYR:CD2	2.84	0.51
35:BH:80:ILE:HG21	35:BH:138:ALA:O	2.11	0.51
37:BJ:69:VAL:O	37:BJ:69:VAL:HG12	2.10	0.51
40:BM:8:LEU:HD21	40:BM:96:ILE:HG22	1.91	0.51
42:BO:117:ARG:NH2	42:BO:124:LYS:HB2	2.26	0.51
31:BA:177:C:P	50:BW:65:LYS:HZ3	2.33	0.51
31:CA:1061:G:H2'	31:CA:1062:U:H5'	1.92	0.51
31:CA:1138:G:H3'	31:CA:1138:G:N3	2.26	0.51
31:CA:1263:C:N3	31:CA:1273:G:C2	2.79	0.51
31:CA:1517:G:H2'	31:CA:1518:A:C8	2.42	0.51
31:CA:17:U:H2'	31:CA:18:C:C6	2.45	0.51
31:CA:396:G:O2'	31:CA:398:C:OP1	2.16	0.51
31:CA:468:A:N7	31:CA:474:G:C8	2.79	0.51
31:CA:631:G:C3'	31:CA:632:A:C8	2.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:688:G:OP2	31:CA:688:G:O4'	2.29	0.51
53:CC:19:G:C4'	53:CC:20:G:OP1	2.59	0.51
34:CG:88:VAL:HG22	35:CH:96:PRO:O	2.10	0.51
40:CM:24:VAL:O	40:CM:24:VAL:HG12	2.10	0.51
41:CN:54:ARG:NH1	41:CN:54:ARG:CG	2.53	0.51
43:CP:30:ALA:C	43:CP:32:GLU:N	2.64	0.51
17:D2:69:LYS:C	17:D2:70:ILE:HG12	2.29	0.51
1:DA:1397:U:O2'	1:DA:1398:C:OP1	2.29	0.51
1:DA:1537:C:O2'	1:DA:1538:G:O4'	2.26	0.51
1:DA:1585:C:H3'	1:DA:1585:C:O2	2.11	0.51
1:DA:1668:A:N3	1:DA:1670:C:C4	2.78	0.51
1:DA:2286:A:C8	1:DA:2287:A:C6	2.99	0.51
1:DA:2474:C:C2'	1:DA:2474:C:O2	2.56	0.51
1:DA:2701:C:C3'	1:DA:2702:U:H5"	2.09	0.51
1:DA:2755:C:O2'	1:DA:2756:U:H6	1.93	0.51
1:DA:2786:U:H5"	4:DE:65:GLY:H	1.74	0.51
1:DA:2869:G:C6	1:DA:2870:C:N3	2.79	0.51
1:DA:2645:G:O6	56:DA:3444:OHX:N3	2.44	0.51
3:DD:35:LYS:HE2	3:DD:104:TYR:CG	2.45	0.51
4:DE:28:ALA:HB3	4:DE:93:VAL:CG2	2.40	0.51
7:DH:15:VAL:CG1	7:DH:29:PRO:HD2	2.40	0.51
8:DK:72:LEU:O	8:DK:74:ASN:N	2.43	0.51
12:DP:19:GLY:N	12:DP:98:LYS:NZ	2.54	0.51
15:DR:45:PHE:CZ	15:DR:74:ARG:HG3	2.46	0.51
19:DT:18:TYR:HD1	19:DT:21:PHE:CE2	2.28	0.51
25:DX:43:ILE:O	25:DX:47:VAL:HG23	2.11	0.51
1:AA:1062:G:OP1	1:AA:1070:A:H4'	2.11	0.51
1:AA:1280:G:C2'	1:AA:1281:G:H5'	2.41	0.51
1:AA:2206:C:H2'	1:AA:2207:C:C6	2.45	0.51
1:AA:2642:G:H5"	9:AM:78:TYR:CD2	2.46	0.51
1:AA:270(G):C:C4	1:AA:270(H):C:C5	2.99	0.51
1:AA:2818:G:C2'	1:AA:2819:G:H5'	2.41	0.51
1:AA:1368:G:N7	56:AA:3545:OHX:N3	2.58	0.51
1:AA:574:C:N3	4:AE:145:LYS:HE3	2.26	0.51
1:AA:652:C:H5'	1:AA:653:A:OP2	2.11	0.51
1:AA:826:U:OP1	1:AA:2428:G:H3'	2.11	0.51
3:AD:177:LEU:HD11	3:AD:183:ARG:HB2	1.93	0.51
4:AE:132:HIS:O	4:AE:133:LYS:CB	2.55	0.51
4:AE:174:ASP:OD2	4:AE:175:VAL:N	2.43	0.51
10:AN:24:VAL:CG2	10:AN:33:ALA:HB2	2.41	0.51
11:AO:144:GLU:H	11:AO:144:GLU:CD	2.15	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:19:VAL:CG2	11:AO:27:HIS:CB	2.48	0.51
19:AT:36:LYS:HE2	19:AT:54:VAL:O	2.11	0.51
23:AZ:8:SER:HB2	23:AZ:66:HIS:CE1	2.46	0.51
31:BA:1005:A:H5"	31:BA:1006:C:C5	2.46	0.51
31:BA:1004:A:C4	31:BA:1025:U:C2	2.99	0.51
31:BA:1028:C:C6	31:BA:1034:G:N2	2.79	0.51
31:BA:198:G:C6	31:BA:220:G:C2	2.99	0.51
31:BA:411:A:C6	31:BA:429:U:C5	2.99	0.51
31:BA:411:A:C5	31:BA:413:G:N3	2.79	0.51
31:BA:792:A:C2'	31:BA:792:A:N3	2.74	0.51
32:BE:11:LEU:CD2	32:BE:217:ARG:HH12	2.23	0.51
32:BE:126:GLU:OE1	32:BE:130:ARG:NH2	2.44	0.51
32:BE:36:ARG:C	32:BE:38:GLY:H	2.13	0.51
33:BF:152:ILE:O	33:BF:152:ILE:HG22	2.10	0.51
36:BI:42:GLU:C	36:BI:44:GLY:N	2.63	0.51
39:BL:98:PRO:C	39:BL:100:GLY:N	2.62	0.51
31:CA:1028(B):C:C2	31:CA:1032(A):G:N2	2.79	0.51
31:CA:1041:A:N6	31:CA:1042:G:C6	2.79	0.51
31:CA:949:A:C2	31:CA:1233:G:C4	2.99	0.51
31:CA:1319:A:OP1	49:CV:70:LYS:NZ	2.40	0.51
31:CA:1321:C:C3'	31:CA:1322:C:H5"	2.33	0.51
31:CA:1349:A:P	39:CL:118:LYS:NZ	2.84	0.51
31:CA:29:G:C5	31:CA:30:U:H5	2.29	0.51
31:CA:635:G:C6	31:CA:636:U:C4	2.98	0.51
31:CA:89:U:HO2'	31:CA:90:C:H6	1.59	0.51
53:CC:19:G:H1'	53:CC:20:G:OP1	2.10	0.51
32:CE:180:LEU:O	32:CE:181:PHE:HB2	2.11	0.51
33:CF:123:GLN:O	33:CF:128:PHE:HB2	2.10	0.51
34:CG:104:VAL:HG22	34:CG:185:PHE:HE1	1.76	0.51
37:CJ:125:MET:O	37:CJ:126:ASP:C	2.48	0.51
38:CK:56:LYS:O	38:CK:58:TYR:CD1	2.64	0.51
39:CL:13:ALA:HA	39:CL:67:GLY:O	2.10	0.51
40:CM:46:ARG:HG2	40:CM:47:PHE:N	2.24	0.51
43:CP:22:ILE:HB	43:CP:25:ILE:CG1	2.40	0.51
16:D1:91:ASP:C	16:D1:92:ARG:HG3	2.31	0.51
22:D3:70:GLN:OE1	22:D3:72:ARG:HD2	2.11	0.51
1:DA:1062:G:C5	1:DA:1063:G:N7	2.79	0.51
1:DA:1592:C:H2'	1:DA:1593:G:C8	2.46	0.51
1:DA:2166:G:N2	1:DA:2171:A:H62	2.09	0.51
1:DA:251:A:H2'	1:DA:252:G:O4'	2.10	0.51
1:DA:10:G:C6	1:DA:2629:A:C6	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:298:G:H5"	1:DA:299:A:OP1	2.11	0.51
1:DA:35:G:H1'	1:DA:454:A:C4	2.45	0.51
1:DA:745:G:H2'	1:DA:746:A:H5'	1.93	0.51
1:DA:920:G:H2'	1:DA:921:G:H8	1.75	0.51
11:DO:147:LEU:HD22	11:DO:148:LEU:O	2.11	0.51
12:DP:19:GLY:CA	12:DP:98:LYS:NZ	2.74	0.51
14:DQ:28:VAL:HG11	14:DQ:98:VAL:HG12	1.93	0.51
20:DU:48:ALA:HB3	20:DU:59:GLY:C	2.31	0.51
24:DW:51:ARG:HG2	24:DW:52:ASP:N	2.26	0.51
17:A2:37:VAL:HG23	17:A2:37:VAL:O	2.11	0.51
17:A2:60:GLU:HB2	17:A2:97:LYS:HE2	1.92	0.51
30:A8:23:VAL:CG1	30:A8:46:ARG:HD3	2.41	0.51
1:AA:1021:A:H2'	1:AA:1023:U:H5'	1.93	0.51
1:AA:1061:U:HO2'	1:AA:1070:A:C4'	2.22	0.51
1:AA:128:C:H2'	1:AA:129:C:C6	2.45	0.51
1:AA:1313:U:H5"	1:AA:1314:C:OP2	2.11	0.51
1:AA:1420:U:HO2'	1:AA:1421:G:P	2.34	0.51
1:AA:1655:A:H3'	1:AA:1656:C:H6	1.76	0.51
1:AA:1765:C:H2'	1:AA:1766:U:C6	2.46	0.51
1:AA:2112:G:H8	1:AA:2112:G:P	2.34	0.51
1:AA:954:G:O2'	1:AA:2274:A:N1	2.36	0.51
1:AA:2593:U:H2'	1:AA:2594:C:C6	2.45	0.51
1:AA:315:G:C4	1:AA:316:C:C5	2.99	0.51
1:AA:398:G:O2'	1:AA:399:G:H5'	2.10	0.51
1:AA:899:A:O2'	1:AA:900:A:H8	1.94	0.51
3:AD:221:VAL:HG22	3:AD:226:MET:HE1	1.93	0.51
3:AD:35:LYS:H	3:AD:64:ILE:CG2	2.24	0.51
4:AE:38:THR:HG23	4:AE:40:GLU:H	1.75	0.51
5:AF:31:HIS:NE2	5:AF:35:GLU:OE2	2.43	0.51
6:AG:60:LEU:O	6:AG:64:THR:HB	2.10	0.51
8:AK:47:LEU:HD12	8:AK:47:LEU:O	2.10	0.51
9:AM:18:ALA:O	9:AM:19:GLU:C	2.50	0.51
1:AA:626:U:O4	11:AO:107:LYS:HD3	2.10	0.51
11:AO:100:LEU:CD2	11:AO:112:LEU:HD11	2.40	0.51
12:AP:37:LEU:HD21	12:AP:130:LYS:HE3	1.92	0.51
12:AP:19:GLY:C	12:AP:98:LYS:HD2	2.31	0.51
14:AQ:7:TYR:HD2	14:AQ:10:ARG:HH21	1.59	0.51
25:AX:59:VAL:HG12	25:AX:60:GLU:N	2.26	0.51
31:BA:1151:A:N6	31:BA:1152:A:N6	2.59	0.51
31:BA:1501:C:OP2	31:BA:1504:G:H2'	2.10	0.51
31:BA:172:A:N3	31:BA:172:A:H2'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:242:C:H2'	31:BA:243:A:H5'	1.93	0.51
31:BA:45:U:H6	31:BA:45:U:O5'	1.94	0.51
52:BB:46:G:H4'	52:BB:47:U:OP1	2.11	0.51
52:BD:11:C:H5'	52:BD:12:C:OP2	2.11	0.51
34:BG:163:GLU:C	34:BG:165:MET:N	2.62	0.51
44:BQ:4:LYS:O	44:BQ:7:ILE:N	2.43	0.51
46:BS:58:TYR:HE1	46:BS:62:VAL:HG21	1.76	0.51
49:BV:15:LEU:O	49:BV:19:VAL:N	2.40	0.51
31:CA:1206:G:HO2'	33:CF:193:TYR:HA	1.76	0.51
31:CA:1267:C:O2	31:CA:1267:C:C2'	2.59	0.51
31:CA:1292:U:H2'	31:CA:1293:G:C8	2.46	0.51
52:CB:82:A:H5'	52:CB:82:A:N3	2.26	0.51
32:CE:75:LYS:HG2	32:CE:78:GLN:OE1	2.11	0.51
35:CH:18:ARG:HH21	35:CH:25:ARG:HB3	1.76	0.51
37:CJ:73:MET:HG2	37:CJ:90:GLU:HA	1.92	0.51
41:CN:99:GLN:HG2	41:CN:105:VAL:HG11	1.93	0.51
42:CO:98:TYR:N	42:CO:98:TYR:CD1	2.79	0.51
43:CP:79:LYS:C	43:CP:79:LYS:HD3	2.31	0.51
43:CP:90:LEU:HD22	43:CP:93:ARG:HE	1.75	0.51
45:CR:32:LEU:O	45:CR:36:ILE:HG13	2.10	0.51
1:DA:2840:C:H5"	13:D0:53:HIS:HD2	1.72	0.51
1:DA:2019:A:O3'	16:D1:27:LEU:HG	2.10	0.51
17:D2:22:VAL:HG22	17:D2:23:GLU:N	2.25	0.51
17:D2:66:ARG:HA	17:D2:90:PRO:HA	1.92	0.51
1:DA:99:U:O2	1:DA:102:G:N2	2.44	0.51
1:DA:1051:G:N3	1:DA:1051:G:H2'	2.26	0.51
1:DA:1053:C:H2'	1:DA:1054:A:C4'	2.41	0.51
1:DA:1154:G:OP1	16:D1:58:ARG:HD2	2.11	0.51
1:DA:1225:C:O2'	17:D2:85:LYS:HB3	2.11	0.51
1:DA:2008:C:H2'	1:DA:2009:G:H8	1.75	0.51
1:DA:2192:G:C2	1:DA:2193:G:C8	2.99	0.51
1:DA:2378:A:H4'	14:DQ:23:ARG:NH1	2.12	0.51
1:DA:2817:G:P	13:D0:99:LYS:NZ	2.83	0.51
1:DA:2872:G:C2	1:DA:2873:A:N6	2.79	0.51
1:DA:726:G:O2'	1:DA:727:A:OP2	2.27	0.51
1:DA:733:G:O6	1:DA:761:A:C8	2.64	0.51
3:DD:263:ARG:HB2	3:DD:263:ARG:CZ	2.39	0.51
4:DE:67:PHE:CD1	4:DE:67:PHE:C	2.85	0.51
11:DO:104:GLY:O	11:DO:105:LEU:CD2	2.59	0.51
12:DP:29:PHE:HB3	12:DP:65:PHE:CE1	2.45	0.51
14:DQ:110:LEU:HD23	14:DQ:112:PHE:CD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:27:C:O5'	14:DQ:54:LEU:HD11	2.11	0.51
15:DR:47:GLY:HA3	15:DR:63:VAL:HG12	1.92	0.51
20:DU:96:ILE:HG12	20:DU:101:LYS:HD3	1.93	0.51
20:DU:40:GLU:N	20:DU:40:GLU:OE2	2.43	0.51
21:DV:107:THR:N	21:DV:108:PRO:CD	2.73	0.51
13:A0:100:LEU:CD1	13:A0:112:ALA:HA	2.36	0.51
17:A2:16:PRO:HA	17:A2:96:ILE:HG22	1.92	0.51
1:AA:1130:U:O2'	1:AA:1131:G:P	2.69	0.51
1:AA:1913:A:H4'	1:AA:1914:C:H5'	1.92	0.51
1:AA:2307:G:C4	1:AA:2311:A:N1	2.79	0.51
1:AA:2702:U:OP1	1:AA:2702:U:H6	1.93	0.51
1:AA:2872:G:C2	1:AA:2873:A:N6	2.79	0.51
1:AA:299:A:C6	1:AA:300:A:N1	2.79	0.51
2:AB:18:G:C2'	2:AB:19:G:H5'	2.40	0.51
7:AH:150:ALA:C	7:AH:152:ARG:N	2.50	0.51
14:AQ:29:PHE:C	14:AQ:29:PHE:CD2	2.80	0.51
15:AR:24:PRO:HA	15:AR:49:VAL:HG22	1.93	0.51
21:AV:135:GLU:O	21:AV:136:PHE:HB3	2.11	0.51
31:BA:628:G:H2'	31:BA:629:G:C8	2.46	0.51
52:BB:21:A:C5	52:BB:55:U:O4	2.64	0.51
33:BF:178:LEU:O	33:BF:180:ALA:N	2.40	0.51
34:BG:12:CYS:HA	34:BG:19:LEU:HD22	1.93	0.51
34:BG:76:ARG:HD3	34:BG:207:TYR:CE2	2.42	0.51
37:BJ:16:LEU:CD1	39:BL:42:ARG:HA	2.41	0.51
38:BK:91:ARG:NH1	47:BT:32:TYR:O	2.44	0.51
31:BA:1453:G:C8	50:BW:39:LYS:HE2	2.45	0.51
54:C1:20:G:H2'	54:C1:21:C:C6	2.46	0.51
31:CA:1015:A:C6	31:CA:1016:A:C6	2.99	0.51
31:CA:1016:A:H2'	31:CA:1017:G:O4'	2.10	0.51
31:CA:951:G:C4	31:CA:1231:G:C2	2.99	0.51
31:CA:1281:U:H3'	31:CA:1282:C:C5	2.46	0.51
31:CA:284:G:N7	56:CA:1731:OHX:N2	2.58	0.51
31:CA:36:C:C2'	31:CA:37:U:H5'	2.41	0.51
31:CA:381:C:N4	31:CA:382:A:C6	2.79	0.51
31:CA:497:U:H2'	31:CA:497:U:O2	2.10	0.51
31:CA:619:U:H3	34:CG:135:LEU:CD1	2.24	0.51
31:CA:857:C:H2'	31:CA:858:G:O4'	2.10	0.51
52:CD:49:A:N3	52:CD:50:U:H5"	2.21	0.51
32:CE:102:LEU:N	32:CE:102:LEU:HD12	2.21	0.51
33:CF:70:VAL:HG12	33:CF:71:ALA:N	2.26	0.51
35:CH:33:VAL:HG12	35:CH:34:VAL:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CI:8:ILE:N	36:CI:8:ILE:HD12	2.25	0.51
39:CL:112:LYS:HD3	39:CL:113:LYS:N	2.25	0.51
31:CA:1349:A:P	39:CL:118:LYS:HZ2	2.34	0.51
40:CM:50:ILE:HD13	40:CM:50:ILE:N	2.26	0.51
42:CO:7:ILE:O	42:CO:10:LEU:HB2	2.11	0.51
43:CP:54:VAL:HA	43:CP:57:ARG:CB	2.41	0.51
43:CP:54:VAL:HA	43:CP:57:ARG:HB2	1.93	0.51
43:CP:23:TYR:HB3	43:CP:67:GLU:OE2	2.11	0.51
47:CT:66:SER:O	47:CT:69:LYS:N	2.36	0.51
50:CW:61:SER:O	50:CW:65:LYS:HG3	2.11	0.51
16:D1:104:GLN:HA	16:D1:104:GLN:NE2	2.26	0.51
16:D1:111:GLU:C	16:D1:113:ALA:N	2.63	0.51
11:DO:49:ARG:CZ	30:D8:59:LYS:HG2	2.40	0.51
1:DA:1155:A:O2'	1:DA:1156:A:H2'	2.11	0.51
1:DA:1480:G:C5	1:DA:1482:U:O2	2.64	0.51
1:DA:2461:C:H2'	1:DA:2462:U:C6	2.46	0.51
1:DA:2884:U:C2'	1:DA:2885:C:H5'	2.41	0.51
1:DA:464:U:H4'	29:D7:5:TRP:CZ3	2.46	0.51
1:DA:94:G:H2'	1:DA:95:G:O4'	2.11	0.51
1:DA:8:A:C5	1:DA:9:U:C5	2.99	0.51
5:DF:152:GLU:HA	5:DF:190:GLU:OE2	2.11	0.51
7:DH:123:PHE:HE2	7:DH:133:VAL:HG22	1.76	0.51
9:DM:97:ARG:NH1	9:DM:97:ARG:CG	2.67	0.51
10:DN:119:PRO:HG2	15:DR:68:TYR:CD2	2.46	0.51
11:DO:71:VAL:H	11:DO:72:PRO:CD	2.24	0.51
12:DP:42:ILE:HD13	12:DP:97:VAL:CG2	2.41	0.51
14:DQ:77:ALA:HB1	14:DQ:82:ILE:HD12	1.93	0.51
20:DU:61:ILE:CG2	20:DU:62:GLU:N	2.68	0.51
21:DV:132:ASN:HD21	21:DV:160:GLY:H	1.59	0.51
1:AA:592:G:N2	30:A8:4:MET:HE1	2.27	0.50
30:A8:51:ALA:N	30:A8:53:PRO:HD3	2.25	0.50
1:AA:1626:G:H5"	1:AA:1627:G:OP1	2.12	0.50
1:AA:1955:U:OP2	56:AA:3407:OHX:N1	2.44	0.50
1:AA:2096:U:H2'	1:AA:2097:C:C6	2.46	0.50
1:AA:2154:G:H2'	1:AA:2155:G:C8	2.46	0.50
1:AA:2298:A:N3	1:AA:2321:G:C2	2.79	0.50
1:AA:2345:G:N3	1:AA:2381:C:H2'	2.25	0.50
1:AA:2895:U:O2'	1:AA:2896:C:H5'	2.11	0.50
1:AA:391:G:O2'	1:AA:410:G:OP1	2.28	0.50
1:AA:539:G:C2'	1:AA:540:G:H5"	2.42	0.50
1:AA:558:G:P	9:AM:111:PRO:HD2	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:7:G:H1	2:AB:113:C:N4	2.09	0.50
4:AE:21:VAL:HG23	4:AE:22:PRO:CD	2.41	0.50
4:AE:78:LEU:O	4:AE:79:ARG:CB	2.55	0.50
5:AF:124:LEU:HD12	5:AF:125:LEU:O	2.11	0.50
1:AA:616:A:H8	5:AF:176:LEU:HD11	1.76	0.50
5:AF:198:ALA:O	5:AF:201:VAL:HG13	2.12	0.50
1:AA:2562:U:H1'	10:AN:23:ARG:HH11	1.75	0.50
18:AS:79:GLY:C	18:AS:100:THR:HG22	2.30	0.50
31:BA:1261:A:C6	31:BA:1262:C:C2	2.99	0.50
31:BA:1301:U:H3'	31:BA:1302:U:C5'	2.29	0.50
31:BA:405:U:H5"	31:BA:406:G:O4'	2.10	0.50
31:BA:373:A:C2	31:BA:482:A:C6	2.98	0.50
31:BA:509:A:C8	31:BA:509:A:H3'	2.46	0.50
31:BA:606:G:H1'	31:BA:632:A:N6	2.26	0.50
52:BD:12:C:H2'	52:BD:13:G:C8	2.46	0.50
52:BD:61:G:H2'	52:BD:62:G:O4'	2.11	0.50
39:BL:7:THR:O	39:BL:7:THR:HG22	2.10	0.50
45:BR:39:LEU:O	45:BR:42:HIS:N	2.43	0.50
31:CA:1111:A:H2'	31:CA:1112:C:C6	2.46	0.50
31:CA:1129:C:N4	31:CA:1139:G:H22	2.08	0.50
31:CA:1055:A:C8	31:CA:1206:G:N2	2.79	0.50
31:CA:701:C:O2'	56:CA:1759:OHX:N6	2.44	0.50
31:CA:262:A:N6	31:CA:263:A:N6	2.59	0.50
31:CA:423:G:N2	31:CA:424:G:C8	2.78	0.50
31:CA:946:A:C6	31:CA:947:G:C6	2.99	0.50
52:CB:70:C:H5'	52:CB:71:C:OP2	2.11	0.50
53:CC:17:C:H2'	53:CC:17:C:O2	2.10	0.50
52:CD:25:G:H2'	52:CD:26:G:O4'	2.11	0.50
32:CE:87:ARG:O	32:CE:223:ILE:HD11	2.12	0.50
34:CG:152:SER:O	34:CG:154:ASN:N	2.44	0.50
35:CH:71:LEU:HD22	35:CH:115:VAL:HG13	1.93	0.50
38:CK:82:HIS:CD2	38:CK:82:HIS:O	2.64	0.50
41:CN:48:ILE:CG2	41:CN:63:LEU:HD12	2.42	0.50
41:CN:67:ASP:OD1	41:CN:71:LYS:NZ	2.32	0.50
45:CR:82:ILE:CG1	45:CR:87:ILE:HB	2.28	0.50
31:CA:1325:C:OP1	51:CX:15:ARG:HD2	2.10	0.50
1:DA:1001:A:H2'	1:DA:1002:G:H5'	1.93	0.50
1:DA:1170:G:O6	1:DA:1171:G:N1	2.44	0.50
1:DA:1449:A:N6	1:DA:1449(A):G:C4	2.80	0.50
1:DA:1686:C:H2'	1:DA:1687:G:O4'	2.11	0.50
1:DA:1839:G:C8	1:DA:1927:A:H1'	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1950:G:C2	1:DA:1951:U:C4	2.99	0.50
52:CD:85:A:O2'	1:DA:2394:C:C2	2.64	0.50
1:DA:2762:G:H5'	1:DA:2763:G:OP2	2.10	0.50
1:DA:72:U:H3	24:DW:62:THR:HG22	1.75	0.50
1:DA:979:G:N7	1:DA:981:A:OP1	2.43	0.50
4:DE:76:ARG:O	4:DE:78:LEU:N	2.41	0.50
6:DG:4:ASP:O	6:DG:5:VAL:CB	2.56	0.50
8:DK:76:THR:HG21	8:DK:140:LEU:CD1	2.41	0.50
11:DO:39:LYS:HB2	11:DO:45:LEU:CD2	2.41	0.50
16:A1:58:ARG:HH21	16:A1:93:LYS:HD2	1.76	0.50
27:A5:2:ALA:C	27:A5:3:LYS:HD2	2.25	0.50
1:AA:1050:A:H2'	1:AA:1051:G:O4'	2.11	0.50
1:AA:1060:U:C4'	1:AA:1061:U:O5'	2.60	0.50
1:AA:1252:G:N3	16:A1:33:ARG:HD2	2.25	0.50
1:AA:2670:A:O2'	1:AA:2671:A:H5'	2.11	0.50
1:AA:2836:U:C4	1:AA:2883:A:N6	2.80	0.50
1:AA:338:G:O2'	1:AA:339:U:H5'	2.11	0.50
1:AA:508:G:O6	18:AS:9:TYR:CD2	2.64	0.50
1:AA:60:G:N7	1:AA:63:U:C6	2.79	0.50
3:AD:118:VAL:HG22	3:AD:119:ALA:N	2.26	0.50
1:AA:2590:A:H5"	3:AD:239:ARG:HG3	1.93	0.50
5:AF:57:VAL:CG1	5:AF:58:ALA:N	2.74	0.50
6:AG:25:TYR:C	6:AG:27:ASN:H	2.15	0.50
7:AH:98:LEU:HD22	7:AH:125:VAL:CG2	2.41	0.50
9:AM:75:TYR:C	9:AM:75:TYR:HD1	2.14	0.50
10:AN:98:VAL:HG13	10:AN:117:LEU:HB2	1.93	0.50
11:AO:65:ARG:NH1	11:AO:65:ARG:CG	2.57	0.50
15:AR:3:ARG:NH1	15:AR:6:LEU:HD23	2.26	0.50
21:AV:40:ASP:O	21:AV:43:GLU:HB2	2.11	0.50
35:BH:15:ARG:NH1	54:B1:25:A:H3'	2.26	0.50
31:BA:1004:A:O4'	31:BA:1036:G:O6	2.29	0.50
31:BA:1177:G:OP2	39:BL:97:LYS:NZ	2.45	0.50
31:BA:1237:C:H2'	31:BA:1238:A:OP1	2.11	0.50
31:BA:1242:C:N4	31:BA:1295:G:H1	2.06	0.50
31:BA:1303:C:H2'	31:BA:1304:G:H5'	1.93	0.50
31:BA:1362(A):C:OP1	56:BA:1761:OHX:N4	2.44	0.50
10:AN:49:ARG:NH2	31:BA:1423:G:OP1	2.45	0.50
31:BA:1394:A:C5	31:BA:1501:C:H4'	2.46	0.50
52:BD:12:C:H6	52:BD:12:C:H5'	1.76	0.50
33:BF:130:VAL:CG1	33:BF:134:ILE:HD11	2.41	0.50
33:BF:58:GLU:CB	33:BF:65:ALA:HB3	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1366:C:O2'	40:BM:60:ARG:NH2	2.43	0.50
44:BQ:23:ARG:O	44:BQ:24:CYS:C	2.50	0.50
47:BT:101:ARG:HB2	47:BT:101:ARG:HH21	1.75	0.50
50:BW:16:HIS:O	50:BW:19:SER:N	2.44	0.50
50:BW:70:SER:HA	50:BW:73:HIS:HD2	1.76	0.50
31:CA:1024:G:C4	31:CA:1025:U:H5	2.29	0.50
31:CA:455:C:H42	31:CA:477:G:H1	1.59	0.50
31:CA:719:C:O2'	48:CU:49:LYS:HB3	2.11	0.50
53:CC:14:A:C6	53:CC:23:G:C5	2.99	0.50
35:CH:110:LEU:O	35:CH:115:VAL:CG2	2.58	0.50
36:CI:63:TYR:CD2	36:CI:63:TYR:N	2.79	0.50
46:CS:14:ASN:N	46:CS:15:PRO:HD3	2.26	0.50
46:CS:49:LEU:HD12	46:CS:50:LYS:N	2.27	0.50
46:CS:49:LEU:HD22	46:CS:73:LEU:HD22	1.92	0.50
47:CT:93:GLN:HG2	47:CT:96:GLU:OE2	2.12	0.50
48:CU:21:LYS:HE2	48:CU:54:ARG:O	2.12	0.50
22:D3:23:VAL:HG12	22:D3:25:ARG:O	2.11	0.50
1:DA:1342:A:C6	1:DA:1397:U:C4	2.96	0.50
1:DA:155:C:H2'	1:DA:155:C:O2	2.10	0.50
1:DA:2014:A:H2'	1:DA:2015:A:C8	2.46	0.50
1:DA:2549:G:N2	1:DA:2560:C:C2	2.80	0.50
1:DA:259:G:C2'	1:DA:621:A:O2'	2.59	0.50
1:DA:2519:U:OP1	56:DA:3169:OHX:N1	2.44	0.50
2:DB:54:G:C4	2:DB:55:U:C5	2.99	0.50
10:DN:61:VAL:O	10:DN:61:VAL:HG13	2.10	0.50
15:DR:78:LEU:HD23	15:DR:79:HIS:HD2	1.74	0.50
24:DW:15:LYS:O	24:DW:16:LEU:HB3	2.12	0.50
13:A0:92:GLY:N	13:A0:94:TYR:CE2	2.71	0.50
1:AA:1586:A:H3'	1:AA:1587:A:H8	1.76	0.50
1:AA:1910:G:O2'	1:AA:1911:U:H5'	2.10	0.50
1:AA:2470:G:H5'	12:AP:56:ARG:HH22	1.77	0.50
1:AA:479:A:H4'	1:AA:480:A:OP1	2.12	0.50
1:AA:729:G:O2'	1:AA:763:G:H4'	2.11	0.50
7:AH:43:VAL:HG23	7:AH:43:VAL:O	2.10	0.50
8:AK:86:THR:O	8:AK:87:LYS:HB2	2.09	0.50
9:AM:90:MET:O	9:AM:94:HIS:N	2.36	0.50
10:AN:88:ASN:HD22	10:AN:88:ASN:H	1.59	0.50
11:AO:101:VAL:HG12	11:AO:102:ARG:N	2.27	0.50
20:AU:39:VAL:O	20:AU:40:GLU:CG	2.59	0.50
31:BA:1030:C:H2'	31:BA:1031:G:O4'	2.11	0.50
31:BA:1204:A:C6	31:BA:1205:U:N3	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1321:C:H3'	31:BA:1322:C:H5"	1.93	0.50
31:BA:689:C:OP1	41:BN:27:ASN:ND2	2.39	0.50
31:BA:870:U:H4'	31:BA:871:U:H3'	1.92	0.50
52:BB:62:G:O6	52:BB:70:C:N4	2.32	0.50
35:BH:153:LYS:H	38:BK:64:LYS:NZ	2.08	0.50
42:BO:117:ARG:HH22	42:BO:124:LYS:HB2	1.76	0.50
31:CA:1118:C:OP1	39:CL:104:ARG:NH1	2.41	0.50
31:CA:1127:G:N2	31:CA:1144:G:H22	2.09	0.50
31:CA:1243:C:O2	31:CA:1295:G:C2	2.64	0.50
31:CA:167:G:N1	31:CA:168:G:C6	2.79	0.50
31:CA:312:C:H2'	31:CA:312:C:O2	2.11	0.50
31:CA:685:G:N7	56:CA:1782:OHX:N6	2.59	0.50
31:CA:86:U:C2'	31:CA:87:A:OP1	2.59	0.50
52:CB:40:U:C4	52:CB:41:C:C5	3.00	0.50
52:CB:48:C:H2'	52:CB:49:A:C1'	2.42	0.50
34:CG:118:ARG:CA	34:CG:121:VAL:HG23	2.40	0.50
36:CI:62:TRP:C	36:CI:63:TYR:CD2	2.85	0.50
41:CN:125:PHE:N	41:CN:125:PHE:CD2	2.76	0.50
17:D2:47:VAL:O	17:D2:47:VAL:HG22	2.11	0.50
27:D5:45:VAL:HG11	27:D5:56:LYS:HD2	1.93	0.50
1:DA:239:U:H2'	1:DA:240:G:O4'	2.12	0.50
1:DA:2694:G:C4	1:DA:2695:C:C5	2.99	0.50
1:DA:278:A:C4'	1:DA:279:C:OP1	2.59	0.50
1:DA:925:C:H2'	1:DA:926:A:H5"	1.93	0.50
1:DA:981:A:H8	1:DA:982:C:C5	2.28	0.50
5:DF:124:LEU:O	5:DF:124:LEU:HG	2.11	0.50
6:DG:55:LYS:NZ	6:DG:58:GLN:HE22	2.08	0.50
10:DN:113:LYS:O	10:DN:117:LEU:CD1	2.60	0.50
12:DP:92:GLY:O	12:DP:93:TYR:CD1	2.65	0.50
20:DU:43:ASN:N	20:DU:43:ASN:ND2	2.58	0.50
21:DV:99:TYR:HA	21:DV:124:ILE:O	2.11	0.50
1:AA:2623:G:H21	27:A5:22:HIS:CE1	2.30	0.50
1:AA:2623:G:H21	27:A5:22:HIS:HE1	1.55	0.50
1:AA:1204:A:C8	1:AA:1206:G:C6	2.99	0.50
1:AA:1437:C:H2'	1:AA:1438:U:H6	1.77	0.50
1:AA:1535:U:C4	1:AA:1536:A:H3'	2.47	0.50
1:AA:1879:C:N4	1:AA:1880:C:N4	2.59	0.50
1:AA:220:G:N7	56:AA:3415:OHX:N4	2.59	0.50
1:AA:882:G:C2	1:AA:894:C:N3	2.80	0.50
1:AA:901:A:C2'	1:AA:902:C:H5'	2.42	0.50
1:AA:901:A:H2'	1:AA:902:C:H5'	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:917:A:C2'	1:AA:918:A:H5'	2.42	0.50
2:AB:81:G:O6	2:AB:95:U:O2	2.28	0.50
3:AD:125:ILE:CD1	3:AD:131:LEU:HD21	2.35	0.50
4:AE:78:LEU:O	4:AE:78:LEU:HD23	2.10	0.50
2:AB:42:C:O2	6:AG:92:VAL:HA	2.12	0.50
11:AO:91:PHE:HZ	11:AO:103:ALA:CB	2.25	0.50
12:AP:120:ILE:H	12:AP:120:ILE:HD13	1.75	0.50
12:AP:26:TYR:C	12:AP:26:TYR:HD2	2.14	0.50
12:AP:33:GLY:HA2	12:AP:105:GLU:HA	1.92	0.50
15:AR:39:ARG:HH22	31:BA:346:G:H1'	1.76	0.50
20:AU:42:VAL:O	20:AU:42:VAL:HG12	2.12	0.50
12:AP:137:TYR:CE2	21:AV:83:PRO:HG3	2.47	0.50
24:AW:37:PHE:O	24:AW:41:ILE:HG22	2.12	0.50
31:BA:925:G:H1'	31:BA:1502:A:C4	2.47	0.50
31:BA:575:G:C5	31:BA:881:G:C2	3.00	0.50
31:BA:604:G:C6	31:BA:605:U:N3	2.80	0.50
31:BA:60:A:OP1	31:BA:111:G:N2	2.45	0.50
48:BU:50:ILE:HD12	48:BU:70:ILE:HD12	1.93	0.50
31:CA:1196:U:O2	54:C1:23:A:N7	2.44	0.50
31:CA:1213:A:N6	31:CA:1215:G:N3	2.59	0.50
31:CA:1269:A:H2	31:CA:1312:G:N3	2.09	0.50
31:CA:1317:C:N1	44:CQ:16:PHE:HE1	2.09	0.50
31:CA:1433:A:C8	31:CA:1467:G:N2	2.80	0.50
31:CA:157:G:C2	31:CA:165:C:O2	2.64	0.50
31:CA:791:G:C5	31:CA:792:A:N7	2.78	0.50
32:CE:207:ALA:O	32:CE:211:ILE:HG13	2.12	0.50
32:CE:238:LEU:HD12	32:CE:238:LEU:O	2.12	0.50
33:CF:175:LEU:HD21	33:CF:201:TYR:CE1	2.47	0.50
34:CG:110:PHE:HD1	34:CG:110:PHE:N	2.09	0.50
46:CS:43:LYS:CG	46:CS:48:TRP:CD1	2.94	0.50
42:CO:11:VAL:HG13	47:CT:29:HIS:CD2	2.46	0.50
49:CV:12:ASP:CB	49:CV:38:SER:HB3	2.40	0.50
27:D5:4:HIS:O	27:D5:5:PRO:O	2.29	0.50
11:DO:62:LEU:HD21	30:D8:25:MET:O	2.11	0.50
1:DA:1141:U:C2'	1:DA:1142:U:OP2	2.60	0.50
1:DA:1475:G:C4	1:DA:1519:G:N2	2.80	0.50
31:CA:1494:G:N2	1:DA:1912:A:N3	2.59	0.50
1:DA:2740:A:H2'	1:DA:2741:A:C8	2.46	0.50
1:DA:2748:A:N7	1:DA:2754:U:C4	2.79	0.50
1:DA:459:U:H5"	29:D7:40:TRP:CD2	2.46	0.50
2:DB:29:A:H2'	2:DB:30:C:H6	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:65:LYS:O	9:DM:67:LEU:N	2.43	0.50
14:DQ:11:LYS:HG2	14:DQ:15:ARG:CZ	2.42	0.50
10:DN:104:ARG:NH1	15:DR:36:GLU:HB3	2.26	0.50
18:DS:92:ARG:O	18:DS:93:ALA:HB3	2.11	0.50
19:DT:57:LEU:N	19:DT:57:LEU:HD23	2.27	0.50
1:AA:1181:C:C2'	1:AA:1182:A:H5'	2.41	0.50
1:AA:1298:C:C5'	1:AA:1299:G:OP2	2.60	0.50
1:AA:1668:A:H61	1:AA:1676:A:H61	1.59	0.50
1:AA:1731:G:H2'	1:AA:1732:A:H8	1.76	0.50
1:AA:1893:C:C5	1:AA:1894:C:C5	3.00	0.50
1:AA:2137:C:H2'	1:AA:2138:C:H6	1.77	0.50
1:AA:2590:A:C2	1:AA:2605:U:O2	2.63	0.50
1:AA:2886:G:N3	1:AA:2887:U:C6	2.79	0.50
1:AA:634:C:H2'	1:AA:635:C:C6	2.47	0.50
1:AA:644:A:C2	1:AA:646:A:C4	3.00	0.50
1:AA:84:A:H4'	1:AA:85:G:OP1	2.12	0.50
1:AA:945:A:C1'	1:AA:946:G:OP1	2.60	0.50
8:AK:144:VAL:O	8:AK:145:VAL:HG22	2.11	0.50
14:AQ:39:ILE:HG22	14:AQ:39:ILE:O	2.12	0.50
13:A0:103:ARG:HH11	18:AS:40:ASN:HD22	1.59	0.50
19:AT:80:ILE:HD12	19:AT:80:ILE:C	2.31	0.50
20:AU:79:CYS:HG	20:AU:80:GLY:N	2.08	0.50
23:AZ:56:GLN:HE21	23:AZ:56:GLN:CA	2.19	0.50
31:BA:1002:G:C4	31:BA:1003:G:C8	2.99	0.50
31:BA:1180:A:OP1	39:BL:103:THR:OG1	2.22	0.50
31:BA:120:A:C2'	31:BA:121:C:O5'	2.60	0.50
31:BA:200:G:N2	31:BA:218:C:C2	2.79	0.50
31:BA:355:C:H2'	31:BA:356:A:H5'	1.92	0.50
31:BA:771:G:O2'	31:BA:772:U:H5'	2.11	0.50
31:BA:789:U:H5	31:BA:792:A:P	2.33	0.50
53:BC:54:G:O2'	53:BC:55:U:H5'	2.12	0.50
32:BE:119:GLU:C	32:BE:121:LEU:H	2.15	0.50
32:BE:21:ARG:O	32:BE:23:ARG:HG2	2.11	0.50
32:BE:53:ARG:HA	32:BE:56:ARG:NH1	2.27	0.50
32:BE:97:TRP:CZ3	32:BE:176:GLU:HG3	2.46	0.50
33:BF:70:VAL:HG12	33:BF:71:ALA:N	2.26	0.50
34:BG:105:VAL:HG12	34:BG:105:VAL:O	2.11	0.50
37:BJ:79:ARG:NH1	37:BJ:82:GLY:H	2.09	0.50
39:BL:17:VAL:HG13	39:BL:63:ILE:HD11	1.93	0.50
41:BN:83:ILE:HG23	41:BN:109:VAL:HG23	1.93	0.50
50:BW:25:ARG:HH11	50:BW:25:ARG:CG	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1207:G:H2'	31:CA:1208:C:C6	2.44	0.50
31:CA:1333:A:H2'	31:CA:1334:G:O4'	2.11	0.50
31:CA:246:A:C4	31:CA:279:A:N6	2.79	0.50
31:CA:354:G:N3	31:CA:354:G:H2'	2.27	0.50
31:CA:57:G:C5	31:CA:58:C:C4	3.00	0.50
31:CA:570:G:H1'	31:CA:820:U:C4	2.46	0.50
34:CG:72:GLU:OE1	34:CG:72:GLU:CA	2.59	0.50
13:D0:84:ALA:HB3	13:D0:85:PRO:HD3	1.94	0.50
16:D1:68:ALA:O	16:D1:71:GLN:HB2	2.11	0.50
26:D4:16:CYS:HB3	26:D4:19:GLY:CA	2.42	0.50
30:D8:16:ILE:HD13	30:D8:57:ARG:HG2	1.94	0.50
1:DA:82:G:N1	1:DA:103:A:OP2	2.41	0.50
1:DA:1048:A:H2	1:DA:1112:G:N2	2.02	0.50
1:DA:475:U:OP1	56:DA:3443:OHX:N6	2.45	0.50
1:DA:512:G:OP1	1:DA:1234:U:O2'	2.24	0.50
1:DA:654(B):C:H2'	1:DA:654(C):G:H8	1.76	0.50
4:DE:101:ARG:NH1	4:DE:171:GLU:HB2	2.25	0.50
4:DE:63:LEU:O	4:DE:63:LEU:HG	2.12	0.50
5:DF:102:PRO:O	5:DF:104:LYS:N	2.44	0.50
5:DF:34:TRP:CE3	11:DO:8:PRO:HB3	2.46	0.50
5:DF:72:ARG:O	5:DF:73:ALA:O	2.29	0.50
8:DK:143:SER:O	8:DK:144:VAL:HB	2.12	0.50
8:DK:144:VAL:O	8:DK:145:VAL:HG22	2.12	0.50
9:DM:57:ALA:C	9:DM:59:LYS:N	2.65	0.50
12:DP:78:PRO:O	12:DP:79:LEU:O	2.30	0.50
14:DQ:28:VAL:HG11	14:DQ:98:VAL:CG1	2.41	0.50
15:DR:54:ARG:NH1	15:DR:54:ARG:HG2	2.26	0.50
21:DV:108:PRO:HB2	21:DV:142:SER:HA	1.93	0.50
21:DV:14:LYS:H	21:DV:14:LYS:NZ	2.10	0.50
24:DW:37:PHE:O	24:DW:41:ILE:N	2.35	0.50
13:A0:12:ARG:HB3	13:A0:16:HIS:HD2	1.76	0.50
30:A8:34:TRP:H	30:A8:35:GLN:CA	2.24	0.50
1:AA:1026:U:C4'	1:AA:1027:A:OP1	2.54	0.50
1:AA:1060:U:H1'	1:AA:1061:U:OP2	2.11	0.50
1:AA:1535:U:C3'	1:AA:1536:A:C5'	2.88	0.50
1:AA:1833:U:O2'	1:AA:1969:A:N1	2.30	0.50
1:AA:2316:C:H2'	1:AA:2317:C:H6	1.76	0.50
1:AA:2321:G:N3	1:AA:2321:G:H2'	2.26	0.50
1:AA:2506:U:O2	1:AA:2506:U:C2'	2.57	0.50
1:AA:2001:A:H4'	1:AA:2689:U:H2'	1.93	0.50
1:AA:2723:C:OP1	4:AE:109:LYS:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2810:A:H61	1:AA:2891:G:C2'	2.25	0.50
1:AA:2894:G:H2'	1:AA:2895:U:OP2	2.10	0.50
1:AA:299:A:N6	1:AA:300:A:C6	2.80	0.50
1:AA:404:C:O2'	1:AA:405:U:OP2	2.25	0.50
1:AA:731:C:H2'	1:AA:731:C:O2	2.11	0.50
3:AD:181:GLU:OE2	3:AD:270:ILE:HD13	2.12	0.50
3:AD:27:THR:HG21	3:AD:83:GLU:HB3	1.92	0.50
3:AD:44:ASN:HB3	3:AD:48:ARG:C	2.32	0.50
1:AA:2032:G:N2	4:AE:146:THR:HG23	2.22	0.50
5:AF:13:SER:C	5:AF:15:SER:H	2.14	0.50
7:AH:137:ASP:CB	7:AH:140:LYS:HB3	2.41	0.50
8:AK:104:GLN:O	8:AK:105:HIS:CB	2.59	0.50
10:AN:34:THR:HG23	10:AN:35:VAL:H	1.76	0.50
11:AO:105:LEU:O	11:AO:106:LEU:CB	2.48	0.50
12:AP:6:ARG:O	12:AP:7:MET:HB2	2.12	0.50
15:AR:29:ARG:HB2	15:AR:46:GLU:HG3	1.93	0.50
1:AA:494:G:H4'	18:AS:6:ILE:HB	1.93	0.50
18:AS:88:ARG:HB2	18:AS:93:ALA:H	1.76	0.50
19:AT:21:PHE:CD2	19:AT:26:TYR:HD2	2.30	0.50
25:AX:28:LEU:HA	25:AX:33:GLN:OE1	2.11	0.50
25:AX:43:ILE:HG22	25:AX:43:ILE:O	2.12	0.50
31:BA:1054:C:H6	31:BA:1196:U:HO2'	1.59	0.50
31:BA:1351:U:H5'	37:BJ:33:ASP:OD1	2.12	0.50
31:BA:336:C:O2'	31:BA:337:C:H5'	2.11	0.50
31:BA:457:C:N4	31:BA:458:C:N4	2.60	0.50
31:BA:5:U:O2'	31:BA:6:G:N3	2.44	0.50
31:BA:945:G:C2	31:BA:946:A:C8	2.99	0.50
31:BA:963:G:N2	40:BM:55:LYS:HZ1	2.10	0.50
52:BB:52:G:O2'	52:BB:53:A:O5'	2.20	0.50
33:BF:189:ALA:HB3	33:BF:196:LEU:HB2	1.93	0.50
34:BG:89:THR:OG1	56:BG:302:OHX:N2	2.44	0.50
35:BH:122:GLU:OE1	35:BH:131:ILE:HG21	2.11	0.50
36:BI:18:GLN:O	36:BI:21:LEU:N	2.44	0.50
36:BI:37:VAL:HG12	36:BI:38:GLU:N	2.26	0.50
36:BI:78:GLU:HG3	36:BI:78:GLU:O	2.11	0.50
39:BL:53:VAL:HG21	39:BL:92:TYR:CD1	2.46	0.50
40:BM:4:ILE:HG12	40:BM:100:THR:HG23	1.93	0.50
31:CA:1065:U:H6	31:CA:1190:G:H21	1.59	0.50
31:CA:1272:G:C6	31:CA:1273:G:C5	2.99	0.50
31:CA:1446:A:N6	15:DR:118:ARG:HH22	2.09	0.50
31:CA:622:A:N7	31:CA:623:C:C2	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:953:G:H2'	31:CA:954:G:O4'	2.12	0.50
31:CA:969:A:H2'	31:CA:970:C:O4'	2.12	0.50
33:CF:193:TYR:O	33:CF:193:TYR:CD1	2.65	0.50
37:CJ:79:ARG:HA	37:CJ:84:ASN:HA	1.94	0.50
47:CT:59:ILE:CG2	47:CT:71:PHE:HB3	2.42	0.50
13:D0:70:LEU:O	13:D0:72:ASP:N	2.38	0.50
16:D1:36:ARG:CZ	17:D2:82:ARG:NH2	2.75	0.50
26:D4:22:ILE:H	26:D4:22:ILE:CD1	2.24	0.50
26:D4:43:TYR:CG	26:D4:43:TYR:O	2.65	0.50
1:DA:2287:A:C2	1:DA:2346:A:N1	2.79	0.50
1:DA:2689:U:H5"	1:DA:2713:A:H2	1.76	0.50
1:DA:286:C:C2'	1:DA:287:C:H5'	2.42	0.50
1:DA:33:U:H4'	1:DA:34:C:OP1	2.11	0.50
1:DA:863:A:H8	1:DA:863:A:O5'	1.94	0.50
1:DA:887:A:N6	1:DA:889:C:C6	2.79	0.50
4:DE:197:ILE:HD12	4:DE:198:VAL:N	2.26	0.50
5:DF:153:SER:H	5:DF:190:GLU:HB2	1.76	0.50
12:DP:25:ASP:O	12:DP:25:ASP:OD1	2.30	0.50
14:DQ:12:PHE:O	14:DQ:13:ARG:C	2.50	0.50
18:DS:51:LEU:C	18:DS:51:LEU:HD22	2.30	0.50
27:A5:4:HIS:CG	27:A5:5:PRO:HD3	2.42	0.50
1:AA:1022:G:H4'	1:AA:1023:U:O5'	2.12	0.50
1:AA:1281:G:C5	1:AA:1282:U:C5	3.00	0.50
1:AA:1525:G:O2'	1:AA:1526:G:O5'	2.30	0.50
1:AA:1956:U:C2'	1:AA:1957:C:H5'	2.41	0.50
1:AA:274:G:H3'	1:AA:274:G:H8	1.75	0.50
2:AB:25:A:H2'	2:AB:26:A:H5'	1.94	0.50
4:AE:31:CYS:HB2	4:AE:91:VAL:HG23	1.92	0.50
12:AP:51:ARG:CG	12:AP:51:ARG:HH11	2.10	0.50
21:AV:143:GLY:HA2	21:AV:144:LEU:O	2.12	0.50
31:BA:1028(A):C:N4	31:BA:1028(B):C:N4	2.60	0.50
31:BA:1192:C:H5"	31:BA:1193:G:OP2	2.11	0.50
31:BA:1291:G:H4'	39:BL:38:GLN:O	2.10	0.50
31:BA:134:A:H61	46:BS:25:ARG:NH1	2.09	0.50
31:BA:834:C:O2'	31:BA:835:U:H5'	2.12	0.50
31:BA:862:C:O2'	31:BA:863:U:H5'	2.11	0.50
31:BA:943:U:C2'	31:BA:944:G:H5'	2.42	0.50
53:BC:19:G:C4'	53:BC:20:G:OP1	2.60	0.50
53:BC:48:U:H1'	53:BC:49:C:OP2	2.12	0.50
52:BD:22:A:H2'	52:BD:22:A:N3	2.25	0.50
32:BE:235:SER:OG	32:BE:236:TYR:N	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:32:ILE:HD13	32:BE:40:HIS:CD2	2.47	0.50
39:BL:43:ALA:C	39:BL:45:ALA:N	2.65	0.50
31:BA:1123:A:O3'	40:BM:36:GLY:HA3	2.11	0.50
43:BP:44:ARG:C	43:BP:46:LYS:N	2.65	0.50
43:BP:88:ARG:HD3	43:BP:98:VAL:HG12	1.94	0.50
45:BR:78:TYR:C	45:BR:80:ALA:N	2.60	0.50
49:BV:51:VAL:HG11	49:BV:71:LEU:O	2.12	0.50
31:CA:791:G:H2'	31:CA:792:A:H5'	1.94	0.50
53:CC:20:G:N2	53:CC:58:A:N3	2.60	0.50
52:CD:44:C:H2'	52:CD:45:C:O4'	2.12	0.50
52:CD:20:C:H5'	52:CD:68:A:H62	1.76	0.50
33:CF:150:LYS:CG	33:CF:169:ALA:HB2	2.39	0.50
34:CG:59:ARG:NH2	34:CG:66:ARG:NH1	2.58	0.50
35:CH:110:LEU:HD13	35:CH:118:ILE:HD13	1.92	0.50
35:CH:18:ARG:NH2	35:CH:25:ARG:HB3	2.27	0.50
35:CH:60:TYR:HA	35:CH:63:ARG:HG3	1.94	0.50
40:CM:35:SER:OG	40:CM:73:ASP:HB2	2.11	0.50
43:CP:20:THR:O	43:CP:22:ILE:N	2.45	0.50
43:CP:46:LYS:HE3	43:CP:47:ASP:OD2	2.11	0.50
46:CS:1:MET:O	46:CS:1:MET:HG3	2.11	0.50
31:CA:720:C:H5'	48:CU:50:ILE:O	2.12	0.50
1:DA:1600:C:O2'	1:DA:1601:G:H5'	2.11	0.50
1:DA:2151:G:C4	1:DA:2152:G:C8	3.00	0.50
1:DA:2271:G:H2'	1:DA:2272:U:O5'	2.12	0.50
1:DA:228:A:H2'	1:DA:230:U:O4'	2.10	0.50
1:DA:2802:G:H8	1:DA:2802:G:OP2	1.94	0.50
1:DA:536:A:C2	1:DA:558:G:C2	3.00	0.50
1:DA:67:U:C2	1:DA:74:A:H2	2.29	0.50
2:DB:110:G:H2'	2:DB:111:U:O4'	2.12	0.50
3:DD:75:ILE:HD13	3:DD:99:ASP:OD1	2.12	0.50
4:DE:134:ILE:HA	4:DE:137:HIS:CD2	2.46	0.50
6:DG:123:ASN:C	6:DG:125:PHE:H	2.15	0.50
7:DH:16:SER:O	7:DH:17:VAL:HG23	2.11	0.50
8:DK:101:LEU:HD23	8:DK:101:LEU:N	2.18	0.50
14:DQ:17:ARG:NH1	14:DQ:17:ARG:CG	2.56	0.50
15:DR:54:ARG:HH11	15:DR:54:ARG:HG2	1.77	0.50
18:DS:95:ILE:O	18:DS:95:ILE:HG12	2.12	0.50
24:DW:51:ARG:CG	24:DW:52:ASP:N	2.75	0.50
23:DZ:11:ARG:HB2	23:DZ:12:PRO:HD2	1.94	0.50
13:A0:78:LYS:O	13:A0:83:ILE:HG13	2.12	0.50
16:A1:111:GLU:O	16:A1:113:ALA:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:49:THR:HB	17:A2:50:PRO:HD2	1.92	0.50
29:A7:10:ARG:O	29:A7:14:LYS:HB2	2.11	0.50
1:AA:1060:U:H4'	1:AA:1061:U:O5'	2.12	0.50
1:AA:1382:G:OP1	56:AA:3473:OHX:N4	2.45	0.50
1:AA:2771:C:H2'	1:AA:2772:C:C6	2.47	0.50
1:AA:311:A:C2	1:AA:328:U:O4	2.64	0.50
2:AB:42:C:O2'	6:AG:67:LYS:HE3	2.12	0.50
1:AA:729:G:OP2	3:AD:13:ARG:NH1	2.45	0.50
7:AH:40:GLU:O	7:AH:41:MET:CB	2.59	0.50
8:AK:86:THR:HG22	8:AK:86:THR:O	2.11	0.50
9:AM:82:LEU:HD12	9:AM:83:LYS:N	2.26	0.50
18:AS:86:LEU:HD12	18:AS:87:PRO:CD	2.41	0.50
1:AA:508:G:C5	18:AS:9:TYR:CE2	3.00	0.50
21:AV:171:ILE:O	21:AV:171:ILE:HG23	2.12	0.50
21:AV:5:LEU:O	21:AV:6:LYS:CB	2.60	0.50
31:BA:1160:G:O6	31:BA:1181:G:C6	2.63	0.50
31:BA:1221:G:O3'	49:BV:77:THR:HG21	2.11	0.50
31:BA:15:G:C2	31:BA:16:A:C4	3.00	0.50
31:BA:415:A:OP2	56:BA:1785:OHX:N5	2.45	0.50
31:BA:531:U:C2	56:BA:1791:OHX:N1	2.79	0.50
31:BA:192:U:O3'	50:BW:57:ARG:HD2	2.12	0.50
31:BA:280:C:C3'	31:BA:281:G:H5'	2.35	0.50
32:BE:139:LYS:O	32:BE:143:GLU:HG3	2.11	0.50
32:BE:212:GLN:O	32:BE:216:SER:HB2	2.11	0.50
34:BG:3:ARG:HG2	34:BG:118:ARG:NH1	2.27	0.50
46:BS:43:LYS:HA	46:BS:48:TRP:HB2	1.94	0.50
31:BA:663:A:H5"	48:BU:61:LYS:NZ	2.27	0.50
31:CA:1011:G:C6	31:CA:1012:U:C4	3.00	0.50
31:CA:1157:A:N6	31:CA:1181:G:C8	2.79	0.50
31:CA:1292:U:O2'	31:CA:1293:G:H5'	2.10	0.50
31:CA:1182:G:O6	56:CA:1792:OHX:N3	2.44	0.50
31:CA:403:C:OP2	34:CG:74:GLN:NE2	2.45	0.50
32:CE:166:ASP:HB3	32:CE:169:LYS:HB3	1.93	0.50
32:CE:22:LYS:HD2	32:CE:35:GLU:OE1	2.12	0.50
36:CI:60:PHE:O	36:CI:61:LEU:HD12	2.12	0.50
37:CJ:122:HIS:O	37:CJ:126:ASP:N	2.41	0.50
42:CO:82:VAL:HG23	42:CO:106:ASP:OD1	2.11	0.50
48:CU:25:THR:O	48:CU:25:THR:HG22	2.12	0.50
1:DA:1015:G:C4	1:DA:1148:A:C2	2.99	0.50
1:DA:1639:U:H4'	1:DA:2699:C:H4'	1.94	0.50
1:DA:2303:G:C2	1:DA:2314:C:N3	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2313:C:H3'	1:DA:2313:C:H6	1.76	0.50
1:DA:2418:A:H2'	1:DA:2419:U:C6	2.47	0.50
1:DA:2872:G:C6	1:DA:2873:A:N1	2.79	0.50
1:DA:40:C:H2'	1:DA:41:C:H6	1.77	0.50
1:DA:435:C:H2'	1:DA:436:C:H5'	1.93	0.50
1:DA:900:A:C5'	1:DA:901:A:OP2	2.59	0.50
6:DG:165:THR:OG1	6:DG:168:GLU:HG3	2.12	0.50
1:DA:2531:A:C4'	7:DH:157:TYR:HE2	2.24	0.50
1:DA:2094:G:H5'	8:DK:25:TYR:CD2	2.47	0.50
8:DK:77:LEU:HD12	8:DK:78:THR:N	2.27	0.50
9:DM:57:ALA:O	9:DM:58:ASP:OD1	2.30	0.50
15:DR:115:ARG:O	15:DR:116:ALA:HB3	2.12	0.50
15:DR:50:ILE:HD12	15:DR:99:LEU:HB2	1.93	0.50
21:DV:132:ASN:ND2	21:DV:159:PRO:HB2	2.26	0.50
24:DW:33:MET:CG	24:DW:37:PHE:HE1	2.25	0.50
26:A4:12:ALA:C	26:A4:24:THR:HG21	2.33	0.50
1:AA:1042:G:H2'	1:AA:1043:C:O4'	2.11	0.50
1:AA:115:C:C2'	1:AA:116:C:H5'	2.42	0.50
1:AA:1312:U:C5'	1:AA:1312:U:H6	2.24	0.50
1:AA:1468:C:H2'	1:AA:1469:A:C8	2.46	0.50
1:AA:2490:G:N2	56:AA:3330:OHX:N6	2.59	0.50
1:AA:2629:A:O2'	1:AA:2630:G:C5'	2.51	0.50
1:AA:662:G:O2'	1:AA:663:G:H5'	2.11	0.50
1:AA:830:G:OP2	56:AA:3556:OHX:N4	2.45	0.50
1:AA:960:A:C8	1:AA:962:G:C8	2.99	0.50
5:AF:128:ALA:O	5:AF:129:PHE:CB	2.59	0.50
5:AF:191:ARG:HB3	5:AF:191:ARG:HH11	1.77	0.50
11:AO:38:GLN:HG3	11:AO:45:LEU:HD13	1.94	0.50
1:AA:2378:A:C5'	14:AQ:23:ARG:NH1	2.74	0.50
19:AT:41:ASN:HD22	19:AT:41:ASN:N	2.10	0.50
31:BA:1016:A:H2'	31:BA:1017:G:O4'	2.12	0.50
31:BA:1173:G:C5	31:BA:1174:G:C8	2.99	0.50
31:BA:685:G:O2'	31:BA:686:U:H5'	2.12	0.50
53:BC:1:C:N4	53:BC:74:A:C2	2.57	0.50
32:BE:87:ARG:NH1	32:BE:220:ASP:OD1	2.33	0.50
37:BJ:22:LEU:HG	37:BJ:97:GLN:HE22	1.77	0.50
41:BN:28:THR:OG1	41:BN:90:GLY:HA3	2.11	0.50
49:BV:62:ILE:HA	49:BV:66:MET:SD	2.52	0.50
50:BW:26:ASN:H	50:BW:26:ASN:ND2	2.05	0.50
50:BW:53:LEU:H	50:BW:53:LEU:CD2	2.24	0.50
31:CA:1034:G:H8	31:CA:1034:G:O5'	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:29:G:O2'	31:CA:30:U:H5'	2.12	0.50
31:CA:374:A:C6	31:CA:375:U:C4	2.99	0.50
31:CA:386:C:C2'	31:CA:387:U:H5'	2.41	0.50
31:CA:838:G:H2'	31:CA:841:U:H5"	1.93	0.50
53:CC:43:G:C2	53:CC:44:A:C8	3.00	0.50
52:CD:14:A:H3'	52:CD:15:G:C5'	2.39	0.50
34:CG:163:GLU:C	34:CG:165:MET:H	2.14	0.50
34:CG:173:TRP:CD1	34:CG:174:LEU:HG	2.47	0.50
31:CA:1371:G:OP1	39:CL:11:LYS:HG2	2.12	0.50
40:CM:58:ASP:O	40:CM:59:SER:C	2.50	0.50
42:CO:46:LYS:HG2	42:CO:47:LYS:N	2.27	0.50
44:CQ:44:LEU:HD12	44:CQ:44:LEU:O	2.11	0.50
45:CR:21:ASP:OD1	45:CR:24:SER:OG	2.17	0.50
46:CS:50:LYS:O	46:CS:51:VAL:HG23	2.11	0.50
30:D8:16:ILE:CD1	30:D8:57:ARG:HG2	2.42	0.50
1:DA:1105:U:O2'	1:DA:1106:G:H5'	2.12	0.50
1:DA:1761:C:N4	1:DA:1762:A:H62	2.09	0.50
1:DA:1783:A:C2	1:DA:2587:A:C5	3.00	0.50
1:DA:1948:G:C2'	1:DA:1949:G:H5'	2.42	0.50
1:DA:2738:A:C2	1:DA:2739:U:H1'	2.47	0.50
1:DA:523:C:C2'	1:DA:524:U:H5'	2.42	0.50
1:DA:807:U:C2'	1:DA:808:G:O5'	2.60	0.50
3:DD:18:VAL:HG23	3:DD:19:ALA:N	2.27	0.50
3:DD:32:SER:HA	3:DD:36:PRO:HD2	1.94	0.50
4:DE:8:LYS:HG2	4:DE:192:ASN:HA	1.94	0.50
15:DR:125:ARG:HB3	15:DR:129:ARG:CZ	2.41	0.50
21:DV:5:LEU:O	21:DV:59:LEU:O	2.29	0.50
13:A0:2:ARG:HG3	13:A0:5:LYS:HZ2	1.75	0.49
22:A3:25:ARG:HD2	22:A3:29:GLN:NE2	2.26	0.49
28:A6:25:LYS:CE	28:A6:27:LYS:HD3	2.42	0.49
1:AA:1109:C:N4	1:AA:1110:G:N2	2.59	0.49
1:AA:1288:U:H4'	1:AA:1289:C:OP2	2.12	0.49
1:AA:1952:A:C6	1:AA:1953:A:C6	2.99	0.49
1:AA:2056:G:N3	1:AA:2056:G:H2'	2.27	0.49
1:AA:2182:G:N2	1:AA:2183:C:O2	2.45	0.49
1:AA:340:A:C2'	1:AA:341:G:H5'	2.42	0.49
1:AA:216:A:C4	1:AA:432:A:C2	3.00	0.49
1:AA:654(S):G:H1'	1:AA:654(T):A:C8	2.47	0.49
1:AA:754:C:H2'	1:AA:755:C:C6	2.47	0.49
1:AA:676:A:H2	1:AA:802:A:H61	1.55	0.49
1:AA:908:C:O2'	1:AA:909:A:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:12:SER:HB2	3:AD:208:LYS:HB3	1.94	0.49
3:AD:145:VAL:HB	3:AD:155:LEU:HB2	1.94	0.49
8:AK:86:THR:HA	8:AK:123:LEU:CD1	2.42	0.49
8:AK:35:LEU:O	8:AK:36:ALA:CB	2.59	0.49
11:AO:35:HIS:O	11:AO:36:LYS:O	2.30	0.49
54:B1:11:U:HO2'	54:B1:12:A:N3	1.48	0.49
31:BA:1336:C:O2	31:BA:1336:C:H2'	2.12	0.49
31:BA:1379:G:O2'	31:BA:1380:U:H5'	2.12	0.49
31:BA:1394:A:H4'	31:BA:1395:C:OP2	2.11	0.49
31:BA:148:G:O6	56:BA:1756:OHX:N2	2.46	0.49
31:BA:179:A:C2'	31:BA:180:U:O5'	2.60	0.49
31:BA:600:C:H2'	31:BA:600:C:O2	2.11	0.49
52:BD:16:C:N4	52:BD:68:A:H2'	2.27	0.49
52:BD:38:MIA:H111	52:BD:39:A:H1'	1.94	0.49
35:BH:59:GLY:O	35:BH:62:ALA:HB3	2.11	0.49
37:BJ:15:ASP:OD1	37:BJ:18:TYR:HD1	1.94	0.49
40:BM:81:THR:OG1	40:BM:82:ILE:N	2.45	0.49
46:BS:39:TYR:CD1	46:BS:40:ASP:N	2.78	0.49
31:CA:1111:A:N7	31:CA:1112:C:C5	2.80	0.49
31:CA:1354:C:O2	31:CA:1369:C:O2	2.30	0.49
31:CA:1446:A:N6	15:DR:118:ARG:NH2	2.59	0.49
31:CA:284:G:H2'	31:CA:285:G:C8	2.47	0.49
31:CA:43:C:H42	31:CA:399:G:H1	1.59	0.49
31:CA:436:C:O2'	31:CA:437:U:H5'	2.12	0.49
31:CA:503:C:O2'	31:CA:504:C:H5'	2.10	0.49
31:CA:639:G:N2	31:CA:640:A:C4	2.80	0.49
31:CA:756:C:H2'	31:CA:757:U:O4'	2.12	0.49
31:CA:87:A:N1	31:CA:88:C:C5	2.80	0.49
31:CA:965:A:C2	31:CA:969:A:C2	3.00	0.49
53:CC:2:G:O6	53:CC:72:C:N3	2.44	0.49
33:CF:106:VAL:O	33:CF:109:PRO:HD3	2.11	0.49
34:CG:62:GLN:HE22	34:CG:65:ARG:HH21	1.60	0.49
38:CK:109:ILE:HD11	38:CK:111:ILE:HG12	1.94	0.49
39:CL:4:TYR:O	39:CL:18:PHE:HA	2.12	0.49
39:CL:5:TYR:CD2	39:CL:18:PHE:HE2	2.29	0.49
39:CL:97:LYS:N	39:CL:98:PRO:CD	2.75	0.49
44:CQ:9:LYS:HA	44:CQ:12:ARG:HD3	1.93	0.49
36:CI:91:VAL:HG13	48:CU:72:ARG:NH2	2.27	0.49
50:CW:50:GLU:N	50:CW:100:ILE:HG12	2.27	0.49
16:D1:110:VAL:HA	16:D1:113:ALA:HB3	1.94	0.49
16:D1:19:LYS:O	16:D1:21:ALA:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:D2:35:LEU:H	17:D2:35:LEU:HD23	1.77	0.49
17:D2:88:ARG:O	17:D2:89:GLN:O	2.30	0.49
28:D6:24:GLU:CG	28:D6:25:LYS:H	2.17	0.49
1:DA:1005:C:O2	1:DA:1143:A:C6	2.65	0.49
1:DA:1060:U:O4'	1:DA:1062:G:H5'	2.12	0.49
1:DA:1140:C:O3'	9:DM:25:ARG:NH2	2.43	0.49
1:DA:1168:G:C2	1:DA:1182:A:C2	3.00	0.49
1:DA:1475:G:H5'	1:DA:1476:C:OP2	2.12	0.49
1:DA:1678:G:N2	1:DA:1989:G:N2	2.39	0.49
1:DA:1858:G:C6	1:DA:1883:G:C6	3.00	0.49
1:DA:2371:G:O2'	28:D6:46:HIS:CD2	2.62	0.49
1:DA:2439:A:H8	1:DA:2439:A:C5'	2.23	0.49
1:DA:2466:C:C2'	1:DA:2467:C:H5'	2.42	0.49
1:DA:548:A:H2'	1:DA:549:G:O4'	2.12	0.49
1:DA:747:U:O2	1:DA:2014:A:H1'	2.12	0.49
1:DA:796:C:C2'	1:DA:797:C:O5'	2.60	0.49
1:DA:84:A:H5"	20:DU:8:LYS:HG2	1.94	0.49
43:CP:93:ARG:HH11	1:DA:887:A:H1'	1.76	0.49
1:DA:918:A:H1'	2:DB:80:U:O2'	2.11	0.49
1:DA:920:G:O2'	1:DA:921:G:H5'	2.11	0.49
3:DD:176:ARG:NH1	3:DD:176:ARG:CG	2.65	0.49
3:DD:231:HIS:ND1	3:DD:232:PRO:CD	2.73	0.49
6:DG:67:LYS:HD2	26:D4:6:HIS:NE2	2.27	0.49
1:DA:2749:A:H1'	7:DH:63:SER:OG	2.12	0.49
11:DO:132:LYS:C	11:DO:134:ALA:H	2.15	0.49
1:DA:943:U:OP2	11:DO:36:LYS:HE3	2.12	0.49
11:DO:39:LYS:HB2	11:DO:45:LEU:HD21	1.94	0.49
17:A2:3:ALA:HA	17:A2:40:LEU:O	2.12	0.49
1:AA:1373:A:H2'	1:AA:1374:G:O4'	2.11	0.49
1:AA:1586:A:H3'	1:AA:1587:A:C8	2.47	0.49
1:AA:1638:C:H2'	1:AA:1639:U:O4'	2.12	0.49
1:AA:2182:G:C2	1:AA:2183:C:C2	3.00	0.49
1:AA:2248:C:C2'	1:AA:2249:U:H5'	2.42	0.49
1:AA:578:A:OP1	1:AA:1255:U:O2'	2.20	0.49
1:AA:869:G:H2'	1:AA:870:A:H8	1.77	0.49
5:AF:144:LYS:C	5:AF:146:ALA:N	2.61	0.49
5:AF:172:TRP:CE3	5:AF:173:VAL:HG23	2.48	0.49
8:AK:131:LYS:CB	8:AK:132:PRO:HA	2.23	0.49
18:AS:59:VAL:HG12	18:AS:60:ASN:OD1	2.12	0.49
23:AZ:40:ARG:HH21	23:AZ:42:GLN:HG2	1.76	0.49
31:BA:135:C:H2'	31:BA:136:C:C5'	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:49:ARG:HH22	31:BA:1423:G:P	2.35	0.49
31:BA:129(A):G:N2	31:BA:191(A):G:N7	2.60	0.49
31:BA:266:G:N2	31:BA:269:C:C5	2.80	0.49
31:BA:51:A:C2	31:BA:353:A:N1	2.80	0.49
31:BA:376:G:O3'	46:BS:5:ARG:HD2	2.11	0.49
31:BA:606:G:H2'	31:BA:606:G:N3	2.27	0.49
31:BA:610:G:O2'	31:BA:611:A:H5'	2.12	0.49
31:BA:723:U:O2	31:BA:723:U:C2'	2.59	0.49
31:BA:742:G:O6	56:BA:1792:OHX:N5	2.45	0.49
53:BC:48:U:C2'	53:BC:49:C:OP2	2.59	0.49
32:BE:4:GLU:O	32:BE:5:ILE:HG23	2.13	0.49
33:BF:92:ALA:HA	33:BF:95:THR:HB	1.94	0.49
34:BG:76:ARG:CD	34:BG:207:TYR:HE2	2.25	0.49
40:BM:5:ARG:HB2	40:BM:73:ASP:CG	2.31	0.49
50:BW:71:THR:HG22	50:BW:72:LEU:H	1.77	0.49
31:CA:1024:G:H2'	31:CA:1025:U:C5	2.46	0.49
31:CA:1042:G:H2'	31:CA:1043:C:O4'	2.12	0.49
31:CA:10:A:H2'	31:CA:11:G:H8	1.77	0.49
31:CA:1127:G:C2	31:CA:1145:C:C2	3.00	0.49
31:CA:1322:C:O2	31:CA:1322:C:C2'	2.53	0.49
31:CA:577:G:N7	56:CA:1771:OHX:N2	2.60	0.49
31:CA:306:G:O5'	31:CA:306:G:H8	1.95	0.49
31:CA:491:G:C4	31:CA:492:G:C8	3.00	0.49
31:CA:697:U:H2'	31:CA:698:G:H5'	1.93	0.49
31:CA:784:C:H4'	1:DA:1837:C:OP1	2.12	0.49
31:CA:814:A:H2'	31:CA:816:A:H5"	1.92	0.49
31:CA:922:G:H4'	35:CH:20:GLN:HA	1.93	0.49
31:CA:956:U:C2	31:CA:1225:A:H2	2.30	0.49
53:CC:48:U:C1'	53:CC:49:C:O5'	2.59	0.49
52:CD:11:C:C4	52:CD:12:C:C5	3.00	0.49
32:CE:45:GLN:O	32:CE:47:THR:N	2.45	0.49
33:CF:113:ALA:HB3	33:CF:114:PRO:CD	2.34	0.49
33:CF:18:TRP:HE1	44:CQ:55:GLY:N	2.11	0.49
34:CG:138:TYR:C	34:CG:138:TYR:CD2	2.86	0.49
34:CG:70:ILE:HG23	34:CG:75:PHE:HB2	1.95	0.49
35:CH:90:VAL:O	35:CH:120:THR:HA	2.11	0.49
36:CI:8:ILE:H	36:CI:8:ILE:HD12	1.77	0.49
42:CO:68:ALA:HA	42:CO:98:TYR:O	2.12	0.49
43:CP:116:THR:O	43:CP:116:THR:HG22	2.13	0.49
43:CP:40:ASN:HB3	43:CP:43:THR:CG2	2.40	0.49
17:D2:77:ALA:O	17:D2:78:LYS:HG3	2.09	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1048:A:H5'	1:DA:1049:C:OP2	2.12	0.49
1:DA:107:C:C2	1:DA:108:U:C5	3.00	0.49
1:DA:1392:A:N6	1:DA:1393:A:N6	2.60	0.49
1:DA:1404:C:C2'	1:DA:1405:U:H5'	2.42	0.49
1:DA:1577:C:H2'	1:DA:1578:U:C1'	2.43	0.49
1:DA:1349:A:N6	1:DA:1598:C:N4	2.60	0.49
1:DA:1643:G:H2'	1:DA:1644:C:O5'	2.11	0.49
1:DA:1731:G:H2'	1:DA:1732:A:O4'	2.12	0.49
1:DA:2276:G:OP1	12:DP:84:GLY:HA2	2.12	0.49
1:DA:2287:A:N6	1:DA:2344:U:C2	2.81	0.49
1:DA:2665:A:H2'	1:DA:2666:C:O4'	2.11	0.49
1:DA:2688:U:H1'	1:DA:2721:A:N6	2.26	0.49
1:DA:2233:U:OP1	56:DA:3258:OHX:N2	2.45	0.49
1:DA:733:G:O5'	1:DA:733:G:H8	1.95	0.49
1:DA:893:C:C4'	1:DA:894:C:OP1	2.60	0.49
4:DE:14:ILE:HB	15:DR:14:TYR:CE1	2.47	0.49
4:DE:199:ARG:HB3	4:DE:200:GLU:OE1	2.13	0.49
7:DH:117:PRO:HB3	7:DH:123:PHE:CZ	2.46	0.49
7:DH:141:VAL:HG12	7:DH:142:GLY:N	2.25	0.49
9:DM:123:TYR:CZ	9:DM:129:PRO:HD3	2.47	0.49
1:DA:2378:A:H5"	14:DQ:23:ARG:HH12	1.77	0.49
20:DU:94:LYS:O	20:DU:101:LYS:HB2	2.12	0.49
12:DP:35:VAL:HG21	21:DV:81:ARG:HH21	1.77	0.49
23:DZ:67:ILE:N	23:DZ:68:PRO:CD	2.74	0.49
16:A1:92:ARG:HB3	17:A2:11:GLN:HE22	1.76	0.49
26:A4:36:CYS:C	26:A4:39:CYS:SG	2.90	0.49
1:AA:1183:G:O6	56:AA:3412:OHX:N6	2.46	0.49
1:AA:1206:G:C4	1:AA:1207:C:C5	3.00	0.49
1:AA:1198:U:O2	1:AA:1249:U:H1'	2.11	0.49
1:AA:1824:G:OP1	3:AD:52:ARG:HD3	2.11	0.49
1:AA:528:A:C2	1:AA:2043:C:H5'	2.46	0.49
1:AA:2143:C:N3	1:AA:2149:G:C2	2.80	0.49
1:AA:2481:G:O2'	1:AA:2482:G:P	2.70	0.49
1:AA:2667:C:H2'	1:AA:2668:G:O4'	2.13	0.49
1:AA:2863:C:O2'	1:AA:2864:G:H5'	2.12	0.49
1:AA:511:U:O4	1:AA:512:G:N1	2.45	0.49
1:AA:945:A:N6	1:AA:2448:A:C5	2.80	0.49
3:AD:35:LYS:HE2	3:AD:65:ILE:HG22	1.94	0.49
8:AK:62:LYS:O	8:AK:66:GLU:HG2	2.12	0.49
9:AM:86:PRO:HD2	9:AM:89:LYS:HB3	1.93	0.49
10:AN:24:VAL:HG23	10:AN:33:ALA:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:26:TYR:O	12:AP:27:VAL:O	2.30	0.49
31:BA:1004:A:C2	31:BA:1005:A:C2	3.00	0.49
31:BA:1267:C:C5	31:BA:1268:A:N7	2.81	0.49
31:BA:1267:C:H5"	31:BA:1268:A:OP2	2.12	0.49
31:BA:1340:A:C2	31:BA:1341:U:O2	2.65	0.49
31:BA:148:G:C2	31:BA:149:A:C8	3.01	0.49
31:BA:282:A:H2'	31:BA:282:A:N3	2.26	0.49
31:BA:557:G:N1	31:BA:558:G:C2	2.80	0.49
52:BB:77:C:H2'	52:BB:78:C:C6	2.46	0.49
33:BF:15:THR:HG21	33:BF:181:ASN:HA	1.93	0.49
44:BQ:44:LEU:HD12	44:BQ:44:LEU:C	2.33	0.49
50:BW:34:LYS:O	50:BW:35:THR:C	2.51	0.49
31:CA:1072:G:C5	31:CA:1073:U:C4	3.01	0.49
31:CA:1087:G:OP2	56:CA:1735:OHX:N3	2.45	0.49
31:CA:1197:G:C2	31:CA:1198:G:C8	3.01	0.49
31:CA:1278:U:C2'	31:CA:1278:U:O2	2.59	0.49
31:CA:1366:C:OP1	39:CL:117:HIS:CE1	2.65	0.49
31:CA:54:C:C4	31:CA:352:C:H5	2.30	0.49
31:CA:491:G:C5	31:CA:492:G:C8	3.00	0.49
31:CA:518:C:H4'	31:CA:519:C:O5'	2.12	0.49
52:CD:48:C:H2'	52:CD:49:A:C8	2.47	0.49
33:CF:66:VAL:HG12	33:CF:67:THR:N	2.25	0.49
34:CG:127:THR:HG21	34:CG:149:ALA:CB	2.42	0.49
36:CI:2:ARG:O	36:CI:66:GLU:HA	2.10	0.49
31:CA:1298:C:OP2	37:CJ:114:ARG:NH2	2.43	0.49
39:CL:114:TYR:N	39:CL:114:TYR:HD2	2.05	0.49
31:CA:363:A:C5	42:CO:31:PRO:HD2	2.47	0.49
26:D4:34:GLU:CD	26:D4:34:GLU:H	2.15	0.49
27:D5:4:HIS:HB3	27:D5:5:PRO:HD3	1.72	0.49
30:D8:34:TRP:C	30:D8:36:LYS:N	2.63	0.49
1:DA:1050:A:C5	1:DA:2751:G:N1	2.81	0.49
1:DA:1545(A):A:N7	1:DA:1546:C:O2	2.45	0.49
1:DA:1592:C:O2'	1:DA:1593:G:H5'	2.11	0.49
1:DA:1776:G:C2	1:DA:1777:U:C6	3.01	0.49
1:DA:2350:C:H2'	1:DA:2351:G:O4'	2.12	0.49
1:DA:2291:U:O2'	1:DA:2374:C:O2	2.28	0.49
1:DA:2468:G:O6	56:DA:3173:OHX:N4	2.45	0.49
1:DA:270(I):G:H1	1:DA:270(Q):C:H42	1.60	0.49
1:DA:319:C:C2	1:DA:333:G:N2	2.80	0.49
1:DA:779:U:OP1	3:DD:49:ILE:CG2	2.60	0.49
6:DG:33:ARG:H	6:DG:162:THR:HG23	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:132:ALA:O	9:DM:133:GLN:C	2.50	0.49
9:DM:56:ASN:HA	9:DM:125:GLY:C	2.33	0.49
1:DA:911:A:H2'	12:DP:9:TYR:OH	2.12	0.49
14:DQ:87:PHE:HD1	14:DQ:112:PHE:CE2	2.30	0.49
13:A0:12:ARG:HH11	13:A0:12:ARG:HG3	1.77	0.49
22:A3:49:LYS:H	22:A3:80:HIS:CG	2.30	0.49
1:AA:592:G:N3	30:A8:4:MET:HE1	2.28	0.49
1:AA:1057:A:C8	1:AA:1086:A:C4	3.01	0.49
1:AA:1710:C:O2'	1:AA:1711:C:H5'	2.12	0.49
1:AA:1731:G:C2'	1:AA:1732:A:O5'	2.60	0.49
1:AA:1833:U:C2	1:AA:1834:U:C6	3.00	0.49
1:AA:2038:G:H2'	1:AA:2039:C:C6	2.48	0.49
1:AA:2154:G:H2'	1:AA:2155:G:H8	1.77	0.49
1:AA:2315:G:C6	1:AA:2316:C:C4	3.01	0.49
1:AA:2723:C:O3'	13:A0:1:MET:HE3	2.11	0.49
1:AA:2877:G:H2'	1:AA:2878:U:O4'	2.11	0.49
1:AA:2809:A:N6	1:AA:2892:A:C8	2.80	0.49
1:AA:34:C:O4'	1:AA:34:C:OP2	2.30	0.49
1:AA:62:C:N3	1:AA:92:G:N2	2.52	0.49
1:AA:643:A:HO2'	1:AA:644:A:H5'	1.75	0.49
6:AG:129:GLY:O	6:AG:161:THR:HB	2.12	0.49
8:AK:140:LEU:H	8:AK:140:LEU:CD2	2.16	0.49
8:AK:64:GLU:C	8:AK:66:GLU:N	2.61	0.49
1:AA:2415:G:H4'	11:AO:67:MET:N	2.27	0.49
12:AP:21:THR:OG1	12:AP:101:ARG:N	2.45	0.49
15:AR:13:ARG:HG3	15:AR:13:ARG:O	2.11	0.49
15:AR:56:GLY:O	15:AR:59:THR:CG2	2.57	0.49
19:AT:5:TYR:CZ	24:AW:30:ARG:HB2	2.47	0.49
31:BA:1305:G:N2	31:BA:1331:G:C4	2.80	0.49
31:BA:1375:A:C2	31:BA:1376:U:C2	3.01	0.49
31:BA:1466:C:H2'	31:BA:1467:G:O4'	2.13	0.49
31:BA:191(C):G:C6	31:BA:191(D):U:N3	2.80	0.49
31:BA:589:C:C4	31:BA:590:C:C5	3.00	0.49
31:BA:890:G:N2	31:BA:906:G:H2'	2.27	0.49
52:BD:61:G:H2'	52:BD:62:G:C8	2.48	0.49
36:BI:23:LYS:NZ	36:BI:42:GLU:OE1	2.38	0.49
37:BJ:26:PHE:CD1	37:BJ:62:PHE:HE1	2.30	0.49
38:BK:137:VAL:HG12	38:BK:138:TRP:N	2.27	0.49
39:BL:55:ALA:HB1	39:BL:59:PHE:CD1	2.47	0.49
46:BS:50:LYS:HD3	46:BS:51:VAL:H	1.76	0.49
31:CA:1009:G:C2	31:CA:1010:G:C8	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1031:G:O6	31:CA:1032:A:N6	2.44	0.49
31:CA:1129:C:C5	31:CA:1133:G:O6	2.65	0.49
31:CA:1160:G:H22	31:CA:1177:G:H21	1.61	0.49
31:CA:149:A:C2	31:CA:150:C:C2	3.01	0.49
31:CA:198:G:C2	31:CA:199:G:C4	3.00	0.49
31:CA:305:G:O6	56:CA:1810:OHX:N2	2.45	0.49
31:CA:391:G:C6	31:CA:392:G:C5	3.00	0.49
31:CA:931:C:C2'	31:CA:932:C:O5'	2.61	0.49
32:CE:115:LEU:O	32:CE:115:LEU:HG	2.11	0.49
32:CE:121:LEU:HD22	32:CE:127:ILE:HD13	1.95	0.49
34:CG:159:ARG:O	34:CG:162:LEU:N	2.40	0.49
35:CH:145:LYS:O	35:CH:149:GLU:HG2	2.12	0.49
40:CM:56:HIS:C	40:CM:58:ASP:N	2.66	0.49
42:CO:23:LYS:HD3	42:CO:23:LYS:H	1.76	0.49
31:CA:742:G:OP2	45:CR:35:ARG:NH2	2.45	0.49
31:CA:1320:C:C2	49:CV:72:GLY:HA3	2.48	0.49
16:D1:27:LEU:N	16:D1:27:LEU:CD2	2.75	0.49
1:DA:1354:A:H2'	1:DA:1355:G:O4'	2.13	0.49
1:DA:1387:C:C2	1:DA:1388:G:C8	3.00	0.49
1:DA:2299:G:C6	1:DA:2318:G:C8	3.01	0.49
1:DA:945:A:C4	1:DA:2448:A:N3	2.80	0.49
1:DA:702:G:C2	1:DA:731:C:C2	3.00	0.49
1:DA:887:A:N3	1:DA:887:A:H2'	2.27	0.49
2:DB:13:A:N1	2:DB:69:G:O2'	2.34	0.49
2:DB:15:A:C5'	2:DB:16:G:C8	2.91	0.49
3:DD:16:MET:HB2	3:DD:207:GLY:HA3	1.94	0.49
3:DD:30:GLU:HG3	3:DD:63:ARG:CZ	2.42	0.49
5:DF:24:LEU:CB	5:DF:25:PRO:CD	2.85	0.49
5:DF:65:TRP:HB3	5:DF:66:PRO:HD2	1.94	0.49
10:DN:119:PRO:HB2	15:DR:68:TYR:CZ	2.48	0.49
18:DS:54:ALA:HB1	18:DS:107:LEU:HD22	1.93	0.49
17:A2:35:LEU:HD21	17:A2:57:VAL:HG13	1.94	0.49
1:AA:1017:G:C6	1:AA:1018:C:C5	3.00	0.49
1:AA:1312:U:H6	1:AA:1312:U:H5'	1.76	0.49
1:AA:2157:G:HO2'	1:AA:2158:A:P	2.36	0.49
1:AA:2255:G:H21	12:AP:85:LYS:CE	1.95	0.49
1:AA:2308:G:N3	1:AA:2308:G:H2'	2.27	0.49
1:AA:2884:U:C2'	1:AA:2885:C:H5'	2.42	0.49
1:AA:347:A:C2	1:AA:348:G:C5	3.01	0.49
1:AA:880:G:N2	1:AA:898:C:C2	2.81	0.49
3:AD:68:LYS:HB3	3:AD:70:TRP:CZ3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:63:ILE:HD12	6:AG:141:PHE:CD2	2.48	0.49
7:AH:122:THR:O	7:AH:134:SER:OG	2.31	0.49
19:AT:7:VAL:HB	19:AT:8:ILE:HD12	1.93	0.49
31:BA:1007:C:H42	31:BA:1022:G:H1	1.59	0.49
31:BA:1152:A:C6	31:BA:1153:C:C4	3.01	0.49
31:BA:1263:C:O2'	31:BA:1264:C:H5'	2.12	0.49
31:BA:422:C:H2'	31:BA:422:C:O2	2.12	0.49
31:BA:526:C:OP2	42:BO:91:LYS:HE3	2.12	0.49
31:BA:8:A:N6	34:BG:205:GLU:O	2.44	0.49
31:BA:956:U:O2'	31:BA:957:U:H5'	2.12	0.49
52:BB:10:C:H2'	52:BB:11:C:H6	1.74	0.49
32:BE:126:GLU:O	32:BE:126:GLU:HG2	2.12	0.49
35:BH:150:ARG:HB2	35:BH:150:ARG:CZ	2.41	0.49
31:CA:1047:G:H2'	31:CA:1048:G:H5'	1.93	0.49
31:CA:1394:A:C5	31:CA:1501:C:H4'	2.48	0.49
31:CA:421:U:C2'	31:CA:421:U:O2	2.57	0.49
31:CA:429:U:H1'	31:CA:430:A:H5"	1.94	0.49
31:CA:467:G:N3	31:CA:467:G:H2'	2.26	0.49
31:CA:509:A:H5"	34:CG:55:ALA:HB2	1.95	0.49
31:CA:577:G:O2'	31:CA:578:C:H5'	2.12	0.49
31:CA:678:U:H2'	31:CA:679:C:C6	2.47	0.49
31:CA:960:U:O2	31:CA:960:U:C2'	2.60	0.49
52:CB:51:C:H3'	52:CB:52:G:H8	1.66	0.49
32:CE:187:LEU:HA	32:CE:201:ILE:HB	1.93	0.49
34:CG:118:ARG:HA	34:CG:121:VAL:CG2	2.39	0.49
34:CG:111:ALA:HB2	34:CG:120:LEU:CD1	2.42	0.49
34:CG:108:LEU:HD11	34:CG:174:LEU:HB3	1.94	0.49
35:CH:62:ALA:O	35:CH:63:ARG:C	2.50	0.49
35:CH:80:ILE:HG22	38:CK:104:ARG:NH2	2.28	0.49
40:CM:50:ILE:HA	40:CM:60:ARG:HB3	1.93	0.49
43:CP:15:VAL:HG12	43:CP:45:VAL:HG22	1.93	0.49
48:CU:23:LYS:H	48:CU:26:LEU:HD11	1.77	0.49
17:D2:69:LYS:O	17:D2:70:ILE:HG12	2.12	0.49
17:D2:99:ILE:O	17:D2:100:ARG:HB3	2.12	0.49
1:DA:2271:G:OP1	22:D3:18:ALA:HB1	2.12	0.49
30:D8:30:ARG:O	30:D8:31:HIS:O	2.30	0.49
1:DA:1011:G:C6	1:DA:1013:C:N3	2.80	0.49
1:DA:1025:G:OP1	1:DA:1025:G:H8	1.95	0.49
1:DA:996:A:N6	1:DA:1160:G:C6	2.80	0.49
1:DA:1359:A:C8	1:DA:1372:U:O4	2.66	0.49
1:DA:1819:A:H4'	1:DA:1820:U:O5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:350:U:OP2	56:DA:3374:OHX:N3	2.45	0.49
1:DA:471:A:OP2	1:DA:471:A:H8	1.94	0.49
1:DA:524:U:H2'	1:DA:525:U:C6	2.33	0.49
1:DA:641:C:H2'	1:DA:642:G:H5'	1.94	0.49
3:DD:70:TRP:CH2	3:DD:150:LYS:HA	2.47	0.49
4:DE:58:ARG:C	4:DE:60:ASN:N	2.63	0.49
5:DF:65:TRP:HB3	5:DF:66:PRO:CD	2.43	0.49
7:DH:139:GLN:HG3	7:DH:140:LYS:N	2.28	0.49
7:DH:149:ARG:HA	7:DH:162:ILE:HG21	1.94	0.49
7:DH:20:ALA:HB1	7:DH:21:PRO:HD2	1.94	0.49
7:DH:72:ILE:O	7:DH:76:VAL:HG23	2.12	0.49
9:DM:57:ALA:H	9:DM:124:ALA:HA	1.77	0.49
11:DO:31:ALA:C	11:DO:33:ARG:H	2.16	0.49
12:DP:34:LEU:HD11	12:DP:129:THR:HB	1.94	0.49
26:A4:42:PHE:CZ	26:A4:43:TYR:HB2	2.47	0.49
1:AA:1316:U:H2'	1:AA:1317:A:C8	2.47	0.49
1:AA:1376:C:O2'	1:AA:1377:G:H5'	2.12	0.49
1:AA:1545(A):A:C2'	1:AA:1546:C:H5'	2.41	0.49
1:AA:16:G:O6	56:AA:3384:OHX:N6	2.46	0.49
1:AA:205:G:O2'	1:AA:206:U:OP2	2.26	0.49
1:AA:2298:A:N6	1:AA:2318:G:H1'	2.28	0.49
1:AA:2521:C:H42	1:AA:2544:G:H1	1.61	0.49
1:AA:2022:U:O2'	1:AA:2617:C:H5'	2.12	0.49
1:AA:2795:G:H3'	1:AA:2797:U:H5"	1.95	0.49
1:AA:2840:C:H2'	1:AA:2841:C:C6	2.46	0.49
1:AA:2846:G:H2'	1:AA:2847:U:H6	1.76	0.49
1:AA:566:U:H5	17:A2:78:LYS:HG2	1.77	0.49
1:AA:654(I):C:H3'	1:AA:654(I):C:O2	2.12	0.49
1:AA:90:U:H4'	1:AA:91:A:H8	1.78	0.49
3:AD:52:ARG:HB2	3:AD:53:PHE:CD2	2.48	0.49
19:AT:26:TYR:CD1	19:AT:89:ILE:HD13	2.48	0.49
20:AU:77:PRO:O	20:AU:78:ALA:CB	2.61	0.49
31:BA:1143:G:H1	31:BA:1144:G:N2	2.10	0.49
31:BA:1263:C:H2'	31:BA:1264:C:C6	2.47	0.49
31:BA:183:G:H2'	31:BA:184:G:O4'	2.12	0.49
31:BA:255:G:H2'	31:BA:256:U:C6	2.48	0.49
31:BA:292:G:N2	31:BA:309:G:C4	2.80	0.49
31:BA:562:C:O2	42:BO:15:ARG:O	2.31	0.49
31:BA:86:U:O3'	31:BA:87:A:H4'	2.13	0.49
52:BB:52:G:OP2	52:BB:52:G:H8	1.96	0.49
33:BF:6:HIS:NE2	33:BF:184:TYR:CE2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BJ:119:ARG:C	37:BJ:121:ALA:N	2.66	0.49
39:BL:16:ARG:O	39:BL:63:ILE:HG23	2.13	0.49
42:BO:6:THR:N	42:BO:9:GLN:HE21	2.03	0.49
49:BV:41:VAL:HG22	49:BV:67:VAL:O	2.12	0.49
31:CA:1127:G:N2	31:CA:1144:G:N2	2.60	0.49
31:CA:1069:C:H4'	31:CA:1192:C:O2	2.13	0.49
31:CA:1253:G:O2'	31:CA:1254:C:H5'	2.12	0.49
31:CA:129(A):G:C6	31:CA:188:U:H4'	2.47	0.49
31:CA:257:G:H2'	31:CA:258:G:O4'	2.13	0.49
31:CA:298:A:H8	31:CA:298:A:O5'	1.95	0.49
31:CA:613:C:H3'	31:CA:613:C:C6	2.48	0.49
31:CA:780:A:H2'	31:CA:781:A:OP2	2.12	0.49
31:CA:987:G:H2'	31:CA:988:G:C8	2.47	0.49
52:CB:55:U:H2'	52:CB:56:U:O4'	2.13	0.49
52:CB:6:G:O2'	52:CB:7:G:P	2.71	0.49
32:CE:114:ARG:HA	32:CE:117:GLU:HB2	1.95	0.49
34:CG:24:GLU:O	34:CG:27:TYR:HB3	2.12	0.49
35:CH:6:PHE:HB2	35:CH:34:VAL:HG22	1.93	0.49
37:CJ:79:ARG:HD3	37:CJ:84:ASN:OD1	2.13	0.49
43:CP:84:ILE:HG22	43:CP:86:CYS:HB2	1.95	0.49
46:CS:43:LYS:HG2	46:CS:48:TRP:CD1	2.47	0.49
47:CT:81:ARG:HE	47:CT:84:LEU:CD1	2.25	0.49
47:CT:86:GLU:O	47:CT:90:ILE:HG12	2.13	0.49
1:DA:1688:U:O2	1:DA:1700:A:H5'	2.13	0.49
1:DA:1913:A:H4'	1:DA:1914:C:C5'	2.43	0.49
1:DA:2360:A:H2'	1:DA:2361:A:O4'	2.13	0.49
1:DA:2418:A:C4	1:DA:2419:U:C6	3.00	0.49
1:DA:2527:C:C4	1:DA:2528:U:C5	3.01	0.49
1:DA:1050:A:C6	1:DA:2751:G:C6	3.01	0.49
1:DA:322:A:C5	1:DA:340:A:C2	3.00	0.49
2:DB:5:C:O2'	2:DB:27:C:O2	2.30	0.49
1:DA:2224:G:OP1	3:DD:268:ARG:NH1	2.46	0.49
5:DF:134:GLY:O	5:DF:166:ALA:HA	2.12	0.49
1:DA:1036:G:OP1	7:DH:59:ARG:N	2.45	0.49
9:DM:120:LEU:HD21	9:DM:122:VAL:HG23	1.93	0.49
14:DQ:42:ASP:C	14:DQ:44:LYS:H	2.15	0.49
18:DS:62:HIS:O	18:DS:63:ASP:O	2.30	0.49
20:DU:52:SER:OG	20:DU:56:PRO:HA	2.12	0.49
1:AA:1173:G:N1	1:AA:1175:U:O4	2.45	0.49
1:AA:1265:A:H8	1:AA:1265:A:OP1	1.95	0.49
1:AA:1448:G:H1'	1:AA:1528:A:H62	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1567:A:C5'	3:AD:58:HIS:CD2	2.96	0.49
1:AA:2236:C:C2'	1:AA:2237:G:H5'	2.42	0.49
1:AA:2468:G:O2'	1:AA:2469:A:H2	1.96	0.49
1:AA:325:G:N2	1:AA:326:G:C4	2.81	0.49
1:AA:1492:G:O6	56:AA:3529:OHX:N3	2.45	0.49
3:AD:240:ALA:O	3:AD:241:PRO:O	2.30	0.49
8:AK:125:GLU:OE1	8:AK:141:LYS:HA	2.12	0.49
8:AK:79:ILE:HG22	8:AK:81:VAL:HG13	1.95	0.49
12:AP:77:LYS:O	12:AP:78:PRO:O	2.30	0.49
21:AV:115:GLY:HA3	21:AV:174:VAL:HG11	1.95	0.49
31:BA:1253:G:H1	31:BA:1284:C:H42	1.61	0.49
31:BA:143:A:N3	31:BA:143:A:H2'	2.28	0.49
31:BA:158:G:O2'	31:BA:159:G:H5'	2.12	0.49
31:BA:188:U:O2'	31:BA:189:U:H5'	2.13	0.49
31:BA:417:C:H2'	31:BA:418:C:C6	2.45	0.49
31:BA:592:G:C6	31:BA:648:A:C6	3.00	0.49
33:BF:116:VAL:HG21	33:BF:202:ILE:HD11	1.93	0.49
31:BA:1190:G:OP1	33:BF:4:LYS:HA	2.12	0.49
35:BH:63:ARG:HA	35:BH:66:MET:HE2	1.94	0.49
36:BI:61:LEU:O	36:BI:62:TRP:CB	2.61	0.49
45:BR:18:PHE:CE1	45:BR:21:ASP:HB2	2.47	0.49
48:BU:73:ALA:CB	48:BU:79:LEU:HD12	2.43	0.49
31:CA:1190:G:H3'	31:CA:1190:G:C8	2.47	0.49
31:CA:1346:A:C5	37:CJ:10:ARG:NH1	2.80	0.49
31:CA:1382:C:H2'	31:CA:1383:C:C6	2.47	0.49
31:CA:980:C:H5'	31:CA:981:U:H5	1.77	0.49
32:CE:208:ILE:HA	32:CE:211:ILE:HD12	1.95	0.49
38:CK:65:TYR:HA	38:CK:79:VAL:HG23	1.95	0.49
42:CO:75:HIS:CD2	42:CO:77:LEU:N	2.75	0.49
1:DA:126:A:O5'	29:D7:19:ARG:HG3	2.12	0.49
1:DA:1047:G:H2'	1:DA:1110:G:N1	2.28	0.49
1:DA:1169:G:C4	1:DA:1170:G:H1'	2.48	0.49
1:DA:1217:C:OP2	16:D1:15:LYS:HE3	2.13	0.49
1:DA:1779:U:C6	1:DA:1783:A:N7	2.81	0.49
1:DA:2255:G:H2'	1:DA:2256:G:H5'	1.94	0.49
1:DA:2296:U:H4'	1:DA:2297:C:OP1	2.13	0.49
1:DA:2299:G:N1	1:DA:2318:G:C8	2.80	0.49
1:DA:1929:G:OP1	56:DA:3111:OHX:N2	2.45	0.49
1:DA:724:U:OP2	56:DA:3401:OHX:N6	2.45	0.49
1:DA:351:G:OP1	56:DA:3486:OHX:N3	2.45	0.49
1:DA:247:G:H4'	1:DA:386:G:C5	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:114:ALA:HB3	4:DE:160:TYR:HB3	1.94	0.49
4:DE:203:LYS:O	4:DE:204:ALA:CB	2.60	0.49
5:DF:204:ASN:OD1	5:DF:204:ASN:N	2.46	0.49
9:DM:56:ASN:O	9:DM:56:ASN:OD1	2.31	0.49
20:DU:61:ILE:CG2	20:DU:62:GLU:OE2	2.61	0.49
21:DV:168:GLU:HG3	21:DV:169:GLU:H	1.78	0.49
13:A0:28:LEU:C	13:A0:30:THR:H	2.16	0.49
29:A7:43:THR:CG2	29:A7:44:PRO:N	2.76	0.49
30:A8:41:ILE:O	30:A8:41:ILE:HG13	2.11	0.49
1:AA:1071:G:C2	1:AA:1091:G:N7	2.80	0.49
1:AA:1301:A:H4'	1:AA:1302:A:OP1	2.12	0.49
1:AA:171:G:C2'	1:AA:172:C:H5'	2.43	0.49
1:AA:1858:G:N7	56:AA:3569:OHX:N6	2.61	0.49
1:AA:2078:C:H2'	1:AA:2079:U:O4'	2.13	0.49
1:AA:2172:U:H5'	1:AA:2173:A:OP2	2.12	0.49
1:AA:2255:G:N2	12:AP:85:LYS:NZ	2.58	0.49
1:AA:2723:C:H2'	1:AA:2724:C:O5'	2.11	0.49
3:AD:6:PHE:CE1	3:AD:18:VAL:HG23	2.43	0.49
4:AE:115:GLY:HA2	4:AE:157:ALA:CB	2.42	0.49
5:AF:65:TRP:HB2	5:AF:66:PRO:HD2	1.95	0.49
6:AG:115:ARG:O	6:AG:116:ASP:CB	2.61	0.49
6:AG:124:SER:HB3	6:AG:132:ASN:O	2.13	0.49
6:AG:75:LYS:O	6:AG:84:LYS:HA	2.12	0.49
8:AK:78:THR:HG22	8:AK:141:LYS:HD2	1.94	0.49
9:AM:128:HIS:NE2	9:AM:134:ARG:HD2	2.27	0.49
11:AO:101:VAL:O	11:AO:103:ALA:N	2.46	0.49
11:AO:23:PRO:HG2	11:AO:23:PRO:O	2.13	0.49
12:AP:110:THR:HG23	12:AP:113:GLN:OE1	2.12	0.49
12:AP:120:ILE:N	12:AP:120:ILE:HD13	2.28	0.49
12:AP:26:TYR:C	12:AP:26:TYR:CD2	2.85	0.49
21:AV:4:ARG:HG2	21:AV:58:VAL:CG2	2.43	0.49
31:BA:108:G:C2	31:BA:109:A:C2	3.01	0.49
31:BA:1424:C:H2'	31:BA:1425:U:O4'	2.12	0.49
31:BA:5:U:O2'	31:BA:6:G:C2	2.65	0.49
31:BA:750:G:C4	31:BA:751:U:C5	3.01	0.49
31:BA:778:G:H1'	41:BN:119:CYS:HB3	1.95	0.49
52:BB:17:G:H21	52:BB:66:G:H2'	1.77	0.49
52:BD:46:G:C2	52:BD:55:U:C4	3.01	0.49
52:BD:71:C:H2'	52:BD:72:U:C6	2.48	0.49
32:BE:216:SER:C	32:BE:218:ALA:H	2.16	0.49
33:BF:175:LEU:HD21	33:BF:201:TYR:CE1	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BT:85:VAL:O	47:BT:85:VAL:HG12	2.12	0.49
49:BV:51:VAL:CG1	49:BV:52:TYR:H	2.24	0.49
31:CA:1086:U:O4	31:CA:1099:G:N1	2.38	0.49
31:CA:1152:A:OP1	40:CM:13:HIS:HB2	2.13	0.49
31:CA:937:A:C2	31:CA:1379:G:O6	2.66	0.49
31:CA:979:C:H5	31:CA:980:C:H6	1.46	0.49
52:CB:48:C:C3'	52:CB:49:A:H8	2.24	0.49
32:CE:42:ILE:HD13	32:CE:43:ASP:N	2.28	0.49
39:CL:23:ASN:H	39:CL:23:ASN:HD22	1.60	0.49
1:DA:2840:C:C5'	13:D0:53:HIS:HD2	2.26	0.49
17:D2:71:LEU:O	17:D2:72:VAL:O	2.30	0.49
17:D2:7:THR:OG1	17:D2:8:GLY:N	2.45	0.49
30:D8:40:GLU:HA	30:D8:43:GLN:HB2	1.94	0.49
1:DA:186:G:N7	56:DA:3382:OHX:N1	2.60	0.49
1:DA:2272:U:H5"	1:DA:2273:A:OP1	2.13	0.49
1:DA:2298:A:N6	1:DA:2318:G:H2'	2.27	0.49
1:DA:2543:G:H2'	1:DA:2544:G:C8	2.48	0.49
1:DA:2606:C:H2'	1:DA:2607:G:H5'	1.95	0.49
1:DA:2721:A:H1'	1:DA:2873:A:O2'	2.13	0.49
1:DA:2756:U:H1'	1:DA:2757:A:H5"	1.95	0.49
1:DA:64:A:C6	1:DA:65:C:C4	3.01	0.49
1:DA:866:A:N6	1:DA:914:C:N3	2.61	0.49
4:DE:48:GLN:NE2	4:DE:78:LEU:HD13	2.28	0.49
6:DG:48:GLU:HG2	6:DG:48:GLU:O	2.12	0.49
9:DM:127:ASP:O	9:DM:128:HIS:CB	2.60	0.49
1:DA:907:U:C3'	12:DP:101:ARG:HH22	2.24	0.49
1:DA:956:G:OP2	12:DP:14:ARG:NH2	2.46	0.49
12:DP:26:TYR:HE1	12:DP:139:GLU:HB2	1.77	0.49
13:A0:63:ARG:O	13:A0:67:LEU:HD23	2.13	0.49
28:A6:20:ASN:O	28:A6:21:TYR:HB2	2.13	0.49
1:AA:1001:A:C8	1:AA:1002:G:C8	3.01	0.49
1:AA:1220:A:H3'	1:AA:1221:C:H5'	1.93	0.49
1:AA:1652:A:O2'	1:AA:1653:G:H5'	2.12	0.49
1:AA:2328:A:H2'	1:AA:2329:G:C8	2.47	0.49
1:AA:2363:C:C2'	1:AA:2364:C:H5'	2.41	0.49
1:AA:2638:G:P	4:AE:82:ARG:HH22	2.36	0.49
1:AA:2690:C:H5"	1:AA:2872:G:H21	1.77	0.49
2:AB:50:G:OP2	14:AQ:62:LYS:HB2	2.13	0.49
2:AB:72:G:N2	2:AB:103:U:C5	2.80	0.49
3:AD:33:LEU:N	3:AD:35:LYS:O	2.45	0.49
4:AE:81:ILE:O	4:AE:81:ILE:HG22	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AH:151:ILE:HG22	7:AH:151:ILE:O	2.13	0.49
7:AH:168:PRO:O	7:AH:169:VAL:HB	2.12	0.49
10:AN:48:PRO:HB3	31:BA:1422:G:H5"	1.95	0.49
1:AA:2379:G:H4'	14:AQ:21:THR:HG21	1.95	0.49
20:AU:5:MET:HG3	20:AU:6:HIS:H	1.76	0.49
31:BA:1098:C:C2	31:BA:1099:G:C8	3.01	0.49
31:BA:1160:G:N1	31:BA:1177:G:N2	2.60	0.49
31:BA:38:G:C2	31:BA:397:A:H2	2.29	0.49
31:BA:406:G:C2	31:BA:407:G:C5	3.01	0.49
31:BA:724:G:C2	31:BA:725:G:C8	3.00	0.49
52:BD:1:G:N2	52:BD:82:A:C2	2.81	0.49
34:BG:28:SER:HB2	34:BG:29:PRO:CD	2.42	0.49
34:BG:79:PHE:CE1	34:BG:204:ILE:HG12	2.45	0.49
35:BH:149:GLU:O	35:BH:153:LYS:HG3	2.13	0.49
35:BH:63:ARG:HA	35:BH:66:MET:CE	2.43	0.49
41:BN:48:ILE:CG1	41:BN:63:LEU:HB2	2.43	0.49
31:BA:523:A:H61	42:BO:92:ASP:HB2	1.78	0.49
31:BA:1317:C:C2	44:BQ:16:PHE:CE1	3.00	0.49
44:BQ:4:LYS:CD	44:BQ:7:ILE:HD11	2.43	0.49
31:CA:1197:G:N1	31:CA:1198:G:C5	2.81	0.49
31:CA:1213:A:N1	31:CA:1215:G:H1'	2.28	0.49
31:CA:1348:U:H4'	39:CL:120:ARG:HD2	1.94	0.49
31:CA:1354:C:O2'	31:CA:1355:G:H5'	2.12	0.49
31:CA:145:G:N7	56:CA:1778:OHX:N1	2.60	0.49
31:CA:109:A:C6	31:CA:326:G:C6	3.01	0.49
31:CA:418:C:N3	31:CA:425:G:N2	2.51	0.49
31:CA:719:C:H5	31:CA:720:C:C4	2.30	0.49
31:CA:798:G:O6	56:CA:1726:OHX:N5	2.46	0.49
52:CB:59:A:C6	52:CB:60:A:C5	3.00	0.49
52:CD:13:G:H2'	52:CD:14:A:H8	1.77	0.49
34:CG:11:LEU:C	34:CG:13:ARG:H	2.15	0.49
35:CH:100:VAL:HG23	35:CH:118:ILE:CG2	2.42	0.49
40:CM:13:HIS:HB3	40:CM:68:HIS:CE1	2.47	0.49
42:CO:55:VAL:CG2	42:CO:56:ALA:N	2.74	0.49
46:CS:9:PHE:CD2	46:CS:18:ARG:HG3	2.47	0.49
50:CW:67:ALA:O	50:CW:73:HIS:CD2	2.66	0.49
22:D3:32:ARG:CG	22:D3:33:ALA:H	2.21	0.49
30:D8:52:LYS:C	30:D8:54:GLU:H	2.15	0.49
30:D8:59:LYS:CB	30:D8:59:LYS:NZ	2.76	0.49
1:DA:1055:G:O6	1:DA:1104:C:N3	2.46	0.49
1:DA:1466:G:H5'	1:DA:1467:C:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1511:A:H2'	1:DA:1512:G:C8	2.48	0.49
1:DA:1668:A:H1'	1:DA:1670:C:C5	2.47	0.49
1:DA:1678:G:H2'	1:DA:1679:U:H6	1.78	0.49
1:DA:1969:A:O2'	1:DA:1972:A:N3	2.39	0.49
1:DA:2271:G:C2'	1:DA:2272:U:O5'	2.61	0.49
1:DA:298:G:OP1	20:DU:84:ARG:O	2.31	0.49
1:DA:945:A:N6	1:DA:2448:A:C6	2.81	0.49
2:DB:89(A):A:C8	2:DB:90:C:C1'	2.94	0.49
3:DD:70:TRP:HZ3	3:DD:146:GLU:OE2	1.95	0.49
5:DF:38:ARG:NH1	5:DF:38:ARG:HG3	2.25	0.49
11:DO:6:LEU:O	11:DO:7:ARG:HG2	2.11	0.49
14:DQ:101:LEU:HD12	14:DQ:101:LEU:O	2.13	0.49
13:A0:30:THR:HG22	13:A0:31:HIS:CE1	2.48	0.49
16:A1:27:LEU:HD13	16:A1:31:SER:HB3	1.94	0.49
29:A7:15:THR:HG22	29:A7:16:HIS:CE1	2.48	0.49
1:AA:1021:A:H3'	1:AA:1022:G:H5"	1.93	0.49
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.78	0.49
1:AA:2277:G:C2'	1:AA:2278:A:O5'	2.58	0.49
1:AA:2283:C:C5	1:AA:2284:C:C5	3.01	0.49
1:AA:2246:G:H1'	1:AA:2426:A:C2	2.47	0.49
1:AA:2712:U:O2'	1:AA:2713:A:H5'	2.13	0.49
1:AA:2830:G:H8	1:AA:2830:G:H5"	1.77	0.49
1:AA:986:C:O2'	1:AA:987:G:H5'	2.13	0.49
1:AA:1500:G:O2'	3:AD:100:GLY:O	2.24	0.49
3:AD:65:ILE:HD13	3:AD:106:ILE:HG22	1.94	0.49
3:AD:79:VAL:HG12	3:AD:113:VAL:HA	1.94	0.49
3:AD:127:VAL:HA	3:AD:193:VAL:HG23	1.95	0.49
7:AH:41:MET:HE1	7:AH:64:LEU:HB3	1.95	0.49
11:AO:83:VAL:HG12	11:AO:112:LEU:HD21	1.94	0.49
1:AA:2250:G:C2	12:AP:83:MET:HB2	2.48	0.49
18:AS:57:ASN:O	18:AS:61:ASN:HB2	2.13	0.49
20:AU:3:VAL:HG12	20:AU:5:MET:HE2	1.95	0.49
20:AU:77:PRO:O	20:AU:78:ALA:HB2	2.12	0.49
54:B1:19:U:H2'	54:B1:20:G:H8	1.77	0.49
31:BA:1240:U:P	37:BJ:116:ALA:HB2	2.53	0.49
31:BA:130:A:OP2	47:BT:63:ARG:NE	2.42	0.49
31:BA:1311:G:N2	31:BA:1327:C:C2	2.80	0.49
52:BB:24:G:H5'	52:BB:24:G:H8	1.77	0.49
52:BD:54:C:OP2	52:BD:54:C:H6	1.96	0.49
32:BE:229:VAL:HG12	32:BE:230:VAL:N	2.28	0.49
33:BF:113:ALA:O	33:BF:115:LEU:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:48:TYR:O	33:BF:51:GLY:N	2.30	0.49
43:BP:49:THR:O	43:BP:51:ALA:N	2.46	0.49
26:A4:34:GLU:OE2	43:BP:7:VAL:HA	2.13	0.49
49:BV:40:ILE:HD11	49:BV:62:ILE:HD13	1.94	0.49
49:BV:51:VAL:CG1	49:BV:52:TYR:N	2.76	0.49
50:BW:11:SER:C	50:BW:13:LEU:H	2.16	0.49
31:CA:1276:G:C5	31:CA:1277:C:C5	3.01	0.49
31:CA:1279:A:H5"	31:CA:1280:A:OP1	2.13	0.49
31:CA:57:G:C6	31:CA:58:C:C4	3.01	0.49
31:CA:582:U:C2	31:CA:760:G:C6	3.01	0.49
31:CA:652:U:O4	31:CA:752:G:H1'	2.13	0.49
31:CA:801:U:H2'	31:CA:802:A:C8	2.48	0.49
52:CB:9:U:O2'	52:CB:10:C:H5	1.95	0.49
52:CB:74:C:N4	52:CB:75:C:C5	2.81	0.49
52:CB:9:U:H5	52:CB:21:A:C8	2.31	0.49
52:CD:25:G:O2'	52:CD:26:G:H5'	2.13	0.49
32:CE:101:MET:HB2	32:CE:102:LEU:HD12	1.93	0.49
35:CH:135:THR:O	35:CH:138:ALA:HB3	2.13	0.49
37:CJ:27:ILE:CD1	37:CJ:40:ALA:HA	2.43	0.49
38:CK:11:THR:HG22	38:CK:15:ASN:ND2	2.28	0.49
39:CL:20:ARG:N	39:CL:20:ARG:HD3	2.27	0.49
43:CP:29:ARG:HB3	43:CP:64:TRP:CZ2	2.47	0.49
44:CQ:61:TRP:CD1	44:CQ:61:TRP:O	2.66	0.49
48:CU:63:GLN:O	48:CU:66:LEU:HB3	2.13	0.49
49:CV:61:TYR:CZ	49:CV:63:THR:HA	2.48	0.49
13:D0:23:ASN:N	13:D0:23:ASN:ND2	2.60	0.49
30:D8:33:ASN:ND2	30:D8:41:ILE:CD1	2.43	0.49
1:DA:1158:C:C2'	1:DA:1159:U:H5'	2.43	0.49
1:DA:1615:C:C6	1:DA:1617:C:C5	3.01	0.49
1:DA:2016:U:O4'	27:D5:6:VAL:HG11	2.13	0.49
1:DA:2064:C:H2'	1:DA:2065:C:C6	2.48	0.49
1:DA:2127:G:H3'	1:DA:2128:C:H5"	1.93	0.49
1:DA:2417:C:N4	1:DA:2418:A:N6	2.61	0.49
1:DA:2789:C:H3'	1:DA:2790:A:H5"	1.93	0.49
1:DA:847:U:O4	1:DA:933:A:N1	2.45	0.49
12:DP:55:VAL:HG23	12:DP:64:ILE:HD12	1.95	0.49
22:A3:68:GLU:HG3	22:A3:80:HIS:CD2	2.39	0.48
30:A8:34:TRP:CZ3	30:A8:35:GLN:CD	2.86	0.48
1:AA:1055:G:N2	1:AA:1104:C:C2	2.80	0.48
1:AA:1210:A:O2'	1:AA:1211:U:OP2	2.21	0.48
1:AA:1423:G:H2'	1:AA:1424:G:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1534:G:N2	1:AA:1537:C:N4	2.61	0.48
1:AA:1731:G:O2'	1:AA:1732:A:O5'	2.18	0.48
1:AA:2119:A:N6	1:AA:2170:A:C6	2.81	0.48
1:AA:2402:C:H4'	1:AA:2402:C:OP1	2.13	0.48
1:AA:2469:A:H5"	1:AA:2469:A:N3	2.27	0.48
1:AA:997:G:C2'	1:AA:998:C:H5'	2.43	0.48
2:AB:52:A:N6	14:AQ:33:LYS:HG2	2.27	0.48
2:AB:7:G:C8	2:AB:7:G:C5'	2.96	0.48
3:AD:70:TRP:HZ3	3:AD:146:GLU:OE2	1.96	0.48
5:AF:178:PRO:C	5:AF:180:GLY:H	2.16	0.48
6:AG:59:GLU:O	6:AG:63:ILE:HG23	2.13	0.48
11:AO:61:ARG:CZ	11:AO:61:ARG:CB	2.84	0.48
12:AP:19:GLY:CA	12:AP:98:LYS:HD3	2.43	0.48
12:AP:69:PHE:C	12:AP:95:ALA:HB2	2.34	0.48
14:AQ:23:ARG:HH21	14:AQ:84:GLN:NE2	2.11	0.48
15:AR:51:ARG:HB2	15:AR:98:LYS:CD	2.39	0.48
31:BA:1396:A:O4'	31:BA:1398:A:H1'	2.13	0.48
31:BA:266:G:H4'	31:BA:267:C:O5'	2.11	0.48
31:BA:31:G:O2'	31:BA:32:A:OP1	2.30	0.48
31:BA:57:G:C6	31:BA:356:A:N1	2.81	0.48
31:BA:599:C:H4'	38:BK:130:GLY:O	2.12	0.48
31:BA:698:G:C6	31:BA:699:C:C4	3.01	0.48
52:BB:15:G:N3	52:BB:20:C:H5	2.10	0.48
52:BB:75:C:H3'	52:BB:76:C:C5	2.48	0.48
52:BD:11:C:H2'	52:BD:11:C:O2	2.12	0.48
32:BE:47:THR:HG22	32:BE:51:LEU:CD1	2.43	0.48
32:BE:69:LEU:HD12	32:BE:70:PHE:N	2.27	0.48
37:BJ:148:ASN:HD22	37:BJ:148:ASN:N	2.11	0.48
40:BM:57:LYS:HE2	40:BM:60:ARG:NH1	2.26	0.48
46:BS:34:GLU:OE2	46:BS:55:ARG:NH2	2.45	0.48
31:CA:1077:G:C6	31:CA:1081:G:C6	3.00	0.48
31:CA:954:G:O6	31:CA:1225:A:N6	2.46	0.48
31:CA:1227:A:H3'	31:CA:1227:A:C8	2.48	0.48
31:CA:1317:C:N3	49:CV:37:ARG:NH2	2.60	0.48
31:CA:181:G:N2	31:CA:183:G:N2	2.61	0.48
31:CA:413:G:H2'	31:CA:428:G:N2	2.28	0.48
31:CA:700:G:O2'	31:CA:704:A:H1'	2.12	0.48
31:CA:737:A:C2	31:CA:738:C:C2	3.01	0.48
31:CA:827:U:C4	31:CA:870:U:C2	3.01	0.48
32:CE:25:ASN:ND2	32:CE:193:ASP:HB3	2.28	0.48
32:CE:55:PHE:HD1	32:CE:58:ILE:HG13	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:114:TYR:HE1	40:CM:60:ARG:C	2.16	0.48
39:CL:14:VAL:O	39:CL:14:VAL:HG12	2.12	0.48
39:CL:43:ALA:HA	39:CL:74:ILE:HD13	1.95	0.48
42:CO:83:VAL:O	42:CO:105:TYR:HD1	1.96	0.48
43:CP:8:GLU:O	43:CP:10:PRO:HD3	2.13	0.48
1:DA:1194:A:C2'	1:DA:1195:G:O5'	2.61	0.48
1:DA:1194:A:H2'	1:DA:1195:G:O5'	2.13	0.48
1:DA:1342:A:N1	1:DA:1602:U:C2	2.81	0.48
1:DA:1847:A:C3'	1:DA:1848:A:H5'	2.43	0.48
1:DA:1945:G:C4	1:DA:1946:U:C5	3.01	0.48
1:DA:2019:A:N6	1:DA:2020:A:C5	2.81	0.48
1:DA:2255:G:C2'	1:DA:2256:G:H5'	2.43	0.48
1:DA:2270:G:H2'	1:DA:2271:G:H5'	1.94	0.48
1:DA:2520:C:C6	1:DA:2520:C:OP1	2.62	0.48
1:DA:807:U:H2'	1:DA:808:G:C8	2.43	0.48
3:DD:236:GLY:O	3:DD:237:GLU:O	2.31	0.48
4:DE:173:VAL:N	4:DE:183:LEU:O	2.43	0.48
5:DF:57:VAL:HG12	5:DF:58:ALA:H	1.75	0.48
6:DG:6:ALA:O	6:DG:9:ARG:N	2.46	0.48
7:DH:12:PRO:CG	7:DH:48:GLY:HA2	2.43	0.48
8:DK:77:LEU:O	8:DK:78:THR:C	2.52	0.48
10:DN:98:VAL:HG12	10:DN:117:LEU:CB	2.41	0.48
12:DP:87:LYS:O	12:DP:88:GLY:O	2.30	0.48
15:DR:45:PHE:CE1	15:DR:74:ARG:HG3	2.48	0.48
15:DR:51:ARG:HE	15:DR:62:THR:CG2	2.26	0.48
18:DS:59:VAL:HA	18:DS:64:MET:H	1.78	0.48
21:DV:152:ALA:HA	21:DV:171:ILE:HG13	1.94	0.48
21:DV:6:LYS:CG	21:DV:7:ALA:H	2.25	0.48
25:DX:31:LEU:O	25:DX:33:GLN:N	2.46	0.48
27:A5:42:PRO:CB	27:A5:43:HIS:HD2	2.26	0.48
1:AA:111:A:C2	1:AA:112:U:C2	3.01	0.48
1:AA:1130:U:O2'	1:AA:1131:G:O5'	2.26	0.48
1:AA:1276:A:H1'	13:A0:16:HIS:HE1	1.78	0.48
1:AA:1279:G:H5'	13:A0:34:ILE:HD11	1.95	0.48
1:AA:2210:G:C2'	1:AA:2211:G:N7	2.75	0.48
1:AA:2248:C:H2'	1:AA:2249:U:H5'	1.94	0.48
1:AA:2309:A:H8	1:AA:2309:A:O5'	1.96	0.48
1:AA:2388:A:C2'	1:AA:2389:G:H5'	2.43	0.48
1:AA:2636:U:H2'	1:AA:2637:U:C6	2.48	0.48
1:AA:478:A:C6	1:AA:480:A:C6	3.01	0.48
1:AA:492:A:H2'	1:AA:493:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:35:LYS:HD3	3:AD:63:ARG:HA	1.95	0.48
3:AD:36:PRO:HB3	3:AD:61:LEU:HD12	1.95	0.48
6:AG:172:LEU:CD1	6:AG:176:LEU:HD12	2.43	0.48
1:AA:2744:G:H21	7:AH:143:GLN:HE22	1.61	0.48
7:AH:86:GLU:CG	7:AH:165:ALA:HB3	2.41	0.48
7:AH:19:VAL:HG21	7:AH:43:VAL:O	2.13	0.48
7:AH:80:SER:O	7:AH:81:GLU:CG	2.58	0.48
14:AQ:9:ARG:C	14:AQ:11:LYS:N	2.66	0.48
24:AW:41:ILE:CD1	24:AW:44:LEU:HG	2.43	0.48
23:AZ:91:LYS:HA	23:AZ:91:LYS:HZ3	1.78	0.48
31:BA:1213:A:N7	31:BA:1215:G:C6	2.81	0.48
31:BA:956:U:O2	31:BA:1225:A:C2	2.66	0.48
31:BA:1226:C:H4'	49:BV:80:TYR:CZ	2.47	0.48
31:BA:1397:C:C6	31:BA:1397:C:C3'	2.96	0.48
31:BA:197:A:H4'	31:BA:198:G:O5'	2.13	0.48
31:BA:273:A:C2'	31:BA:274:A:O5'	2.61	0.48
31:BA:394:G:H2'	31:BA:395:C:H6	1.77	0.48
31:BA:563:A:C8	31:BA:567:G:O4'	2.67	0.48
52:BD:9:U:C2'	52:BD:9:U:O2	2.61	0.48
35:BH:71:LEU:C	35:BH:72:GLN:HG2	2.32	0.48
35:BH:9:LYS:HB3	35:BH:112:LEU:HD11	1.95	0.48
42:BO:119:LYS:HB2	42:BO:120:TYR:CD1	2.48	0.48
48:BU:70:ILE:O	48:BU:74:ARG:HG3	2.13	0.48
31:CA:1000:A:O2'	31:CA:1001:G:H5'	2.13	0.48
31:CA:1155:G:OP2	56:CA:1758:OHX:N6	2.47	0.48
31:CA:1160:G:H2'	31:CA:1160:G:N3	2.28	0.48
31:CA:1305:G:O2'	31:CA:1306:A:OP2	2.29	0.48
31:CA:1306:A:H2'	31:CA:1307:U:O4'	2.13	0.48
31:CA:1311:G:N2	31:CA:1327:C:O2	2.46	0.48
31:CA:238:G:OP1	47:CT:25:ARG:NH2	2.39	0.48
31:CA:622:A:H2'	31:CA:623:C:O4'	2.12	0.48
31:CA:828:A:H2'	31:CA:829:G:O5'	2.13	0.48
53:CC:13:C:O2'	53:CC:14:A:H5'	2.13	0.48
53:CC:67:C:H2'	53:CC:68:C:O4'	2.14	0.48
36:CI:23:LYS:O	36:CI:27:GLN:HB2	2.13	0.48
37:CJ:79:ARG:HG2	37:CJ:84:ASN:HB3	1.96	0.48
31:CA:1343:G:H1'	39:CL:121:ARG:NH1	2.28	0.48
1:DA:1061:U:H5"	1:DA:1062:G:OP2	2.13	0.48
1:DA:1459:G:O2'	1:DA:1460:A:H5'	2.13	0.48
1:DA:2308:G:O2'	1:DA:2309:A:OP1	2.30	0.48
1:DA:2435:A:H2'	1:DA:2436:G:O5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2447:G:H1'	1:DA:2448:A:OP2	2.13	0.48
1:DA:2694:G:O2'	1:DA:2695:C:H5'	2.13	0.48
1:DA:2751:G:H5'	1:DA:2752:C:OP2	2.13	0.48
1:DA:760:G:C2'	1:DA:761:A:H5'	2.43	0.48
1:DA:909:A:C5	1:DA:912:C:C5	3.01	0.48
2:DB:20:C:H2'	2:DB:21:G:H5'	1.94	0.48
2:DB:96:G:C6	2:DB:97:G:N7	2.81	0.48
7:DH:122:THR:C	7:DH:123:PHE:CG	2.87	0.48
7:DH:151:ILE:O	7:DH:152:ARG:HB2	2.13	0.48
7:DH:109:PHE:CE1	7:DH:152:ARG:HD3	2.48	0.48
8:DK:52:ARG:O	8:DK:56:LYS:HB3	2.13	0.48
9:DM:127:ASP:C	9:DM:128:HIS:ND1	2.67	0.48
11:DO:146:VAL:O	11:DO:147:LEU:O	2.30	0.48
12:DP:79:LEU:HD13	12:DP:80:GLU:OE2	2.13	0.48
21:DV:44:PHE:C	21:DV:44:PHE:HD1	2.16	0.48
16:A1:46:ALA:O	16:A1:50:ARG:HG3	2.12	0.48
26:A4:42:PHE:CE2	26:A4:43:TYR:HB2	2.48	0.48
1:AA:1081:U:C2'	1:AA:1082:U:OP1	2.61	0.48
1:AA:1109:C:O2'	1:AA:1110:G:C4'	2.58	0.48
1:AA:1152:C:C2'	1:AA:1153:C:H5'	2.43	0.48
1:AA:1528:A:N6	1:AA:1545:A:C2	2.81	0.48
1:AA:154:G:C3'	1:AA:155:C:H5"	2.43	0.48
1:AA:1582:C:O2'	1:AA:1586:A:C8	2.42	0.48
1:AA:2035:G:C4'	1:AA:2036:C:OP2	2.61	0.48
1:AA:2599:G:O2'	1:AA:2600:A:H5'	2.13	0.48
1:AA:2721:A:H3'	1:AA:2722:G:H8	1.79	0.48
1:AA:850:C:H2'	25:AX:46:ASN:HD21	1.77	0.48
3:AD:44:ASN:HD22	3:AD:44:ASN:H	1.61	0.48
4:AE:28:ALA:HB3	4:AE:93:VAL:CG2	2.38	0.48
4:AE:33:VAL:HG12	4:AE:90:THR:H	1.78	0.48
6:AG:67:LYS:HE2	26:A4:6:HIS:NE2	2.27	0.48
11:AO:114:ILE:CD1	11:AO:130:PHE:CD1	2.82	0.48
12:AP:87:LYS:O	12:AP:88:GLY:O	2.30	0.48
20:AU:52:SER:HB2	20:AU:53:PRO:CD	2.35	0.48
20:AU:8:LYS:O	20:AU:27:VAL:HG21	2.14	0.48
24:AW:17:SER:CB	24:AW:67:LYS:HE3	2.43	0.48
52:BD:54:C:OP2	52:BD:54:C:C6	2.66	0.48
32:BE:203:GLY:O	32:BE:204:ASN:C	2.52	0.48
33:BF:107:GLN:OE1	33:BF:107:GLN:N	2.42	0.48
33:BF:35:GLU:OE1	33:BF:95:THR:HG23	2.13	0.48
31:BA:412:A:C5	34:BG:35:ARG:NH1	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BL:48:GLU:N	39:BL:49:PRO:CD	2.75	0.48
42:BO:64:TYR:O	42:BO:65:GLU:CB	2.60	0.48
50:BW:75:ASN:O	50:BW:78:ALA:HB3	2.13	0.48
31:CA:1118:C:H6	31:CA:1118:C:O5'	1.96	0.48
31:CA:1133:G:C4	31:CA:1134:G:C8	3.01	0.48
31:CA:177:C:H2'	31:CA:178:C:H6	1.78	0.48
31:CA:491:G:C6	31:CA:492:G:C5	3.01	0.48
31:CA:991:U:O2'	31:CA:992:U:P	2.65	0.48
32:CE:172:ILE:O	32:CE:172:ILE:HG22	2.13	0.48
32:CE:16:HIS:O	32:CE:204:ASN:ND2	2.46	0.48
32:CE:62:ALA:C	32:CE:64:ARG:N	2.62	0.48
34:CG:25:ARG:HB3	34:CG:25:ARG:NH1	2.28	0.48
35:CH:81:GLU:HG2	35:CH:90:VAL:HG22	1.94	0.48
36:CI:36:ARG:NH1	36:CI:66:GLU:OE1	2.44	0.48
37:CJ:71:PRO:HG3	37:CJ:103:TRP:CH2	2.48	0.48
37:CJ:89:MET:HA	37:CJ:89:MET:CE	2.43	0.48
38:CK:104:ARG:HG3	38:CK:104:ARG:O	2.13	0.48
31:CA:1280:A:P	40:CM:40:LEU:HD21	2.54	0.48
47:CT:48:GLU:O	47:CT:49:GLU:C	2.51	0.48
16:D1:25:TRP:CD1	16:D1:26:GLY:HA3	2.47	0.48
28:D6:16:CYS:O	28:D6:17:LYS:CB	2.62	0.48
30:D8:23:VAL:HG23	30:D8:47:LYS:HB3	1.95	0.48
30:D8:23:VAL:CG2	30:D8:47:LYS:HB3	2.44	0.48
1:DA:128:C:C6	1:DA:128:C:H3'	2.48	0.48
1:DA:1338:G:N3	1:DA:1393:A:H2	2.10	0.48
1:DA:1774:C:O5'	1:DA:1774:C:H6	1.96	0.48
1:DA:2188:C:H2'	1:DA:2189:U:O4'	2.14	0.48
1:DA:2297:C:C2'	1:DA:2297:C:O2	2.56	0.48
1:DA:2531:A:C5'	7:DH:157:TYR:HE2	2.27	0.48
1:DA:2629:A:H4'	1:DA:2630:G:O5'	2.13	0.48
1:DA:2649:U:H2'	1:DA:2650:U:C6	2.48	0.48
1:DA:2788:C:H5"	1:DA:2789:C:OP2	2.13	0.48
1:DA:1709:U:O2'	1:DA:2859:G:H1'	2.13	0.48
1:DA:656:G:H2'	1:DA:657:U:O4'	2.13	0.48
1:DA:99:U:H1'	1:DA:102:G:C2	2.48	0.48
2:DB:45:A:C1'	6:DG:95:ARG:HH21	2.25	0.48
1:DA:1568:G:P	3:DD:63:ARG:HH22	2.37	0.48
4:DE:27:LEU:HG	15:DR:1:MET:CE	2.43	0.48
5:DF:129:PHE:HA	5:DF:142:TRP:NE1	2.28	0.48
11:DO:56:SER:O	11:DO:57:THR:O	2.30	0.48
15:DR:135:ALA:O	15:DR:137:LYS:HG2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:DS:65:LEU:HD13	18:DS:68:ARG:CD	2.40	0.48
1:DA:90:U:H3	20:DU:33:LYS:HZ1	1.62	0.48
13:A0:20:LEU:O	13:A0:21:TYR:C	2.52	0.48
16:A1:26:GLY:C	16:A1:28:ARG:H	2.16	0.48
17:A2:38:LEU:HD12	17:A2:57:VAL:HG12	1.96	0.48
22:A3:49:LYS:H	22:A3:80:HIS:CB	2.23	0.48
30:A8:61:LEU:CD1	30:A8:61:LEU:O	2.56	0.48
1:AA:1899:G:H1	1:AA:1902:C:H41	1.61	0.48
1:AA:2294:C:C4	1:AA:2295:C:H5	2.25	0.48
1:AA:2694:G:C4	1:AA:2695:C:C5	3.01	0.48
1:AA:2723:C:O3'	13:A0:1:MET:CE	2.61	0.48
1:AA:620:G:N3	1:AA:620:G:H2'	2.29	0.48
1:AA:945:A:C5	1:AA:2448:A:N3	2.80	0.48
1:AA:984:A:H5"	1:AA:985:C:C5	2.48	0.48
1:AA:1812:A:O2'	3:AD:45:ASN:HB2	2.14	0.48
3:AD:27:THR:HG21	3:AD:83:GLU:HB2	1.95	0.48
8:AK:60:GLU:C	8:AK:62:LYS:H	2.15	0.48
8:AK:77:LEU:O	8:AK:77:LEU:HD13	2.13	0.48
9:AM:120:LEU:HD21	9:AM:122:VAL:HG22	1.95	0.48
15:AR:102:ILE:HD12	15:AR:110:ILE:HD11	1.95	0.48
24:AW:17:SER:HB3	24:AW:67:LYS:HE3	1.95	0.48
31:BA:104:G:C2	31:BA:105:G:C8	3.02	0.48
31:BA:1132:C:C2'	31:BA:1133:G:H5'	2.43	0.48
31:BA:1182:G:H4'	31:BA:1183:A:C5'	2.41	0.48
31:BA:1221:G:N2	31:BA:1222:G:H1'	2.28	0.48
31:BA:1305:G:C2	31:BA:1331:G:N3	2.81	0.48
31:BA:1305:G:H22	31:BA:1331:G:H2'	1.76	0.48
31:BA:559:A:H4'	31:BA:560:U:C3'	2.43	0.48
31:BA:936:C:H2'	31:BA:937:A:O4'	2.13	0.48
52:BD:40:U:H2'	52:BD:41:C:H5'	1.96	0.48
52:BD:70:C:O2'	52:BD:71:C:H5'	2.13	0.48
34:BG:110:PHE:CE2	34:BG:148:VAL:HG23	2.48	0.48
35:BH:144:THR:C	35:BH:146:ALA:N	2.67	0.48
38:BK:10:LEU:N	38:BK:10:LEU:CD2	2.76	0.48
39:BL:46:ALA:HA	39:BL:78:LYS:HB2	1.94	0.48
31:BA:1199:U:H5'	40:BM:54:PHE:CE2	2.48	0.48
49:BV:25:LYS:HG2	49:BV:27:GLU:OE1	2.12	0.48
52:CB:37:A:C2	54:C1:20:G:C6	3.01	0.48
31:CA:1077:G:N2	31:CA:1080:A:OP2	2.46	0.48
31:CA:1279:A:H5"	31:CA:1280:A:P	2.53	0.48
31:CA:440:A:C8	31:CA:442:C:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:980:C:H5'	31:CA:981:U:C5	2.49	0.48
53:CC:44:A:O2'	53:CC:45:A:H5'	2.14	0.48
33:CF:15:THR:HG22	33:CF:16:ARG:NH1	2.28	0.48
36:CI:67:MET:HB2	36:CI:68:PRO:HD2	1.95	0.48
41:CN:22:HIS:HB3	41:CN:29:ILE:HG12	1.95	0.48
42:CO:55:VAL:CG2	42:CO:56:ALA:H	2.27	0.48
45:CR:11:VAL:O	45:CR:14:GLU:N	2.40	0.48
49:CV:49:ILE:HG13	49:CV:62:ILE:CD1	2.41	0.48
16:D1:14:HIS:HA	16:D1:32:PHE:CE2	2.47	0.48
2:DB:39:A:N6	26:D4:1:MET:HB3	2.27	0.48
1:DA:814:C:O2'	1:DA:1225:C:O2	2.30	0.48
1:DA:2374:C:H2'	1:DA:2375:G:H5'	1.93	0.48
1:DA:243:U:OP2	30:D8:8:LYS:HE2	2.13	0.48
1:DA:2692:C:O2'	1:DA:2693:A:H5'	2.14	0.48
1:DA:299:A:O2'	1:DA:319:C:H4'	2.13	0.48
1:DA:426:C:OP1	56:DA:3403:OHX:N1	2.46	0.48
1:DA:820:A:H2'	1:DA:821:A:C8	2.48	0.48
1:DA:973:A:H5'	1:DA:1188:U:C1'	2.43	0.48
3:DD:206:LEU:HD23	3:DD:206:LEU:HA	1.58	0.48
3:DD:28:GLU:HB2	3:DD:29:PRO:HD3	1.96	0.48
10:DN:68:GLU:OE2	10:DN:78:ARG:NH1	2.46	0.48
11:DO:55:ARG:O	11:DO:56:SER:C	2.51	0.48
15:DR:99:LEU:C	15:DR:101:PHE:N	2.65	0.48
21:DV:53:ILE:HG13	21:DV:54:HIS:ND1	2.28	0.48
13:A0:30:THR:HG22	13:A0:31:HIS:CG	2.48	0.48
26:A4:27:THR:O	26:A4:28:LYS:CB	2.60	0.48
26:A4:36:CYS:O	26:A4:39:CYS:SG	2.72	0.48
1:AA:1443:G:C2	1:AA:1549:C:C2	3.01	0.48
1:AA:1449(A):G:C5	1:AA:1450:C:C5	3.01	0.48
1:AA:1519:G:H2'	1:AA:1520:U:H5'	1.96	0.48
1:AA:1568:G:H5"	3:AD:61:LEU:CD2	2.44	0.48
1:AA:1850:G:H2'	1:AA:1851:U:H6	1.79	0.48
1:AA:1899:G:H21	1:AA:1902:C:H5	1.57	0.48
1:AA:2113:U:O2	1:AA:2113:U:O4'	2.30	0.48
1:AA:2164:C:C2'	1:AA:2165:G:H5'	2.43	0.48
1:AA:2199:A:H3'	1:AA:2205:C:H6	1.79	0.48
1:AA:2315:G:C6	1:AA:2316:C:N4	2.81	0.48
1:AA:2398:U:O2	1:AA:2398:U:H2'	2.13	0.48
1:AA:304:G:C4	1:AA:314:A:C2	3.02	0.48
1:AA:528:A:N1	1:AA:2043:C:O5'	2.46	0.48
1:AA:64:A:C4	19:AT:66:LEU:HD22	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:945:A:H1'	1:AA:946:G:OP1	2.13	0.48
1:AA:969:U:H2'	1:AA:970:C:C6	2.48	0.48
2:AB:60:C:C2	2:AB:61:G:C8	3.00	0.48
2:AB:78:A:C2	2:AB:99:A:C4	3.01	0.48
3:AD:19:ALA:HB3	3:AD:21:PHE:CE2	2.48	0.48
5:AF:51:THR:CG2	5:AF:92:PRO:HD2	2.44	0.48
6:AG:34:LEU:HD13	6:AG:99:MET:HE1	1.95	0.48
8:AK:61:ARG:HA	8:AK:61:ARG:NE	2.28	0.48
9:AM:133:GLN:HG2	9:AM:134:ARG:H	1.77	0.48
18:AS:53:SER:O	18:AS:53:SER:OG	2.31	0.48
31:BA:1038:C:C4	31:BA:1039:C:C5	3.01	0.48
31:BA:119:A:H4'	31:BA:120:A:O5'	2.13	0.48
31:BA:1206:G:C5	31:BA:1207:G:N7	2.81	0.48
31:BA:1339:A:H2'	31:BA:1340:A:O4'	2.13	0.48
31:BA:256:U:C2'	31:BA:257:G:H5'	2.44	0.48
31:BA:502:G:H2'	31:BA:503:C:H6	1.78	0.48
31:BA:560:U:H5'	31:BA:566:G:N2	2.29	0.48
31:BA:739:C:C4	31:BA:740:U:C5	3.01	0.48
31:BA:777:A:C2'	31:BA:778:G:O5'	2.61	0.48
31:BA:22:G:H4'	31:BA:885:G:C8	2.49	0.48
31:BA:1108:G:H5'	33:BF:176:HIS:CD2	2.48	0.48
31:BA:1061:G:OP2	33:BF:2:GLY:O	2.30	0.48
33:BF:83:ARG:O	33:BF:86:VAL:HG13	2.13	0.48
38:BK:6:ILE:HG12	38:BK:31:PHE:CE2	2.49	0.48
39:BL:125:TYR:CD2	39:BL:126:SER:N	2.80	0.48
47:BT:43:LEU:HD12	47:BT:68:ARG:HG2	1.94	0.48
49:BV:15:LEU:HD23	49:BV:15:LEU:N	2.28	0.48
31:CA:1216:G:H5"	44:CQ:5:ALA:HB3	1.96	0.48
31:CA:1383:C:H2'	31:CA:1383:C:O2	2.12	0.48
31:CA:1442:G:O2'	31:CA:1443:G:OP1	2.30	0.48
31:CA:1484:C:H2'	31:CA:1485:U:O4'	2.14	0.48
31:CA:1186:G:N7	56:CA:1815:OHX:N1	2.61	0.48
31:CA:365:U:C5'	31:CA:366:C:OP1	2.50	0.48
31:CA:853:G:C2	31:CA:854:G:C8	3.01	0.48
52:CB:31:G:H2'	52:CB:32:A:C8	2.49	0.48
53:CC:16:C:O2'	53:CC:62:C:P	2.71	0.48
53:CC:29:C:H2'	53:CC:30:G:H8	1.77	0.48
33:CF:117:ALA:HB2	33:CF:200:ALA:HB2	1.96	0.48
37:CJ:57:GLU:O	37:CJ:58:PRO:C	2.52	0.48
40:CM:50:ILE:HA	40:CM:60:ARG:CB	2.44	0.48
40:CM:46:ARG:CZ	44:CQ:61:TRP:CH2	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D0:14:SER:HA	13:D0:17:ARG:NH1	2.28	0.48
28:D6:23:THR:O	28:D6:24:GLU:HB2	2.14	0.48
1:DA:1484:G:C6	1:DA:1485:G:C5	3.01	0.48
1:DA:1728:G:C8	1:DA:1731:G:N1	2.74	0.48
1:DA:1858:G:O2'	1:DA:1884:A:N6	2.46	0.48
1:DA:1872:A:H5"	1:DA:1878:G:OP2	2.13	0.48
1:DA:2259:G:N2	1:DA:2282:G:C2	2.82	0.48
1:DA:2687:U:C4	1:DA:2688:U:C5	3.02	0.48
1:DA:2780:G:H3'	1:DA:2781:A:H5'	1.95	0.48
1:DA:64:A:H1'	19:DT:66:LEU:HB2	1.96	0.48
1:DA:6:A:C2'	1:DA:7:G:H5'	2.43	0.48
3:DD:17:THR:O	3:DD:211:ARG:NH2	2.47	0.48
3:DD:62:TYR:CE2	3:DD:63:ARG:O	2.67	0.48
4:DE:11:MET:SD	4:DE:24:THR:HG22	2.54	0.48
4:DE:105:THR:OG1	4:DE:166:THR:HG23	2.13	0.48
4:DE:63:LEU:O	4:DE:66:HIS:CD2	2.66	0.48
8:DK:76:THR:CG2	8:DK:140:LEU:HA	2.43	0.48
11:DO:125:VAL:HG22	11:DO:125:VAL:O	2.13	0.48
11:DO:28:GLY:O	11:DO:31:ALA:N	2.46	0.48
14:DQ:67:ARG:NH1	14:DQ:67:ARG:HB2	2.28	0.48
15:DR:29:ARG:HD3	15:DR:29:ARG:O	2.14	0.48
20:DU:18:GLY:O	20:DU:19:LYS:HG3	2.12	0.48
21:DV:105:VAL:HG13	21:DV:106:GLY:N	2.27	0.48
21:DV:77:ASP:N	21:DV:84:GLU:HG2	2.28	0.48
24:DW:17:SER:HA	24:DW:20:GLU:HB2	1.96	0.48
23:DZ:57:GLU:O	23:DZ:58:ILE:HD13	2.13	0.48
1:AA:1080:A:H2'	1:AA:1081:U:O4'	2.12	0.48
1:AA:1109:C:H42	1:AA:1110:G:N2	2.11	0.48
1:AA:1296:G:H2'	1:AA:1297:C:O5'	2.12	0.48
1:AA:1749:A:H2'	1:AA:1750:G:O4'	2.14	0.48
1:AA:2310:A:N3	1:AA:2310:A:H3'	2.28	0.48
1:AA:2399:G:H1	1:AA:2417:C:H42	1.62	0.48
1:AA:2727:G:O2'	10:AN:70:LYS:HE2	2.13	0.48
1:AA:280:C:C2	1:AA:361:G:N2	2.81	0.48
1:AA:2814:C:C5	1:AA:2815:C:C4	3.02	0.48
1:AA:2862:G:C4	1:AA:2863:C:C5	3.01	0.48
1:AA:311:A:C2	1:AA:328:U:C4	3.02	0.48
1:AA:553:U:O4	56:AA:3423:OHX:N6	2.47	0.48
1:AA:374:A:C2	1:AA:401:A:C4	3.02	0.48
1:AA:451:C:H4'	5:AF:52:LYS:HE2	1.95	0.48
2:AB:13:A:H2'	2:AB:70:C:O2'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:134:ARG:HG3	3:AD:135:PHE:CE2	2.48	0.48
4:AE:102:VAL:HG21	4:AE:198:VAL:HG13	1.95	0.48
6:AG:16:ARG:HH12	6:AG:31:VAL:HG13	1.78	0.48
9:AM:7:LYS:O	9:AM:8:GLN:C	2.51	0.48
12:AP:136:ALA:HB2	21:AV:52:SER:HB2	1.96	0.48
31:BA:1033:G:H2'	31:BA:1034:G:H5'	1.95	0.48
31:BA:1067:A:H4'	31:BA:1068:G:O5'	2.13	0.48
31:BA:1401:G:C2	31:BA:1402:C:H1'	2.48	0.48
31:BA:452:A:H2'	31:BA:453:A:C8	2.44	0.48
31:BA:495:A:H4'	31:BA:496:A:O5'	2.14	0.48
31:BA:688:G:OP2	31:BA:688:G:O4'	2.31	0.48
49:BV:78:ARG:O	49:BV:79:THR:OG1	2.30	0.48
31:CA:1145:C:H2'	31:CA:1145:C:O2	2.13	0.48
31:CA:1145:C:O2'	31:CA:1146:A:C8	2.54	0.48
31:CA:1195:C:N3	31:CA:1197:G:C8	2.82	0.48
31:CA:1298:C:O2'	31:CA:1299:A:C2	2.66	0.48
31:CA:1436:U:H2'	31:CA:1437:C:C6	2.49	0.48
31:CA:1510:U:H2'	31:CA:1511:G:C8	2.48	0.48
31:CA:655:A:C2	31:CA:754:C:N4	2.81	0.48
31:CA:781:A:C3'	31:CA:782:A:H5'	2.43	0.48
39:CL:18:PHE:O	39:CL:19:LEU:HD23	2.13	0.48
41:CN:24:SER:OG	41:CN:27:ASN:N	2.47	0.48
42:CO:27:LEU:CD2	42:CO:60:LEU:HG	2.35	0.48
42:CO:85:ILE:HG23	42:CO:86:ARG:H	1.78	0.48
43:CP:3:ARG:HG2	43:CP:9:ILE:HD11	1.95	0.48
50:CW:30:LYS:C	50:CW:32:ALA:N	2.67	0.48
13:D0:33:ARG:HB2	13:D0:33:ARG:NH1	2.29	0.48
16:D1:14:HIS:ND1	16:D1:32:PHE:CG	2.81	0.48
16:D1:61:TRP:O	16:D1:65:ILE:HD13	2.14	0.48
17:D2:20:LEU:O	17:D2:93:GLU:HA	2.13	0.48
1:DA:1285:G:O6	56:DA:3368:OHX:N6	2.46	0.48
1:DA:1465:G:C2	1:DA:1466:G:C4	3.01	0.48
1:DA:1538:G:H2'	1:DA:1539:G:H8	1.79	0.48
1:DA:218:A:H2	1:DA:235:U:H4'	1.78	0.48
1:DA:2626:C:O2'	1:DA:2627:G:H5'	2.14	0.48
1:DA:2786:U:H4'	4:DE:64:LYS:HA	1.95	0.48
1:DA:51:G:N3	1:DA:119:A:C2	2.81	0.48
1:DA:888:C:C1'	1:DA:889:C:P	3.02	0.48
1:DA:952:G:C6	1:DA:966:G:C6	3.01	0.48
4:DE:27:LEU:HA	4:DE:180:ASN:O	2.13	0.48
4:DE:4:ILE:HD12	4:DE:28:ALA:HB1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:134:GLY:O	5:DF:135:LYS:C	2.51	0.48
5:DF:67:GLN:O	5:DF:67:GLN:HG3	2.12	0.48
6:DG:95:ARG:O	6:DG:99:MET:HG2	2.13	0.48
7:DH:10:PRO:HD2	7:DH:50:VAL:HG13	1.94	0.48
11:DO:19:VAL:O	11:DO:20:GLY:C	2.52	0.48
18:DS:15:ARG:O	18:DS:19:LEU:HD13	2.13	0.48
25:DX:23:LEU:O	25:DX:24:LYS:C	2.50	0.48
23:DZ:92:LYS:O	23:DZ:95:LEU:N	2.46	0.48
13:A0:3:HIS:O	13:A0:5:LYS:HG3	2.14	0.48
1:AA:1081:U:O2'	1:AA:1082:U:O4'	2.29	0.48
1:AA:1267:U:O2'	1:AA:1268:A:H5'	2.14	0.48
1:AA:1931:U:O2'	1:AA:1932:A:H5'	2.13	0.48
1:AA:2119:A:H62	1:AA:2168:G:H22	1.60	0.48
1:AA:633:A:H2'	1:AA:634:C:H5'	1.95	0.48
2:AB:37:C:C2'	2:AB:38:C:H5'	2.44	0.48
3:AD:177:LEU:HD11	3:AD:183:ARG:CB	2.43	0.48
3:AD:35:LYS:CE	3:AD:65:ILE:HG22	2.44	0.48
7:AH:86:GLU:CG	7:AH:165:ALA:H	2.26	0.48
12:AP:17:LEU:HD22	12:AP:96:VAL:CG1	2.37	0.48
14:AQ:83:LYS:O	14:AQ:109:GLY:CA	2.51	0.48
15:AR:107:ASP:O	15:AR:109:GLU:N	2.46	0.48
19:AT:50:LYS:HB3	19:AT:87:GLN:HE22	1.79	0.48
21:AV:120:ILE:HG21	21:AV:170:THR:OG1	2.14	0.48
31:BA:1158:C:C2'	31:BA:1158:C:O2	2.62	0.48
31:BA:255:G:O6	31:BA:266:G:O6	2.32	0.48
31:BA:703:G:O6	56:BA:1747:OHX:N1	2.46	0.48
52:BD:1:G:C2	52:BD:82:A:N1	2.82	0.48
33:BF:67:THR:HG23	33:BF:102:ASN:HB2	1.96	0.48
34:BG:114:ARG:CG	34:BG:114:ARG:NH1	2.76	0.48
35:BH:100:VAL:O	35:BH:107:ARG:NH2	2.46	0.48
38:BK:109:ILE:HD11	38:BK:120:THR:HB	1.96	0.48
38:BK:64:LYS:O	38:BK:65:TYR:HD1	1.96	0.48
49:BV:7:LYS:CG	49:BV:7:LYS:O	2.61	0.48
54:C1:21:C:C4	54:C1:22:A:C5	3.01	0.48
31:CA:1055:A:C8	31:CA:1206:G:C2	3.02	0.48
31:CA:1274:G:O2'	31:CA:1275:A:H5'	2.14	0.48
31:CA:411:A:C5	31:CA:413:G:H1'	2.49	0.48
31:CA:961:U:OP2	31:CA:1223:C:O2'	2.19	0.48
32:CE:208:ILE:HA	32:CE:211:ILE:CD1	2.44	0.48
34:CG:200:GLU:HG2	34:CG:201:GLN:N	2.28	0.48
35:CH:141:GLN:HA	35:CH:143:ARG:NH2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:111:ARG:NH2	37:CJ:122:HIS:HB2	2.28	0.48
45:CR:53:HIS:O	45:CR:56:LEU:HB3	2.12	0.48
50:CW:53:LEU:HD11	50:CW:104:LEU:HD11	1.96	0.48
30:D8:22:VAL:HG12	30:D8:50:LEU:HD21	1.94	0.48
1:DA:1058:U:H5	1:DA:1089:G:O6	1.97	0.48
1:DA:1459:G:C2'	1:DA:1460:A:H5'	2.44	0.48
1:DA:152:G:H2'	1:DA:153:C:O4'	2.13	0.48
1:DA:155:C:C4	1:DA:171:G:N1	2.78	0.48
1:DA:1990:C:C2'	1:DA:1991:U:O5'	2.62	0.48
1:DA:2052:G:C8	4:DE:141:ILE:HD11	2.49	0.48
1:DA:2324:C:H5"	1:DA:2325:G:H5'	1.96	0.48
1:DA:2469:A:C2	1:DA:2470:G:C5	3.01	0.48
1:DA:2533:A:N6	1:DA:2534:A:C2	2.82	0.48
1:DA:265:A:H4'	1:DA:266:G:O5'	2.14	0.48
1:DA:2736:G:H2'	1:DA:2737:G:C8	2.43	0.48
1:DA:2780:G:OP1	9:DM:118:LYS:HE2	2.14	0.48
1:DA:2873:A:C2'	1:DA:2873:A:N3	2.76	0.48
1:DA:918:A:H5"	2:DB:97:G:O2'	2.14	0.48
1:DA:2239:G:P	3:DD:244:ARG:HH22	2.35	0.48
7:DH:106:THR:HG22	7:DH:112:PRO:HB3	1.96	0.48
7:DH:20:ALA:HB3	7:DH:23:ARG:HG3	1.95	0.48
14:DQ:35:ILE:O	14:DQ:35:ILE:HG23	2.13	0.48
21:DV:114:GLY:C	21:DV:116:VAL:H	2.17	0.48
21:DV:44:PHE:CD1	21:DV:44:PHE:C	2.87	0.48
25:DX:35:ARG:HB3	25:DX:37:LEU:HD21	1.96	0.48
22:A3:60:PHE:CD2	22:A3:60:PHE:N	2.81	0.48
28:A6:27:LYS:HB2	28:A6:27:LYS:HZ2	1.79	0.48
1:AA:103:A:O5'	1:AA:103:A:H8	1.97	0.48
1:AA:1088:A:O2'	56:AA:3531:OHX:N3	2.46	0.48
1:AA:1142(A):A:N7	1:AA:1144:G:C5	2.81	0.48
1:AA:1174:A:N6	1:AA:1175:U:C6	2.81	0.48
1:AA:1412:A:N6	1:AA:1413:G:C6	2.81	0.48
1:AA:2095:C:H2'	1:AA:2096:U:O4'	2.13	0.48
1:AA:2474:C:C2	1:AA:2475:C:H1'	2.49	0.48
1:AA:2490:G:C2	56:AA:3330:OHX:N6	2.81	0.48
1:AA:2542:A:H4'	1:AA:2543:G:H5"	1.94	0.48
1:AA:2857:G:C6	1:AA:2861:G:O6	2.67	0.48
1:AA:998:C:C2'	1:AA:999:U:O5'	2.59	0.48
3:AD:27:THR:O	3:AD:28:GLU:CB	2.60	0.48
1:AA:39:C:O2	5:AF:46:ARG:NH2	2.42	0.48
7:AH:111:HIS:ND1	7:AH:112:PRO:O	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:71:VAL:CG1	11:AO:72:PRO:HD3	2.43	0.48
12:AP:11:LYS:HG2	12:AP:87:LYS:HG2	1.95	0.48
15:AR:37:GLY:O	15:AR:38:ASN:HB2	2.13	0.48
20:AU:29:GLU:HB3	20:AU:38:ILE:CG2	2.43	0.48
21:AV:51:ALA:O	21:AV:52:SER:HB3	2.13	0.48
31:BA:1199:U:C4'	40:BM:54:PHE:CE2	2.97	0.48
31:BA:109:A:C4	31:BA:327:A:C2	3.02	0.48
31:BA:382:A:O2'	31:BA:383:A:H5'	2.13	0.48
31:BA:426:G:H2'	31:BA:427:U:C6	2.49	0.48
31:BA:552:U:C2'	31:BA:553:A:H5'	2.44	0.48
33:BF:179:ARG:HG3	33:BF:179:ARG:O	2.14	0.48
34:BG:104:VAL:O	34:BG:106:TYR:N	2.47	0.48
34:BG:68:TYR:OH	34:BG:196:LEU:HD11	2.13	0.48
31:BA:939:G:C5'	37:BJ:102:ARG:NH2	2.76	0.48
38:BK:91:ARG:HD2	42:BO:7:ILE:HG13	1.96	0.48
39:BL:47:LEU:H	39:BL:47:LEU:HD22	1.79	0.48
40:BM:32:ALA:CB	40:BM:76:ASN:HB2	2.43	0.48
42:BO:66:VAL:HG22	42:BO:67:THR:N	2.28	0.48
31:CA:1006:C:H2'	31:CA:1007:C:C6	2.49	0.48
31:CA:1146:A:OP1	31:CA:1146:A:H8	1.96	0.48
31:CA:1183:A:O2'	31:CA:1184:G:OP1	2.24	0.48
31:CA:1206:G:C6	31:CA:1207:G:C5	3.01	0.48
31:CA:1306:A:H61	31:CA:1331:G:H1'	1.78	0.48
31:CA:1349:A:C4	31:CA:1374:A:C2	3.02	0.48
31:CA:166:G:O2'	31:CA:167:G:H5'	2.14	0.48
31:CA:38:G:C2	31:CA:397:A:C2	3.02	0.48
31:CA:612:C:O2	31:CA:629:G:N2	2.47	0.48
31:CA:89:U:O2'	31:CA:90:C:H5"	2.13	0.48
52:CD:85:A:O2'	1:DA:2394:C:O2	2.32	0.48
33:CF:81:GLY:HA3	33:CF:85:ARG:HH11	1.78	0.48
35:CH:111:GLU:O	35:CH:114:GLY:N	2.45	0.48
35:CH:111:GLU:C	35:CH:113:ALA:H	2.17	0.48
33:CF:37:GLN:NE2	44:CQ:52:GLN:OE1	2.46	0.48
16:D1:65:ILE:HG22	16:D1:66:ASN:N	2.28	0.48
17:D2:76:LYS:HB3	17:D2:79:VAL:HG22	1.95	0.48
29:D7:34:ARG:NH1	29:D7:34:ARG:HG2	2.28	0.48
1:DA:1223:C:OP2	17:D2:88:ARG:NH2	2.46	0.48
1:DA:1218:C:H42	1:DA:1231:G:H1	1.62	0.48
1:DA:130:C:H2'	1:DA:131:G:O5'	2.13	0.48
1:DA:1448:G:H1'	1:DA:1528:A:H62	1.79	0.48
1:DA:1636:C:H2'	1:DA:1637:A:H8	1.74	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:202:U:H2'	1:DA:203:C:O4'	2.14	0.48
1:DA:2869:G:C2	1:DA:2870:C:O2	2.67	0.48
1:DA:527:C:C5	56:DA:3388:OHX:N5	2.80	0.48
1:DA:484:C:H2'	1:DA:485:C:C6	2.49	0.48
1:DA:939:G:O6	56:DA:3416:OHX:N3	2.47	0.48
2:DB:116:G:C5'	14:DQ:55:ALA:HB2	2.43	0.48
3:DD:94:LEU:HG	3:DD:104:TYR:HE2	1.79	0.48
4:DE:134:ILE:HD12	4:DE:134:ILE:O	2.14	0.48
4:DE:35:GLN:CG	4:DE:36:ARG:H	2.27	0.48
1:DA:2786:U:H5"	4:DE:65:GLY:HA3	1.95	0.48
5:DF:178:PRO:C	5:DF:180:GLY:H	2.17	0.48
6:DG:128:ARG:NH2	6:DG:128:ARG:CG	2.75	0.48
8:DK:72:LEU:C	8:DK:74:ASN:N	2.67	0.48
1:DA:943:U:OP2	11:DO:36:LYS:CE	2.61	0.48
14:DQ:34:HIS:CE1	14:DQ:54:LEU:HD12	2.49	0.48
21:DV:28:MET:HG3	21:DV:37:VAL:CG1	2.40	0.48
21:DV:84:GLU:O	21:DV:85:HIS:HB2	2.13	0.48
23:DZ:87:PRO:O	23:DZ:90:ILE:N	2.46	0.48
23:DZ:91:LYS:O	23:DZ:92:LYS:C	2.52	0.48
16:A1:76:TYR:CD2	16:A1:76:TYR:C	2.86	0.48
1:AA:459:U:OP2	29:A7:39:ARG:NH1	2.46	0.48
1:AA:1049:C:C2'	1:AA:1050:A:H5'	2.41	0.48
1:AA:1061:U:C4'	1:AA:1070:A:H1'	2.15	0.48
1:AA:1056:G:N2	1:AA:1103:A:N6	2.42	0.48
1:AA:1108:U:O4	1:AA:1109:C:N4	2.45	0.48
1:AA:1138:G:H21	9:AM:106:MET:HE3	1.77	0.48
1:AA:1171:G:N2	1:AA:1179:C:O2	2.46	0.48
1:AA:1359:A:H2'	1:AA:1360:A:C5'	2.31	0.48
1:AA:1754:C:H5	15:AR:96:ARG:NH2	2.12	0.48
1:AA:2012:G:OP2	18:AS:16:LYS:NZ	2.47	0.48
1:AA:2619:C:OP1	4:AE:152:LYS:HE3	2.13	0.48
1:AA:2651:C:C2	1:AA:2670:A:C2	3.01	0.48
1:AA:2732:G:H3'	1:AA:2733:A:O4'	2.13	0.48
1:AA:2092:U:O2	56:AA:3405:OHX:N1	2.47	0.48
1:AA:459:U:C2'	1:AA:460:A:H5'	2.44	0.48
1:AA:529:A:C8	1:AA:530:G:C6	2.99	0.48
1:AA:882:G:C2'	1:AA:883:G:C8	2.93	0.48
1:AA:966:G:H2'	1:AA:967:C:H6	1.78	0.48
3:AD:35:LYS:CD	3:AD:104:TYR:HD1	2.11	0.48
6:AG:43:LEU:HD12	6:AG:45:GLU:CG	2.44	0.48
6:AG:43:LEU:HD12	6:AG:45:GLU:HG3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:119:GLU:OE2	11:AO:119:GLU:HA	2.13	0.48
12:AP:116:GLU:OE1	12:AP:116:GLU:HA	2.13	0.48
18:AS:51:LEU:HD23	18:AS:105:VAL:HG11	1.96	0.48
21:AV:97:GLU:HA	21:AV:126:VAL:O	2.14	0.48
1:AA:2432:A:C5	23:AZ:33:LYS:HG2	2.49	0.48
31:BA:1133:G:N2	31:BA:1141:C:N3	2.57	0.48
31:BA:1326:C:H2'	31:BA:1327:C:H6	1.76	0.48
31:BA:1403:C:H1'	31:BA:1500:A:N1	2.29	0.48
31:BA:558:G:C5	31:BA:559:A:C2	3.02	0.48
31:BA:624:C:H2'	31:BA:625:G:H8	1.78	0.48
31:BA:735:C:O2'	31:BA:736:C:H5'	2.14	0.48
34:BG:206:PHE:HD2	34:BG:207:TYR:CD1	2.31	0.48
39:BL:118:LYS:O	39:BL:119:ALA:CB	2.62	0.48
39:BL:53:VAL:HG23	39:BL:95:LYS:CD	2.43	0.48
31:CA:1167:A:H8	31:CA:1167:A:O5'	1.97	0.48
31:CA:1285:A:C2'	31:CA:1286:A:OP2	2.62	0.48
31:CA:245:C:O2	31:CA:283:C:N3	2.46	0.48
31:CA:780:A:C2	31:CA:803:G:C6	3.02	0.48
32:CE:75:LYS:CA	32:CE:78:GLN:HB2	2.24	0.48
32:CE:82:ARG:HD2	32:CE:92:TYR:CE1	2.49	0.48
33:CF:45:LYS:O	33:CF:47:LEU:N	2.46	0.48
34:CG:173:TRP:NE1	34:CG:174:LEU:HG	2.28	0.48
34:CG:24:GLU:OE1	34:CG:112:VAL:HG21	2.14	0.48
39:CL:109:VAL:O	39:CL:109:VAL:HG12	2.13	0.48
51:CX:12:LYS:HD2	51:CX:17:THR:O	2.14	0.48
16:D1:10:ARG:HG2	16:D1:14:HIS:CD2	2.49	0.48
1:DA:1679:U:H2'	1:DA:1679:U:O2	2.13	0.48
1:DA:1784:A:H4'	1:DA:1785:A:C5'	2.44	0.48
1:DA:1952:A:C5	10:DN:22:ILE:HD12	2.49	0.48
1:DA:919:G:N2	1:DA:2269:A:OP2	2.47	0.48
1:DA:28:A:C2	1:DA:513:A:C8	3.02	0.48
1:DA:498:G:N7	56:DA:3407:OHX:N1	2.62	0.48
1:DA:1681:G:N1	56:DA:3488:OHX:N2	2.58	0.48
1:DA:52:A:O2'	1:DA:53:A:H5'	2.14	0.48
1:DA:883:G:C6	1:DA:884:C:N4	2.82	0.48
6:DG:110:ALA:HA	6:DG:140:ILE:O	2.13	0.48
8:DK:71:ILE:HG12	8:DK:71:ILE:O	2.14	0.48
10:DN:80:ASP:OD1	15:DR:64:ARG:NH2	2.46	0.48
12:DP:116:GLU:O	12:DP:117:ALA:HB2	2.14	0.48
12:DP:36:ALA:HB2	12:DP:103:MET:SD	2.53	0.48
14:DQ:14:VAL:HG21	14:DQ:89:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:DT:18:TYR:O	19:DT:20:GLY:N	2.47	0.48
20:DU:6:HIS:HE1	20:DU:69:ALA:O	1.97	0.48
21:DV:69:THR:HG22	21:DV:90:VAL:HA	1.96	0.48
16:A1:110:VAL:O	16:A1:113:ALA:HB3	2.13	0.48
16:A1:92:ARG:HH21	17:A2:10:LYS:HB3	1.79	0.48
17:A2:35:LEU:CD2	17:A2:35:LEU:H	2.24	0.48
1:AA:1161:C:H1'	17:A2:8:GLY:O	2.13	0.48
1:AA:1375:C:H2'	1:AA:1376:C:H6	1.79	0.48
1:AA:1389:G:H2'	1:AA:1390:U:C6	2.48	0.48
1:AA:2015:A:C4	27:A5:6:VAL:HG23	2.48	0.48
1:AA:2068:U:N3	1:AA:2430:A:C2	2.52	0.48
1:AA:2472:G:H8	1:AA:2472:G:O5'	1.96	0.48
1:AA:2500:U:H2'	1:AA:2504:U:H5	1.79	0.48
1:AA:2590:A:P	3:AD:238:GLY:HA2	2.54	0.48
1:AA:34:C:O2'	1:AA:35:G:P	2.71	0.48
1:AA:537:C:H2'	1:AA:539:G:O4'	2.14	0.48
1:AA:943:U:OP2	11:AO:36:LYS:NZ	2.39	0.48
4:AE:111:ARG:HG3	4:AE:160:TYR:HD1	1.71	0.48
4:AE:46:ALA:HB2	4:AE:82:ARG:HA	1.96	0.48
6:AG:119:GLY:CA	6:AG:181:ARG:HB2	2.43	0.48
9:AM:75:TYR:O	9:AM:76:SER:O	2.32	0.48
11:AO:131:SER:H	11:AO:134:ALA:HB3	1.79	0.48
20:AU:95:LYS:HG3	20:AU:95:LYS:O	2.14	0.48
20:AU:97:ARG:C	20:AU:97:ARG:NE	2.62	0.48
31:BA:1095:U:H5"	31:BA:1109:C:O2	2.13	0.48
31:BA:115:G:O5'	31:BA:115:G:H8	1.97	0.48
31:BA:955:U:H1'	31:BA:1227:A:H61	1.79	0.48
31:BA:128:G:O2'	47:BT:3:LYS:HE2	2.14	0.48
31:BA:420:U:H2'	31:BA:422:C:C6	2.48	0.48
31:BA:537:G:H2'	31:BA:538:G:C8	2.49	0.48
31:BA:919:A:O2'	31:BA:920:U:H5'	2.14	0.48
31:BA:998:G:C6	31:BA:998(A):C:N4	2.81	0.48
52:BD:57:C:C4'	52:BD:58:G:OP2	2.62	0.48
47:BT:11:VAL:HG22	47:BT:20:THR:O	2.14	0.48
31:CA:1159:U:H1'	31:CA:1181:G:N1	2.26	0.48
31:CA:115:G:H4'	31:CA:116:A:O5'	2.12	0.48
31:CA:1206:G:H2'	31:CA:1207:G:C8	2.48	0.48
31:CA:1220:G:H5'	49:CV:34:TRP:O	2.14	0.48
31:CA:1286:A:H8	31:CA:1287:A:H4'	1.69	0.48
31:CA:186(E):C:H42	31:CA:191(B):G:H1	1.61	0.48
31:CA:191(C):G:H2'	31:CA:191(D):U:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:369:C:O2	31:CA:369:C:H2'	2.13	0.48
31:CA:625:G:C6	31:CA:626:U:C4	3.02	0.48
31:CA:93:U:H2'	31:CA:95:G:H5"	1.96	0.48
35:CH:51:VAL:CB	35:CH:52:PRO:HD3	2.43	0.48
38:CK:23:SER:HB2	38:CK:61:VAL:O	2.13	0.48
41:CN:21:ILE:HG22	41:CN:21:ILE:O	2.13	0.48
43:CP:118:ALA:HB3	53:CC:30:G:H5'	1.95	0.48
31:CA:1309:G:O2'	43:CP:77:ASN:ND2	2.47	0.48
40:CM:47:PHE:CB	44:CQ:34:TYR:CE2	2.97	0.48
1:DA:2015:A:C1'	27:D5:2:ALA:HA	2.41	0.48
1:DA:1843:C:H5'	3:DD:253:GLN:NE2	2.29	0.48
1:DA:2190:G:H2'	1:DA:2191:G:O4'	2.13	0.48
1:DA:2247:A:O2'	1:DA:2248:C:H5'	2.14	0.48
1:DA:2392:A:C8	11:DO:60:MET:SD	3.07	0.48
1:DA:1954:G:N3	1:DA:2551:C:H5"	2.28	0.48
1:DA:2576:G:O2'	1:DA:2579:C:OP2	2.25	0.48
1:DA:270(Y):G:OP1	56:DA:3470:OHX:N4	2.47	0.48
1:DA:273(F):C:H2'	1:DA:274:G:C8	2.48	0.48
1:DA:2751:G:C5'	1:DA:2752:C:OP2	2.62	0.48
1:DA:2854:G:C2	1:DA:2864:G:C2	3.02	0.48
1:DA:287:C:H2'	1:DA:288:C:H6	1.78	0.48
56:DA:3444:OHX:N1	56:DA:3471:OHX:N5	2.62	0.48
1:DA:353:G:H2'	1:DA:354:G:H5'	1.96	0.48
1:DA:516:C:O2'	1:DA:517:C:H5'	2.14	0.48
1:DA:888:C:H1'	1:DA:889:C:OP1	2.14	0.48
1:DA:971:C:H2'	1:DA:972:G:O5'	2.14	0.48
4:DE:73:GLU:O	4:DE:74:PRO:O	2.32	0.48
6:DG:55:LYS:HD2	6:DG:58:GLN:HE22	1.77	0.48
7:DH:70:THR:HG22	7:DH:74:ASN:ND2	2.29	0.48
8:DK:18:VAL:O	8:DK:18:VAL:HG12	2.12	0.48
8:DK:75:LEU:HD23	8:DK:76:THR:H	1.78	0.48
11:DO:97:PRO:O	11:DO:98:GLU:CB	2.61	0.48
15:DR:19:LEU:H	15:DR:19:LEU:HD12	1.77	0.48
13:A0:26:LYS:HE2	13:A0:70:LEU:O	2.13	0.47
26:A4:43:TYR:O	26:A4:46:GLN:HA	2.14	0.47
26:A4:63:TYR:HE2	49:BV:42:PRO:CD	2.19	0.47
1:AA:16:G:N3	1:AA:17:G:C8	2.82	0.47
1:AA:2212:A:N3	1:AA:2215:G:N1	2.61	0.47
1:AA:2252:G:H2'	1:AA:2253:G:O4'	2.13	0.47
1:AA:2393:A:H2'	1:AA:2394:C:O4'	2.14	0.47
1:AA:2490:G:H2'	1:AA:2490:G:N3	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2537:U:H2'	1:AA:2538:C:H6	1.79	0.47
1:AA:2566:A:H1'	1:AA:2567:G:OP2	2.14	0.47
1:AA:2602:A:H4'	1:AA:2603:G:O5'	2.14	0.47
1:AA:270(B):A:C3'	1:AA:270(C):C:H5'	2.44	0.47
1:AA:2731:G:C6	1:AA:2732:G:O6	2.66	0.47
1:AA:2789:C:C2'	1:AA:2790:A:H5"	2.44	0.47
1:AA:323:G:O6	1:AA:333:G:C5	2.67	0.47
1:AA:509:C:OP1	56:AA:3365:OHX:N1	2.47	0.47
1:AA:579:G:H5"	1:AA:2018:G:H5"	1.96	0.47
1:AA:83:G:O6	56:AA:3376:OHX:N5	2.47	0.47
1:AA:899:A:O2'	1:AA:900:A:C8	2.66	0.47
1:AA:994:C:O2'	1:AA:996:A:OP1	2.15	0.47
2:AB:82:G:O2'	2:AB:83:G:H5'	2.13	0.47
3:AD:31:LYS:HD3	3:AD:94:LEU:HD11	1.96	0.47
4:AE:13:ARG:HB2	4:AE:21:VAL:HB	1.95	0.47
6:AG:172:LEU:HD11	6:AG:176:LEU:HD12	1.96	0.47
1:AA:811:U:C4	11:AO:21:ARG:NH2	2.82	0.47
11:AO:29:LYS:CD	11:AO:30:THR:HG22	2.45	0.47
1:AA:2469:A:HO2'	12:AP:56:ARG:HG2	1.77	0.47
15:AR:56:GLY:C	15:AR:57:PHE:O	2.46	0.47
1:AA:508:G:C6	18:AS:9:TYR:CD2	3.02	0.47
21:AV:7:ALA:HB3	21:AV:61:LEU:CB	2.44	0.47
25:AX:54:VAL:HG22	25:AX:55:ARG:N	2.28	0.47
31:BA:1026:G:C6	31:BA:1036:G:N2	2.82	0.47
31:BA:1027:C:H4'	31:BA:1028:C:OP1	2.13	0.47
31:BA:1509:C:C2'	31:BA:1510:U:H5'	2.44	0.47
31:BA:422:C:O2	31:BA:422:C:C2'	2.62	0.47
31:BA:690:G:O2'	31:BA:691:G:H5'	2.13	0.47
31:BA:777:A:H2'	31:BA:778:G:O5'	2.13	0.47
31:BA:827:U:O4'	31:BA:827:U:O2	2.27	0.47
52:BB:8:U:C2	52:BB:15:G:O6	2.67	0.47
53:BC:64:G:H2'	53:BC:65:G:H8	1.78	0.47
32:BE:162:ILE:O	32:BE:185:ILE:HG12	2.14	0.47
32:BE:74:LYS:O	32:BE:78:GLN:HB2	2.13	0.47
33:BF:112:SER:HB3	33:BF:115:LEU:HD12	1.95	0.47
37:BJ:137:LYS:O	37:BJ:139:GLU:N	2.47	0.47
37:BJ:49:ILE:HG22	37:BJ:53:LYS:HD3	1.97	0.47
38:BK:103:VAL:CG1	38:BK:138:TRP:HD1	2.26	0.47
40:BM:48:THR:HA	40:BM:62:HIS:CB	2.25	0.47
40:BM:75:ILE:HG13	40:BM:76:ASN:H	1.79	0.47
41:BN:12:ARG:CG	41:BN:13:GLN:H	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:87:TYR:O	43:BP:88:ARG:C	2.53	0.47
31:CA:1051:C:C4	31:CA:1052:U:C4	3.02	0.47
31:CA:438:G:H4'	34:CG:123:HIS:ND1	2.29	0.47
31:CA:580:U:P	56:CA:1723:OHX:N5	2.86	0.47
31:CA:949:A:H2'	31:CA:950:U:O4'	2.14	0.47
31:CA:9:G:C8	35:CH:126:ARG:NH2	2.82	0.47
52:CB:59:A:N6	52:CB:60:A:C6	2.81	0.47
53:CC:16:C:H4'	53:CC:16:C:OP1	2.14	0.47
52:CD:20:C:H3'	52:CD:68:A:H62	1.78	0.47
35:CH:47:LYS:HB2	35:CH:47:LYS:HE2	1.67	0.47
35:CH:88:LYS:HB2	35:CH:123:LEU:HB2	1.95	0.47
36:CI:21:LEU:HD22	36:CI:21:LEU:O	2.14	0.47
38:CK:74:PRO:O	38:CK:75:ARG:C	2.52	0.47
40:CM:50:ILE:CD1	40:CM:60:ARG:HH11	2.27	0.47
42:CO:18:VAL:HG23	42:CO:19:ARG:H	1.79	0.47
44:CQ:43:CYS:O	44:CQ:46:GLU:HB2	2.13	0.47
16:D1:65:ILE:O	16:D1:66:ASN:C	2.52	0.47
22:D3:56:ASP:O	22:D3:56:ASP:CG	2.52	0.47
26:D4:40:HIS:N	26:D4:41:PRO:CD	2.78	0.47
1:DA:1048:A:P	1:DA:1109:C:H42	2.36	0.47
1:DA:1378:A:OP1	29:D7:10:ARG:NH2	2.47	0.47
1:DA:1526:G:H2'	1:DA:1527:G:O4'	2.13	0.47
1:DA:2210:G:C4'	1:DA:2211:G:OP2	2.62	0.47
1:DA:1638:C:H1'	1:DA:2698:U:O2'	2.14	0.47
1:DA:2720:U:N3	1:DA:2721:A:C5	2.82	0.47
1:DA:2772:C:H5'	4:DE:168:MET:CE	2.44	0.47
1:DA:2803:C:N4	1:DA:2804:C:N4	2.61	0.47
1:DA:2859:G:C8	1:DA:2859:G:H3'	2.48	0.47
1:DA:332:A:C2	1:DA:335:C:C5	3.02	0.47
1:DA:654(A):A:N1	1:DA:654(T):A:N1	2.62	0.47
2:DB:27:C:C5	2:DB:28:C:C5	3.02	0.47
3:DD:31:LYS:HE3	3:DD:94:LEU:HD11	1.96	0.47
1:DA:2052:G:OP1	4:DE:140:SER:HB2	2.14	0.47
4:DE:119:ARG:CG	4:DE:160:TYR:HB2	2.36	0.47
6:DG:6:ALA:O	6:DG:8:LYS:N	2.47	0.47
9:DM:87:LEU:O	9:DM:89:LYS:N	2.47	0.47
14:DQ:25:ARG:CB	14:DQ:25:ARG:HH11	2.27	0.47
21:DV:129:SER:C	21:DV:131:ARG:H	2.17	0.47
1:AA:1287:A:H8	13:A0:104:ARG:HD3	1.80	0.47
16:A1:79:PHE:C	16:A1:79:PHE:HD2	2.17	0.47
27:A5:33:CYS:HB3	27:A5:38:ALA:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1171:G:C6	1:AA:1174:A:C6	3.01	0.47
1:AA:1537:C:H2'	1:AA:1538:G:O5'	2.13	0.47
1:AA:2140:C:N4	1:AA:2151:G:H1	2.12	0.47
1:AA:2111:C:H5	1:AA:2147:G:N2	2.11	0.47
1:AA:2199:A:C4	1:AA:2205:C:C6	3.01	0.47
1:AA:2435:A:C2'	1:AA:2436:G:O5'	2.62	0.47
7:AH:83:TYR:HA	7:AH:135:GLY:O	2.14	0.47
8:AK:25:TYR:CE2	8:AK:29:TYR:CD2	3.01	0.47
10:AN:88:ASN:HD21	10:AN:92:GLU:HG3	1.79	0.47
12:AP:87:LYS:HG3	12:AP:88:GLY:N	2.28	0.47
18:AS:5:ALA:CB	18:AS:54:ALA:HB2	2.45	0.47
25:AX:7:LYS:HG3	25:AX:34:GLU:HG3	1.94	0.47
31:BA:1150:U:H5"	31:BA:1151:A:OP2	2.14	0.47
31:BA:959:A:C2	31:BA:1222:G:O4'	2.67	0.47
31:BA:1318:A:H1'	49:BV:37:ARG:HH21	1.80	0.47
31:BA:340:U:H2'	31:BA:341:C:O4'	2.14	0.47
31:BA:342:C:C2	31:BA:348:G:C2	3.02	0.47
31:BA:389:A:H2'	31:BA:390:C:H5'	1.96	0.47
31:BA:448:A:OP2	31:BA:485:G:N1	2.47	0.47
31:BA:446:G:H1	31:BA:488:C:H42	1.61	0.47
31:BA:909:A:H2'	31:BA:910:C:O4'	2.15	0.47
31:BA:957:U:H2'	31:BA:959:A:OP2	2.14	0.47
53:BC:19:G:C2	53:BC:59:A:C4	3.02	0.47
34:BG:108:LEU:HB3	34:BG:110:PHE:CE1	2.42	0.47
34:BG:19:LEU:HG	34:BG:21:LEU:HD21	1.96	0.47
34:BG:11:LEU:HD13	34:BG:66:ARG:HG2	1.94	0.47
35:BH:51:VAL:O	35:BH:55:VAL:HG23	2.13	0.47
39:BL:29:ASN:N	39:BL:63:ILE:O	2.38	0.47
40:BM:96:ILE:N	40:BM:96:ILE:HD13	2.28	0.47
44:BQ:29:ARG:HD3	44:BQ:40:CYS:HB2	1.96	0.47
31:CA:1503:A:O2'	31:CA:1504:G:C5'	2.62	0.47
31:CA:410:G:C2	31:CA:429:U:C2	3.02	0.47
31:CA:428:G:H4'	31:CA:429:U:O5'	2.14	0.47
52:CB:66:G:H2'	52:CB:67:A:H5'	1.96	0.47
52:CD:46:G:N1	52:CD:54:C:O2	2.44	0.47
32:CE:69:LEU:O	32:CE:69:LEU:HD23	2.14	0.47
31:CA:619:U:C2	34:CG:135:LEU:HD22	2.49	0.47
31:CA:426:G:P	34:CG:36:ARG:HH21	2.37	0.47
38:CK:109:ILE:HG12	38:CK:110:ALA:N	2.28	0.47
41:CN:124:LYS:HB2	41:CN:125:PHE:CD2	2.49	0.47
31:CA:1321:C:H4'	43:CP:87:TYR:CE2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CV:7:LYS:CG	49:CV:8:GLY:H	2.16	0.47
13:D0:84:ALA:N	13:D0:85:PRO:CD	2.77	0.47
16:D1:24:TYR:O	16:D1:29:SER:OG	2.27	0.47
22:D3:48:GLY:HA3	22:D3:80:HIS:ND1	2.29	0.47
6:DG:61:ALA:O	26:D4:7:PRO:HG2	2.14	0.47
30:D8:34:TRP:C	30:D8:36:LYS:H	2.17	0.47
1:DA:1308:A:OP2	56:DA:3389:OHX:N6	2.47	0.47
1:DA:1771:C:H1'	1:DA:1786:A:C8	2.49	0.47
1:DA:2087:G:C2'	1:DA:2088:G:H5'	2.44	0.47
1:DA:2335:A:N7	1:DA:2337:G:C5	2.82	0.47
1:DA:2467:C:H6	1:DA:2467:C:H3'	1.78	0.47
1:DA:2818:G:C2'	1:DA:2819:G:H5'	2.44	0.47
1:DA:455:C:N3	1:DA:472:A:H2'	2.29	0.47
1:DA:941:A:H2'	1:DA:942:G:C8	2.49	0.47
2:DB:74:U:H3'	2:DB:75:G:H5"	1.95	0.47
4:DE:58:ARG:O	4:DE:59:VAL:C	2.51	0.47
5:DF:123:LEU:O	5:DF:193:VAL:HA	2.13	0.47
6:DG:121:ASN:ND2	6:DG:122:PRO:HD2	2.29	0.47
11:DO:31:ALA:O	11:DO:33:ARG:N	2.47	0.47
12:DP:103:MET:HE1	12:DP:125:LEU:HD13	1.95	0.47
12:DP:21:THR:HG23	12:DP:21:THR:O	2.10	0.47
19:DT:44:GLU:C	19:DT:46:ALA:H	2.16	0.47
19:DT:57:LEU:HD21	19:DT:78:LYS:HD2	1.96	0.47
21:DV:10:ARG:HG2	21:DV:11:GLU:N	2.28	0.47
21:DV:5:LEU:HD12	21:DV:47:VAL:HG21	1.96	0.47
1:AA:1265:A:H3'	27:A5:19:ARG:NH1	2.29	0.47
1:AA:630:G:OP2	30:A8:15:LYS:NZ	2.47	0.47
1:AA:1927:A:C2	1:AA:1928:A:C4	3.02	0.47
1:AA:2141:G:H2'	1:AA:2142:C:C6	2.49	0.47
1:AA:2308:G:C6	1:AA:2311:A:N1	2.77	0.47
1:AA:2592:G:C5	1:AA:2593:U:C5	3.02	0.47
1:AA:409:C:OP2	56:AA:3392:OHX:N1	2.47	0.47
1:AA:650:C:H2'	1:AA:651:G:O5'	2.15	0.47
1:AA:654:A:N3	1:AA:654:A:C2'	2.76	0.47
3:AD:257:LEU:HD22	3:AD:258:LYS:N	2.29	0.47
1:AA:2572:A:N7	4:AE:145:LYS:HB2	2.29	0.47
4:AE:26:ILE:CD1	4:AE:198:VAL:HG21	2.34	0.47
4:AE:29:GLY:N	4:AE:51:PHE:HE2	2.04	0.47
6:AG:43:LEU:C	6:AG:45:GLU:N	2.68	0.47
9:AM:103:VAL:O	9:AM:104:LYS:C	2.52	0.47
11:AO:15:ARG:O	11:AO:16:ARG:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:50:ARG:CG	11:AO:50:ARG:HH21	2.26	0.47
14:AQ:11:LYS:O	14:AQ:15:ARG:HB2	2.14	0.47
14:AQ:69:VAL:O	14:AQ:69:VAL:HG22	2.14	0.47
15:AR:26:ASP:HB2	15:AR:90:GLN:O	2.14	0.47
18:AS:73:ALA:HB3	18:AS:106:ILE:HB	1.96	0.47
21:AV:92:SER:O	21:AV:130:PRO:HG2	2.14	0.47
23:AZ:91:LYS:O	23:AZ:93:GLU:N	2.47	0.47
31:BA:1009:G:O2'	31:BA:1010:G:H5'	2.14	0.47
31:BA:1028(B):C:C4	31:BA:1032(A):G:N2	2.80	0.47
31:BA:1074:G:O2'	31:BA:1101:A:N1	2.45	0.47
31:BA:153:C:O5'	31:BA:153:C:H6	1.97	0.47
31:BA:150:C:C5	31:BA:170:U:O4	2.67	0.47
31:BA:191:G:N3	50:BW:105:SER:HB2	2.30	0.47
31:BA:658:G:C6	31:BA:659:U:C4	3.02	0.47
52:BD:49:A:C2'	52:BD:50:U:O5'	2.62	0.47
32:BE:200:ILE:H	32:BE:200:ILE:HD12	1.76	0.47
35:BH:17:ALA:HA	35:BH:26:PHE:HA	1.96	0.47
47:BT:58:GLU:O	47:BT:74:LEU:N	2.35	0.47
31:CA:1129:C:N4	31:CA:1139:G:C2	2.82	0.47
31:CA:1161:C:C2	31:CA:1162:C:C5	3.02	0.47
31:CA:1190:G:H5'	33:CF:176:HIS:NE2	2.30	0.47
31:CA:951:G:C6	31:CA:1231:G:C6	3.03	0.47
31:CA:179:A:C5	31:CA:180:U:C5	3.02	0.47
31:CA:587:G:N2	31:CA:754:C:OP2	2.36	0.47
52:CB:51:C:H2'	52:CB:52:G:O4'	2.13	0.47
32:CE:10:LEU:H	32:CE:10:LEU:HD22	1.80	0.47
32:CE:91:PRO:HG3	32:CE:155:LEU:H	1.78	0.47
39:CL:33:PHE:CE1	39:CL:37:PHE:CD1	3.02	0.47
40:CM:61:GLU:OE1	44:CQ:58:LYS:NZ	2.27	0.47
31:CA:690:G:N2	41:CN:55:LYS:NZ	2.62	0.47
42:CO:83:VAL:CG1	42:CO:84:LEU:H	2.16	0.47
43:CP:115:LYS:C	43:CP:117:VAL:H	2.17	0.47
45:CR:80:ALA:HA	45:CR:83:GLU:HB3	1.96	0.47
50:CW:74:LYS:HA	50:CW:74:LYS:HE3	1.96	0.47
1:DA:56:A:C2	1:DA:115:C:O2	2.68	0.47
1:DA:1208:C:H2'	1:DA:1209:G:C5'	2.44	0.47
1:DA:125:G:H4'	1:DA:126:A:OP2	2.14	0.47
1:DA:1311:G:O6	56:DA:3389:OHX:N5	2.47	0.47
1:DA:1432:C:H2'	1:DA:1433:U:O4'	2.13	0.47
1:DA:734:A:O2'	1:DA:1635:G:H5'	2.14	0.47
1:DA:2468:G:O6	1:DA:2481:G:C5	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:272:G:H2'	1:DA:273:G:O4'	2.14	0.47
1:DA:2762:G:H3'	1:DA:2763:G:C5'	2.39	0.47
1:DA:2820:A:C5	13:D0:4:LEU:HD11	2.49	0.47
1:DA:886:C:H2'	1:DA:888:C:N3	2.28	0.47
3:DD:123:ALA:HB3	3:DD:131:LEU:HG	1.95	0.47
6:DG:55:LYS:C	6:DG:57:ALA:N	2.68	0.47
10:DN:115:VAL:CG1	10:DN:121:VAL:HG21	2.42	0.47
11:DO:15:ARG:O	11:DO:16:ARG:C	2.53	0.47
12:DP:26:TYR:CE1	12:DP:139:GLU:HB2	2.50	0.47
14:DQ:24:LEU:HB2	14:DQ:85:VAL:CG1	2.44	0.47
19:DT:40:LYS:C	19:DT:42:ALA:N	2.65	0.47
19:DT:28:PHE:HE1	19:DT:81:VAL:HG22	1.75	0.47
13:A0:18:LEU:HD11	13:A0:22:ARG:NE	2.29	0.47
22:A3:48:GLY:HA3	22:A3:80:HIS:ND1	2.28	0.47
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.49	0.47
1:AA:1154:G:OP2	16:A1:58:ARG:NH1	2.48	0.47
1:AA:1445:C:H2'	1:AA:1446:C:H6	1.79	0.47
1:AA:1545:A:C2'	1:AA:1545(A):A:H5'	2.44	0.47
1:AA:2205:C:O2	1:AA:2205:C:H2'	2.13	0.47
1:AA:2287:A:C2	1:AA:2289:G:C8	3.02	0.47
1:AA:253:C:C2'	1:AA:254:G:H5'	2.43	0.47
1:AA:271(B):G:O2'	1:AA:271(C):U:OP2	2.21	0.47
1:AA:273(D):C:H2'	1:AA:273(E):U:C6	2.48	0.47
1:AA:2771:C:H2'	1:AA:2772:C:H6	1.80	0.47
1:AA:300:A:H2'	1:AA:334:C:O2'	2.15	0.47
1:AA:821:A:H5'	1:AA:822:U:C6	2.49	0.47
2:AB:71:C:C2'	2:AB:71:C:O2	2.62	0.47
4:AE:33:VAL:HG23	4:AE:47:VAL:HG12	1.97	0.47
7:AH:88:LEU:H	7:AH:88:LEU:HD12	1.78	0.47
9:AM:73:THR:HB	9:AM:82:LEU:HD11	1.95	0.47
1:AA:486:C:O2'	18:AS:60:ASN:ND2	2.47	0.47
21:AV:30:ASN:O	21:AV:33:LEU:N	2.47	0.47
21:AV:62:PRO:O	21:AV:63:ASP:HB2	2.15	0.47
24:AW:43:GLN:C	24:AW:44:LEU:HD23	2.35	0.47
23:AZ:67:ILE:HB	23:AZ:68:PRO:HD3	1.97	0.47
31:BA:167:G:O2'	31:BA:168:G:H5'	2.13	0.47
31:BA:542:G:O2'	31:BA:543:C:H5'	2.15	0.47
31:BA:558:G:C4	31:BA:559:A:C2	3.03	0.47
31:BA:591:U:H2'	31:BA:592:G:H8	1.80	0.47
53:BC:2:G:C6	53:BC:3:C:C4	3.03	0.47
32:BE:163:PHE:HD2	32:BE:185:ILE:CD1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:8:LYS:HE3	32:BE:11:LEU:HB2	1.96	0.47
34:BG:112:VAL:HG12	34:BG:116:GLN:OE1	2.14	0.47
34:BG:154:ASN:O	34:BG:155:LEU:C	2.53	0.47
35:BH:90:VAL:O	35:BH:120:THR:HA	2.14	0.47
1:AA:888:C:N4	43:BP:93:ARG:NH2	2.62	0.47
49:BV:30:LEU:H	49:BV:30:LEU:CD1	2.28	0.47
51:BX:6:ARG:HG3	51:BX:6:ARG:H	1.49	0.47
31:CA:1023:G:H3'	31:CA:1024:G:C5'	2.39	0.47
31:CA:1112:C:C2	33:CF:178:LEU:HB2	2.49	0.47
31:CA:1128:C:H2'	31:CA:1129:C:O5'	2.14	0.47
31:CA:1291:G:C6	31:CA:1292:U:O4	2.67	0.47
31:CA:109:A:H2'	31:CA:326:G:N2	2.30	0.47
31:CA:436:C:H2'	31:CA:437:U:C6	2.42	0.47
31:CA:713:G:H2'	31:CA:714:G:C8	2.50	0.47
31:CA:852:G:C6	31:CA:853:G:N7	2.82	0.47
31:CA:930:C:N4	31:CA:931:C:C4	2.83	0.47
53:CC:11:A:C6	53:CC:12:G:C6	3.02	0.47
32:CE:54:THR:O	32:CE:57:PHE:HB3	2.14	0.47
37:CJ:43:PHE:HD1	37:CJ:43:PHE:O	1.98	0.47
39:CL:119:ALA:O	39:CL:120:ARG:HG3	2.14	0.47
43:CP:98:VAL:HG23	43:CP:99:ARG:HG3	1.97	0.47
45:CR:48:LYS:HZ2	45:CR:48:LYS:HA	1.79	0.47
50:CW:25:ARG:O	50:CW:29:LYS:HE3	2.15	0.47
13:D0:55:ALA:C	13:D0:57:ARG:N	2.64	0.47
13:D0:29:LEU:HB3	13:D0:75:LEU:HD21	1.96	0.47
13:D0:81:ASP:O	13:D0:82:GLU:HB3	2.14	0.47
49:CV:42:PRO:HD2	26:D4:63:TYR:HB3	1.97	0.47
1:DA:1002:G:H2'	1:DA:1003:G:O4'	2.15	0.47
1:DA:1681:G:H21	1:DA:1762:A:H3'	1.79	0.47
1:DA:945:A:N6	1:DA:2448:A:C5	2.83	0.47
1:DA:2520:C:H41	1:DA:2542:A:N6	2.11	0.47
1:DA:270(G):C:H2'	1:DA:270(H):C:H6	1.79	0.47
1:DA:340:A:C2'	1:DA:341:G:H5'	2.44	0.47
1:DA:459:U:H4'	29:D7:40:TRP:CZ3	2.49	0.47
1:DA:673:C:OP1	5:DF:54:ARG:NH1	2.47	0.47
1:DA:818:G:H4'	1:DA:838:C:O3'	2.14	0.47
1:DA:897:C:N4	1:DA:898:C:N4	2.62	0.47
2:DB:54:G:C2	2:DB:55:U:C6	3.03	0.47
2:DB:83:G:N2	2:DB:93:C:N3	2.54	0.47
5:DF:59:TYR:N	5:DF:59:TYR:CD2	2.81	0.47
1:DA:2314:C:H5"	6:DG:38:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:65:LYS:C	9:DM:67:LEU:H	2.18	0.47
9:DM:94:HIS:HA	9:DM:96:GLU:OE2	2.14	0.47
11:DO:71:VAL:H	11:DO:72:PRO:HD2	1.79	0.47
12:DP:69:PHE:CD1	12:DP:70:PRO:HD2	2.50	0.47
21:DV:157:LEU:HA	21:DV:161:VAL:HG11	1.95	0.47
21:DV:53:ILE:H	21:DV:71:VAL:CG1	2.27	0.47
13:A0:107:ASP:OD2	13:A0:109:ALA:N	2.44	0.47
13:A0:18:LEU:HD11	13:A0:22:ARG:CZ	2.45	0.47
16:A1:112:ARG:CG	16:A1:112:ARG:NH1	2.60	0.47
17:A2:27:ALA:O	17:A2:61:VAL:HG21	2.14	0.47
17:A2:41:GLY:HA3	17:A2:46:VAL:HG11	1.95	0.47
1:AA:1204:A:N1	1:AA:1241:A:C2	2.82	0.47
1:AA:1212:G:O2'	1:AA:1213:A:OP2	2.29	0.47
1:AA:1567:A:O4'	1:AA:1568:G:C2	2.67	0.47
1:AA:2137:C:H42	1:AA:2154:G:H1	1.61	0.47
1:AA:363(A):A:H2'	1:AA:363(B):G:C8	2.49	0.47
1:AA:493:G:H2'	1:AA:494:G:O4'	2.14	0.47
1:AA:638:G:C5	1:AA:651:G:N2	2.82	0.47
1:AA:639:U:H2'	1:AA:640:C:C6	2.49	0.47
3:AD:143:HIS:O	3:AD:144:ALA:C	2.52	0.47
4:AE:119:ARG:HD3	4:AE:160:TYR:HB2	1.97	0.47
9:AM:127:ASP:O	9:AM:128:HIS:CB	2.63	0.47
9:AM:51:PHE:CE1	9:AM:119:ARG:NE	2.82	0.47
11:AO:114:ILE:HD12	11:AO:114:ILE:C	2.35	0.47
15:AR:57:PHE:CG	15:AR:58:ASN:N	2.83	0.47
31:BA:1084:G:C5	31:BA:1085:U:C4	3.03	0.47
31:BA:1203:C:H2'	31:BA:1204:A:O4'	2.15	0.47
31:BA:963:G:H1	31:BA:972:C:H42	1.63	0.47
32:BE:75:LYS:O	32:BE:75:LYS:HE3	2.13	0.47
32:BE:7:VAL:HG23	32:BE:8:LYS:CE	2.44	0.47
33:BF:7:PRO:O	33:BF:11:ARG:HG2	2.15	0.47
34:BG:30:LYS:C	34:BG:32:ALA:N	2.66	0.47
36:BI:41:GLU:O	36:BI:43:LEU:N	2.43	0.47
36:BI:62:TRP:C	36:BI:63:TYR:CD2	2.87	0.47
45:BR:6:GLU:CD	45:BR:6:GLU:H	2.12	0.47
31:CA:1028:C:C4	31:CA:1034:G:N2	2.83	0.47
31:CA:1036:G:C5'	31:CA:1037:C:OP2	2.61	0.47
31:CA:1196:U:HO2'	31:CA:1197:G:P	2.38	0.47
31:CA:444:C:H2'	31:CA:444:C:O2	2.15	0.47
31:CA:677:U:H3	31:CA:713:G:H22	1.60	0.47
31:CA:832:C:N3	31:CA:855:G:C6	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:86:U:H2'	31:CA:87:A:OP1	2.14	0.47
52:CB:56:U:O2	52:CB:56:U:H2'	2.14	0.47
52:CD:18:G:C2'	52:CD:19:C:OP2	2.63	0.47
32:CE:215:LEU:HA	32:CE:218:ALA:HB3	1.96	0.47
32:CE:6:THR:O	32:CE:7:VAL:CB	2.61	0.47
34:CG:162:LEU:O	34:CG:165:MET:HB3	2.13	0.47
35:CH:110:LEU:O	35:CH:115:VAL:HG23	2.14	0.47
36:CI:69:GLU:CD	36:CI:69:GLU:H	2.18	0.47
36:CI:70:ASP:OD1	36:CI:71:ARG:HG2	2.15	0.47
37:CJ:27:ILE:HG12	37:CJ:43:PHE:CD2	2.41	0.47
42:CO:85:ILE:CG2	42:CO:86:ARG:N	2.76	0.47
43:CP:108:ARG:HD3	43:CP:114:ARG:HG2	1.97	0.47
50:CW:104:LEU:O	50:CW:105:SER:HB3	2.14	0.47
50:CW:30:LYS:C	50:CW:32:ALA:H	2.18	0.47
17:D2:7:THR:O	17:D2:9:GLY:N	2.47	0.47
1:DA:107:C:C2	1:DA:108:U:C6	3.02	0.47
1:DA:1331:A:HO2'	1:DA:1332:G:H8	1.59	0.47
1:DA:1462:C:C5	1:DA:1463:C:C5	3.02	0.47
1:DA:1771:C:HO2'	1:DA:1786:A:C1'	2.26	0.47
1:DA:205:G:H1'	1:DA:206:U:OP2	2.14	0.47
1:DA:2115:G:H2'	1:DA:2116:G:N7	2.30	0.47
1:DA:2134:A:H2'	1:DA:2134:A:N3	2.29	0.47
1:DA:2211:G:H3'	1:DA:2212:A:N3	2.29	0.47
1:DA:2484:G:H1'	12:DP:124:LYS:HD2	1.97	0.47
1:DA:2563:U:H4'	10:DN:28:SER:HA	1.96	0.47
1:DA:270(M):U:H3'	1:DA:270(M):U:H6	1.79	0.47
1:DA:2726:U:H6	10:DN:67:LYS:NZ	2.06	0.47
1:DA:2748:A:H62	1:DA:2754:U:H3	1.62	0.47
1:DA:375:C:O5'	1:DA:375:C:H6	1.96	0.47
1:DA:607:U:OP1	5:DF:102:PRO:HA	2.15	0.47
3:DD:147:LEU:HD23	3:DD:155:LEU:HD13	1.97	0.47
6:DG:56:ALA:HA	6:DG:59:GLU:HB3	1.97	0.47
14:DQ:87:PHE:O	14:DQ:88:ASP:O	2.32	0.47
19:DT:88:LYS:HE2	19:DT:90:GLU:OE2	2.14	0.47
20:DU:47:LYS:HA	20:DU:60:PHE:CB	2.44	0.47
20:DU:91:GLU:HG3	20:DU:92:ASN:N	2.30	0.47
20:DU:95:LYS:NZ	20:DU:95:LYS:HB2	2.28	0.47
25:DX:39:ASP:O	25:DX:40:THR:C	2.53	0.47
1:AA:2723:C:C4'	13:A0:1:MET:HE3	2.44	0.47
28:A6:21:TYR:O	28:A6:22:ALA:HB2	2.14	0.47
28:A6:25:LYS:CG	30:A8:34:TRP:HE1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A8:28:GLY:O	30:A8:30:ARG:N	2.47	0.47
1:AA:1062:G:P	1:AA:1070:A:H4'	2.55	0.47
1:AA:1471:A:C5	1:AA:1522:G:C2	3.03	0.47
1:AA:1443:G:N2	1:AA:1549:C:C2	2.82	0.47
1:AA:1936:A:H3'	1:AA:1937:A:H5'	1.96	0.47
1:AA:2216:G:C4	1:AA:2217:G:C8	3.03	0.47
1:AA:2555:U:O2	52:BB:83:C:C4	2.67	0.47
1:AA:2862:G:H2'	1:AA:2863:C:C6	2.48	0.47
1:AA:28:A:H2'	1:AA:29:U:H6	1.80	0.47
3:AD:231:HIS:CD2	3:AD:249:PRO:HA	2.49	0.47
4:AE:117:MET:O	4:AE:118:LYS:CB	2.62	0.47
11:AO:19:VAL:HG23	11:AO:27:HIS:CG	2.40	0.47
11:AO:29:LYS:HD2	11:AO:30:THR:HG22	1.96	0.47
11:AO:85:LEU:N	11:AO:85:LEU:HD12	2.30	0.47
14:AQ:83:LYS:HE3	14:AQ:109:GLY:O	2.15	0.47
21:AV:37:VAL:CG2	21:AV:38:TYR:N	2.77	0.47
23:AZ:86:SER:N	23:AZ:87:PRO:HD2	2.29	0.47
31:BA:1258:G:O2'	31:BA:1259:C:H5'	2.15	0.47
31:BA:1271:G:C2'	31:BA:1272:G:C5'	2.81	0.47
31:BA:1402:C:H2'	31:BA:1403:C:O4'	2.14	0.47
31:BA:1503:A:C2	31:BA:1507:A:OP2	2.67	0.47
31:BA:397:A:N6	31:BA:548:G:N7	2.62	0.47
31:BA:76:G:C6	31:BA:77:C:C2	3.03	0.47
33:BF:113:ALA:HB3	33:BF:114:PRO:HD3	1.95	0.47
39:BL:106:ALA:O	39:BL:108:VAL:HG13	2.14	0.47
39:BL:65:VAL:O	39:BL:65:VAL:CG1	2.61	0.47
36:BI:97:PHE:N	48:BU:30:ASP:OD1	2.48	0.47
31:CA:1022:G:C5	31:CA:1023:G:C8	3.03	0.47
31:CA:1084:G:C8	31:CA:1085:U:C6	3.03	0.47
31:CA:1127:G:N2	31:CA:1145:C:C2	2.82	0.47
31:CA:1399:C:C2	31:CA:1502:A:N6	2.83	0.47
31:CA:624:C:H4'	46:CS:10:GLY:HA2	1.96	0.47
31:CA:595:G:H22	31:CA:643:C:N4	2.13	0.47
31:CA:864:A:N1	31:CA:865:A:C2	2.83	0.47
52:CD:16:C:N4	52:CD:68:A:C4	2.82	0.47
35:CH:111:GLU:O	35:CH:113:ALA:N	2.47	0.47
39:CL:110:GLU:HG3	39:CL:111:ARG:N	2.30	0.47
31:CA:1251:A:H5"	39:CL:12:GLU:OE1	2.14	0.47
40:CM:54:PHE:C	40:CM:55:LYS:HD2	2.34	0.47
42:CO:42:THR:HG23	42:CO:42:THR:O	2.14	0.47
42:CO:8:ASN:HB2	47:CT:34:LYS:HZ3	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:40:PHE:HZ	17:D2:82:ARG:HE	1.61	0.47
28:D6:14:THR:OG1	28:D6:15:GLU:N	2.47	0.47
1:DA:1041:C:H42	1:DA:1114:G:H1	1.63	0.47
1:DA:1110:G:O3'	7:DH:3:ARG:NH1	2.48	0.47
1:DA:1382:G:H2'	1:DA:1383:C:H5'	1.95	0.47
1:DA:1425:G:N2	1:DA:1573:G:N7	2.62	0.47
1:DA:1832:C:N4	1:DA:1833:U:C4	2.82	0.47
1:DA:2261:C:O2'	1:DA:2262:U:H5'	2.14	0.47
1:DA:2342:C:O2'	1:DA:2374:C:H5"	2.15	0.47
1:DA:2773:C:H2'	1:DA:2774:C:H6	1.80	0.47
1:DA:2885:C:H6	1:DA:2885:C:H3'	1.80	0.47
1:DA:602:G:OP2	1:DA:602:G:H8	1.98	0.47
1:DA:637:A:OP1	11:DO:133:SER:HB2	2.14	0.47
1:DA:953:A:H2'	1:DA:954:G:H8	1.79	0.47
2:DB:15:A:C2'	2:DB:16:G:OP1	2.63	0.47
5:DF:143:ALA:HB1	5:DF:148:LEU:HB2	1.95	0.47
8:DK:81:VAL:H	8:DK:143:SER:HB2	1.79	0.47
14:DQ:3:ARG:HG3	14:DQ:4:LEU:H	1.80	0.47
19:DT:14:SER:C	19:DT:16:LYS:N	2.67	0.47
21:DV:67:LEU:HD22	21:DV:90:VAL:HG11	1.97	0.47
23:DZ:27:GLU:O	23:DZ:28:GLY:O	2.33	0.47
16:A1:82:GLY:O	16:A1:84:LYS:N	2.47	0.47
26:A4:9:LEU:H	26:A4:27:THR:HG23	1.80	0.47
29:A7:43:THR:CG2	29:A7:44:PRO:CD	2.93	0.47
1:AA:1060:U:H5'	1:AA:1061:U:H5	1.80	0.47
1:AA:1093:G:H5'	7:AH:170:ARG:HH21	1.79	0.47
1:AA:1268:A:C2'	1:AA:1269:A:O5'	2.62	0.47
1:AA:1850:G:O6	56:AA:3524:OHX:N2	2.47	0.47
1:AA:1131:G:C8	1:AA:2025:C:H4'	2.50	0.47
1:AA:2364:C:H2'	1:AA:2365:G:C5'	2.45	0.47
1:AA:2400:G:H2'	1:AA:2401:U:C5	2.50	0.47
1:AA:2558:C:H6	1:AA:2558:C:O5'	1.97	0.47
1:AA:1478:G:N7	56:AA:3441:OHX:N2	2.62	0.47
1:AA:549:G:H2'	1:AA:550:G:O4'	2.14	0.47
1:AA:792:G:H3'	1:AA:793:A:H5'	1.95	0.47
2:AB:98:G:N7	56:AB:209:OHX:N1	2.63	0.47
3:AD:215:LEU:HD23	3:AD:215:LEU:HA	1.58	0.47
7:AH:109:PHE:CZ	7:AH:152:ARG:NH1	2.82	0.47
7:AH:4:ILE:HG21	7:AH:6:ARG:HH11	1.77	0.47
8:AK:92:VAL:HG13	8:AK:120:ILE:HG23	1.95	0.47
11:AO:85:LEU:C	11:AO:87:ASP:N	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:57:PHE:O	15:AR:58:ASN:C	2.52	0.47
21:AV:17:ALA:HA	21:AV:20:ARG:HB2	1.96	0.47
31:BA:1010:G:N2	31:BA:1020:U:H1'	2.29	0.47
31:BA:105:G:H2'	31:BA:106:C:C6	2.49	0.47
31:BA:60:A:N6	31:BA:110:C:N3	2.62	0.47
31:BA:1126:U:C4	31:BA:1127:G:C2	3.02	0.47
31:BA:1342:C:H2'	31:BA:1343:G:C8	2.45	0.47
31:BA:1519:A:H5"	31:BA:1520:G:OP2	2.14	0.47
31:BA:302:G:C6	31:BA:303:A:C5	3.03	0.47
31:BA:502:G:H2'	31:BA:503:C:C6	2.50	0.47
31:BA:722:A:H2'	31:BA:724:G:H8	1.80	0.47
31:BA:807:A:C5	31:BA:808:C:C5	3.03	0.47
31:BA:574:A:N3	31:BA:883:C:H1'	2.30	0.47
34:BG:134:ASP:CB	34:BG:135:LEU:HD13	2.45	0.47
35:BH:31:LEU:HD23	35:BH:31:LEU:HA	1.78	0.47
35:BH:35:GLY:HA2	35:BH:40:ARG:O	2.14	0.47
31:CA:1356:G:O6	56:CA:1777:OHX:N6	2.47	0.47
31:CA:137:C:N4	31:CA:226:G:H1	2.13	0.47
31:CA:323:U:H2'	31:CA:324:G:O4'	2.15	0.47
31:CA:638:G:C4	31:CA:639:G:C8	3.03	0.47
53:CC:50:G:C2	53:CC:51:U:C2	3.02	0.47
52:CD:3:U:H6	52:CD:3:U:O5'	1.98	0.47
32:CE:209:ARG:HD3	32:CE:240:GLN:OE1	2.15	0.47
33:CF:127:ARG:HD2	33:CF:127:ARG:N	2.30	0.47
33:CF:184:TYR:HA	33:CF:200:ALA:O	2.14	0.47
38:CK:31:PHE:CZ	38:CK:134:ILE:HD11	2.47	0.47
39:CL:8:GLY:HA3	39:CL:15:ALA:HB3	1.97	0.47
41:CN:80:VAL:HG13	41:CN:103:LEU:HD12	1.97	0.47
41:CN:99:GLN:CG	41:CN:105:VAL:HG11	2.44	0.47
45:CR:68:ARG:HG3	45:CR:68:ARG:HH11	1.79	0.47
47:CT:12:SER:HB3	47:CT:20:THR:CB	2.44	0.47
47:CT:54:GLY:O	47:CT:80:GLY:O	2.33	0.47
49:CV:9:VAL:HG13	49:CV:10:PHE:H	1.77	0.47
50:CW:10:LEU:HD22	50:CW:11:SER:H	1.78	0.47
16:D1:72:HIS:CE1	16:D1:107:ALA:HA	2.40	0.47
16:D1:74:LEU:HD22	16:D1:79:PHE:HA	1.96	0.47
1:DA:1099:G:O5'	1:DA:1100:C:OP2	2.32	0.47
1:DA:1388:G:H2'	1:DA:1389:G:H8	1.80	0.47
1:DA:1542:G:H3'	1:DA:1543:A:C5'	2.44	0.47
1:DA:1794:U:O2'	1:DA:1795:C:H5'	2.14	0.47
1:DA:2133:G:H2'	1:DA:2134:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2662:A:H8	1:DA:2662:A:O5'	1.98	0.47
1:DA:2884:U:H2'	1:DA:2885:C:C5'	2.43	0.47
1:DA:351:G:O6	56:DA:3374:OHX:N2	2.48	0.47
1:DA:484:C:H2'	1:DA:485:C:H6	1.79	0.47
1:DA:493:G:C2'	1:DA:494:G:O5'	2.63	0.47
1:DA:873:G:N2	1:DA:905:U:C2	2.83	0.47
1:DA:972:G:C6	1:DA:973:A:C6	3.02	0.47
3:DD:44:ASN:HB2	3:DD:48:ARG:O	2.14	0.47
5:DF:24:LEU:CD1	5:DF:25:PRO:HD3	2.45	0.47
7:DH:92:ILE:HD13	7:DH:160:LYS:HZ3	1.79	0.47
14:DQ:110:LEU:HB2	14:DQ:112:PHE:CZ	2.49	0.47
14:DQ:17:ARG:NH1	14:DQ:17:ARG:HG3	2.19	0.47
18:DS:88:ARG:HG3	18:DS:89:ALA:H	1.79	0.47
19:DT:87:GLN:O	19:DT:88:LYS:HB3	2.15	0.47
1:DA:329:G:O6	20:DU:19:LYS:CB	2.63	0.47
20:DU:17:SER:HB2	20:DU:71:LYS:HE2	1.96	0.47
21:DV:163:LEU:HD23	21:DV:163:LEU:H	1.80	0.47
1:AA:2880:C:H1'	13:A0:92:GLY:O	2.14	0.47
17:A2:6:LYS:HG3	17:A2:6:LYS:O	2.14	0.47
1:AA:1079:C:H3'	1:AA:1080:A:C8	2.50	0.47
1:AA:1152:C:O2'	1:AA:1153:C:H5'	2.15	0.47
1:AA:127:A:H5"	1:AA:128:C:C6	2.50	0.47
1:AA:1337:G:H2'	1:AA:1338:G:H8	1.79	0.47
1:AA:1443:G:O2'	1:AA:1444:G:H5'	2.15	0.47
1:AA:1790:C:H2'	1:AA:1791:A:C5	2.49	0.47
1:AA:183:C:N4	1:AA:213:A:H61	2.13	0.47
1:AA:528:A:C2	1:AA:2043:C:C5'	2.97	0.47
1:AA:528:A:C2	1:AA:2043:C:H4'	2.49	0.47
1:AA:2769:C:C2'	1:AA:2769:C:O2	2.60	0.47
1:AA:338:G:H2'	1:AA:339:U:H6	1.80	0.47
1:AA:596:G:H2'	1:AA:597:U:O4'	2.15	0.47
1:AA:892:G:H2'	1:AA:893:C:H6	1.79	0.47
1:AA:999:U:C5	1:AA:1154:G:C5	3.02	0.47
2:AB:0:A:H2'	2:AB:1:U:O4'	2.13	0.47
2:AB:42:C:O3'	6:AG:67:LYS:CE	2.62	0.47
5:AF:117:ARG:HA	5:AF:117:ARG:HD2	1.73	0.47
5:AF:28:ILE:HD12	5:AF:28:ILE:O	2.14	0.47
1:AA:1140:C:OP1	9:AM:23:LEU:HD23	2.15	0.47
11:AO:24:GLY:O	11:AO:25:SER:HB3	2.15	0.47
14:AQ:56:LEU:HB3	14:AQ:58:LEU:HD22	1.96	0.47
19:AT:26:TYR:HE1	19:AT:83:VAL:HG21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:102:G:C6	31:BA:103:C:C4	3.03	0.47
31:BA:1031:G:O6	31:BA:1032:A:N6	2.47	0.47
31:BA:1320:C:O2	49:BV:72:GLY:HA3	2.14	0.47
31:BA:1378:C:O2	31:BA:1378:C:H2'	2.15	0.47
31:BA:297:G:H4'	31:BA:557:G:H4'	1.96	0.47
31:BA:711:G:O2'	31:BA:712:A:H5'	2.15	0.47
52:BB:55:U:H2'	52:BB:56:U:O4'	2.15	0.47
34:BG:15:GLU:OE2	34:BG:59:ARG:NH2	2.36	0.47
34:BG:25:ARG:C	34:BG:27:TYR:N	2.67	0.47
34:BG:7:PRO:HB2	34:BG:10:ARG:HD2	1.97	0.47
37:BJ:111:ARG:CD	37:BJ:123:GLU:HB2	2.41	0.47
37:BJ:66:VAL:C	37:BJ:68:ASN:H	2.17	0.47
37:BJ:92:SER:O	37:BJ:93:PRO:C	2.52	0.47
38:BK:38:ILE:CG2	38:BK:120:THR:HG22	2.45	0.47
47:BT:66:SER:O	47:BT:67:LYS:C	2.53	0.47
31:CA:1019:C:H2'	31:CA:1020:U:O4'	2.14	0.47
31:CA:1038:C:O2'	31:CA:1039:C:H5'	2.15	0.47
31:CA:1226:C:N4	43:CP:104:ARG:CD	2.76	0.47
31:CA:1299:A:C2	31:CA:1301:U:C6	3.03	0.47
31:CA:35:G:C6	31:CA:36:C:N4	2.83	0.47
31:CA:464:G:C6	31:CA:466:C:OP2	2.68	0.47
31:CA:502:G:C2	31:CA:503:C:C2	3.03	0.47
31:CA:848:C:H2'	31:CA:849:C:C6	2.49	0.47
53:CC:23:G:C4	53:CC:24:C:C5	3.03	0.47
53:CC:28:U:O2	53:CC:45:A:C2	2.67	0.47
52:CD:27:A:H2'	52:CD:28:G:O4'	2.15	0.47
32:CE:68:ILE:N	32:CE:68:ILE:HD12	2.30	0.47
31:CA:1190:G:H4'	33:CF:176:HIS:CE1	2.50	0.47
36:CI:22:GLU:O	36:CI:26:ILE:HG13	2.13	0.47
35:CH:151:LEU:HD11	38:CK:77:GLU:OE2	2.14	0.47
39:CL:83:ARG:O	39:CL:86:VAL:HG12	2.15	0.47
41:CN:84:VAL:HG13	41:CN:95:ILE:HD11	1.96	0.47
43:CP:3:ARG:HG2	43:CP:9:ILE:CD1	2.44	0.47
13:D0:41:ALA:C	13:D0:43:GLU:N	2.57	0.47
1:DA:813:U:C2	1:DA:1195:G:N2	2.83	0.47
1:DA:1231:G:H2'	1:DA:1232:G:C8	2.50	0.47
1:DA:1544:C:H2'	1:DA:1544:C:O2	2.14	0.47
1:DA:2126:A:N6	1:DA:2163:C:O2'	2.48	0.47
1:DA:2787:C:H2'	1:DA:2787:C:O2	2.15	0.47
1:DA:2237:G:O6	56:DA:3251:OHX:N5	2.48	0.47
1:DA:1520:U:OP2	56:DA:3343:OHX:N6	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:337:C:H2'	1:DA:338:G:O5'	2.14	0.47
1:DA:282:A:C5	1:DA:359:A:C2	3.03	0.47
1:DA:561:G:H1'	16:D1:45:TYR:HE2	1.78	0.47
1:DA:626:U:H3	11:DO:105:LEU:HA	1.80	0.47
1:DA:763:G:C4	1:DA:765:G:C8	3.03	0.47
1:DA:958:U:H5"	12:DP:14:ARG:CD	2.45	0.47
4:DE:116:VAL:HG13	4:DE:122:PHE:CG	2.50	0.47
4:DE:174:ASP:O	4:DE:183:LEU:HB2	2.15	0.47
4:DE:101:ARG:HG3	4:DE:203:LYS:CE	2.43	0.47
4:DE:35:GLN:CG	4:DE:36:ARG:N	2.77	0.47
4:DE:52:LEU:HA	4:DE:52:LEU:HD23	1.79	0.47
5:DF:124:LEU:O	5:DF:126:VAL:HG13	2.14	0.47
1:DA:322:A:OP2	5:DF:169:ASN:HB2	2.15	0.47
5:DF:4:VAL:HG22	5:DF:19:GLU:CD	2.34	0.47
11:DO:98:GLU:HG3	11:DO:99:LEU:N	2.30	0.47
12:DP:54:MET:HG2	12:DP:117:ALA:O	2.15	0.47
20:DU:98:VAL:O	20:DU:99:CYS:HB3	2.15	0.47
16:A1:66:ASN:O	16:A1:67:ALA:C	2.51	0.47
1:AA:1336:A:O2'	1:AA:1337:G:H5'	2.15	0.47
1:AA:1665:A:H2'	1:AA:1666:G:O4'	2.14	0.47
1:AA:1774:C:H6	1:AA:1774:C:O5'	1.98	0.47
1:AA:2119:A:N6	1:AA:2168:G:N2	2.63	0.47
1:AA:1782:C:OP2	56:AA:3335:OHX:N3	2.48	0.47
1:AA:859:G:O6	56:AA:3419:OHX:N1	2.48	0.47
1:AA:363(D):G:C2'	1:AA:363(E):U:O5'	2.63	0.47
1:AA:531:C:OP1	1:AA:561:G:N1	2.48	0.47
1:AA:783:A:H2'	1:AA:785:G:OP1	2.15	0.47
2:AB:24:G:C5	2:AB:56:G:C4	3.02	0.47
2:AB:89(A):A:H8	2:AB:89(A):A:O5'	1.96	0.47
5:AF:11:VAL:HG22	5:AF:125:LEU:HB2	1.97	0.47
5:AF:23:ASP:OD1	5:AF:23:ASP:N	2.48	0.47
6:AG:178:PHE:HB3	6:AG:180:PHE:CE1	2.49	0.47
7:AH:130:ARG:NH1	7:AH:130:ARG:HB3	2.30	0.47
12:AP:66:ILE:HA	12:AP:104:PHE:HD2	1.79	0.47
14:AQ:67:ARG:HB3	14:AQ:67:ARG:HH11	1.79	0.47
15:AR:91:ARG:HB2	15:AR:121:ILE:HG13	1.96	0.47
21:AV:165:VAL:HB	21:AV:166:SER:HB2	1.97	0.47
21:AV:44:PHE:CD1	21:AV:44:PHE:C	2.88	0.47
25:AX:40:THR:OG1	25:AX:41:PRO:N	2.48	0.47
25:AX:6:VAL:HB	25:AX:54:VAL:HG21	1.95	0.47
31:BA:1103:C:H2'	31:BA:1104:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1128:C:O2'	31:BA:1130:A:C8	2.52	0.47
15:AR:107:ASP:HB2	31:BA:1432:G:OP1	2.15	0.47
31:BA:417:C:C2	31:BA:418:C:C5	3.03	0.47
31:BA:438:G:H2'	31:BA:494:U:O4	2.15	0.47
31:BA:698:G:C5	31:BA:699:C:C5	3.02	0.47
31:BA:755:G:OP2	45:BR:65:ARG:HG2	2.15	0.47
31:BA:939:G:H2'	31:BA:940:C:H6	1.80	0.47
31:BA:983:A:H5"	31:BA:984:C:OP2	2.15	0.47
53:BC:37:U:H2'	53:BC:38:A:O4'	2.15	0.47
52:BD:12:C:H2'	52:BD:13:G:O4'	2.15	0.47
34:BG:150:GLU:O	34:BG:151:LYS:C	2.53	0.47
35:BH:99:GLY:O	35:BH:117:ASP:HA	2.15	0.47
36:BI:46:ARG:HG3	36:BI:47:ARG:N	2.29	0.47
37:BJ:108:ALA:HB2	37:BJ:123:GLU:HG2	1.97	0.47
35:BH:78:HIS:HB3	38:BK:107:LEU:HD12	1.96	0.47
38:BK:16:ALA:HB2	38:BK:24:THR:HG21	1.95	0.47
39:BL:59:PHE:HZ	39:BL:88:TYR:CE1	2.32	0.47
42:BO:105:TYR:C	42:BO:107:ALA:H	2.18	0.47
45:BR:56:LEU:O	45:BR:60:VAL:HG23	2.15	0.47
48:BU:40:LEU:C	48:BU:42:ARG:H	2.18	0.47
31:CA:1190:G:N1	56:CA:1762:OHX:N6	2.63	0.47
31:CA:1191:A:C8	31:CA:1191:A:OP2	2.66	0.47
31:CA:127:G:O3'	47:CT:2:PRO:HD2	2.14	0.47
31:CA:1285:A:C1'	31:CA:1286:A:OP2	2.62	0.47
31:CA:152:A:C6	31:CA:170:U:O2	2.67	0.47
31:CA:266:G:H4'	31:CA:267:C:O5'	2.14	0.47
31:CA:973:G:H1'	40:CM:55:LYS:CD	2.44	0.47
32:CE:16:HIS:CD2	32:CE:209:ARG:HG2	2.49	0.47
33:CF:60:ALA:O	33:CF:61:ALA:HB2	2.14	0.47
34:CG:61:LYS:C	34:CG:63:LYS:H	2.18	0.47
36:CI:50:TYR:HB2	36:CI:51:PRO:HD2	1.97	0.47
36:CI:61:LEU:HB3	36:CI:63:TYR:HE2	1.80	0.47
41:CN:62:GLN:O	41:CN:63:LEU:C	2.52	0.47
43:CP:91:ARG:NH1	43:CP:96:LEU:HD13	2.30	0.47
31:CA:664:G:P	48:CU:64:ARG:HH21	2.37	0.47
50:CW:101:GLY:O	50:CW:102:GLY:O	2.32	0.47
50:CW:33:ILE:CD1	50:CW:63:ILE:HA	2.44	0.47
16:D1:92:ARG:C	16:D1:94:ASN:H	2.17	0.47
17:D2:73:SER:HB3	17:D2:83:ARG:O	2.12	0.47
30:D8:29:LYS:O	30:D8:29:LYS:HE2	2.14	0.47
1:DA:1060:U:C1'	1:DA:1062:G:H5'	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:10:G:C6	1:DA:2629:A:N6	2.83	0.47
1:DA:1208:C:H2'	1:DA:1209:G:O5'	2.15	0.47
1:DA:13:A:H61	1:DA:525:U:H3'	1.79	0.47
1:DA:1520:U:O4	1:DA:1521:G:C2	2.67	0.47
1:DA:193:U:O3'	1:DA:803:U:H4'	2.14	0.47
1:DA:1963:U:O2	1:DA:1963:U:H2'	2.14	0.47
1:DA:274:G:H2'	1:DA:275:G:C8	2.50	0.47
1:DA:2762:G:C3'	1:DA:2763:G:H5"	2.34	0.47
1:DA:2884:U:C4	1:DA:2885:C:C2	3.03	0.47
1:DA:2801:A:H5"	1:DA:2895:U:H4'	1.97	0.47
1:DA:745:G:H5"	1:DA:746:A:OP2	2.15	0.47
1:DA:74:A:H4'	1:DA:75:G:O5'	2.14	0.47
1:DA:839:U:H2'	1:DA:840:C:C6	2.50	0.47
2:DB:24:G:C8	2:DB:56:G:C8	3.02	0.47
3:DD:158:ALA:O	3:DD:159:ALA:C	2.52	0.47
3:DD:34:VAL:C	3:DD:35:LYS:HG3	2.33	0.47
5:DF:155:LEU:HB2	5:DF:189:THR:HG21	1.97	0.47
5:DF:18:ARG:C	5:DF:18:ARG:HD3	2.35	0.47
5:DF:110:LEU:HD22	5:DF:202:PHE:HE1	1.80	0.47
6:DG:126:ASP:OD1	6:DG:126:ASP:C	2.53	0.47
7:DH:109:PHE:O	7:DH:111:HIS:N	2.48	0.47
7:DH:3:ARG:HG3	7:DH:4:ILE:N	2.28	0.47
7:DH:82:GLY:O	7:DH:83:TYR:O	2.32	0.47
9:DM:8:GLN:OE1	9:DM:8:GLN:HA	2.15	0.47
11:DO:85:LEU:HD23	11:DO:86:LYS:N	2.30	0.47
19:DT:32:PRO:HA	19:DT:77:LYS:HB2	1.96	0.47
1:DA:396:G:O4'	23:DZ:13:ILE:HD11	2.15	0.47
13:A0:103:ARG:HH11	18:AS:40:ASN:ND2	2.13	0.47
16:A1:103:PRO:O	16:A1:106:PHE:HB3	2.15	0.47
1:AA:1416:G:H21	1:AA:1586:A:N6	2.11	0.47
1:AA:1467:C:C2	1:AA:1526:G:N2	2.83	0.47
1:AA:1649:G:C6	1:AA:2009:G:C6	3.03	0.47
1:AA:2031:A:O2'	1:AA:2454:G:N2	2.48	0.47
1:AA:2243:U:H2'	1:AA:2244:U:C6	2.49	0.47
1:AA:229:A:C1'	1:AA:230:U:OP2	2.63	0.47
1:AA:299:A:C2	1:AA:322:A:C4	3.03	0.47
1:AA:869:G:C4	1:AA:870:A:C8	3.02	0.47
1:AA:880:G:N1	1:AA:897:C:N4	2.46	0.47
4:AE:103:ASP:OD2	4:AE:168:MET:CE	2.63	0.47
5:AF:103:LYS:HA	5:AF:106:ARG:HG3	1.96	0.47
6:AG:146:TYR:HD2	6:AG:146:TYR:O	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:77:ILE:HD12	6:AG:77:ILE:HA	1.77	0.47
7:AH:109:PHE:CE2	7:AH:152:ARG:NH1	2.83	0.47
9:AM:128:HIS:NE2	9:AM:134:ARG:CD	2.78	0.47
11:AO:147:LEU:O	11:AO:148:LEU:HG	2.15	0.47
12:AP:17:LEU:HD23	12:AP:96:VAL:HG11	1.93	0.47
14:AQ:63:THR:HG22	14:AQ:97:ARG:HB3	1.97	0.47
23:AZ:86:SER:O	23:AZ:89:GLU:HB2	2.15	0.47
31:BA:1163:C:H2'	31:BA:1164:G:C8	2.50	0.47
31:BA:518:C:H5"	31:BA:519:C:C6	2.50	0.47
31:BA:533:A:C2	31:BA:536:C:C6	3.02	0.47
31:BA:810:C:C2'	31:BA:811:C:H5'	2.44	0.47
52:BD:21:A:H1'	52:BD:22:A:O5'	2.14	0.47
33:BF:73:PRO:HB3	33:BF:103:VAL:CG1	2.45	0.47
33:BF:91:LEU:HB2	33:BF:99:VAL:HG21	1.96	0.47
37:BJ:136:LYS:HB3	37:BJ:136:LYS:NZ	2.28	0.47
38:BK:104:ARG:O	38:BK:107:LEU:HB2	2.15	0.47
41:BN:87:THR:HG22	41:BN:88:GLY:N	2.22	0.47
46:BS:1:MET:O	46:BS:1:MET:HG2	2.14	0.47
46:BS:20:VAL:HG13	46:BS:32:TYR:CB	2.45	0.47
31:CA:1025:U:O2	31:CA:1025:U:H2'	2.15	0.47
31:CA:1222:G:OP1	49:CV:77:THR:OG1	2.27	0.47
31:CA:1462:G:H2'	31:CA:1463:C:C6	2.49	0.47
31:CA:1488:G:H2'	31:CA:1489:G:C8	2.50	0.47
31:CA:1499:A:O2'	31:CA:1500:A:H5'	2.14	0.47
31:CA:451:A:H1'	31:CA:452:A:C8	2.49	0.47
31:CA:533:A:C5	31:CA:536:C:C4	3.03	0.47
31:CA:300:A:H1'	31:CA:565:U:O2	2.15	0.47
31:CA:861:G:H2'	31:CA:862:C:H6	1.79	0.47
31:CA:92:G:H2'	31:CA:93:U:O4'	2.15	0.47
32:CE:15:VAL:O	32:CE:209:ARG:NH2	2.48	0.47
33:CF:77:ILE:HA	33:CF:84:ILE:HB	1.96	0.47
34:CG:162:LEU:HD13	34:CG:181:MET:HG2	1.96	0.47
41:CN:54:ARG:HG3	41:CN:54:ARG:H	1.53	0.47
31:CA:528:C:H41	42:CO:49:ASN:HD21	1.63	0.47
42:CO:62:SER:O	42:CO:64:TYR:N	2.48	0.47
43:CP:85:GLY:O	43:CP:86:CYS:C	2.53	0.47
46:CS:42:ARG:O	46:CS:43:LYS:HB2	2.13	0.47
12:DP:85:LYS:HD3	22:D3:9:SER:OG	2.15	0.47
13:D0:101:ALA:HB2	27:D5:44:THR:HB	1.97	0.47
1:DA:1643:G:C2'	1:DA:1644:C:O5'	2.62	0.47
1:DA:1940:U:H5"	1:DA:1965:C:H5	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:270(Y):G:OP1	56:DA:3470:OHX:N6	2.47	0.47
1:DA:519:U:H2'	1:DA:520:G:C8	2.50	0.47
1:DA:69:C:C2'	1:DA:70:G:O5'	2.62	0.47
2:DB:83:G:C5'	25:DX:52:HIS:CD2	2.97	0.47
3:DD:6:PHE:N	3:DD:6:PHE:CD1	2.82	0.47
4:DE:137:HIS:HB3	4:DE:138:PRO:CD	2.45	0.47
4:DE:38:THR:C	4:DE:40:GLU:N	2.68	0.47
8:DK:41:GLU:N	8:DK:41:GLU:OE2	2.44	0.47
9:DM:93:THR:O	9:DM:94:HIS:C	2.53	0.47
9:DM:58:ASP:HB3	9:DM:95:PRO:HB2	1.97	0.47
11:DO:33:ARG:O	11:DO:34:GLY:O	2.32	0.47
11:DO:55:ARG:HG3	11:DO:55:ARG:O	2.13	0.47
11:DO:81:GLN:OE1	11:DO:106:LEU:C	2.53	0.47
12:DP:87:LYS:HG3	12:DP:88:GLY:N	2.27	0.47
20:DU:19:LYS:HB2	20:DU:20:TYR:H	1.52	0.47
21:DV:24:LEU:HD12	21:DV:25:PRO:O	2.15	0.47
21:DV:4:ARG:NH1	21:DV:60:GLU:OE2	2.48	0.47
17:A2:1:MET:HE1	17:A2:43:GLU:HG2	1.97	0.47
17:A2:91:TYR:C	17:A2:91:TYR:CD1	2.88	0.47
22:A3:82:ARG:O	22:A3:83:PRO:O	2.33	0.47
26:A4:34:GLU:OE2	43:BP:7:VAL:HG22	2.15	0.47
1:AA:242:G:O5'	30:A8:3:LYS:HD3	2.15	0.47
1:AA:1050:A:H1'	1:AA:2751:G:C8	2.49	0.47
1:AA:1362:C:C2'	1:AA:1363:C:H5'	2.45	0.47
1:AA:1380:G:H2'	1:AA:1380:G:N3	2.30	0.47
1:AA:1471:A:N3	1:AA:1471:A:H2'	2.29	0.47
1:AA:1665:A:O2'	1:AA:1666:G:H5'	2.14	0.47
1:AA:1789:A:OP1	3:AD:221:VAL:HA	2.15	0.47
1:AA:2553:G:H5"	1:AA:2554:U:OP2	2.15	0.47
1:AA:2838:G:C6	1:AA:2839:G:C5	3.03	0.47
1:AA:540:G:C5	1:AA:541:C:C5	3.03	0.47
1:AA:545:G:N2	1:AA:549:G:C6	2.83	0.47
2:AB:65:C:H2'	2:AB:66:A:H5'	1.97	0.47
3:AD:121:PRO:HB3	3:AD:135:PHE:CE1	2.49	0.47
3:AD:172:TYR:CD1	3:AD:186:HIS:HA	2.50	0.47
6:AG:107:LEU:HD11	6:AG:178:PHE:CD1	2.50	0.47
6:AG:77:ILE:HG22	6:AG:82:LEU:HB3	1.97	0.47
11:AO:19:VAL:CG2	11:AO:27:HIS:CA	2.90	0.47
12:AP:10:ARG:O	12:AP:11:LYS:HB2	2.14	0.47
14:AQ:106:ARG:O	14:AQ:107:GLU:HB3	2.15	0.47
54:B1:11:U:C1'	54:B1:12:A:OP1	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1106:G:C4	31:BA:1107:C:C5	3.03	0.47
31:BA:1169:A:N6	31:BA:1170:A:C2	2.82	0.47
31:BA:960:U:N3	31:BA:1225:A:C5	2.79	0.47
31:BA:28:G:N7	56:BA:1775:OHX:N1	2.62	0.47
31:BA:413:G:H2'	31:BA:428:G:N2	2.30	0.47
31:BA:468:A:N7	31:BA:474:G:C8	2.82	0.47
31:BA:510:A:H5"	31:BA:511:C:OP2	2.15	0.47
31:BA:537:G:H2'	31:BA:538:G:H8	1.80	0.47
31:BA:55:A:C6	8:DK:89:TYR:CD1	3.02	0.47
52:BB:72:U:C2'	52:BB:73:U:H5'	2.45	0.47
53:BC:19:G:H4'	53:BC:20:G:OP1	2.15	0.47
53:BC:50:G:C2	53:BC:67:C:O2	2.68	0.47
52:BD:21:A:C5	52:BD:46:G:C8	3.03	0.47
52:BD:2:G:N2	52:BD:81:C:O2	2.48	0.47
37:BJ:26:PHE:HB2	37:BJ:62:PHE:HZ	1.80	0.47
38:BK:97:VAL:HG13	38:BK:98:LYS:N	2.29	0.47
31:CA:1211:U:H1'	31:CA:1213:A:C2	2.50	0.47
31:CA:1266:G:H2'	31:CA:1268:A:OP2	2.15	0.47
31:CA:238:G:C5	31:CA:239:U:C5	3.03	0.47
31:CA:42:G:H2'	31:CA:43:C:O4'	2.15	0.47
31:CA:949:A:N1	31:CA:1232:U:O4	2.48	0.47
52:CB:22:A:C8	52:CB:57:C:N4	2.83	0.47
32:CE:91:PRO:HA	32:CE:151:GLY:O	2.15	0.47
35:CH:13:ILE:HD12	35:CH:13:ILE:H	1.80	0.47
31:CA:738:C:H5"	36:CI:69:GLU:HB2	1.97	0.47
37:CJ:26:PHE:CD2	37:CJ:30:ILE:HD11	2.50	0.47
37:CJ:23:VAL:HG13	37:CJ:43:PHE:CE2	2.50	0.47
39:CL:95:LYS:NZ	39:CL:96:LEU:HD13	2.30	0.47
42:CO:91:LYS:HG2	42:CO:91:LYS:O	2.15	0.47
31:CA:947:G:O3'	43:CP:109:THR:OG1	2.33	0.47
43:CP:82:MET:SD	43:CP:83:ASP:OD2	2.73	0.47
42:CO:8:ASN:HD22	47:CT:34:LYS:CE	2.26	0.47
50:CW:26:ASN:CB	50:CW:71:THR:HG23	2.45	0.47
13:D0:44:LEU:O	13:D0:45:ARG:C	2.52	0.47
16:D1:95:LEU:CD2	17:D2:13:ARG:HB2	2.46	0.47
26:D4:48:ARG:NH1	26:D4:51:ASP:HA	2.29	0.47
1:DA:1064:C:N4	1:DA:1074:G:H1	2.13	0.47
1:DA:1218:C:O2	1:DA:1232:G:C2	2.67	0.47
1:DA:1397:U:H1'	1:DA:1398:C:OP1	2.15	0.47
1:DA:1761:C:H5"	1:DA:1762:A:O5'	2.15	0.47
1:DA:1845:G:C2'	1:DA:1846:G:H5'	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2119:A:N6	1:DA:2170:A:N7	2.62	0.47
1:DA:1607:C:H1'	56:DA:3478:OHX:N5	2.30	0.47
1:DA:27:G:C4	1:DA:512:G:C2	3.03	0.47
1:DA:908:C:OP1	12:DP:22:LYS:HB3	2.15	0.47
5:DF:132:VAL:CG2	5:DF:133:ASN:H	2.00	0.47
1:DA:674:G:O2'	5:DF:74:ARG:HG3	2.15	0.47
10:DN:13:ASN:C	10:DN:15:GLY:N	2.68	0.47
15:DR:61:PHE:HD2	15:DR:61:PHE:N	2.07	0.47
24:DW:4:SER:N	24:DW:6:VAL:HG22	2.30	0.47
23:DZ:7:ILE:CD1	23:DZ:70:VAL:HG22	2.44	0.47
23:DZ:90:ILE:HG22	23:DZ:91:LYS:N	2.29	0.47
16:A1:28:ARG:CD	16:A1:38:THR:OG1	2.63	0.46
17:A2:64:HIS:CG	17:A2:92:THR:HG22	2.50	0.46
26:A4:27:THR:O	26:A4:28:LYS:HB2	2.14	0.46
1:AA:996:A:C5	1:AA:1160:G:N2	2.84	0.46
1:AA:1468:C:H2'	1:AA:1469:A:H8	1.78	0.46
1:AA:1799:G:H5'	1:AA:1819:A:H61	1.79	0.46
1:AA:1799:G:O2'	1:AA:1800:C:OP2	2.23	0.46
1:AA:2181:G:H2'	1:AA:2182:G:H8	1.80	0.46
1:AA:2378:A:H4'	14:AQ:23:ARG:NH1	2.30	0.46
1:AA:273(F):C:O2	1:AA:273(F):C:C2'	2.62	0.46
1:AA:2817:G:OP1	13:A0:99:LYS:NZ	2.38	0.46
1:AA:2845:G:C2'	1:AA:2846:G:H5'	2.45	0.46
1:AA:2747:G:N7	56:AA:3388:OHX:N4	2.63	0.46
1:AA:32:C:O2'	1:AA:33:U:H5'	2.15	0.46
1:AA:990:A:OP2	1:AA:991:C:OP2	2.33	0.46
2:AB:31:C:H2'	2:AB:32:C:H6	1.80	0.46
6:AG:43:LEU:C	6:AG:45:GLU:H	2.19	0.46
7:AH:84:SER:O	7:AH:133:VAL:O	2.33	0.46
9:AM:22:THR:O	9:AM:23:LEU:HB2	2.14	0.46
11:AO:138:LEU:O	11:AO:140:ALA:N	2.41	0.46
11:AO:70:GLN:N	11:AO:70:GLN:CD	2.68	0.46
12:AP:11:LYS:HE2	12:AP:87:LYS:O	2.15	0.46
14:AQ:20:ARG:C	14:AQ:22:GLY:N	2.66	0.46
15:AR:105:LEU:O	15:AR:107:ASP:OD1	2.34	0.46
18:AS:40:ASN:C	18:AS:41:LYS:HG2	2.36	0.46
21:AV:44:PHE:HE1	21:AV:48:PHE:CG	2.33	0.46
24:AW:47:ASN:C	24:AW:49:LYS:N	2.61	0.46
31:BA:107:G:O6	50:BW:15:ARG:HG3	2.15	0.46
31:BA:1336:C:O2	31:BA:1336:C:C2'	2.63	0.46
31:BA:945:G:N1	31:BA:1337:G:C2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:186(F):C:N3	31:BA:191(B):G:C2	2.83	0.46
31:BA:343:U:O2	31:BA:347:G:C2	2.67	0.46
31:BA:605:U:C2	31:BA:606:G:H8	2.32	0.46
31:BA:865:A:H2	31:BA:918:A:H4'	1.80	0.46
53:BC:47:G:H4'	53:BC:48:U:OP1	2.15	0.46
52:BD:38:MIA:C2'	52:BD:39:A:H5'	2.45	0.46
34:BG:10:ARG:NH1	34:BG:10:ARG:HB2	2.29	0.46
34:BG:70:ILE:CG2	34:BG:75:PHE:HB2	2.46	0.46
42:BO:82:VAL:HG12	42:BO:83:VAL:N	2.30	0.46
47:BT:20:THR:HG22	47:BT:41:LYS:HG2	1.96	0.46
48:BU:54:ARG:HD2	48:BU:55:ARG:HH21	1.80	0.46
31:CA:1503:A:N6	54:C1:12:A:N3	2.63	0.46
31:CA:1002:G:H1	31:CA:1038:C:H42	1.63	0.46
31:CA:1127:G:H1'	31:CA:1147:C:N4	2.31	0.46
31:CA:1192:C:OP2	33:CF:4:LYS:NZ	2.39	0.46
31:CA:387:U:OP1	56:CA:1725:OHX:N1	2.48	0.46
31:CA:410:G:N1	31:CA:429:U:C2	2.83	0.46
31:CA:600:C:H2'	31:CA:601:C:H6	1.81	0.46
31:CA:715:A:H2'	31:CA:716:A:O5'	2.15	0.46
33:CF:8:ILE:C	33:CF:10:PHE:H	2.18	0.46
33:CF:148:GLY:HA3	33:CF:172:ARG:O	2.15	0.46
33:CF:95:THR:C	33:CF:97:LYS:H	2.09	0.46
34:CG:96:LEU:HD13	34:CG:139:ARG:NH1	2.30	0.46
34:CG:70:ILE:HD11	34:CG:100:ARG:HH11	1.80	0.46
35:CH:71:LEU:CD2	35:CH:115:VAL:HG13	2.45	0.46
37:CJ:12:LEU:HD21	37:CJ:28:ASN:ND2	2.30	0.46
39:CL:59:PHE:N	39:CL:59:PHE:CD1	2.83	0.46
40:CM:34:VAL:HG22	40:CM:74:ILE:HG22	1.97	0.46
44:CQ:4:LYS:O	44:CQ:8:GLU:N	2.45	0.46
31:CA:728:A:C5	45:CR:54:ARG:HD2	2.50	0.46
49:CV:49:ILE:O	49:CV:60:VAL:HG13	2.15	0.46
50:CW:10:LEU:HD22	50:CW:11:SER:N	2.30	0.46
50:CW:14:LYS:O	50:CW:18:GLN:HG3	2.15	0.46
50:CW:69:GLY:O	50:CW:73:HIS:CD2	2.67	0.46
13:D0:118:GLU:HA	13:D0:118:GLU:OE1	2.15	0.46
13:D0:77:ARG:C	13:D0:79:LEU:N	2.68	0.46
17:D2:72:VAL:O	17:D2:73:SER:CB	2.62	0.46
26:D4:38:LYS:HB2	26:D4:38:LYS:NZ	2.29	0.46
28:D6:49:HIS:O	28:D6:50:ARG:HG2	2.14	0.46
11:DO:62:LEU:HD11	30:D8:26:LYS:C	2.36	0.46
28:D6:25:LYS:CB	30:D8:34:TRP:CZ3	2.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1169:G:H2'	1:DA:1170:G:C1'	2.44	0.46
1:DA:1711:C:H2'	1:DA:1712:C:C6	2.50	0.46
1:DA:2136:C:N3	1:DA:2155:G:C2	2.83	0.46
1:DA:2270:G:H2'	1:DA:2271:G:C5'	2.46	0.46
1:DA:2439:A:H4'	1:DA:2440:C:O5'	2.15	0.46
1:DA:2648:C:H2'	1:DA:2649:U:O4'	2.15	0.46
1:DA:287:C:H2'	1:DA:288:C:O4'	2.15	0.46
1:DA:7:G:H1	1:DA:2896:C:H42	1.63	0.46
1:DA:580:C:C2	1:DA:581:C:C5	3.03	0.46
1:DA:729:G:O5'	3:DD:208:LYS:NZ	2.48	0.46
5:DF:145:GLU:O	5:DF:146:ALA:CB	2.63	0.46
5:DF:133:ASN:HA	5:DF:162:LEU:HD23	1.96	0.46
6:DG:83:ARG:N	6:DG:86:MET:HE3	2.30	0.46
6:DG:84:LYS:O	6:DG:84:LYS:HD3	2.14	0.46
8:DK:130:TYR:CG	8:DK:131:LYS:N	2.83	0.46
11:DO:125:VAL:O	11:DO:144:GLU:HB3	2.16	0.46
21:DV:62:PRO:C	21:DV:64:GLY:N	2.69	0.46
25:DX:28:LEU:HD23	25:DX:33:GLN:HE21	1.80	0.46
1:AA:1204:A:C8	56:AA:3409:OHX:N2	2.83	0.46
1:AA:184:C:O2	1:AA:184:C:C2'	2.63	0.46
1:AA:1899:G:H1	1:AA:1902:C:N4	2.14	0.46
1:AA:195:A:H5"	1:AA:196:A:O5'	2.15	0.46
1:AA:2164:C:H2'	1:AA:2165:G:C4'	2.45	0.46
1:AA:2400:G:C4	1:AA:2401:U:C5	3.02	0.46
1:AA:2401:U:O2	1:AA:2402:C:C6	2.69	0.46
1:AA:2486:G:H2'	1:AA:2487:G:H5"	1.97	0.46
1:AA:299:A:N6	1:AA:300:A:N6	2.60	0.46
1:AA:377:C:H2'	1:AA:378:C:H6	1.80	0.46
1:AA:466:A:O3'	29:A7:33:ARG:NH1	2.49	0.46
1:AA:471:A:OP2	1:AA:471:A:C8	2.68	0.46
1:AA:552:G:C6	1:AA:553:U:C4	3.03	0.46
1:AA:654(A):A:H2	1:AA:654(T):A:N1	2.12	0.46
1:AA:997:G:OP1	16:A1:93:LYS:CG	2.59	0.46
3:AD:177:LEU:HB3	3:AD:178:PRO:CD	2.45	0.46
4:AE:20:ALA:C	4:AE:21:VAL:HG22	2.35	0.46
5:AF:167:ALA:C	5:AF:169:ASN:H	2.18	0.46
5:AF:65:TRP:HZ3	5:AF:73:ALA:O	1.98	0.46
14:AQ:14:VAL:O	14:AQ:18:ILE:HD12	2.16	0.46
20:AU:56:PRO:O	20:AU:57:GLN:HG3	2.15	0.46
21:AV:107:THR:O	21:AV:108:PRO:C	2.54	0.46
21:AV:7:ALA:O	21:AV:8:TYR:CG	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AZ:80:LEU:N	23:AZ:80:LEU:HD22	2.31	0.46
23:AZ:92:LYS:O	23:AZ:93:GLU:C	2.52	0.46
31:BA:253:U:H2'	31:BA:254:G:C8	2.50	0.46
31:BA:488:C:O2'	31:BA:489:C:H5'	2.15	0.46
31:BA:58:C:C2'	31:BA:59:A:O5'	2.63	0.46
31:BA:631:G:C8	31:BA:632:A:C2	3.03	0.46
31:BA:652:U:C5	31:BA:752:G:N3	2.84	0.46
31:BA:668:G:C6	31:BA:669:U:C5	3.03	0.46
31:BA:765:G:N2	31:BA:813:U:OP2	2.48	0.46
31:BA:892:A:H2'	31:BA:893:C:C6	2.50	0.46
52:BB:16:C:H2'	52:BB:18:G:OP2	2.15	0.46
50:BW:13:LEU:O	50:BW:13:LEU:HD12	2.15	0.46
31:CA:1503:A:N3	54:C1:13:A:N1	2.63	0.46
31:CA:975:A:N1	40:CM:48:THR:HG22	2.30	0.46
52:CD:16:C:H2'	52:CD:17:G:H4'	1.96	0.46
32:CE:68:ILE:O	32:CE:90:MET:HB2	2.15	0.46
34:CG:108:LEU:CD1	34:CG:174:LEU:HB3	2.46	0.46
37:CJ:138:LYS:O	37:CJ:138:LYS:HG2	2.15	0.46
43:CP:84:ILE:O	43:CP:86:CYS:N	2.47	0.46
45:CR:78:TYR:O	45:CR:79:ARG:C	2.54	0.46
1:DA:444:C:OP2	16:D1:2:PRO:HD3	2.14	0.46
16:D1:95:LEU:HD22	17:D2:4:ILE:HG12	1.98	0.46
28:D6:25:LYS:CD	30:D8:35:GLN:OE1	2.62	0.46
1:DA:1197:G:H2'	1:DA:1198:U:H6	1.81	0.46
1:DA:1652:A:H2'	1:DA:1653:G:H5'	1.97	0.46
1:DA:1675:C:H2'	1:DA:1676:A:H5'	1.97	0.46
1:DA:1773:A:N7	1:DA:1829:A:H1'	2.30	0.46
1:DA:1871:A:H2'	1:DA:1872:A:H8	1.81	0.46
1:DA:1883:G:HO2'	1:DA:1884:A:H8	1.60	0.46
1:DA:1992:G:O5'	1:DA:1992:G:C8	2.69	0.46
1:DA:2306:C:C3'	1:DA:2307:G:H5"	2.20	0.46
1:DA:2654:A:H8	1:DA:2654:A:OP1	1.97	0.46
1:DA:2736:G:C4	1:DA:2737:G:C8	3.03	0.46
1:DA:2756:U:C4'	1:DA:2757:A:OP1	2.59	0.46
1:DA:2872:G:C8	1:DA:2873:A:H2	2.33	0.46
1:DA:315:G:C5	1:DA:316:C:C5	3.03	0.46
1:DA:378:C:H2'	1:DA:379:G:H5'	1.98	0.46
1:DA:709:U:H2'	1:DA:710:G:C8	2.49	0.46
1:DA:752:A:H4'	1:DA:753:C:O5'	2.16	0.46
1:DA:838:C:C2'	1:DA:839:U:H5'	2.45	0.46
2:DB:87:G:H3'	2:DB:88:C:C5'	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:88:C:OP1	2:DB:89:G:N7	2.48	0.46
3:DD:132:PRO:HG3	3:DD:190:TYR:CE1	2.50	0.46
4:DE:154:LYS:O	4:DE:155:LYS:C	2.53	0.46
6:DG:123:ASN:O	6:DG:125:PHE:N	2.47	0.46
6:DG:145:THR:OG1	6:DG:148:MET:HB2	2.15	0.46
8:DK:79:ILE:CG2	8:DK:79:ILE:O	2.62	0.46
1:DA:1006:C:O2	9:DM:106:MET:HB3	2.15	0.46
9:DM:120:LEU:HD21	9:DM:122:VAL:CG2	2.45	0.46
10:DN:102:VAL:CG2	10:DN:121:VAL:HG22	2.44	0.46
1:DA:389:G:C2	11:DO:71:VAL:HG12	2.49	0.46
12:DP:32:TYR:CE1	12:DP:114:ALA:HB2	2.49	0.46
15:DR:64:ARG:CB	15:DR:73:GLU:HG2	2.36	0.46
22:A3:34:GLY:O	22:A3:35:ASN:C	2.54	0.46
30:A8:36:LYS:O	30:A8:37:SER:C	2.54	0.46
1:AA:1374:G:C5	1:AA:1375:C:C5	3.04	0.46
1:AA:165:U:O2	1:AA:165:U:C3'	2.61	0.46
1:AA:1907:G:C2	1:AA:1924:C:C2	3.03	0.46
1:AA:2211:G:H1'	1:AA:2212:A:OP1	2.16	0.46
1:AA:2781:A:H5"	1:AA:2782:G:C5'	2.23	0.46
1:AA:2788:C:H2'	1:AA:2789:C:O4'	2.15	0.46
1:AA:2801:A:H2'	1:AA:2802:G:O4'	2.15	0.46
1:AA:314:A:H2'	1:AA:315:G:H8	1.80	0.46
1:AA:372:G:O2'	1:AA:373:U:P	2.73	0.46
1:AA:49:A:N7	1:AA:120:U:O4	2.47	0.46
1:AA:525:U:H2'	1:AA:525:U:O2	2.14	0.46
2:AB:7:G:H8	2:AB:7:G:H5'	1.80	0.46
4:AE:132:HIS:CD2	4:AE:132:HIS:O	2.68	0.46
4:AE:21:VAL:HG23	4:AE:22:PRO:CB	2.46	0.46
8:AK:76:THR:CG2	8:AK:77:LEU:N	2.77	0.46
20:AU:57:GLN:O	20:AU:58:GLY:C	2.54	0.46
21:AV:39:VAL:CG2	21:AV:44:PHE:HB2	2.38	0.46
21:AV:91:LEU:CD1	21:AV:96:VAL:HG11	2.46	0.46
24:AW:42:GLY:C	24:AW:44:LEU:N	2.58	0.46
23:AZ:11:ARG:HB2	23:AZ:12:PRO:HD2	1.97	0.46
31:BA:113:G:C4	31:BA:114:U:C5	3.04	0.46
31:BA:1186:G:O3'	39:BL:113:LYS:NZ	2.40	0.46
31:BA:1301:U:C4	31:BA:1303:C:N1	2.83	0.46
31:BA:191(D):U:H2'	31:BA:191(E):G:C8	2.50	0.46
31:BA:24:U:H2'	31:BA:25:C:C6	2.50	0.46
31:BA:958:A:C6	31:BA:959:A:N1	2.83	0.46
52:BB:12:C:H2'	52:BB:13:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:104:VAL:HG12	34:BG:105:VAL:N	2.31	0.46
34:BG:110:PHE:HD2	34:BG:148:VAL:CG2	2.29	0.46
35:BH:144:THR:C	35:BH:146:ALA:H	2.18	0.46
37:BJ:44:TYR:O	37:BJ:48:LYS:N	2.47	0.46
44:BQ:23:ARG:NH1	44:BQ:30:ALA:HB2	2.30	0.46
47:BT:91:ARG:HH11	47:BT:91:ARG:CG	2.26	0.46
31:CA:1127:G:N1	31:CA:1145:C:N3	2.63	0.46
31:CA:1505:G:C4'	54:C1:13:A:H62	2.28	0.46
31:CA:273:A:C2'	31:CA:274:A:H5'	2.45	0.46
31:CA:328:C:H4'	31:CA:328:C:OP1	2.15	0.46
31:CA:689:C:C2'	31:CA:690:G:H5'	2.46	0.46
31:CA:773:G:H2'	31:CA:774:G:O5'	2.15	0.46
31:CA:942:G:C2	31:CA:1342:C:O2	2.68	0.46
52:CB:49:A:N3	52:CB:49:A:H2'	2.29	0.46
52:CD:30:A:C6	52:CD:43:G:C6	3.03	0.46
33:CF:31:HIS:C	33:CF:33:LEU:H	2.18	0.46
34:CG:27:TYR:O	34:CG:28:SER:CB	2.62	0.46
31:CA:973:G:C4	40:CM:55:LYS:HE3	2.50	0.46
41:CN:99:GLN:HA	41:CN:105:VAL:CG1	2.46	0.46
41:CN:99:GLN:HA	41:CN:105:VAL:HG11	1.97	0.46
41:CN:20:TYR:O	41:CN:30:VAL:HA	2.16	0.46
16:D1:58:ARG:HD3	16:D1:62:ILE:HD11	1.96	0.46
26:D4:5:ILE:HG22	26:D4:5:ILE:O	2.15	0.46
1:DA:1011:G:C6	1:DA:1013:C:C4	3.03	0.46
1:DA:1067:A:H2'	1:DA:1067:A:N3	2.30	0.46
1:DA:1144:G:N2	1:DA:1145:C:O2	2.49	0.46
1:DA:1160:G:C5	1:DA:1161:C:C4	3.03	0.46
1:DA:565:C:H4'	1:DA:1253:A:C6	2.50	0.46
1:DA:1945:G:C6	1:DA:1946:U:C4	3.04	0.46
1:DA:2297:C:O2	1:DA:2298:A:C8	2.69	0.46
1:DA:234:C:H2'	1:DA:235:U:H6	1.80	0.46
1:DA:2584:U:H5'	1:DA:2585:U:OP2	2.15	0.46
1:DA:638:G:C4	1:DA:651:G:N2	2.82	0.46
1:DA:854:G:H1	1:DA:923:C:H42	1.62	0.46
1:DA:944:G:H2'	1:DA:944:G:N3	2.30	0.46
1:DA:988:A:C2	1:DA:989:G:N2	2.83	0.46
2:DB:10:C:N3	2:DB:11:C:C5	2.83	0.46
2:DB:57:A:OP2	2:DB:58:A:OP2	2.33	0.46
4:DE:200:GLU:OE1	4:DE:200:GLU:N	2.48	0.46
5:DF:36:VAL:HG11	5:DF:183:VAL:HG11	1.96	0.46
7:DH:54:ARG:HB2	7:DH:55:PRO:HD2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:28:GLY:O	11:DO:29:LYS:C	2.53	0.46
14:DQ:83:LYS:HE2	14:DQ:83:LYS:HB3	1.71	0.46
15:DR:88:ILE:HD12	15:DR:88:ILE:C	2.35	0.46
18:DS:7:ALA:O	18:DS:102:HIS:HA	2.15	0.46
26:A4:37:SER:HB3	26:A4:42:PHE:CE1	2.51	0.46
29:A7:21:ARG:NH1	29:A7:21:ARG:HG2	2.31	0.46
1:AA:1091:G:H2'	1:AA:1092:C:H5'	1.98	0.46
1:AA:1309:G:N7	56:AA:3364:OHX:N2	2.62	0.46
1:AA:1520:U:H2'	1:AA:1521:G:O4'	2.15	0.46
1:AA:1830:C:O2'	1:AA:1831:G:H5'	2.14	0.46
1:AA:2078:C:H2'	1:AA:2079:U:C6	2.50	0.46
1:AA:2111:C:O3'	1:AA:2112:G:C8	2.67	0.46
1:AA:2347:C:P	28:A6:39:TYR:OH	2.73	0.46
1:AA:280:C:C2	1:AA:361:G:C2	3.03	0.46
1:AA:37:C:O2'	1:AA:38:A:H5'	2.16	0.46
1:AA:603:A:N7	1:AA:655:A:C2	2.83	0.46
1:AA:722:A:H2'	1:AA:723:G:O4'	2.15	0.46
1:AA:783:A:H3'	1:AA:783:A:C8	2.49	0.46
5:AF:82:ILE:O	5:AF:82:ILE:CG1	2.64	0.46
6:AG:181:ARG:O	6:AG:182:LYS:HB2	2.16	0.46
8:AK:2:LYS:NZ	8:AK:20:ASP:HB3	2.31	0.46
1:AA:1139:G:O3'	9:AM:24:GLY:HA3	2.16	0.46
19:AT:40:LYS:O	19:AT:42:ALA:N	2.49	0.46
20:AU:78:ALA:HB3	20:AU:81:LYS:HZ2	1.80	0.46
24:AW:50:ILE:N	24:AW:50:ILE:HD12	2.30	0.46
23:AZ:83:GLU:C	23:AZ:85:LEU:H	2.18	0.46
31:BA:1160:G:O5'	31:BA:1160:G:H8	1.97	0.46
31:BA:280:C:H4'	31:BA:281:G:OP2	2.15	0.46
31:BA:246:A:C2	31:BA:282:A:C5	3.03	0.46
31:BA:7:G:H4'	31:BA:298:A:OP1	2.16	0.46
31:BA:35:G:H2'	31:BA:36:C:C6	2.49	0.46
31:BA:447:G:O6	31:BA:485:G:O2'	2.17	0.46
31:BA:502:G:H2'	31:BA:503:C:O4'	2.15	0.46
31:BA:554:C:O2'	31:BA:555:C:H5'	2.15	0.46
31:BA:837:G:N2	31:BA:850:U:O2	2.48	0.46
31:BA:957:U:H3	31:BA:960:U:H5"	1.81	0.46
52:BB:46:G:O2'	52:BB:47:U:OP1	2.28	0.46
53:BC:2:G:C5	53:BC:3:C:C5	3.04	0.46
52:BD:18:G:H1	52:BD:65:C:H42	1.61	0.46
40:BM:49:VAL:CG2	44:BQ:41:ARG:HB2	2.45	0.46
31:BA:452:A:O2'	46:BS:72:ARG:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:71:THR:CG2	50:BW:72:LEU:N	2.78	0.46
31:CA:1178:G:C2'	31:CA:1179:A:O5'	2.64	0.46
31:CA:1462:G:H2'	31:CA:1463:C:H6	1.81	0.46
31:CA:147:G:O2'	31:CA:148:G:H5'	2.16	0.46
53:CC:9:G:O2'	53:CC:10:G:N7	2.24	0.46
32:CE:121:LEU:O	32:CE:127:ILE:HD11	2.15	0.46
32:CE:74:LYS:O	32:CE:75:LYS:CB	2.61	0.46
33:CF:111:LEU:HD21	33:CF:146:ALA:HB2	1.97	0.46
35:CH:39:GLY:HA2	35:CH:69:VAL:HB	1.97	0.46
37:CJ:43:PHE:HD1	37:CJ:43:PHE:C	2.17	0.46
39:CL:70:LYS:O	39:CL:74:ILE:HG13	2.16	0.46
42:CO:79:GLU:HG3	42:CO:80:HIS:CD2	2.51	0.46
13:D0:14:SER:HA	13:D0:17:ARG:HH12	1.81	0.46
17:D2:76:LYS:HB3	17:D2:79:VAL:CG2	2.45	0.46
29:D7:17:GLY:O	29:D7:18:PHE:C	2.54	0.46
1:DA:1313:U:C2'	1:DA:1313:U:O2	2.63	0.46
1:DA:1543:A:H1'	1:DA:1545:A:C1'	2.45	0.46
1:DA:1542:G:O5'	1:DA:1543:A:H5"	2.16	0.46
1:DA:1680:U:O2'	1:DA:1763:G:N7	2.34	0.46
1:DA:2157:G:HO2'	1:DA:2158:A:H8	1.62	0.46
1:DA:2312:U:H5	1:DA:2313:C:C4	2.33	0.46
1:DA:2747:G:N2	1:DA:2748:A:N6	2.63	0.46
1:DA:2893:G:H8	1:DA:2893:G:OP2	1.98	0.46
1:DA:307:G:N2	1:DA:309:G:H3'	2.31	0.46
1:DA:381:G:C5	1:DA:394:A:C2	3.03	0.46
1:DA:599:G:O6	56:DA:3391:OHX:N1	2.49	0.46
1:DA:743:G:H2'	1:DA:744:G:H5'	1.98	0.46
2:DB:88:C:H5"	2:DB:89:G:C8	2.49	0.46
4:DE:105:THR:HG21	4:DE:164:ARG:HH11	1.79	0.46
5:DF:15:SER:OG	5:DF:16:GLY:N	2.48	0.46
5:DF:21:ALA:C	5:DF:23:ASP:N	2.69	0.46
6:DG:96:ARG:HH11	6:DG:96:ARG:CG	2.29	0.46
7:DH:109:PHE:CZ	7:DH:152:ARG:HD3	2.51	0.46
14:DQ:25:ARG:NH1	14:DQ:42:ASP:OD2	2.39	0.46
20:DU:28:LYS:O	20:DU:29:GLU:O	2.33	0.46
21:DV:44:PHE:HE1	21:DV:48:PHE:HB2	1.78	0.46
9:AM:42:TRP:CD1	16:A1:63:VAL:HG11	2.51	0.46
16:A1:66:ASN:OD1	16:A1:76:TYR:CB	2.61	0.46
22:A3:43:THR:O	22:A3:45:PHE:N	2.49	0.46
26:A4:12:ALA:CB	26:A4:29:PRO:HA	2.44	0.46
1:AA:1019:U:O2'	1:AA:1021:A:C2	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1141:U:H4'	1:AA:1142(A):A:O4'	2.15	0.46
1:AA:1753:G:N1	1:AA:1756:G:C2	2.84	0.46
1:AA:2199:A:C5'	1:AA:2205:C:OP2	2.63	0.46
1:AA:2399:G:C2'	1:AA:2400:G:H5'	2.46	0.46
1:AA:2507:C:C6	1:AA:2583:G:N2	2.83	0.46
1:AA:928:G:H5"	1:AA:929:G:OP2	2.14	0.46
3:AD:108:PRO:HG3	3:AD:143:HIS:CE1	2.50	0.46
3:AD:6:PHE:N	3:AD:6:PHE:CD1	2.84	0.46
4:AE:57:LYS:HD3	4:AE:59:VAL:HG12	1.98	0.46
4:AE:5:LEU:N	4:AE:5:LEU:HD23	2.30	0.46
4:AE:7:VAL:HG21	15:AR:1:MET:HE1	1.97	0.46
6:AG:33:ARG:O	6:AG:162:THR:HG23	2.15	0.46
6:AG:181:ARG:HG2	6:AG:181:ARG:O	2.16	0.46
14:AQ:92:TYR:HB3	14:AQ:98:VAL:HG21	1.97	0.46
15:AR:109:GLU:O	15:AR:113:LYS:HB2	2.15	0.46
18:AS:107:LEU:HD12	18:AS:107:LEU:HA	1.58	0.46
23:AZ:78:LYS:HZ1	23:AZ:94:LEU:HD11	1.77	0.46
31:BA:1083:U:C5	31:BA:1084:G:C5	3.04	0.46
31:BA:1190:G:O6	56:BA:1745:OHX:N1	2.49	0.46
31:BA:1237:C:C2'	31:BA:1238:A:OP1	2.63	0.46
31:BA:1265:G:C2	31:BA:1271:G:C2	3.03	0.46
31:BA:131:C:O2	31:BA:131:C:C2'	2.56	0.46
31:BA:223:U:C4	31:BA:224:C:C5	3.04	0.46
31:BA:375:U:OP1	46:BS:69:THR:HG21	2.15	0.46
31:BA:404:U:O4	34:BG:2:GLY:N	2.48	0.46
31:BA:79:G:N2	31:BA:90:C:N3	2.63	0.46
31:BA:812:C:H2'	31:BA:812:C:H6	1.53	0.46
31:BA:745:C:OP1	31:BA:851:G:O2'	2.34	0.46
53:BC:17:C:O2'	53:BC:18:C:C6	2.67	0.46
35:BH:111:GLU:O	35:BH:113:ALA:N	2.38	0.46
42:BO:122:THR:HG22	42:BO:123:LYS:O	2.15	0.46
43:BP:37:THR:O	43:BP:39:ILE:HG13	2.16	0.46
44:BQ:23:ARG:HG3	44:BQ:29:ARG:O	2.15	0.46
31:BA:127:G:N2	47:BT:61:GLU:OE1	2.42	0.46
36:BI:97:PHE:O	48:BU:30:ASP:HA	2.16	0.46
31:CA:1065:U:OP1	31:CA:1065:U:H4'	2.14	0.46
31:CA:1291:G:C6	31:CA:1292:U:C4	3.04	0.46
31:CA:1329:A:OP1	43:CP:25:ILE:O	2.33	0.46
31:CA:182:U:O4	31:CA:223:U:H1'	2.15	0.46
31:CA:345:C:O2'	31:CA:346:G:P	2.73	0.46
31:CA:528:C:H4'	31:CA:535:A:C5	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1104:G:O3'	32:CE:111:ARG:NH2	2.48	0.46
32:CE:168:THR:CG2	32:CE:192:SER:HA	2.45	0.46
32:CE:52:GLU:HG2	32:CE:56:ARG:HH22	1.80	0.46
34:CG:126:ILE:HG22	34:CG:127:THR:H	1.80	0.46
35:CH:43:LEU:HD23	35:CH:133:TYR:CE2	2.51	0.46
38:CK:29:SER:HB3	38:CK:32:LYS:CG	2.44	0.46
39:CL:48:GLU:N	39:CL:49:PRO:HD2	2.30	0.46
43:CP:54:VAL:HG12	43:CP:54:VAL:O	2.15	0.46
31:CA:1325:C:C4'	51:CX:17:THR:HG21	2.36	0.46
22:D3:54:GLY:O	22:D3:56:ASP:N	2.48	0.46
1:DA:1069:A:H2	1:DA:1094:U:C2	2.33	0.46
1:DA:2088:G:H2'	1:DA:2089:U:O4'	2.16	0.46
1:DA:2342:C:OP2	1:DA:2342:C:H6	1.98	0.46
1:DA:2469:A:C2	1:DA:2470:G:N7	2.83	0.46
1:DA:2630:G:O4'	1:DA:2630:G:P	2.73	0.46
1:DA:273(E):U:C2'	1:DA:273(F):C:H5'	2.46	0.46
1:DA:2845:G:H2'	1:DA:2846:G:C8	2.51	0.46
1:DA:327:G:OP1	56:DA:3489:OHX:N5	2.48	0.46
1:DA:581:C:O2	1:DA:582:G:C8	2.69	0.46
3:DD:70:TRP:CD1	3:DD:70:TRP:C	2.89	0.46
3:DD:80:ALA:HB3	3:DD:94:LEU:HB3	1.96	0.46
4:DE:129:HIS:O	4:DE:131:ALA:N	2.47	0.46
4:DE:26:ILE:HG22	4:DE:27:LEU:N	2.29	0.46
5:DF:65:TRP:CZ2	5:DF:72:ARG:NH2	2.83	0.46
6:DG:41:GLN:N	6:DG:90:LEU:O	2.45	0.46
8:DK:111:PRO:O	8:DK:112:LYS:C	2.53	0.46
8:DK:3:VAL:HG23	8:DK:19:VAL:HG13	1.98	0.46
9:DM:94:HIS:N	9:DM:94:HIS:ND1	2.63	0.46
20:DU:91:GLU:CG	20:DU:92:ASN:N	2.78	0.46
13:A0:55:ALA:HB2	13:A0:79:LEU:CD1	2.45	0.46
16:A1:79:PHE:CD2	16:A1:79:PHE:C	2.88	0.46
17:A2:16:PRO:HB3	17:A2:99:ILE:HD11	1.98	0.46
1:AA:1250:G:OP2	11:AO:21:ARG:NH1	2.48	0.46
1:AA:1567:A:H5'	3:AD:58:HIS:CD2	2.51	0.46
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.51	0.46
1:AA:240:G:O6	56:AA:3536:OHX:N6	2.49	0.46
1:AA:2663:G:C2	1:AA:2664:G:H1'	2.50	0.46
1:AA:274:G:H2'	1:AA:275:G:H1'	1.96	0.46
1:AA:416:C:O2'	1:AA:417:C:H5'	2.16	0.46
1:AA:483:A:H5"	20:AU:49:VAL:HG22	1.97	0.46
1:AA:607:U:OP1	5:AF:103:LYS:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:64:A:C4	19:AT:66:LEU:CD2	2.99	0.46
1:AA:705:A:C8	1:AA:727:A:C2	3.03	0.46
1:AA:984:A:H5"	1:AA:985:C:H5	1.81	0.46
3:AD:125:ILE:HD13	3:AD:125:ILE:N	2.31	0.46
3:AD:34:VAL:C	3:AD:35:LYS:O	2.53	0.46
3:AD:77:ALA:HB2	3:AD:97:TYR:CD2	2.50	0.46
1:AA:443:A:N7	5:AF:45:ARG:HG3	2.30	0.46
6:AG:83:ARG:HG3	6:AG:86:MET:HE1	1.97	0.46
7:AH:152:ARG:O	7:AH:153:LYS:HB2	2.14	0.46
8:AK:5:LEU:O	8:AK:6:LEU:HD12	2.15	0.46
9:AM:25:ARG:O	9:AM:29:LYS:HE2	2.16	0.46
11:AO:15:ARG:NH1	11:AO:15:ARG:CB	2.75	0.46
18:AS:70:TYR:O	18:AS:107:LEU:HD12	2.16	0.46
19:AT:41:ASN:HD22	19:AT:41:ASN:H	1.64	0.46
31:BA:1122:U:C4	31:BA:1123:A:C5	3.04	0.46
31:BA:1232:U:H2'	31:BA:1233:G:O5'	2.16	0.46
31:BA:1288:A:N1	31:BA:1371:G:H1'	2.30	0.46
31:BA:1489:G:H2'	31:BA:1490:C:O4'	2.15	0.46
31:BA:22:G:C5	31:BA:23:C:C4	3.04	0.46
31:BA:447:G:O2'	31:BA:448:A:O4'	2.34	0.46
31:BA:555:C:H2'	31:BA:556:C:H6	1.80	0.46
31:BA:95:G:C6	31:BA:96:G:C6	3.03	0.46
52:BD:9:U:H5	52:BD:21:A:H62	1.63	0.46
32:BE:134:GLU:O	32:BE:138:LEU:HG	2.15	0.46
35:BH:71:LEU:CD1	35:BH:114:GLY:HA3	2.45	0.46
39:BL:49:PRO:HA	39:BL:52:ALA:HB3	1.97	0.46
26:A4:34:GLU:HG3	43:BP:3:ARG:HB2	1.97	0.46
45:BR:8:LYS:O	45:BR:12:ILE:HG13	2.16	0.46
50:BW:32:ALA:O	50:BW:33:ILE:C	2.54	0.46
54:C1:19:U:O2'	54:C1:20:G:C5'	2.64	0.46
31:CA:1027:C:O2	31:CA:1027:C:O2'	2.34	0.46
31:CA:1065:U:O2'	31:CA:1066:C:OP2	2.33	0.46
31:CA:1145:C:O2'	31:CA:1146:A:N7	2.43	0.46
31:CA:1178:G:N2	31:CA:1181:G:N7	2.64	0.46
31:CA:1207:G:C5	31:CA:1208:C:C5	3.04	0.46
31:CA:386:C:H2'	31:CA:387:U:C5'	2.46	0.46
31:CA:491:G:H2'	31:CA:492:G:C5'	2.45	0.46
31:CA:563:A:N7	31:CA:567:G:H1'	2.30	0.46
31:CA:619:U:N3	34:CG:134:ASP:OD2	2.48	0.46
32:CE:216:SER:O	32:CE:218:ALA:N	2.49	0.46
34:CG:171:GLY:HA2	34:CG:172:PRO:HD3	1.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:82:ALA:O	34:CG:83:SER:C	2.53	0.46
35:CH:51:VAL:HG23	35:CH:52:PRO:HD3	1.98	0.46
37:CJ:146:GLU:O	37:CJ:149:ARG:HB2	2.16	0.46
46:CS:51:VAL:O	46:CS:53:VAL:N	2.49	0.46
50:CW:26:ASN:HD22	50:CW:26:ASN:C	2.18	0.46
17:D2:74:LYS:HB3	17:D2:74:LYS:HE2	1.44	0.46
1:DA:1187:G:C5'	17:D2:81:TYR:OH	2.63	0.46
28:D6:36:LEU:HD23	28:D6:50:ARG:HD3	1.98	0.46
1:DA:1042:G:H2'	1:DA:1043:C:O4'	2.15	0.46
1:DA:1070:A:C8	1:DA:1096:A:O2'	2.69	0.46
1:DA:1796:U:H2'	1:DA:1797:C:C6	2.51	0.46
1:DA:1993:U:H2'	1:DA:1994:C:O4'	2.16	0.46
1:DA:2074:U:H2'	1:DA:2075:U:C6	2.50	0.46
1:DA:231:C:C2'	1:DA:232:G:H5'	2.46	0.46
1:DA:2473:U:H3	1:DA:2474:C:H6	1.62	0.46
1:DA:2882:A:H2'	1:DA:2883:A:O5'	2.15	0.46
1:DA:28:A:C5	1:DA:513:A:N7	2.83	0.46
1:DA:353:G:C2'	1:DA:354:G:H5'	2.46	0.46
1:DA:35:G:H2'	1:DA:36:G:O4'	2.15	0.46
1:DA:80:G:C2'	1:DA:81:G:H5'	2.45	0.46
3:DD:176:ARG:NH1	3:DD:176:ARG:HG2	2.16	0.46
1:DA:2772:C:H5'	4:DE:168:MET:HE1	1.96	0.46
4:DE:52:LEU:O	4:DE:74:PRO:HB3	2.15	0.46
6:DG:56:ALA:CB	6:DG:153:ARG:HE	2.27	0.46
9:DM:15:LEU:HD12	9:DM:55:VAL:CG1	2.37	0.46
12:DP:121:ALA:C	12:DP:123:HIS:H	2.19	0.46
14:DQ:36:TYR:HD2	14:DQ:52:SER:HB3	1.77	0.46
20:DU:43:ASN:CB	20:DU:64:GLU:HA	2.43	0.46
25:DX:5:LYS:HA	25:DX:36:VAL:HG12	1.98	0.46
13:A0:32:GLY:HA2	13:A0:116:LEU:HD12	1.96	0.46
26:A4:16:CYS:HB2	26:A4:36:CYS:N	2.30	0.46
28:A6:12:GLU:HG3	28:A6:53:LYS:C	2.36	0.46
30:A8:26:LYS:HE2	30:A8:47:LYS:HB3	1.97	0.46
1:AA:1082:U:C4	1:AA:1083:U:C2	3.03	0.46
1:AA:1130:U:HO2'	1:AA:1131:G:P	2.39	0.46
1:AA:1291:C:O2'	1:AA:1292:U:H5'	2.16	0.46
1:AA:2421:G:H2'	52:BD:85:A:N6	2.31	0.46
1:AA:2537:U:C2	1:AA:2538:C:C5	3.04	0.46
1:AA:1783:A:H5'	1:AA:2608:G:H4'	1.98	0.46
1:AA:2748:A:C6	1:AA:2749:A:C5	3.04	0.46
1:AA:358:U:H2'	1:AA:359:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:99:U:C6	1:AA:102:G:C2	3.03	0.46
2:AB:101:A:OP1	56:AB:213:OHX:N1	2.49	0.46
4:AE:167:VAL:HG21	4:AE:187:ALA:HB3	1.97	0.46
5:AF:64:ILE:HD12	5:AF:65:TRP:CD1	2.51	0.46
5:AF:78:ILE:HG13	5:AF:78:ILE:H	1.56	0.46
6:AG:69:ALA:O	6:AG:90:LEU:HD12	2.16	0.46
8:AK:135:GLU:OE1	8:AK:135:GLU:N	2.38	0.46
8:AK:29:TYR:O	8:AK:32:PRO:HD2	2.16	0.46
11:AO:45:LEU:HD13	11:AO:45:LEU:HA	1.76	0.46
1:AA:631:A:OP1	11:AO:64:LYS:HE2	2.16	0.46
11:AO:86:LYS:HD2	11:AO:117:GLU:HG3	1.98	0.46
12:AP:66:ILE:CG1	12:AP:67:ARG:N	2.78	0.46
15:AR:54:ARG:HA	15:AR:59:THR:HB	1.98	0.46
1:AA:481:G:OP2	20:AU:47:LYS:HD2	2.16	0.46
31:BA:1368:G:C6	31:BA:1369:C:C4	3.04	0.46
31:BA:1504:G:H3'	31:BA:1504:G:OP2	2.15	0.46
31:BA:221:C:C2'	31:BA:222:U:H5'	2.45	0.46
31:BA:429:U:H1'	31:BA:430:A:H5"	1.98	0.46
31:BA:599:C:C2	31:BA:600:C:C6	3.04	0.46
31:BA:690:G:C2	31:BA:691:G:C6	3.03	0.46
31:BA:658:G:C2	31:BA:749:C:C4	3.03	0.46
52:BB:15:G:H1'	52:BB:20:C:N4	2.28	0.46
52:BB:47:U:C4	52:BB:48:C:C5	3.04	0.46
52:BD:38:MIA:H162	52:BD:39:A:C2	2.50	0.46
32:BE:19:HIS:CD2	32:BE:20:GLU:CD	2.89	0.46
39:BL:5:TYR:HA	39:BL:17:VAL:O	2.16	0.46
40:BM:54:PHE:CD1	40:BM:55:LYS:HE3	2.50	0.46
31:BA:948:C:OP2	43:BP:108:ARG:HB2	2.16	0.46
48:BU:66:LEU:O	48:BU:70:ILE:HG13	2.15	0.46
31:CA:991:U:C4	31:CA:1212:U:H1'	2.50	0.46
31:CA:1227:A:OP1	49:CV:80:TYR:OH	2.24	0.46
31:CA:1518:A:C2	31:CA:1519:A:C4	3.04	0.46
31:CA:560:U:H4'	31:CA:561:U:O5'	2.16	0.46
31:CA:618:C:H5'	31:CA:619:U:H5"	1.96	0.46
31:CA:945:G:H2'	31:CA:945:G:N3	2.30	0.46
52:CB:17:G:C5	52:CB:67:A:C6	3.04	0.46
52:CD:35:G:H2'	52:CD:36:U:H6	1.81	0.46
52:CD:38:MIA:H2'	52:CD:39:A:C8	2.50	0.46
52:CD:51:C:H3'	52:CD:52:G:C8	2.50	0.46
32:CE:75:LYS:HD3	32:CE:75:LYS:O	2.16	0.46
31:CA:1189:C:O2'	33:CF:176:HIS:CD2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:117:ALA:O	34:CG:121:VAL:HG23	2.15	0.46
39:CL:114:TYR:CD1	40:CM:60:ARG:CG	2.94	0.46
41:CN:34:ASP:HB2	41:CN:35:PRO:CD	2.44	0.46
22:D3:54:GLY:N	22:D3:58:THR:O	2.45	0.46
27:D5:30:LEU:O	27:D5:31:VAL:HG13	2.16	0.46
1:DA:110:G:C2	1:DA:111:A:C8	3.03	0.46
1:DA:1126:A:OP1	1:DA:1126:A:C8	2.63	0.46
1:DA:1153:C:C5	1:DA:1154:G:C5	3.04	0.46
1:DA:1416:G:O2'	1:DA:1417:C:O4'	2.34	0.46
1:DA:1789:A:H2'	1:DA:1790:C:O4'	2.16	0.46
1:DA:1268:A:C2	1:DA:2013:A:C4	3.03	0.46
1:DA:2135:A:O2'	1:DA:2136:C:OP1	2.22	0.46
1:DA:2173:A:C6	1:DA:2174:C:H1'	2.49	0.46
1:DA:2374:C:C2'	1:DA:2375:G:H5'	2.46	0.46
1:DA:2402:C:H5	1:DA:2415:G:H22	1.61	0.46
1:DA:820:A:H2'	1:DA:821:A:H8	1.81	0.46
3:DD:72:LYS:HE2	3:DD:101:GLU:OE2	2.15	0.46
4:DE:64:LYS:CB	4:DE:66:HIS:HD2	2.03	0.46
5:DF:172:TRP:CE3	5:DF:173:VAL:HG23	2.50	0.46
7:DH:92:ILE:CG2	7:DH:93:GLY:N	2.71	0.46
8:DK:109:ILE:HB	8:DK:130:TYR:CZ	2.51	0.46
8:DK:125:GLU:OE1	8:DK:141:LYS:HG3	2.15	0.46
11:DO:100:LEU:HG	11:DO:105:LEU:HD11	1.96	0.46
1:DA:670:A:H5"	11:DO:42:SER:O	2.16	0.46
11:DO:61:ARG:CB	11:DO:62:LEU:CD2	2.93	0.46
14:DQ:34:HIS:ND1	14:DQ:54:LEU:HB2	2.31	0.46
15:DR:33:LYS:HD2	15:DR:42:ILE:HD11	1.97	0.46
15:DR:91:ARG:HH11	15:DR:124:ASP:CG	2.10	0.46
18:DS:84:ARG:HB2	18:DS:96:ILE:HD11	1.94	0.46
19:DT:18:TYR:CD1	19:DT:21:PHE:HE2	2.32	0.46
1:DA:329:G:O6	20:DU:19:LYS:HB3	2.15	0.46
20:DU:96:ILE:HD12	20:DU:98:VAL:HG12	1.98	0.46
25:DX:4:LEU:HD22	25:DX:56:VAL:HG21	1.97	0.46
16:A1:27:LEU:HD13	16:A1:31:SER:CB	2.45	0.46
26:A4:42:PHE:CG	26:A4:43:TYR:N	2.82	0.46
1:AA:592:G:N3	30:A8:4:MET:CE	2.79	0.46
1:AA:1568:G:OP2	3:AD:63:ARG:NH2	2.45	0.46
1:AA:1850:G:H2'	1:AA:1851:U:O4'	2.16	0.46
1:AA:2145:C:H5"	1:AA:2146:C:OP2	2.16	0.46
1:AA:2475:C:O2	1:AA:2475:C:C2'	2.57	0.46
1:AA:273(E):U:H2'	1:AA:273(F):C:C5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:274:G:H3'	1:AA:274:G:C8	2.50	0.46
1:AA:579:G:N7	56:AA:3417:OHX:N5	2.64	0.46
1:AA:475:U:C5	1:AA:481:G:O6	2.69	0.46
1:AA:747:U:O2	1:AA:2014:A:H1'	2.15	0.46
3:AD:198:ASN:C	3:AD:198:ASN:ND2	2.67	0.46
1:AA:729:G:C5	3:AD:208:LYS:HB2	2.51	0.46
3:AD:228:PRO:CG	3:AD:234:GLY:O	2.60	0.46
3:AD:3:VAL:CG1	3:AD:3:VAL:O	2.63	0.46
4:AE:116:VAL:CG1	4:AE:122:PHE:CD2	2.98	0.46
5:AF:29:ASN:N	5:AF:112:MET:CE	2.76	0.46
5:AF:51:THR:HG21	5:AF:92:PRO:HD2	1.97	0.46
7:AH:41:MET:CE	7:AH:64:LEU:HB3	2.46	0.46
15:AR:26:ASP:HB3	15:AR:92:GLY:N	2.22	0.46
19:AT:54:VAL:C	19:AT:55:ASN:HD22	2.20	0.46
31:BA:1064:G:O2'	31:BA:1190:G:N2	2.49	0.46
31:BA:195:A:C5	31:BA:196:A:N1	2.84	0.46
31:BA:595:G:N2	31:BA:643:C:N4	2.64	0.46
31:BA:872:A:C4	31:BA:874:G:C8	3.04	0.46
52:BB:2:G:C2	52:BB:81:C:O2	2.69	0.46
37:BJ:113:GLU:CB	37:BJ:118:VAL:HG13	2.46	0.46
39:BL:26:VAL:O	39:BL:33:PHE:HB2	2.16	0.46
40:BM:80:LYS:HA	40:BM:80:LYS:HZ2	1.81	0.46
41:BN:95:ILE:HG23	41:BN:108:ILE:HD11	1.98	0.46
43:BP:94:ARG:C	43:BP:96:LEU:H	2.18	0.46
50:BW:99:LEU:O	50:BW:100:ILE:HB	2.16	0.46
31:CA:1007:C:C4	31:CA:1008:C:C5	3.03	0.46
31:CA:1207:G:C2'	31:CA:1208:C:H5'	2.45	0.46
31:CA:1357:A:N6	31:CA:1358:U:O4	2.49	0.46
31:CA:187:C:O2	31:CA:191(A):G:C6	2.69	0.46
31:CA:426:G:P	34:CG:36:ARG:NH2	2.89	0.46
31:CA:895:G:H2'	31:CA:896:C:C6	2.50	0.46
31:CA:89:U:O2'	31:CA:90:C:C5'	2.64	0.46
52:CB:52:G:H8	52:CB:52:G:OP2	1.99	0.46
53:CC:22:A:N6	53:CC:47:G:H2'	2.31	0.46
52:CD:34:U:H2'	52:CD:36:U:OP2	2.15	0.46
32:CE:239:VAL:HG12	32:CE:240:GLN:HG3	1.98	0.46
38:CK:104:ARG:NH1	38:CK:138:TRP:CZ2	2.69	0.46
38:CK:75:ARG:HA	38:CK:76:PRO:HD2	1.79	0.46
39:CL:102:LEU:O	39:CL:103:THR:OG1	2.31	0.46
39:CL:34:ASN:N	39:CL:34:ASN:OD1	2.49	0.46
39:CL:33:PHE:HE1	39:CL:37:PHE:CD1	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CL:4:TYR:CZ	39:CL:88:TYR:CG	3.04	0.46
31:CA:973:G:N3	40:CM:55:LYS:HE3	2.31	0.46
42:CO:40:VAL:HG21	42:CO:77:LEU:O	2.15	0.46
50:CW:56:MET:HG3	50:CW:84:LEU:HD13	1.97	0.46
16:D1:92:ARG:HD3	16:D1:94:ASN:CB	2.36	0.46
17:D2:90:PRO:O	17:D2:91:TYR:CG	2.68	0.46
30:D8:51:ALA:HB1	30:D8:52:LYS:HD2	1.97	0.46
1:DA:1021:A:C6	1:DA:1023:U:C5	3.04	0.46
1:DA:1049:C:H2'	1:DA:1050:A:C5'	2.46	0.46
1:DA:1090:U:C4	1:DA:1091:G:C4	3.04	0.46
1:DA:1459:G:C6	1:DA:1461:G:C5	3.04	0.46
1:DA:1491:G:C2'	1:DA:1492:G:H5'	2.46	0.46
1:DA:1766:U:H3	1:DA:1986:A:N6	2.11	0.46
1:DA:1927:A:N1	1:DA:1928:A:C2	2.84	0.46
1:DA:221:A:C8	1:DA:266:G:O6	2.69	0.46
1:DA:2308:G:H2'	1:DA:2309:A:OP1	2.15	0.46
1:DA:2500:U:O2	1:DA:2504:U:C5	2.69	0.46
1:DA:2591:C:H2'	1:DA:2592:G:H5'	1.98	0.46
1:DA:2695:C:O2'	1:DA:2696:U:O5'	2.34	0.46
1:DA:6:A:O2'	1:DA:7:G:H5'	2.16	0.46
1:DA:859:G:N2	1:DA:917:A:OP2	2.49	0.46
2:DB:46:A:C8	2:DB:47:C:C5	3.04	0.46
3:DD:176:ARG:NH1	3:DD:176:ARG:HB3	2.31	0.46
1:DA:2591:C:OP2	3:DD:238:GLY:O	2.33	0.46
5:DF:115:ALA:O	5:DF:117:ARG:N	2.49	0.46
5:DF:7:TYR:CE2	5:DF:16:GLY:HA3	2.51	0.46
1:DA:616:A:C8	5:DF:176:LEU:HD11	2.50	0.46
6:DG:106:LEU:HA	6:DG:110:ALA:HB3	1.98	0.46
6:DG:67:LYS:HZ1	26:D4:5:ILE:HB	1.80	0.46
12:DP:103:MET:CE	12:DP:125:LEU:HD13	2.45	0.46
21:DV:147:GLY:C	21:DV:149:SER:N	2.68	0.46
21:DV:5:LEU:CD2	21:DV:6:LYS:HG2	2.46	0.46
16:A1:74:LEU:N	16:A1:74:LEU:HD12	2.30	0.46
22:A3:19:LYS:HA	22:A3:19:LYS:HD3	1.63	0.46
1:AA:1098:A:H8	1:AA:1098:A:O5'	1.99	0.46
1:AA:1204:A:C2	1:AA:1241:A:N1	2.84	0.46
1:AA:1332:G:C8	1:AA:1332:G:H5'	2.50	0.46
1:AA:1742:C:H2'	1:AA:1743:G:O4'	2.16	0.46
1:AA:2272:U:C5'	1:AA:2273:A:OP1	2.64	0.46
1:AA:2394:C:H2'	1:AA:2395:C:H6	1.81	0.46
1:AA:2431:U:O2	1:AA:2433:A:C8	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2688:U:O2	1:AA:2688:U:O5'	2.33	0.46
1:AA:2695:C:H2'	1:AA:2696:U:H6	1.79	0.46
1:AA:306:U:O2	1:AA:312:G:N2	2.48	0.46
1:AA:325:G:C2	1:AA:326:G:C4	3.03	0.46
1:AA:200:U:OP1	56:AA:3377:OHX:N2	2.49	0.46
1:AA:2396:G:N7	56:AA:3565:OHX:N3	2.64	0.46
1:AA:385:C:C2'	1:AA:386:G:OP2	2.64	0.46
1:AA:603:A:C5	1:AA:655:A:C2	3.03	0.46
1:AA:800:A:H4'	1:AA:801:G:O5'	2.15	0.46
1:AA:866:A:C6	1:AA:914:C:C5	3.03	0.46
1:AA:937:U:H2'	1:AA:938:G:O4'	2.15	0.46
3:AD:170:GLY:C	3:AD:172:TYR:H	2.19	0.46
3:AD:27:THR:HG22	3:AD:28:GLU:N	2.31	0.46
3:AD:39:LYS:HZ3	3:AD:60:ARG:HH11	1.64	0.46
4:AE:57:LYS:HZ3	4:AE:59:VAL:HG11	1.81	0.46
7:AH:154:PRO:HG2	7:AH:155:SER:H	1.80	0.46
9:AM:46:VAL:O	9:AM:47:ALA:CB	2.61	0.46
11:AO:49:ARG:HG3	30:A8:59:LYS:CG	2.46	0.46
15:AR:41:ARG:HH11	15:AR:41:ARG:HB3	1.78	0.46
25:AX:37:LEU:HD12	25:AX:43:ILE:HD13	1.97	0.46
31:BA:168:G:C2	31:BA:169:C:N3	2.84	0.46
31:BA:1011:G:O6	56:BA:1799:OHX:N5	2.49	0.46
31:BA:394:G:C6	31:BA:395:C:C5	3.03	0.46
31:BA:57:G:C5	31:BA:58:C:C4	3.04	0.46
31:BA:767:A:H2'	31:BA:768:A:O4'	2.15	0.46
31:BA:244:U:C6	31:BA:894:G:N2	2.84	0.46
31:BA:963:G:H5'	56:BA:1806:OHX:N1	2.31	0.46
52:BB:7:G:C2	52:BB:58:G:C5	3.04	0.46
37:BJ:9:VAL:CG1	37:BJ:94:ARG:HE	2.24	0.46
39:BL:24:GLY:O	39:BL:25:LYS:C	2.53	0.46
42:BO:120:TYR:O	42:BO:121:GLY:C	2.54	0.46
43:BP:19:LEU:HB3	43:BP:25:ILE:HG21	1.97	0.46
43:BP:7:VAL:O	43:BP:8:GLU:C	2.54	0.46
44:BQ:4:LYS:HG3	44:BQ:7:ILE:HD11	1.97	0.46
31:BA:1221:G:H4'	49:BV:77:THR:HG22	1.98	0.46
49:BV:83:HIS:HB3	49:BV:84:GLY:H	1.58	0.46
50:BW:36:LEU:HD23	50:BW:62:LEU:HD11	1.97	0.46
31:CA:1158:C:C4	31:CA:1160:G:C5	3.04	0.46
31:CA:1159:U:C4	31:CA:1182:G:C6	3.04	0.46
31:CA:1170:A:O5'	31:CA:1170:A:H8	1.99	0.46
31:CA:244:U:C6	31:CA:894:G:N2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:82:U:C2	31:CA:87:A:N1	2.83	0.46
52:CD:79:A:C6	52:CD:80:C:C4	3.04	0.46
33:CF:8:ILE:HG23	33:CF:16:ARG:HG2	1.98	0.46
31:CA:1190:G:OP1	33:CF:5:ILE:HD12	2.16	0.46
34:CG:108:LEU:HD13	34:CG:174:LEU:HD13	1.98	0.46
34:CG:114:ARG:O	34:CG:117:ALA:HB3	2.16	0.46
34:CG:12:CYS:HB3	34:CG:33:MET:CG	2.45	0.46
34:CG:146:ILE:HD12	34:CG:146:ILE:H	1.81	0.46
35:CH:118:ILE:HG12	35:CH:119:LEU:N	2.31	0.46
35:CH:51:VAL:HB	35:CH:52:PRO:HD3	1.98	0.46
38:CK:103:VAL:O	38:CK:104:ARG:HB3	2.15	0.46
39:CL:53:VAL:HG23	39:CL:53:VAL:O	2.16	0.46
42:CO:27:LEU:HG	42:CO:33:ARG:HB3	1.96	0.46
49:CV:51:VAL:HG23	49:CV:60:VAL:CG1	2.46	0.46
13:D0:35:THR:HG23	13:D0:112:ALA:O	2.15	0.46
16:D1:16:LYS:O	16:D1:20:LEU:HD23	2.16	0.46
1:DA:561:G:H1'	16:D1:45:TYR:CE2	2.51	0.46
22:D3:75:LEU:O	22:D3:78:TYR:CE1	2.68	0.46
49:CV:41:VAL:HG22	26:D4:63:TYR:CD2	2.51	0.46
1:DA:667:U:O2	30:D8:2:PRO:HD2	2.15	0.46
30:D8:33:ASN:C	30:D8:34:TRP:HD1	2.18	0.46
30:D8:52:LYS:N	30:D8:52:LYS:CD	2.76	0.46
1:DA:1163:G:C2	1:DA:1164:G:C8	3.04	0.46
1:DA:1344:G:O2'	1:DA:1385:G:H2'	2.15	0.46
1:DA:1847:A:H3'	1:DA:1848:A:H5'	1.97	0.46
1:DA:2346:A:H5"	1:DA:2383:G:H1'	1.98	0.46
1:DA:2394:C:H2'	1:DA:2395:C:H6	1.81	0.46
1:DA:2698:U:H2'	1:DA:2699:C:C6	2.50	0.46
1:DA:2850:A:C4	1:DA:2851:A:C8	3.03	0.46
1:DA:2895:U:H2'	1:DA:2896:C:O4'	2.16	0.46
1:DA:839:U:OP2	56:DA:3484:OHX:N2	2.49	0.46
1:DA:844:C:C2'	1:DA:845:G:H5'	2.46	0.46
2:DB:88:C:H5"	2:DB:89:G:N7	2.30	0.46
3:DD:39:LYS:HB2	3:DD:62:TYR:HB2	1.98	0.46
3:DD:35:LYS:CG	3:DD:64:ILE:HG12	2.46	0.46
5:DF:192:LEU:O	5:DF:193:VAL:CG2	2.61	0.46
6:DG:13:GLU:O	6:DG:14:GLU:HB2	2.16	0.46
8:DK:54:GLN:HE21	8:DK:57:ARG:HH22	1.63	0.46
10:DN:104:ARG:HH12	15:DR:36:GLU:HB3	1.81	0.46
11:DO:80:TYR:CE1	11:DO:111:ARG:CG	2.94	0.46
18:DS:2:GLU:OE2	18:DS:72:LYS:HE3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:DV:4:ARG:HG2	21:DV:58:VAL:HB	1.97	0.46
13:A0:103:ARG:HD2	13:A0:108:GLY:O	2.16	0.46
28:A6:25:LYS:HE3	30:A8:34:TRP:CZ2	2.36	0.46
28:A6:40:CYS:HB2	28:A6:46:HIS:CE1	2.51	0.46
1:AA:1063:G:N2	1:AA:1076:C:H1'	2.31	0.46
1:AA:1142(A):A:C8	1:AA:1144:G:N7	2.84	0.46
1:AA:139:G:N2	1:AA:141:A:N1	2.64	0.46
1:AA:1706:U:O2	1:AA:1757:U:H5'	2.15	0.46
1:AA:2511:U:OP1	56:AA:3557:OHX:N5	2.49	0.46
1:AA:2631:G:C6	1:AA:2632:A:N7	2.84	0.46
1:AA:2564:A:OP1	1:AA:2648:C:H4'	2.16	0.46
1:AA:2653:U:C5	1:AA:2654:A:C4	3.04	0.46
1:AA:2791:C:H42	1:AA:2805:G:H1	1.63	0.46
1:AA:574:C:N3	4:AE:145:LYS:CE	2.79	0.46
1:AA:611:C:O2'	1:AA:612:G:H5'	2.15	0.46
1:AA:638:G:H2'	1:AA:639:U:H6	1.80	0.46
3:AD:205:VAL:HG12	3:AD:205:VAL:O	2.15	0.46
3:AD:64:ILE:O	3:AD:64:ILE:CG1	2.64	0.46
3:AD:77:ALA:HB1	3:AD:96:HIS:O	2.15	0.46
4:AE:134:ILE:C	4:AE:134:ILE:HD12	2.36	0.46
4:AE:63:LEU:O	4:AE:63:LEU:HD23	2.16	0.46
1:AA:2786:U:OP1	4:AE:66:HIS:CD2	2.68	0.46
7:AH:10:PRO:HB2	7:AH:11:VAL:H	1.57	0.46
7:AH:27:LYS:HA	7:AH:31:GLY:O	2.16	0.46
9:AM:34:LEU:HA	9:AM:34:LEU:HD12	1.81	0.46
10:AN:4:PRO:O	10:AN:5:GLN:HB2	2.15	0.46
10:AN:68:GLU:H	10:AN:68:GLU:CD	2.19	0.46
19:AT:26:TYR:HB3	19:AT:92:LEU:HD12	1.97	0.46
31:BA:1250:A:H2'	31:BA:1251:A:O4'	2.16	0.46
31:BA:1271:G:H2'	31:BA:1272:G:H5'	1.96	0.46
31:BA:1366:C:O3'	40:BM:60:ARG:NH2	2.49	0.46
31:BA:1394:A:C6	31:BA:1501:C:H4'	2.51	0.46
31:BA:145:G:H2'	31:BA:146:G:H5'	1.98	0.46
31:BA:149:A:C6	31:BA:150:C:N4	2.84	0.46
31:BA:31:G:O2'	31:BA:32:A:H4'	2.16	0.46
31:BA:382:A:C2	31:BA:383:A:C4	3.04	0.46
31:BA:378:G:C2	31:BA:386:C:O2	2.68	0.46
31:BA:81:G:H2'	31:BA:82:U:C6	2.51	0.46
31:BA:874:G:C6	31:BA:875:C:C4	3.04	0.46
31:BA:900:A:H2'	31:BA:901:A:C8	2.51	0.46
32:BE:174:VAL:O	32:BE:178:ARG:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:52:LEU:CD2	33:BF:52:LEU:H	2.28	0.46
34:BG:201:GLN:HA	34:BG:201:GLN:NE2	2.31	0.46
39:BL:53:VAL:HG23	39:BL:95:LYS:HD3	1.97	0.46
45:BR:70:LEU:O	45:BR:70:LEU:HD12	2.16	0.46
31:CA:1083:U:C2'	31:CA:1084:G:H5'	2.46	0.46
31:CA:1095:U:C5'	31:CA:1109:C:O2	2.64	0.46
31:CA:1305:G:C8	31:CA:1305:G:OP2	2.69	0.46
31:CA:1317:C:C6	44:CQ:16:PHE:CE1	3.05	0.46
31:CA:369:C:O2	31:CA:370:C:C6	2.69	0.46
31:CA:594:G:OP2	56:CA:1760:OHX:N3	2.49	0.46
31:CA:946:A:N6	31:CA:947:G:O6	2.49	0.46
52:CB:38:MIA:C16	52:CB:39:A:N1	2.79	0.46
32:CE:66:GLY:O	32:CE:67:THR:OG1	2.31	0.46
33:CF:87:LEU:C	33:CF:89:GLU:H	2.18	0.46
38:CK:82:HIS:CD2	38:CK:82:HIS:C	2.90	0.46
39:CL:21:PRO:HA	39:CL:59:PHE:HA	1.98	0.46
40:CM:4:ILE:HB	40:CM:74:ILE:HD11	1.98	0.46
41:CN:127:LYS:O	41:CN:128:ALA:HB3	2.16	0.46
50:CW:39:LYS:O	50:CW:43:LEU:HG	2.15	0.46
17:D2:77:ALA:O	17:D2:78:LYS:HB2	2.15	0.46
22:D3:69:PHE:CE2	22:D3:79:VAL:HG22	2.50	0.46
29:D7:27:GLY:O	29:D7:30:VAL:HB	2.15	0.46
1:DA:1063:G:C2	1:DA:1064:C:C2	3.04	0.46
1:DA:1097:U:C5	1:DA:1098:A:C5	3.04	0.46
1:DA:1484:G:O2'	1:DA:1485:G:H5'	2.15	0.46
1:DA:149:A:H2'	1:DA:150:C:H6	1.81	0.46
1:DA:2197:U:OP2	56:DA:3336:OHX:N4	2.48	0.46
1:DA:2308:G:O2'	1:DA:2309:A:OP2	2.33	0.46
1:DA:2387:U:H5"	1:DA:2388:A:OP2	2.16	0.46
1:DA:2606:C:C2'	1:DA:2607:G:H5'	2.46	0.46
1:DA:2702:U:O2	1:DA:2702:U:H3'	2.16	0.46
1:DA:2681:C:N4	1:DA:2727:G:N1	2.63	0.46
1:DA:807:U:H2'	1:DA:808:G:O5'	2.16	0.46
3:DD:242:ARG:HD3	3:DD:242:ARG:N	2.31	0.46
3:DD:35:LYS:HG2	3:DD:64:ILE:CB	2.45	0.46
4:DE:3:GLY:HA3	4:DE:81:ILE:CD1	2.42	0.46
5:DF:61:GLY:O	5:DF:77:ASP:HB3	2.16	0.46
6:DG:132:ASN:OD1	6:DG:158:ALA:HA	2.16	0.46
6:DG:74:LYS:O	6:DG:84:LYS:HG2	2.16	0.46
7:DH:54:ARG:NH1	7:DH:65:HIS:ND1	2.63	0.46
1:DA:1006:C:H1'	9:DM:106:MET:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:DM:87:LEU:C	9:DM:89:LYS:N	2.69	0.46
10:DN:20:MET:CE	10:DN:44:LYS:HE3	2.44	0.46
1:DA:389:G:N2	11:DO:71:VAL:HG12	2.30	0.46
1:DA:2875:C:HO2'	15:DR:3:ARG:HG3	1.77	0.46
20:DU:22:GLY:O	20:DU:23:ARG:C	2.53	0.46
20:DU:30:VAL:O	20:DU:36:ALA:O	2.34	0.46
20:DU:75:ILE:O	20:DU:75:ILE:HD13	2.16	0.46
25:DX:44:ARG:O	25:DX:48:GLU:HG3	2.16	0.46
13:A0:18:LEU:HD13	13:A0:18:LEU:O	2.16	0.45
22:A3:49:LYS:HB2	22:A3:80:HIS:CB	2.45	0.45
30:A8:57:ARG:HH11	30:A8:57:ARG:CB	2.29	0.45
1:AA:1043:C:C4	1:AA:1044:G:N7	2.84	0.45
1:AA:2038:G:C5	1:AA:2039:C:C5	3.05	0.45
1:AA:2367:G:H2'	1:AA:2368:C:C6	2.48	0.45
1:AA:2639:A:H2'	1:AA:2640:G:H5'	1.99	0.45
1:AA:2831:G:O4'	1:AA:2883:A:C2	2.68	0.45
1:AA:33:U:H4'	1:AA:34:C:OP1	2.16	0.45
1:AA:516:C:OP1	27:A5:13:LYS:NZ	2.43	0.45
1:AA:908:C:OP1	12:AP:22:LYS:CB	2.63	0.45
1:AA:92:G:H2'	1:AA:93:C:C6	2.50	0.45
3:AD:77:ALA:HB2	3:AD:97:TYR:HA	1.98	0.45
1:AA:2636:U:H4'	4:AE:80:GLU:OE2	2.16	0.45
5:AF:129:PHE:HA	5:AF:142:TRP:NE1	2.31	0.45
5:AF:39:TRP:CD1	5:AF:101:LEU:HB2	2.51	0.45
8:AK:95:LYS:HD2	8:AK:95:LYS:O	2.16	0.45
15:AR:109:GLU:HA	15:AR:112:ARG:HG2	1.98	0.45
20:AU:12:THR:OG1	20:AU:26:LYS:HE2	2.15	0.45
21:AV:63:ASP:CB	21:AV:64:GLY:CA	2.94	0.45
31:BA:1493:A:O2'	54:B1:19:U:H1'	2.16	0.45
31:BA:1328:C:H2'	31:BA:1329:A:O4'	2.17	0.45
31:BA:1237:C:C4	31:BA:1336:C:C5	3.04	0.45
31:BA:244:U:H4'	31:BA:245:C:H5"	1.97	0.45
31:BA:502:G:C5	31:BA:503:C:C5	3.04	0.45
31:BA:791:G:C6	31:BA:792:A:C6	3.04	0.45
52:BB:20:C:H4'	52:BB:21:A:OP1	2.15	0.45
1:AA:2583:G:N2	52:BB:85:A:H1'	2.32	0.45
52:BD:47:U:C2	52:BD:48:C:C5	3.04	0.45
33:BF:141:VAL:O	33:BF:141:VAL:CG1	2.64	0.45
35:BH:20:GLN:HG2	35:BH:21:ALA:N	2.31	0.45
37:BJ:13:GLN:O	37:BJ:24:THR:HG21	2.15	0.45
37:BJ:24:THR:HA	37:BJ:27:ILE:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:59:TYR:O	41:BN:63:LEU:HD12	2.16	0.45
42:BO:64:TYR:HB3	42:BO:65:GLU:H	1.56	0.45
42:BO:89:ARG:HD3	42:BO:91:LYS:HA	1.97	0.45
44:BQ:8:GLU:OE2	44:BQ:11:LYS:HD2	2.16	0.45
45:BR:78:TYR:CZ	45:BR:82:ILE:CD1	2.99	0.45
47:BT:91:ARG:HH12	47:BT:92:ARG:HH21	1.50	0.45
31:CA:1004:A:H3'	31:CA:1004:A:N3	2.31	0.45
31:CA:1368:G:H2'	31:CA:1369:C:H5'	1.97	0.45
31:CA:807:A:OP1	56:CA:1776:OHX:N3	2.49	0.45
31:CA:362:G:C8	56:CA:1798:OHX:N5	2.83	0.45
31:CA:570:G:H2'	31:CA:571:U:H6	1.81	0.45
31:CA:683:G:N2	31:CA:708:C:C2	2.84	0.45
31:CA:830:G:C2	31:CA:857:C:O2	2.69	0.45
31:CA:993:G:C6	31:CA:1046:A:C2	3.04	0.45
53:CC:33:C:C2'	53:CC:33:C:O2	2.63	0.45
33:CF:91:LEU:HD11	33:CF:101:LEU:HD12	1.98	0.45
34:CG:7:PRO:HB2	34:CG:10:ARG:HD2	1.99	0.45
35:CH:41:VAL:CG1	35:CH:113:ALA:HB2	2.46	0.45
35:CH:78:HIS:ND1	38:CK:107:LEU:HD12	2.31	0.45
42:CO:32:PHE:CB	42:CO:85:ILE:O	2.63	0.45
36:CI:98:LEU:HD22	48:CU:28:GLU:OE2	2.16	0.45
50:CW:53:LEU:HD11	50:CW:104:LEU:CD1	2.46	0.45
26:D4:10:VAL:HA	26:D4:11:PRO:HD2	1.83	0.45
28:D6:25:LYS:HA	30:D8:34:TRP:CH2	2.51	0.45
1:DA:1011:G:N2	1:DA:1151:G:C4	2.84	0.45
1:DA:1019:U:OP1	1:DA:1035:U:O2'	2.29	0.45
1:DA:1131:G:N2	1:DA:1132:A:N3	2.64	0.45
1:DA:1160:G:C6	1:DA:1161:C:C4	3.04	0.45
1:DA:1514:U:C2'	1:DA:1515:C:H5'	2.45	0.45
1:DA:2115:G:H1'	1:DA:2171:A:N1	2.30	0.45
1:DA:2702:U:C2'	1:DA:2703:C:C5	2.94	0.45
1:DA:2757:A:N1	7:DH:67:LEU:HD22	2.31	0.45
1:DA:2809:A:C2	1:DA:2892:A:C2	3.04	0.45
1:DA:2836:U:C5	1:DA:2883:A:N6	2.84	0.45
1:DA:1687:G:N7	56:DA:3083:OHX:N6	2.63	0.45
1:DA:49:A:H5"	1:DA:51:G:O4'	2.15	0.45
1:DA:579:G:C8	1:DA:2017:U:C4	3.05	0.45
1:DA:603:A:C2	1:DA:655:A:H2	2.34	0.45
1:DA:613:U:O4'	1:DA:613:U:O2	2.33	0.45
2:DB:40:U:C4	2:DB:43:C:OP1	2.70	0.45
2:DB:57:A:H8	2:DB:57:A:O5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DD:134:ARG:HG3	3:DD:135:PHE:CE2	2.50	0.45
3:DD:35:LYS:CE	3:DD:64:ILE:C	2.82	0.45
6:DG:17:PRO:C	6:DG:19:LEU:H	2.18	0.45
7:DH:15:VAL:HG12	7:DH:29:PRO:CD	2.42	0.45
7:DH:6:ARG:CD	7:DH:6:ARG:N	2.79	0.45
8:DK:76:THR:HG21	8:DK:140:LEU:HD13	1.97	0.45
20:DU:102:CYS:HB3	20:DU:103:GLY:H	1.62	0.45
21:DV:69:THR:CG2	21:DV:90:VAL:HG13	2.47	0.45
23:DZ:92:LYS:NZ	23:DZ:92:LYS:HB3	2.31	0.45
1:AA:996:A:H4'	16:A1:92:ARG:CG	2.46	0.45
16:A1:92:ARG:HD2	16:A1:95:LEU:CD1	2.45	0.45
22:A3:53:MET:HA	22:A3:58:THR:O	2.16	0.45
27:A5:45:VAL:O	27:A5:45:VAL:HG12	2.15	0.45
28:A6:25:LYS:CE	30:A8:34:TRP:CZ2	2.96	0.45
1:AA:1069:A:H5"	1:AA:1070:A:O5'	2.16	0.45
1:AA:1210:A:H8	1:AA:1210:A:C5'	2.03	0.45
1:AA:1296:G:C2'	1:AA:1297:C:O5'	2.64	0.45
1:AA:12:U:H6	1:AA:12:U:O5'	1.99	0.45
1:AA:1312:U:H4'	1:AA:1313:U:O5'	2.16	0.45
1:AA:1540:G:C5	1:AA:1541:U:C5	3.03	0.45
1:AA:1702:G:N7	56:AA:3558:OHX:N5	2.63	0.45
1:AA:2157:G:C2'	1:AA:2158:A:OP2	2.64	0.45
1:AA:2481:G:C2'	1:AA:2482:G:OP2	2.64	0.45
1:AA:2795:G:H3'	1:AA:2797:U:H5'	1.97	0.45
1:AA:323:G:C6	1:AA:333:G:C4	3.04	0.45
1:AA:34:C:P	1:AA:34:C:O4'	2.74	0.45
1:AA:1197:G:C5	56:AA:3538:OHX:N2	2.84	0.45
1:AA:500:G:N2	1:AA:502:A:H3'	2.31	0.45
1:AA:671:C:H2'	1:AA:672:C:C6	2.52	0.45
2:AB:13:A:O2'	2:AB:14:U:H3'	2.16	0.45
2:AB:1(M):A:N3	2:AB:1(M):A:H2'	2.31	0.45
4:AE:59:VAL:O	4:AE:60:ASN:O	2.33	0.45
5:AF:153:SER:OG	5:AF:189:THR:HA	2.15	0.45
6:AG:34:LEU:HD13	6:AG:99:MET:CE	2.46	0.45
8:AK:128:LEU:O	8:AK:138:ILE:HG22	2.16	0.45
14:AQ:74:ALA:O	14:AQ:77:ALA:N	2.49	0.45
1:AA:142:G:O4'	19:AT:37:THR:HG21	2.15	0.45
20:AU:8:LYS:O	20:AU:27:VAL:CG2	2.64	0.45
25:AX:38:GLU:O	25:AX:43:ILE:HD12	2.17	0.45
31:BA:1164:G:H2'	31:BA:1165:C:H6	1.81	0.45
31:BA:115:G:O2'	31:BA:116:A:OP2	2.22	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1320:C:H2'	31:BA:1321:C:O4'	2.16	0.45
31:BA:1500:A:C2'	31:BA:1501:C:H5'	2.45	0.45
31:BA:28:G:C2	31:BA:29:G:C8	3.04	0.45
31:BA:942:G:N2	31:BA:943:U:C1'	2.79	0.45
52:BB:11:C:N3	52:BB:26:G:C2	2.84	0.45
52:BB:38:MIA:H163	52:BB:39:A:C2	2.51	0.45
52:BB:28:G:N2	52:BB:45:C:H1'	2.30	0.45
53:BC:21:U:O2	53:BC:21:U:H2'	2.16	0.45
52:BD:57:C:H4'	52:BD:58:G:O5'	2.14	0.45
33:BF:113:ALA:C	33:BF:115:LEU:N	2.69	0.45
33:BF:68:VAL:O	33:BF:68:VAL:HG12	2.16	0.45
34:BG:23:GLY:HA2	34:BG:112:VAL:HG22	1.98	0.45
37:BJ:57:GLU:H	37:BJ:57:GLU:CD	2.17	0.45
38:BK:20:TYR:CD1	38:BK:65:TYR:CE2	3.04	0.45
41:BN:23:ALA:O	41:BN:87:THR:O	2.35	0.45
42:BO:62:SER:C	42:BO:64:TYR:N	2.70	0.45
50:BW:69:GLY:O	50:BW:73:HIS:NE2	2.49	0.45
31:CA:1126:U:C4	31:CA:1281:U:O4'	2.69	0.45
31:CA:1150:U:H6	31:CA:1150:U:O5'	1.99	0.45
31:CA:1325:C:O3'	51:CX:17:THR:OG1	2.26	0.45
31:CA:545:C:C2'	31:CA:546:G:H5'	2.45	0.45
31:CA:627:G:O2'	31:CA:628:G:H5'	2.16	0.45
31:CA:687:A:C1'	31:CA:688:G:OP2	2.62	0.45
31:CA:919:A:H8	31:CA:919:A:O5'	2.00	0.45
31:CA:958:A:H5"	31:CA:959:A:OP2	2.16	0.45
52:CB:75:C:HO2'	52:CB:76:C:P	2.34	0.45
52:CD:21:A:C6	52:CD:55:U:O4	2.69	0.45
52:CD:62:G:C2	52:CD:71:C:N3	2.84	0.45
33:CF:74:GLY:C	33:CF:76:VAL:H	2.18	0.45
34:CG:108:LEU:HB3	34:CG:110:PHE:CE1	2.51	0.45
34:CG:64:LEU:HB2	34:CG:198:VAL:HG11	1.98	0.45
36:CI:8:ILE:HG13	36:CI:88:VAL:HG22	1.99	0.45
40:CM:63:PHE:HD1	44:CQ:57:ARG:O	1.99	0.45
13:D0:18:LEU:HD23	13:D0:18:LEU:HA	1.81	0.45
13:D0:37:THR:CB	13:D0:39:PRO:HD2	2.45	0.45
1:DA:1434:A:H2'	1:DA:1435:G:O4'	2.17	0.45
1:DA:1731:G:C2'	1:DA:1732:A:H5'	2.46	0.45
1:DA:2156:G:H2'	1:DA:2157:G:O4'	2.17	0.45
1:DA:2180:U:C4	1:DA:2181:G:C5	3.05	0.45
52:CD:85:A:N6	1:DA:2421:G:H2'	2.31	0.45
1:DA:2459:A:C4	1:DA:2460:U:C5	3.03	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2681:C:C5	1:DA:2727:G:N2	2.84	0.45
1:DA:2744:G:C8	1:DA:2755:C:C5	3.03	0.45
1:DA:2854:G:N2	1:DA:2864:G:C4	2.84	0.45
1:DA:2872:G:N7	1:DA:2873:A:H2	2.13	0.45
1:DA:381:G:C2	1:DA:382:G:C4	3.04	0.45
1:DA:587:C:C5	1:DA:671:C:H1'	2.52	0.45
1:DA:95:G:O2'	24:DW:48:HIS:ND1	2.40	0.45
2:DB:110:G:C5	2:DB:111:U:C5	3.04	0.45
8:DK:125:GLU:HA	8:DK:125:GLU:OE1	2.14	0.45
8:DK:128:LEU:O	8:DK:138:ILE:HG22	2.16	0.45
8:DK:73:GLU:HG2	8:DK:137:PRO:O	2.15	0.45
15:DR:26:ASP:O	15:DR:49:VAL:HG22	2.16	0.45
24:DW:17:SER:CB	24:DW:18:PRO:CA	2.75	0.45
25:DX:26:LEU:HD21	25:DX:46:ASN:CB	2.46	0.45
16:A1:5:LYS:H	16:A1:5:LYS:HG3	1.52	0.45
28:A6:27:LYS:O	28:A6:28:ARG:HG2	2.16	0.45
1:AA:1041:C:O2	1:AA:1115:G:C2	2.70	0.45
1:AA:1464:C:C2	1:AA:1465:G:C8	3.04	0.45
1:AA:1471:A:C2	1:AA:1472:A:C4	3.04	0.45
1:AA:1681:G:O2'	1:AA:1762:A:O2'	2.32	0.45
1:AA:1889:A:H2'	1:AA:1890:A:C8	2.51	0.45
1:AA:2152:G:H2'	1:AA:2153:G:C8	2.52	0.45
1:AA:2287:A:C4	1:AA:2289:G:N7	2.84	0.45
1:AA:2302:G:C6	1:AA:2315:G:C6	3.05	0.45
1:AA:2287:A:H2	1:AA:2346:A:C2	2.34	0.45
1:AA:458:G:O2'	1:AA:469:G:O6	2.27	0.45
1:AA:489:G:H8	1:AA:489:G:OP1	1.99	0.45
1:AA:507:A:H5"	1:AA:508:G:C5'	2.38	0.45
1:AA:624:C:O2	1:AA:657:U:H4'	2.16	0.45
1:AA:715:G:H2'	1:AA:716:A:O4'	2.16	0.45
1:AA:861:A:C2	1:AA:917:A:C6	3.04	0.45
4:AE:102:VAL:HG21	4:AE:198:VAL:CG1	2.46	0.45
7:AH:136:ILE:HD12	7:AH:136:ILE:H	1.81	0.45
7:AH:58:GLU:C	7:AH:60:ARG:H	2.19	0.45
8:AK:33:ARG:CB	8:AK:35:LEU:HD23	2.46	0.45
14:AQ:93:LYS:HG2	14:AQ:95:HIS:HB3	1.98	0.45
18:AS:79:GLY:HA3	18:AS:100:THR:CG2	2.46	0.45
19:AT:68:ARG:HD2	19:AT:69:TYR:HE1	1.81	0.45
20:AU:101:LYS:HZ3	20:AU:101:LYS:HB3	1.79	0.45
31:BA:108:G:H5'	31:BA:109:A:H5"	1.98	0.45
31:BA:1124:G:O4'	31:BA:1124:G:OP2	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:113:G:C5	31:BA:114:U:C5	3.04	0.45
31:BA:1158:C:N4	31:BA:1160:G:C4	2.84	0.45
31:BA:1202:G:H2'	31:BA:1203:C:O4'	2.17	0.45
31:BA:1450:U:O2'	31:BA:1451:A:C8	2.69	0.45
31:BA:1399:C:C2	31:BA:1502:A:N6	2.84	0.45
31:BA:781:A:H4'	31:BA:1522:U:O2'	2.15	0.45
31:BA:173:U:H5"	31:BA:197:A:C4'	2.46	0.45
31:BA:565:U:H3'	31:BA:566:G:H2'	1.97	0.45
31:BA:85:U:O2'	31:BA:86:U:OP2	2.25	0.45
31:BA:963:G:H21	40:BM:55:LYS:HZ1	1.64	0.45
32:BE:20:GLU:HG2	32:BE:189:ASP:OD2	2.17	0.45
32:BE:47:THR:HG22	32:BE:51:LEU:HD12	1.98	0.45
33:BF:64:VAL:HG12	33:BF:66:VAL:HG23	1.98	0.45
38:BK:103:VAL:HG12	38:BK:104:ARG:HG3	1.99	0.45
49:BV:31:ILE:HG23	49:BV:49:ILE:HA	1.98	0.45
31:CA:1057:G:H2'	31:CA:1058:G:C8	2.51	0.45
31:CA:1309:G:C5	31:CA:1329:A:C2	3.04	0.45
31:CA:1346:A:C4	31:CA:1348:U:N3	2.83	0.45
31:CA:390:C:H2'	31:CA:391:G:H8	1.81	0.45
31:CA:410:G:N1	31:CA:429:U:O2	2.49	0.45
31:CA:563:A:C8	31:CA:567:G:C1'	2.99	0.45
31:CA:658:G:C5	31:CA:659:U:C5	3.05	0.45
52:CB:57:C:H4'	52:CB:58:G:O5'	2.16	0.45
52:CD:22:A:N3	52:CD:22:A:C2'	2.80	0.45
52:CD:8:U:H1'	52:CD:15:G:H1	1.81	0.45
32:CE:179:LYS:HD3	32:CE:179:LYS:O	2.17	0.45
34:CG:177:ASP:O	34:CG:178:VAL:O	2.33	0.45
37:CJ:44:TYR:O	37:CJ:48:LYS:N	2.48	0.45
38:CK:51:VAL:HG21	38:CK:60:ARG:NE	2.31	0.45
33:CF:60:ALA:HA	40:CM:93:GLY:HA2	1.98	0.45
1:DA:2882:A:OP1	13:D0:96:ARG:HD3	2.17	0.45
1:DA:1023:U:OP2	1:DA:1024:G:N7	2.50	0.45
1:DA:1039:G:H1	1:DA:1116:C:N4	2.13	0.45
1:DA:1291:C:H2'	1:DA:1292:U:C6	2.51	0.45
1:DA:1496:A:H2'	1:DA:1498:C:C5	2.52	0.45
1:DA:192:C:H2'	1:DA:193:U:H5'	1.98	0.45
1:DA:1963:U:H5"	1:DA:1963:U:O2	2.16	0.45
1:DA:2112:G:N2	1:DA:2114:A:N1	2.64	0.45
1:DA:2141:G:O2'	1:DA:2142:C:H5'	2.17	0.45
1:DA:2184:G:H2'	1:DA:2185:C:C6	2.50	0.45
1:DA:2522:U:H2'	1:DA:2523:G:C5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:444:C:H2'	1:DA:445:C:H6	1.79	0.45
1:DA:523:C:O2'	1:DA:524:U:H5'	2.16	0.45
1:DA:654(D):G:H2'	1:DA:654(E):C:C6	2.51	0.45
1:DA:970:C:H1'	1:DA:984:A:O2'	2.17	0.45
2:DB:46:A:C5	2:DB:47:C:C5	3.04	0.45
3:DD:30:GLU:CD	3:DD:63:ARG:CZ	2.85	0.45
4:DE:170:LEU:HA	4:DE:170:LEU:HD13	1.82	0.45
5:DF:29:ASN:HD21	5:DF:32:LEU:HB2	1.81	0.45
5:DF:81:PRO:HB3	5:DF:87:GLY:O	2.16	0.45
7:DH:26:VAL:CG1	7:DH:33:LEU:HB2	2.46	0.45
16:A1:111:GLU:C	16:A1:113:ALA:N	2.70	0.45
17:A2:65:GLY:HA3	17:A2:91:TYR:CE1	2.52	0.45
1:AA:1042:G:N2	1:AA:1113:U:O2	2.43	0.45
1:AA:1291:C:H2'	1:AA:1292:U:H6	1.82	0.45
1:AA:1392:A:C6	1:AA:1393:A:C6	3.04	0.45
1:AA:1598:C:O2'	1:AA:1599:C:H5'	2.16	0.45
1:AA:2054:A:H5"	1:AA:2055:C:O5'	2.16	0.45
1:AA:2211:G:C4'	1:AA:2212:A:OP2	2.63	0.45
1:AA:2688:U:H2'	1:AA:2719:G:N2	2.31	0.45
1:AA:329:G:OP1	1:AA:329:G:H8	1.99	0.45
1:AA:962:G:H2'	1:AA:963:U:O4'	2.16	0.45
1:AA:1826:G:O3'	3:AD:242:ARG:NH2	2.49	0.45
6:AG:83:ARG:HH22	53:BC:57:C:N4	2.15	0.45
19:AT:51:VAL:HG13	19:AT:81:VAL:HG23	1.99	0.45
21:AV:27:VAL:HG22	21:AV:28:MET:N	2.27	0.45
24:AW:31:GLU:O	24:AW:35:LEU:HD22	2.17	0.45
23:AZ:85:LEU:HA	23:AZ:87:PRO:HD2	1.98	0.45
31:BA:1387:G:H2'	31:BA:1388:C:H6	1.80	0.45
31:BA:1443:G:H3'	31:BA:1443:G:OP2	2.16	0.45
31:BA:577:G:OP1	56:BA:1784:OHX:N6	2.50	0.45
31:BA:191(F):U:C2	50:BW:105:SER:OG	2.67	0.45
31:BA:7:G:C5'	31:BA:298:A:O4'	2.64	0.45
31:BA:510:A:O2'	31:BA:542:G:H1'	2.16	0.45
31:BA:625:G:H2'	31:BA:626:U:H6	1.82	0.45
52:BB:15:G:H21	52:BB:20:C:H6	1.65	0.45
52:BB:1:G:O2'	52:BB:2:G:H5'	2.17	0.45
32:BE:220:ASP:C	32:BE:222:ILE:N	2.70	0.45
33:BF:109:PRO:C	33:BF:111:LEU:N	2.62	0.45
42:BO:53:ARG:NH1	42:BO:53:ARG:HG3	2.29	0.45
43:BP:5:ALA:O	43:BP:7:VAL:N	2.49	0.45
43:BP:96:LEU:O	43:BP:110:ARG:NE	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:254:G:H21	47:BT:16:GLN:HE21	1.63	0.45
31:CA:1503:A:N6	54:C1:12:A:C5	2.84	0.45
31:CA:1047:G:C2'	31:CA:1048:G:H5'	2.47	0.45
31:CA:1158:C:C6	31:CA:1160:G:C8	3.03	0.45
31:CA:1226:C:H4'	31:CA:1227:A:OP1	2.16	0.45
31:CA:1498:U:H6	31:CA:1498:U:O5'	2.00	0.45
31:CA:660:G:H1	31:CA:745:C:H42	1.64	0.45
31:CA:828:A:H61	31:CA:858:G:C2'	2.29	0.45
31:CA:829:G:C2'	31:CA:830:G:H5'	2.47	0.45
31:CA:874:G:O2'	31:CA:875:C:H5'	2.15	0.45
40:CM:3:LYS:N	40:CM:74:ILE:O	2.48	0.45
40:CM:46:ARG:CG	40:CM:47:PHE:N	2.80	0.45
31:CA:1151:A:HO2'	40:CM:70:ARG:NH2	2.15	0.45
42:CO:22:SER:C	42:CO:24:VAL:H	2.19	0.45
13:D0:107:ASP:OD2	13:D0:107:ASP:C	2.54	0.45
16:D1:47:TYR:CD2	17:D2:74:LYS:HD2	2.52	0.45
1:DA:1002:G:C6	1:DA:1154:G:N2	2.84	0.45
1:DA:1210:A:H4'	1:DA:1211:U:O5'	2.17	0.45
1:DA:1215:G:O2'	1:DA:1216:G:H5'	2.17	0.45
1:DA:1297:C:H2'	1:DA:1298:C:H6	1.81	0.45
1:DA:1944:U:O2	1:DA:1955:U:H5"	2.17	0.45
1:DA:2062:A:C6	1:DA:2503:A:N6	2.83	0.45
1:DA:2258:C:H4'	1:DA:2259:G:OP2	2.17	0.45
1:DA:2685:G:O2'	1:DA:2726:U:H5	2.00	0.45
1:DA:2849:U:H1'	1:DA:2866:U:O2	2.17	0.45
56:DA:3395:OHX:N3	56:DA:3412:OHX:N3	2.64	0.45
1:DA:372:G:O2'	1:DA:373:U:OP2	2.34	0.45
1:DA:492:A:H2'	1:DA:493:G:C5'	2.42	0.45
1:DA:684:G:C2	1:DA:774:A:C2	3.04	0.45
1:DA:867:C:C4	1:DA:868:U:C5	3.04	0.45
1:DA:975:G:C2'	1:DA:976:C:H5'	2.45	0.45
2:DB:53:A:C2	2:DB:54:G:C8	3.05	0.45
3:DD:44:ASN:CB	3:DD:48:ARG:O	2.64	0.45
1:DA:2786:U:C4'	4:DE:65:GLY:N	2.72	0.45
4:DE:73:GLU:HA	4:DE:74:PRO:HD2	1.78	0.45
4:DE:77:ILE:C	4:DE:78:LEU:HG	2.37	0.45
4:DE:47:VAL:HG23	4:DE:84:PHE:O	2.17	0.45
6:DG:135:LEU:N	6:DG:135:LEU:HD12	2.31	0.45
7:DH:105:LEU:N	7:DH:105:LEU:HD23	2.32	0.45
7:DH:20:ALA:HB1	7:DH:21:PRO:CD	2.46	0.45
8:DK:133:HIS:CD2	8:DK:133:HIS:O	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DO:97:PRO:HD3	11:DO:112:LEU:HD12	1.98	0.45
11:DO:15:ARG:NH1	11:DO:15:ARG:CB	2.75	0.45
12:DP:59:ARG:C	12:DP:60:ARG:HD2	2.37	0.45
21:DV:92:SER:O	21:DV:94:GLU:N	2.50	0.45
13:A0:55:ALA:HA	13:A0:80:PHE:CZ	2.51	0.45
17:A2:45:THR:O	17:A2:47:VAL:HG12	2.17	0.45
26:A4:37:SER:C	26:A4:39:CYS:N	2.69	0.45
28:A6:33:LYS:NZ	28:A6:33:LYS:HB2	2.31	0.45
1:AA:1060:U:N3	1:AA:1088:A:C8	2.76	0.45
1:AA:2307:G:C8	1:AA:2311:A:H2	2.29	0.45
1:AA:2452:C:OP1	56:AA:3568:OHX:N4	2.49	0.45
1:AA:2830:G:H8	1:AA:2830:G:C5'	2.29	0.45
1:AA:2837:G:C6	1:AA:2838:G:C5	3.04	0.45
1:AA:2841:C:C2	1:AA:2877:G:C2	3.04	0.45
1:AA:546:C:C5	1:AA:547:A:C5	3.05	0.45
1:AA:552:G:H2'	1:AA:553:U:O4'	2.17	0.45
1:AA:860:U:H2'	1:AA:861:A:H8	1.82	0.45
2:AB:45:A:C2	2:AB:46:A:H1'	2.52	0.45
3:AD:14:ARG:HD3	3:AD:15:PHE:CZ	2.52	0.45
4:AE:35:GLN:CG	4:AE:36:ARG:N	2.79	0.45
5:AF:39:TRP:CZ3	5:AF:106:ARG:HD2	2.51	0.45
8:AK:104:GLN:O	8:AK:105:HIS:CG	2.69	0.45
10:AN:48:PRO:CB	31:BA:1422:G:H5"	2.47	0.45
10:AN:88:ASN:ND2	10:AN:92:GLU:O	2.49	0.45
11:AO:61:ARG:HH12	30:A8:14:VAL:CG2	2.30	0.45
21:AV:12:GLY:O	21:AV:13:GLU:HB2	2.17	0.45
25:AX:26:LEU:HD21	25:AX:46:ASN:HB2	1.99	0.45
23:AZ:29:GLY:C	23:AZ:31:GLY:N	2.69	0.45
31:BA:1379:G:C6	31:BA:1380:U:C4	3.04	0.45
31:BA:142:G:N3	31:BA:143:A:C8	2.85	0.45
31:BA:31:G:H1'	31:BA:32:A:OP1	2.17	0.45
31:BA:502:G:OP1	42:BO:118:SER:N	2.45	0.45
31:BA:765:G:H5"	31:BA:766:A:OP1	2.17	0.45
32:BE:177:ALA:O	32:BE:178:ARG:C	2.54	0.45
35:BH:131:ILE:HD13	35:BH:131:ILE:HA	1.86	0.45
37:BJ:50:ILE:O	37:BJ:50:ILE:HG22	2.17	0.45
43:BP:54:VAL:O	43:BP:58:GLU:HG3	2.17	0.45
44:BQ:60:SER:O	44:BQ:61:TRP:HB3	2.15	0.45
46:BS:58:TYR:CD1	46:BS:58:TYR:C	2.89	0.45
47:BT:100:LYS:O	47:BT:101:ARG:HG3	2.16	0.45
47:BT:12:SER:O	47:BT:19:VAL:HB	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BV:42:PRO:O	49:BV:45:VAL:HG22	2.17	0.45
51:BX:2:GLY:C	51:BX:4:GLY:N	2.65	0.45
31:CA:1062:U:H2'	31:CA:1063:C:C6	2.52	0.45
31:CA:1147:C:O2	39:CL:16:ARG:CZ	2.65	0.45
31:CA:1346:A:OP2	31:CA:1346:A:H3'	2.17	0.45
31:CA:937:A:C2	31:CA:1379:G:C6	3.04	0.45
31:CA:144:G:C6	31:CA:179:A:C2	3.04	0.45
31:CA:1504:G:OP1	31:CA:1507:A:H4'	2.17	0.45
31:CA:423:G:N2	31:CA:424:G:C5	2.84	0.45
31:CA:556:C:H2'	31:CA:557:G:H5'	1.97	0.45
31:CA:689:C:OP1	41:CN:44:SER:OG	2.35	0.45
52:CB:9:U:C6	52:CB:21:A:N7	2.84	0.45
33:CF:134:ILE:HG22	33:CF:168:ALA:HB3	1.99	0.45
34:CG:126:ILE:CG2	34:CG:127:THR:H	2.29	0.45
36:CI:10:LEU:CD1	36:CI:61:LEU:HD13	2.46	0.45
37:CJ:35:LYS:HZ1	37:CJ:38:LEU:HD22	1.81	0.45
31:CA:1382:C:H1'	37:CJ:79:ARG:HD2	1.98	0.45
38:CK:11:THR:HG23	38:CK:14:ARG:NH1	2.30	0.45
39:CL:28:VAL:HA	39:CL:63:ILE:O	2.16	0.45
50:CW:60:GLU:OE1	50:CW:85:MET:HE1	2.16	0.45
28:D6:17:LYS:O	28:D6:18:ARG:CB	2.63	0.45
1:DA:1135:C:C2'	1:DA:1135:C:O2	2.64	0.45
1:DA:1758:G:H4'	1:DA:1759:A:OP2	2.16	0.45
1:DA:1973:G:O2'	1:DA:1974:C:H5'	2.15	0.45
1:DA:2092:U:C6	1:DA:2225:A:O2'	2.68	0.45
1:DA:2277:G:H5"	12:DP:87:LYS:HB3	1.97	0.45
1:DA:2468:G:C6	1:DA:2481:G:C5	3.04	0.45
1:DA:2811:G:OP1	4:DE:61:ARG:CB	2.59	0.45
1:DA:327:G:C2	1:DA:328:U:C2	3.05	0.45
1:DA:470:A:H2'	1:DA:471:A:O4'	2.16	0.45
2:DB:65:C:N4	2:DB:108:C:C2	2.84	0.45
3:DD:61:LEU:HB3	3:DD:63:ARG:HH12	1.79	0.45
8:DK:114:LEU:O	8:DK:114:LEU:HD13	2.16	0.45
8:DK:54:GLN:NE2	8:DK:57:ARG:HH22	2.15	0.45
9:DM:97:ARG:O	9:DM:100:GLU:HB2	2.17	0.45
14:DQ:102:ALA:HA	14:DQ:105:ALA:HB3	1.99	0.45
13:A0:91:GLN:NE2	13:A0:91:GLN:N	2.61	0.45
16:A1:47:TYR:O	16:A1:47:TYR:CD2	2.70	0.45
26:A4:55:ARG:H	26:A4:55:ARG:HD3	1.81	0.45
27:A5:49:CYS:SG	27:A5:60:VAL:HB	2.56	0.45
1:AA:1142(A):A:N7	1:AA:1144:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1188:U:C5'	17:A2:79:VAL:HG22	2.47	0.45
1:AA:1215:G:C4	1:AA:1216:G:C8	3.04	0.45
1:AA:1329:U:H5"	1:AA:1330:C:C5	2.50	0.45
1:AA:1509:C:C2	1:AA:1511:A:N7	2.84	0.45
1:AA:1540:G:C4	1:AA:1541:U:C6	3.04	0.45
1:AA:2310:A:H5"	1:AA:2311:A:OP2	2.17	0.45
1:AA:2363:C:O2'	1:AA:2364:C:H5'	2.16	0.45
1:AA:2404:C:H2'	1:AA:2405:G:H5'	1.97	0.45
1:AA:2461:C:H2'	1:AA:2462:U:H6	1.81	0.45
1:AA:2694:G:C6	1:AA:2695:C:C5	3.04	0.45
1:AA:2835:A:C5	1:AA:2878:U:C5	3.04	0.45
1:AA:629:G:O6	56:AA:3540:OHX:N6	2.50	0.45
1:AA:359:A:C2'	1:AA:360:G:H5'	2.46	0.45
1:AA:363(E):U:H5"	1:AA:363(F):A:OP2	2.17	0.45
1:AA:58:G:N2	1:AA:70:G:C5	2.84	0.45
1:AA:593:G:C6	1:AA:594:U:C4	3.05	0.45
2:AB:82:G:C2'	2:AB:83:G:H5'	2.46	0.45
2:AB:84:C:OP1	25:AX:15:TYR:OH	2.32	0.45
2:AB:91:C:OP2	56:AB:219:OHX:N3	2.50	0.45
3:AD:10:THR:HG23	3:AD:13:ARG:CB	2.43	0.45
3:AD:33:LEU:CD1	3:AD:34:VAL:H	2.30	0.45
4:AE:13:ARG:HD3	4:AE:21:VAL:CG1	2.45	0.45
4:AE:13:ARG:CB	4:AE:21:VAL:HB	2.47	0.45
7:AH:147:ASN:O	7:AH:150:ALA:HB3	2.17	0.45
8:AK:21:VAL:CG2	8:AK:22:LYS:N	2.80	0.45
9:AM:28:THR:HG22	9:AM:29:LYS:N	2.31	0.45
12:AP:3:MET:HG3	12:AP:4:PRO:O	2.17	0.45
19:AT:25:LYS:HG3	19:AT:82:GLN:OE1	2.17	0.45
31:BA:1158:C:H2'	31:BA:1158:C:O2	2.16	0.45
31:BA:1399:C:C2	31:BA:1401:G:C5	3.05	0.45
31:BA:163:C:O2'	31:BA:164:U:H5'	2.15	0.45
31:BA:229:U:C6	31:BA:229:U:H3'	2.51	0.45
31:BA:270:A:C5	31:BA:271:C:C4	3.05	0.45
31:BA:58:C:H2'	31:BA:59:A:H8	1.82	0.45
52:BB:78:C:H2'	52:BB:79:A:H8	1.82	0.45
52:BD:24:G:O2'	52:BD:25:G:H5'	2.16	0.45
33:BF:73:PRO:HB3	33:BF:103:VAL:HG11	1.98	0.45
33:BF:121:ALA:HB1	33:BF:188:LEU:O	2.17	0.45
37:BJ:141:VAL:HG12	37:BJ:142:GLU:N	2.32	0.45
50:BW:17:ARG:O	50:BW:20:LEU:HB2	2.17	0.45
52:CB:37:A:N1	54:C1:20:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1088:G:O2'	31:CA:1089:G:H5'	2.17	0.45
31:CA:1190:G:C8	31:CA:1190:G:C3'	2.99	0.45
31:CA:1347:G:C5	39:CL:107:ARG:NH2	2.84	0.45
31:CA:1403:C:H1'	31:CA:1500:A:C2	2.50	0.45
31:CA:222:U:C2	31:CA:223:U:C5	3.05	0.45
31:CA:29:G:C4	31:CA:30:U:C5	3.05	0.45
31:CA:409:G:H1	31:CA:433:C:H42	1.65	0.45
31:CA:512:U:O4'	34:CG:43:HIS:CE1	2.69	0.45
31:CA:604:G:C5	31:CA:605:U:C5	3.04	0.45
31:CA:593:G:N2	31:CA:647:C:H1'	2.32	0.45
31:CA:838:G:N1	31:CA:842:C:H1'	2.32	0.45
52:CB:46:G:H2'	52:CB:47:U:C6	2.52	0.45
53:CC:11:A:N6	53:CC:12:G:C6	2.84	0.45
53:CC:48:U:H1'	53:CC:49:C:P	2.57	0.45
32:CE:118:LEU:CB	32:CE:142:LEU:HD12	2.42	0.45
33:CF:134:ILE:CG2	33:CF:168:ALA:HB3	2.47	0.45
35:CH:111:GLU:C	35:CH:113:ALA:N	2.69	0.45
37:CJ:37:ASN:ND2	39:CL:41:VAL:HG23	2.32	0.45
40:CM:48:THR:HG1	40:CM:62:HIS:HB3	1.82	0.45
41:CN:16:SER:HA	41:CN:79:SER:O	2.15	0.45
43:CP:59:TYR:O	43:CP:63:THR:OG1	2.09	0.45
50:CW:100:ILE:O	50:CW:101:GLY:C	2.55	0.45
50:CW:97:ALA:HA	50:CW:98:PRO:HD3	1.71	0.45
30:D8:30:ARG:HD3	30:D8:30:ARG:HA	1.45	0.45
1:DA:1019:U:O2'	1:DA:1021:A:C2	2.62	0.45
1:DA:103:A:O5'	1:DA:103:A:H8	2.00	0.45
1:DA:1057:A:N1	1:DA:1081:U:C4	2.85	0.45
1:DA:1332:G:H5'	1:DA:1332:G:H8	1.82	0.45
1:DA:1405:U:H2'	1:DA:1406:U:C6	2.51	0.45
1:DA:1499:C:H2'	1:DA:1500:G:C8	2.51	0.45
1:DA:1545:A:N7	1:DA:1545(A):A:C6	2.84	0.45
1:DA:1578:U:O2	1:DA:1578:U:H2'	2.16	0.45
1:DA:1971:A:H2'	1:DA:1972:A:OP1	2.16	0.45
1:DA:2008:C:H2'	1:DA:2009:G:C8	2.52	0.45
1:DA:2134:A:N6	1:DA:2158:A:C8	2.84	0.45
1:DA:2688:U:O2	1:DA:2688:U:C3'	2.64	0.45
1:DA:2872:G:N9	1:DA:2873:A:C2	2.85	0.45
1:DA:2431:U:O4	56:DA:3246:OHX:N1	2.49	0.45
1:DA:38:A:H1'	5:DF:48:THR:HB	1.98	0.45
1:DA:631:A:C6	1:DA:632:A:C2	3.05	0.45
3:DD:134:ARG:HG3	3:DD:135:PHE:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:4:VAL:HG13	5:DF:19:GLU:OE2	2.17	0.45
8:DK:130:TYR:CD1	8:DK:131:LYS:N	2.84	0.45
8:DK:52:ARG:HD2	8:DK:52:ARG:C	2.37	0.45
9:DM:136:GLU:HG3	9:DM:137:LYS:N	2.32	0.45
9:DM:22:THR:HB	9:DM:25:ARG:CG	2.47	0.45
9:DM:56:ASN:CG	9:DM:56:ASN:O	2.55	0.45
10:DN:52:VAL:HG12	10:DN:56:ASP:OD1	2.17	0.45
10:DN:1:MET:HE2	10:DN:67:LYS:HG2	1.99	0.45
11:DO:77:ARG:HB2	11:DO:78:PRO:HD2	1.99	0.45
4:DE:18:ASP:HB3	15:DR:82:LEU:HD11	1.98	0.45
15:DR:6:LEU:C	15:DR:8:LYS:H	2.19	0.45
20:DU:50:ARG:HB3	20:DU:53:PRO:CG	2.37	0.45
21:DV:151:HIS:HB3	21:DV:167:PRO:HB3	1.99	0.45
16:A1:90:VAL:C	16:A1:92:ARG:N	2.69	0.45
27:A5:6:VAL:HG13	27:A5:7:PRO:N	2.31	0.45
30:A8:51:ALA:N	30:A8:53:PRO:CD	2.79	0.45
1:AA:1015:G:H8	1:AA:1015:G:C5'	2.29	0.45
1:AA:1066:U:H6	1:AA:1069:A:OP2	2.00	0.45
1:AA:1221:C:H2'	1:AA:1222:C:H6	1.82	0.45
1:AA:1578:U:H2'	1:AA:1578:U:O2	2.17	0.45
1:AA:1759:A:H4'	1:AA:2715:C:O4'	2.16	0.45
1:AA:2064:C:H2'	1:AA:2065:C:C6	2.51	0.45
1:AA:2191:G:C2'	1:AA:2192:G:H5"	2.44	0.45
1:AA:2435:A:H2'	1:AA:2436:G:O5'	2.16	0.45
1:AA:2469:A:N3	1:AA:2469:A:C5'	2.79	0.45
1:AA:2809:A:C6	1:AA:2892:A:C5	3.04	0.45
1:AA:44:A:O2'	1:AA:45:G:H5'	2.16	0.45
1:AA:678:C:H2'	1:AA:679:C:C6	2.51	0.45
1:AA:775:G:C5	1:AA:794:G:C8	3.04	0.45
1:AA:994:C:O2	17:A2:10:LYS:HE2	2.17	0.45
2:AB:0:A:O2'	2:AB:1:U:H5'	2.17	0.45
2:AB:42:C:O2'	6:AG:67:LYS:HD2	2.16	0.45
2:AB:95:U:N3	2:AB:96:G:N7	2.65	0.45
5:AF:42:ALA:C	5:AF:44:ARG:N	2.70	0.45
7:AH:136:ILE:HD12	7:AH:136:ILE:N	2.31	0.45
8:AK:126:TYR:CB	8:AK:140:LEU:HD21	2.27	0.45
9:AM:115:ARG:O	9:AM:118:LYS:HB2	2.17	0.45
9:AM:127:ASP:C	9:AM:128:HIS:HD1	2.19	0.45
9:AM:13:TRP:O	9:AM:135:PRO:CD	2.65	0.45
9:AM:23:LEU:CG	9:AM:24:GLY:N	2.73	0.45
11:AO:37:GLY:O	11:AO:41:ARG:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AP:18:LYS:H	12:AP:18:LYS:HG3	1.56	0.45
18:AS:17:VAL:C	18:AS:19:LEU:H	2.20	0.45
18:AS:26:GLY:H	18:AS:71:VAL:HB	1.81	0.45
31:BA:1145:C:H4'	31:BA:1146:A:N7	2.30	0.45
31:BA:1217:C:C2'	31:BA:1218:C:O5'	2.64	0.45
31:BA:350:G:O2'	31:BA:351:G:H5'	2.16	0.45
31:BA:36:C:C4	31:BA:37:U:C4	3.04	0.45
31:BA:590:C:C2'	31:BA:590:C:O2	2.63	0.45
31:BA:606:G:C1'	31:BA:632:A:H61	2.30	0.45
31:BA:674:G:O2'	31:BA:675:A:H5'	2.17	0.45
31:BA:76:G:C4	31:BA:95:G:C2	3.04	0.45
52:BD:50:U:H6	52:BD:50:U:OP1	2.00	0.45
33:BF:181:ASN:O	33:BF:181:ASN:ND2	2.49	0.45
38:BK:86:ILE:HG13	38:BK:133:LEU:HD22	1.99	0.45
43:BP:51:ALA:O	43:BP:53:VAL:N	2.49	0.45
45:BR:18:PHE:HB2	45:BR:19:PRO:HD2	1.98	0.45
47:BT:13:ASP:H	47:BT:14:LYS:HZ2	1.63	0.45
31:CA:1004:A:H2'	31:CA:1005:A:O5'	2.17	0.45
31:CA:1067:A:N3	31:CA:1068:G:H1'	2.32	0.45
31:CA:1091:U:C2	31:CA:1095:U:C4	3.04	0.45
31:CA:1129:C:C2	31:CA:1139:G:O6	2.69	0.45
31:CA:1235:U:H2'	31:CA:1236:A:O4'	2.16	0.45
31:CA:160:A:H1'	31:CA:344:A:C5	2.51	0.45
31:CA:638:G:C6	31:CA:639:G:N7	2.84	0.45
31:CA:883:C:C2	31:CA:884:U:C5	3.05	0.45
52:CB:25:G:H2'	52:CB:25:G:N3	2.32	0.45
52:CB:34:U:C2'	52:CB:36:U:H5	2.28	0.45
32:CE:144:ARG:C	32:CE:146:GLN:H	2.19	0.45
33:CF:14:ILE:O	33:CF:15:THR:C	2.55	0.45
34:CG:101:LEU:HD23	34:CG:121:VAL:CG1	2.46	0.45
40:CM:81:THR:OG1	40:CM:82:ILE:N	2.49	0.45
33:CF:18:TRP:CD1	44:CQ:54:PRO:HA	2.51	0.45
45:CR:7:GLU:O	45:CR:11:VAL:HG23	2.17	0.45
31:CA:278:G:N2	47:CT:95:TYR:HB3	2.32	0.45
49:CV:72:GLY:C	49:CV:74:PHE:H	2.20	0.45
16:D1:65:ILE:CD1	16:D1:65:ILE:N	2.79	0.45
1:DA:1062:G:C4	1:DA:1063:G:C8	3.04	0.45
1:DA:1025:G:C4	1:DA:1135:C:H1'	2.51	0.45
1:DA:1179:C:H2'	1:DA:1180:C:C6	2.51	0.45
1:DA:1241:A:O2'	1:DA:1242:A:O5'	2.34	0.45
1:DA:1444:G:C2	1:DA:1548:C:N3	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1471:A:C2	1:DA:1472:A:C4	3.04	0.45
1:DA:1494:A:C2	1:DA:1495:A:C4	3.05	0.45
1:DA:1771:C:C1'	1:DA:1786:A:C8	3.00	0.45
1:DA:1955:U:O2	1:DA:1955:U:H2'	2.15	0.45
1:DA:2086:U:H2'	1:DA:2087:G:C8	2.52	0.45
1:DA:2469:A:N1	1:DA:2470:G:C4	2.85	0.45
1:DA:2464:C:C2	1:DA:2487:G:C2	3.05	0.45
1:DA:2531:A:C2	1:DA:2659:G:O4'	2.69	0.45
1:DA:2578:G:C5	4:DE:140:SER:HB3	2.51	0.45
1:DA:265:A:H1'	1:DA:266:G:O4'	2.17	0.45
1:DA:717:G:H2'	1:DA:718:A:O4'	2.17	0.45
1:DA:851:U:O2	1:DA:928:G:N2	2.50	0.45
2:DB:91:C:H6	2:DB:91:C:O5'	2.00	0.45
3:DD:63:ARG:HG2	3:DD:92:ILE:HD11	1.98	0.45
4:DE:101:ARG:HB2	4:DE:203:LYS:HE3	1.97	0.45
4:DE:119:ARG:HG2	4:DE:160:TYR:CB	2.36	0.45
1:DA:2051:A:OP1	4:DE:137:HIS:ND1	2.50	0.45
6:DG:82:LEU:HA	6:DG:82:LEU:HD23	1.77	0.45
7:DH:153:LYS:N	7:DH:154:PRO:HD3	2.32	0.45
7:DH:156:ALA:O	7:DH:157:TYR:C	2.55	0.45
7:DH:3:ARG:CG	7:DH:4:ILE:H	2.24	0.45
19:DT:14:SER:C	19:DT:16:LYS:H	2.20	0.45
21:DV:7:ALA:C	21:DV:8:TYR:CD1	2.90	0.45
21:DV:24:LEU:HD22	21:DV:83:PRO:HB2	1.98	0.45
21:DV:30:ASN:CB	21:DV:90:VAL:HG23	2.46	0.45
1:DA:111:A:H4'	24:DW:69:ARG:NH2	2.31	0.45
23:DZ:5:CYS:CB	23:DZ:8:SER:HG	2.28	0.45
17:A2:53:GLU:CG	17:A2:54:GLY:N	2.78	0.45
1:AA:1001:A:H2'	1:AA:1002:G:O4'	2.17	0.45
1:AA:1098:A:H2'	1:AA:1099:G:H5'	1.99	0.45
1:AA:1027:A:N6	1:AA:1126:A:C4	2.84	0.45
1:AA:128:C:H2'	1:AA:129:C:H6	1.82	0.45
1:AA:1695:G:N2	1:AA:1696:G:C8	2.85	0.45
1:AA:1731:G:H2'	1:AA:1732:A:C8	2.52	0.45
1:AA:2420:C:C5	30:A8:31:HIS:HB2	2.51	0.45
1:AA:2439:A:P	1:AA:2439:A:H3'	2.57	0.45
1:AA:2443:C:O2'	1:AA:2444:G:H5'	2.17	0.45
1:AA:2801:A:H2'	1:AA:2802:G:O5'	2.16	0.45
1:AA:1427:A:OP2	56:AA:3473:OHX:N6	2.50	0.45
1:AA:355:G:N7	56:AA:3475:OHX:N1	2.65	0.45
1:AA:660:G:H21	11:AO:12:ALA:HA	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:724:U:H2'	1:AA:725:G:O4'	2.17	0.45
1:AA:731:C:C2	1:AA:732:C:C5	3.05	0.45
1:AA:780:G:C2	1:AA:783:A:N6	2.85	0.45
1:AA:833:U:O2	11:AO:55:ARG:NH1	2.42	0.45
1:AA:897:C:H2'	1:AA:898:C:O4'	2.16	0.45
2:AB:41:U:O4	6:AG:70:VAL:O	2.35	0.45
2:AB:65:C:C2'	2:AB:66:A:H5'	2.47	0.45
9:AM:22:THR:O	9:AM:23:LEU:CB	2.64	0.45
9:AM:66:LYS:O	9:AM:67:LEU:C	2.53	0.45
15:AR:53:ARG:CZ	15:AR:53:ARG:CB	2.90	0.45
18:AS:22:ASP:HA	18:AS:25:ARG:HH12	1.81	0.45
20:AU:20:TYR:CD1	20:AU:42:VAL:HG23	2.51	0.45
31:BA:197:A:N6	31:BA:221:C:C5'	2.80	0.45
31:BA:270:A:H2'	31:BA:271:C:C6	2.51	0.45
31:BA:510:A:N3	31:BA:543:C:H1'	2.32	0.45
31:BA:838:G:OP2	31:BA:842:C:N4	2.50	0.45
31:BA:922:G:C6	31:BA:923:A:C6	3.04	0.45
52:BD:5:G:C2	52:BD:78:C:O2	2.69	0.45
32:BE:97:TRP:CH2	32:BE:176:GLU:HG3	2.52	0.45
32:BE:189:ASP:OD1	32:BE:191:ASP:HB2	2.17	0.45
32:BE:19:HIS:HD2	32:BE:20:GLU:HG2	1.81	0.45
33:BF:80:GLY:O	33:BF:82:GLU:HG2	2.16	0.45
34:BG:172:PRO:C	34:BG:174:LEU:N	2.63	0.45
35:BH:43:LEU:HD23	35:BH:133:TYR:HE1	1.81	0.45
39:BL:111:ARG:CG	39:BL:112:LYS:N	2.75	0.45
39:BL:59:PHE:HZ	39:BL:88:TYR:CD1	2.35	0.45
46:BS:8:ARG:C	46:BS:9:PHE:HD2	2.21	0.45
31:CA:1004:A:H8	31:CA:1036:G:N2	2.15	0.45
31:CA:1162:C:H2'	31:CA:1163:C:O4'	2.16	0.45
31:CA:1189:C:H5"	33:CF:5:ILE:HG21	1.97	0.45
31:CA:12:U:O4	56:CA:1724:OHX:N2	2.50	0.45
31:CA:1306:A:C2	31:CA:1307:U:H1'	2.52	0.45
31:CA:1449:C:C2'	31:CA:1450:U:OP1	2.65	0.45
31:CA:1468:A:H5"	31:CA:1469:G:OP2	2.16	0.45
31:CA:502:G:C6	31:CA:503:C:N3	2.84	0.45
52:CB:48:C:C3'	52:CB:49:A:C8	2.97	0.45
53:CC:11:A:N6	53:CC:12:G:O6	2.50	0.45
32:CE:217:ARG:CZ	32:CE:217:ARG:HB2	2.47	0.45
32:CE:32:ILE:CD1	32:CE:40:HIS:HB3	2.47	0.45
33:CF:193:TYR:O	33:CF:193:TYR:HD1	2.00	0.45
35:CH:78:HIS:CD2	35:CH:78:HIS:C	2.90	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:14:ARG:HA	43:CP:43:THR:O	2.16	0.45
48:CU:36:ASN:OD1	48:CU:36:ASN:N	2.48	0.45
16:D1:80:ILE:O	16:D1:81:HIS:C	2.54	0.45
26:D4:36:CYS:SG	26:D4:37:SER:N	2.90	0.45
30:D8:59:LYS:NZ	30:D8:59:LYS:HB2	2.32	0.45
1:DA:1006:C:N3	1:DA:1138:G:C2	2.85	0.45
1:DA:1060:U:H3	1:DA:1088:A:H8	1.60	0.45
1:DA:1495:A:H2'	1:DA:1496:A:N3	2.32	0.45
1:DA:1530:G:O6	1:DA:1542:G:N2	2.50	0.45
1:DA:1639:U:O2'	1:DA:1640:C:H5'	2.17	0.45
1:DA:2130:U:O2'	1:DA:2134:A:C8	2.70	0.45
1:DA:2707:G:H2'	1:DA:2708:G:C8	2.51	0.45
1:DA:470:A:H8	1:DA:470:A:C5'	2.30	0.45
1:DA:57:C:H2'	1:DA:58:G:O5'	2.17	0.45
1:DA:729:G:C6	3:DD:208:LYS:HB2	2.52	0.45
1:DA:931:G:C6	1:DA:933:A:C2	3.04	0.45
1:DA:996:A:C2	1:DA:997:G:N9	2.85	0.45
2:DB:23:G:C2	2:DB:24:G:O6	2.69	0.45
3:DD:121:PRO:HB3	3:DD:135:PHE:CD1	2.52	0.45
5:DF:161:GLU:HA	5:DF:164:ARG:HH11	1.75	0.45
6:DG:104:GLU:O	6:DG:108:ASN:HB2	2.17	0.45
7:DH:67:LEU:O	7:DH:71:LEU:HB2	2.16	0.45
9:DM:112:LEU:O	9:DM:115:ARG:N	2.46	0.45
11:DO:122:PRO:HB3	11:DO:141:ALA:HB1	1.99	0.45
11:DO:85:LEU:O	11:DO:88:LEU:HB3	2.17	0.45
14:DQ:25:ARG:HH12	14:DQ:42:ASP:CG	2.19	0.45
15:DR:23:ARG:HD3	15:DR:120:ARG:NH1	2.32	0.45
18:DS:35:ILE:O	18:DS:39:THR:HB	2.17	0.45
21:DV:81:ARG:O	21:DV:81:ARG:CG	2.63	0.45
23:DZ:86:SER:H	23:DZ:87:PRO:HD2	1.74	0.45
13:A0:45:ARG:HA	13:A0:95:THR:HG21	1.98	0.45
17:A2:3:ALA:HB3	17:A2:14:VAL:CG2	2.46	0.45
1:AA:1387:C:H2'	1:AA:1388:G:C8	2.52	0.45
1:AA:2153:G:O6	1:AA:2154:G:C6	2.70	0.45
1:AA:2562:U:H1'	10:AN:23:ARG:HD3	1.99	0.45
1:AA:2663:G:C6	1:AA:2664:G:C4	3.05	0.45
1:AA:2689:U:P	1:AA:2719:G:H22	2.40	0.45
1:AA:273(E):U:H2'	1:AA:273(F):C:H5'	1.98	0.45
1:AA:2787:C:O2	1:AA:2787:C:H2'	2.17	0.45
1:AA:513:A:P	56:AA:3342:OHX:N4	2.90	0.45
1:AA:347:A:H2'	1:AA:348:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:511:U:H5	1:AA:512:G:C5	2.34	0.45
1:AA:539:G:H2'	1:AA:540:G:C5'	2.47	0.45
1:AA:754:C:H2'	1:AA:755:C:H6	1.81	0.45
3:AD:186:HIS:CD2	3:AD:188:GLU:HB2	2.52	0.45
4:AE:115:GLY:HA2	4:AE:157:ALA:HB1	1.98	0.45
4:AE:176:ILE:HG22	4:AE:176:ILE:O	2.17	0.45
5:AF:156:LEU:HD12	5:AF:158:THR:HG22	1.99	0.45
8:AK:81:VAL:HG21	8:AK:88:ILE:HD13	1.98	0.45
9:AM:58:ASP:CB	9:AM:95:PRO:HB2	2.47	0.45
10:AN:117:LEU:HD12	10:AN:117:LEU:H	1.81	0.45
11:AO:98:GLU:OE1	11:AO:99:LEU:N	2.50	0.45
12:AP:54:MET:O	12:AP:55:VAL:C	2.54	0.45
15:AR:111:ARG:H	15:AR:111:ARG:CD	2.24	0.45
18:AS:64:MET:HG2	18:AS:109:GLU:OE2	2.17	0.45
19:AT:29:TRP:CZ3	19:AT:78:LYS:HB3	2.51	0.45
21:AV:76:LEU:N	21:AV:76:LEU:CD2	2.77	0.45
25:AX:19:GLN:HE22	25:AX:52:HIS:HE1	1.65	0.45
23:AZ:3:LYS:HG3	23:AZ:46:LEU:HD23	1.98	0.45
31:BA:1005:A:C2	31:BA:1006:C:C2	3.05	0.45
31:BA:1027:C:C2	31:BA:1028:C:C5	3.04	0.45
31:BA:102:G:C4	31:BA:103:C:C5	3.05	0.45
31:BA:102:G:C5	31:BA:103:C:C5	3.05	0.45
31:BA:1158:C:N4	31:BA:1160:G:C5	2.84	0.45
1:AA:1908:C:O2	53:BC:12:G:H4'	2.17	0.45
52:BD:57:C:H4'	52:BD:58:G:OP2	2.15	0.45
32:BE:100:GLY:O	32:BE:101:MET:C	2.55	0.45
33:BF:44:GLU:HG2	33:BF:44:GLU:H	1.65	0.45
36:BI:15:ASP:O	36:BI:15:ASP:OD1	2.35	0.45
36:BI:63:TYR:CD2	36:BI:63:TYR:N	2.85	0.45
38:BK:63:LEU:HD13	38:BK:63:LEU:HA	1.76	0.45
39:BL:45:ALA:HA	39:BL:48:GLU:HG2	1.99	0.45
39:BL:10:ARG:HG3	39:BL:75:ASP:HB3	1.99	0.45
42:BO:89:ARG:HD3	42:BO:91:LYS:CA	2.46	0.45
48:BU:43:PHE:O	48:BU:44:LEU:HD12	2.16	0.45
31:CA:1157:A:N6	31:CA:1181:G:H8	2.13	0.45
31:CA:1285:A:C8	31:CA:1285:A:OP1	2.69	0.45
31:CA:353:A:H2'	31:CA:354:G:OP2	2.17	0.45
31:CA:527:G:C2'	31:CA:528:C:H5'	2.47	0.45
31:CA:536:C:H2'	31:CA:537:G:C8	2.52	0.45
31:CA:939:G:C6	31:CA:940:C:C4	3.05	0.45
52:CB:49:A:C2	52:CB:50:U:H5"	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CI:55:ASP:HA	36:CI:56:PRO:HD3	1.81	0.45
38:CK:102:ARG:O	38:CK:104:ARG:N	2.49	0.45
40:CM:84:GLN:HB3	40:CM:88:LEU:HD22	1.99	0.45
42:CO:97:ARG:C	42:CO:98:TYR:CD1	2.90	0.45
44:CQ:53:LEU:HA	44:CQ:53:LEU:HD23	1.82	0.45
17:D2:18:LEU:HD23	17:D2:19:LYS:O	2.16	0.45
17:D2:51:VAL:CG1	17:D2:52:VAL:N	2.76	0.45
26:D4:48:ARG:HH11	26:D4:51:ASP:HA	1.82	0.45
49:CV:9:VAL:HG22	26:D4:63:TYR:CE1	2.52	0.45
27:D5:40:LYS:HD3	27:D5:46:CYS:HB2	1.99	0.45
29:D7:12:ARG:HH21	29:D7:44:PRO:HB3	1.81	0.45
1:DA:1270:C:H5"	1:DA:1271:G:O5'	2.17	0.45
1:DA:1643:G:N2	1:DA:1644:C:H1'	2.31	0.45
1:DA:1844:C:O3'	3:DD:258:LYS:NZ	2.46	0.45
1:DA:2133:G:C2'	1:DA:2134:A:OP2	2.64	0.45
1:DA:2143:C:H2'	1:DA:2144:U:O4'	2.17	0.45
1:DA:2270:G:OP2	56:DA:3376:OHX:N4	2.50	0.45
1:DA:2614:A:H4'	1:DA:2615:U:OP1	2.17	0.45
1:DA:270(C):C:O2'	1:DA:273(B):C:H5"	2.17	0.45
1:DA:2845:G:H2'	1:DA:2846:G:H8	1.82	0.45
1:DA:337:C:C2'	1:DA:338:G:O5'	2.65	0.45
1:DA:768:G:C4	1:DA:769:G:C8	3.05	0.45
1:DA:877:U:H4'	1:DA:878:A:OP2	2.16	0.45
1:DA:880:G:C2	1:DA:898:C:C2	3.05	0.45
1:DA:915:C:C2'	1:DA:916:G:O5'	2.64	0.45
2:DB:66:A:N6	2:DB:107:U:H2'	2.32	0.45
3:DD:222:ARG:HB2	3:DD:222:ARG:HE	1.59	0.45
5:DF:63:LYS:HZ3	5:DF:67:GLN:HB2	1.81	0.45
1:DA:1191:G:OP2	11:DO:32:THR:HG22	2.16	0.45
11:DO:58:THR:CG2	11:DO:58:THR:O	2.62	0.45
19:DT:21:PHE:CE1	19:DT:26:TYR:HD2	2.34	0.45
19:DT:8:ILE:CD1	19:DT:8:ILE:H	2.17	0.45
20:DU:46:LYS:O	20:DU:47:LYS:C	2.54	0.45
1:DA:335:C:H4'	20:DU:73:ARG:CZ	2.47	0.45
25:DX:37:LEU:O	25:DX:38:GLU:O	2.34	0.45
25:DX:54:VAL:HG12	25:DX:55:ARG:N	2.32	0.45
13:A0:84:ALA:N	13:A0:85:PRO:CD	2.80	0.45
16:A1:78:THR:O	16:A1:79:PHE:C	2.55	0.45
1:AA:1131:G:N7	9:AM:75:TYR:HD2	2.15	0.45
1:AA:1147:C:O2'	1:AA:1148:A:H5'	2.17	0.45
1:AA:1359:A:N6	1:AA:1372:U:C2	2.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1403:C:H5"	1:AA:1471:A:H1'	1.99	0.45
1:AA:1631:A:C2'	1:AA:1632:A:O5'	2.64	0.45
1:AA:1631:A:H2'	1:AA:1632:A:O5'	2.16	0.45
1:AA:1652:A:H2'	1:AA:1653:G:H5'	1.98	0.45
1:AA:1817:G:OP1	3:AD:88:ARG:NH2	2.46	0.45
1:AA:2313:C:N4	1:AA:2314:C:H41	2.15	0.45
1:AA:2378:A:H2'	14:AQ:21:THR:HG21	1.97	0.45
1:AA:2472:G:O6	1:AA:2476:A:H4'	2.16	0.45
1:AA:2881:C:H42	1:AA:2882:A:N6	2.15	0.45
1:AA:607:U:O2	1:AA:621:A:N1	2.50	0.45
1:AA:654(C):G:C2	1:AA:654(D):G:H1'	2.52	0.45
1:AA:699:A:C2'	1:AA:700:G:H5'	2.47	0.45
1:AA:948:G:OP1	1:AA:962:G:OP1	2.35	0.45
1:AA:974(A):C:H1'	1:AA:975:G:OP2	2.17	0.45
2:AB:116:G:H5"	14:AQ:55:ALA:CB	2.32	0.45
2:AB:29:A:H2'	2:AB:30:C:C6	2.52	0.45
2:AB:6:C:C3'	2:AB:7:G:H5"	2.47	0.45
2:AB:94:C:H2'	2:AB:95:U:C6	2.52	0.45
3:AD:35:LYS:HA	3:AD:64:ILE:HG22	1.99	0.45
3:AD:77:ALA:O	3:AD:117:VAL:N	2.46	0.45
4:AE:6:GLY:HA2	4:AE:27:LEU:O	2.17	0.45
6:AG:21:ARG:O	6:AG:21:ARG:HG2	2.17	0.45
6:AG:51:ARG:O	6:AG:54:GLU:HG2	2.17	0.45
6:AG:60:LEU:C	6:AG:62:LEU:H	2.19	0.45
7:AH:107:VAL:HG11	7:AH:153:LYS:HE3	1.98	0.45
10:AN:6:THR:CG2	10:AN:7:TYR:N	2.78	0.45
1:AA:244:A:H4'	11:AO:74:GLU:HB2	1.98	0.45
14:AQ:89:ARG:O	14:AQ:90:GLY:C	2.56	0.45
15:AR:2:ASN:O	15:AR:3:ARG:HG2	2.17	0.45
18:AS:111:HIS:CD2	18:AS:112:GLY:N	2.81	0.45
20:AU:57:GLN:HG3	20:AU:58:GLY:H	1.81	0.45
21:AV:6:LYS:HZ2	21:AV:43:GLU:HG3	1.81	0.45
1:AA:201:C:OP1	23:AZ:37:ILE:HD11	2.16	0.45
31:BA:1047:G:C2'	31:BA:1048:G:H5'	2.48	0.45
31:BA:1186:G:N2	31:BA:1187:G:H1'	2.32	0.45
31:BA:1234:C:H2'	31:BA:1235:U:C6	2.52	0.45
31:BA:131:C:H2'	31:BA:132:C:C6	2.52	0.45
31:BA:48:C:OP1	56:BA:1733:OHX:N4	2.50	0.45
31:BA:256:U:O2'	31:BA:257:G:H5'	2.17	0.45
31:BA:438:G:O5'	31:BA:438:G:H8	1.99	0.45
31:BA:599:C:C4	31:BA:600:C:H5	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:644:G:H2'	31:BA:645:C:C5'	2.47	0.45
31:BA:693:G:C6	31:BA:694:A:C6	3.05	0.45
31:BA:664:G:N2	31:BA:741:G:H1	2.12	0.45
31:BA:810:C:H2'	31:BA:811:C:H5'	1.98	0.45
31:BA:976:G:OP1	44:BQ:32:SER:N	2.49	0.45
34:BG:133:VAL:O	34:BG:133:VAL:HG12	2.17	0.45
34:BG:154:ASN:O	34:BG:155:LEU:O	2.34	0.45
35:BH:78:HIS:CE1	35:BH:142:LEU:HD23	2.52	0.45
37:BJ:91:VAL:CG1	37:BJ:95:ARG:HB3	2.45	0.45
39:BL:79:LEU:O	39:BL:83:ARG:HG3	2.17	0.45
40:BM:10:GLY:O	40:BM:68:HIS:HB2	2.17	0.45
31:BA:973:G:OP1	40:BM:57:LYS:HD3	2.17	0.45
40:BM:5:ARG:HB2	40:BM:73:ASP:OD2	2.16	0.45
41:BN:95:ILE:HD13	41:BN:108:ILE:HD13	2.00	0.45
43:BP:84:ILE:HG23	43:BP:86:CYS:HB3	1.99	0.45
44:BQ:26:ARG:HD2	44:BQ:47:LEU:HD11	2.00	0.45
48:BU:68:LYS:HB2	48:BU:68:LYS:HE2	1.79	0.45
49:BV:50:ALA:HB1	49:BV:57:HIS:HB3	1.98	0.45
50:BW:32:ALA:C	50:BW:34:LYS:N	2.67	0.45
50:BW:70:SER:HA	50:BW:73:HIS:CD2	2.52	0.45
31:CA:1308:U:OP1	43:CP:98:VAL:HG22	2.17	0.45
31:CA:1287:A:H2	31:CA:1353:G:N3	2.15	0.45
31:CA:562:C:O4'	31:CA:563:A:C2	2.70	0.45
31:CA:570:G:C4	31:CA:571:U:C5	3.05	0.45
31:CA:960:U:O2	31:CA:1225:A:C5	2.70	0.45
53:CC:60:A:H2'	53:CC:61:U:H5'	1.99	0.45
52:CD:65:C:N4	52:CD:66:G:C6	2.85	0.45
32:CE:112:VAL:HG22	32:CE:149:LEU:HD13	1.98	0.45
32:CE:95:GLN:O	32:CE:96:ARG:C	2.55	0.45
33:CF:34:LEU:O	33:CF:34:LEU:HD12	2.17	0.45
33:CF:52:LEU:HD12	33:CF:55:VAL:HG22	1.99	0.45
35:CH:83:GLU:HA	35:CH:87:SER:O	2.17	0.45
42:CO:85:ILE:HG23	42:CO:86:ARG:N	2.31	0.45
43:CP:93:ARG:HH11	1:DA:887:A:C1'	2.30	0.45
44:CQ:7:ILE:O	44:CQ:7:ILE:HG13	2.16	0.45
45:CR:49:ASP:OD2	45:CR:52:SER:OG	2.29	0.45
47:CT:27:PHE:CD2	47:CT:27:PHE:N	2.85	0.45
13:D0:26:LYS:HG3	13:D0:70:LEU:CD2	2.47	0.45
13:D0:87:TYR:O	13:D0:88:ARG:C	2.54	0.45
22:D3:23:VAL:HG13	22:D3:38:VAL:HG22	1.98	0.45
22:D3:28:GLY:HA2	22:D3:66:VAL:CG1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:31:VAL:O	27:D5:39:MET:HA	2.17	0.45
1:DA:1068:G:HO2'	1:DA:1096:A:HO2'	1.44	0.45
1:DA:1111:A:O3'	1:DA:1112:G:H4'	2.17	0.45
1:DA:1321:A:H2'	1:DA:1322:A:O4'	2.16	0.45
1:DA:1399:C:O2'	1:DA:1400:G:H5'	2.16	0.45
1:DA:1711:C:H2'	1:DA:1712:C:H6	1.82	0.45
1:DA:1761:C:H42	1:DA:1762:A:H62	1.65	0.45
1:DA:1777:U:C2	1:DA:1778:U:C5	3.05	0.45
1:DA:1773:A:C5	1:DA:1829:A:H1'	2.52	0.45
1:DA:2065:C:H2'	1:DA:2066:C:H6	1.80	0.45
1:DA:2211:G:HO2'	1:DA:2212:A:P	2.27	0.45
1:DA:226:G:N2	1:DA:228:A:H62	1.96	0.45
1:DA:2523:G:H8	1:DA:2523:G:C5'	2.16	0.45
1:DA:92:G:H2'	1:DA:93:C:C6	2.52	0.45
1:DA:966:G:H2'	1:DA:967:C:C6	2.52	0.45
6:DG:60:LEU:O	6:DG:64:THR:HB	2.17	0.45
8:DK:69:LYS:HA	8:DK:136:VAL:HG21	1.99	0.45
1:DA:1005:C:O2'	9:DM:28:THR:CG2	2.65	0.45
9:DM:34:LEU:O	9:DM:49:GLY:HA3	2.17	0.45
10:DN:47:ILE:CD1	10:DN:48:PRO:HD2	2.47	0.45
11:DO:101:VAL:CG1	11:DO:102:ARG:N	2.80	0.45
5:DF:34:TRP:CD2	11:DO:8:PRO:HB3	2.52	0.45
1:DA:908:C:OP1	12:DP:22:LYS:HB2	2.16	0.45
14:DQ:41:ASP:OD2	14:DQ:44:LYS:HE3	2.16	0.45
14:DQ:59:LYS:CD	14:DQ:60:GLY:H	2.30	0.45
24:DW:12:GLU:O	24:DW:16:LEU:HD23	2.17	0.45
17:A2:38:LEU:O	17:A2:51:VAL:HG13	2.16	0.44
1:AA:1188:U:H4'	17:A2:79:VAL:CG2	2.47	0.44
29:A7:25:PRO:HB3	29:A7:28:ARG:NH2	2.33	0.44
29:A7:1:MET:O	29:A7:2:LYS:C	2.55	0.44
1:AA:990:A:N6	1:AA:1186:G:H1'	2.31	0.44
1:AA:1438:U:O2'	1:AA:1439:A:H5'	2.17	0.44
1:AA:1442:G:C2	1:AA:1550:C:O2	2.71	0.44
1:AA:1649:G:N1	1:AA:2009:G:C6	2.85	0.44
1:AA:2113:U:H5	1:AA:2167:U:O2	1.99	0.44
1:AA:2507:C:H1'	52:BB:85:A:H8	1.81	0.44
1:AA:2540:C:N4	1:AA:2541:A:C6	2.85	0.44
1:AA:2680:C:OP2	4:AE:111:ARG:NH2	2.45	0.44
1:AA:2751:G:O2'	1:AA:2752:C:O5'	2.35	0.44
1:AA:2839:G:C5	1:AA:2840:C:C4	3.05	0.44
1:AA:607:U:N3	1:AA:621:A:H2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:86:C:O2'	1:AA:87:C:H5'	2.17	0.44
1:AA:901:A:C3'	1:AA:902:C:H5'	2.47	0.44
5:AF:107:LYS:HE2	5:AF:107:LYS:HB3	1.69	0.44
5:AF:37:VAL:HG12	5:AF:38:ARG:N	2.32	0.44
7:AH:170:ARG:HB3	7:AH:171:LEU:H	1.56	0.44
7:AH:4:ILE:C	7:AH:6:ARG:HG2	2.37	0.44
10:AN:7:TYR:CZ	10:AN:44:LYS:HG3	2.52	0.44
19:AT:21:PHE:HD2	19:AT:26:TYR:CD2	2.35	0.44
20:AU:49:VAL:O	20:AU:51:VAL:HG12	2.17	0.44
20:AU:95:LYS:O	20:AU:96:ILE:O	2.35	0.44
21:AV:140:ASP:CG	21:AV:141:VAL:N	2.70	0.44
31:BA:1062:U:H2'	31:BA:1063:C:C6	2.52	0.44
31:BA:1071:C:O2'	31:BA:1072:G:H5'	2.16	0.44
31:BA:1322:C:HO2'	31:BA:1323:G:P	2.39	0.44
31:BA:1349:A:C2'	31:BA:1350:A:O5'	2.65	0.44
31:BA:1399:C:H4'	31:BA:1400:C:O5'	2.17	0.44
31:BA:1085:U:O2	56:BA:1763:OHX:N2	2.49	0.44
31:BA:9:G:C6	31:BA:26:A:N6	2.85	0.44
31:BA:991:U:O2	31:BA:993:G:C8	2.70	0.44
34:BG:101:LEU:O	34:BG:105:VAL:HG23	2.16	0.44
36:BI:2:ARG:HD2	36:BI:69:GLU:HB3	1.99	0.44
37:BJ:54:THR:C	37:BJ:56:GLN:H	2.20	0.44
41:BN:76:GLY:O	41:BN:77:MET:C	2.55	0.44
41:BN:98:LEU:O	41:BN:101:SER:OG	2.32	0.44
43:BP:23:TYR:HB3	43:BP:67:GLU:CB	2.43	0.44
44:BQ:53:LEU:HB3	44:BQ:56:VAL:CG2	2.47	0.44
47:BT:52:LYS:C	47:BT:52:LYS:HD2	2.37	0.44
50:BW:48:LYS:O	50:BW:51:GLU:HB2	2.16	0.44
31:CA:1259:C:O2'	31:CA:1284:C:O4'	2.30	0.44
31:CA:1315:U:C5	31:CA:1316:G:C5	3.05	0.44
31:CA:1518:A:OP1	56:CA:1753:OHX:N2	2.50	0.44
31:CA:562:C:H4'	31:CA:563:A:O5'	2.17	0.44
31:CA:600:C:H2'	31:CA:601:C:C6	2.52	0.44
31:CA:604:G:H2'	31:CA:605:U:H6	1.81	0.44
31:CA:963:G:H21	40:CM:55:LYS:HG2	1.81	0.44
52:CD:29:C:C2'	52:CD:30:A:H5'	2.47	0.44
52:CD:68:A:H5"	52:CD:69:U:OP2	2.16	0.44
34:CG:31:CYS:O	34:CG:32:ALA:HB3	2.17	0.44
34:CG:57:ARG:O	34:CG:58:LEU:C	2.56	0.44
34:CG:67:ILE:O	34:CG:114:ARG:HD2	2.17	0.44
31:CA:1298:C:H6	37:CJ:114:ARG:NH1	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CJ:122:HIS:O	37:CJ:125:MET:HB2	2.17	0.44
37:CJ:58:PRO:C	37:CJ:60:LYS:H	2.20	0.44
40:CM:37:PRO:HA	40:CM:72:VAL:CG2	2.48	0.44
40:CM:48:THR:HG1	40:CM:62:HIS:CG	2.35	0.44
50:CW:87:LYS:HD2	50:CW:87:LYS:HA	1.45	0.44
17:D2:5:VAL:HB	17:D2:37:VAL:CG1	2.47	0.44
27:D5:20:ARG:HG2	27:D5:23:HIS:CD2	2.52	0.44
1:DA:1183:G:C5	56:DA:3427:OHX:N4	2.85	0.44
1:DA:1226:G:C6	1:DA:1227:A:N6	2.85	0.44
1:DA:1204:A:H2	1:DA:1241:A:N1	2.13	0.44
1:DA:1314:C:N3	1:DA:1339:G:N2	2.65	0.44
1:DA:1907:G:C2	1:DA:1924:C:O2	2.69	0.44
1:DA:2190:G:H3'	1:DA:2191:G:H5"	1.97	0.44
1:DA:2415:G:OP1	56:DA:3257:OHX:N5	2.50	0.44
1:DA:746:A:C5	1:DA:2611:U:H5"	2.52	0.44
1:DA:2732:G:H3'	1:DA:2733:A:O4'	2.18	0.44
1:DA:27:G:C4	1:DA:512:G:N2	2.85	0.44
1:DA:336:C:O2'	1:DA:337:C:H5'	2.17	0.44
1:DA:35:G:N9	1:DA:454:A:C2	2.85	0.44
1:DA:779:U:OP1	3:DD:49:ILE:HG22	2.17	0.44
1:DA:921:G:C5	1:DA:922:U:C5	3.05	0.44
2:DB:16:G:N1	2:DB:17:C:C4	2.86	0.44
3:DD:186:HIS:CD2	3:DD:187:GLY:N	2.85	0.44
5:DF:53:THR:HG22	5:DF:56:GLU:CG	2.46	0.44
6:DG:55:LYS:O	6:DG:57:ALA:N	2.50	0.44
7:DH:152:ARG:NH2	7:DH:153:LYS:HE3	2.32	0.44
9:DM:22:THR:HB	9:DM:25:ARG:HG3	1.99	0.44
10:DN:13:ASN:C	10:DN:15:GLY:H	2.19	0.44
12:DP:57:HIS:CD2	12:DP:116:GLU:O	2.69	0.44
15:DR:98:LYS:HB3	15:DR:100:TYR:CE1	2.52	0.44
20:DU:19:LYS:HE3	20:DU:71:LYS:HZ1	1.81	0.44
13:A0:34:ILE:HD12	13:A0:34:ILE:HA	1.60	0.44
1:AA:1374:G:C6	1:AA:1375:C:C4	3.05	0.44
1:AA:1850:G:H2'	1:AA:1851:U:C6	2.52	0.44
1:AA:2172:U:H5'	1:AA:2173:A:P	2.57	0.44
1:AA:2304:G:O4'	6:AG:132:ASN:HB3	2.17	0.44
1:AA:394:A:C6	1:AA:395:U:N3	2.84	0.44
1:AA:628:G:C6	1:AA:636:G:N2	2.85	0.44
1:AA:752:A:O2'	1:AA:753:C:OP2	2.30	0.44
1:AA:782:A:H5'	1:AA:783:A:C2	2.53	0.44
1:AA:886:C:H2'	1:AA:887:A:C1'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:907:U:C5'	12:AP:23:GLY:O	2.65	0.44
3:AD:72:LYS:HZ2	3:AD:75:ILE:HD12	1.81	0.44
5:AF:65:TRP:CB	5:AF:66:PRO:CD	2.95	0.44
7:AH:83:TYR:HB3	7:AH:135:GLY:H	1.79	0.44
8:AK:20:ASP:C	8:AK:20:ASP:OD2	2.56	0.44
12:AP:21:THR:HG23	12:AP:21:THR:O	2.12	0.44
12:AP:2:LEU:CD1	12:AP:69:PHE:HE1	2.30	0.44
15:AR:26:ASP:O	15:AR:49:VAL:HG12	2.18	0.44
25:AX:6:VAL:HB	25:AX:54:VAL:CG2	2.47	0.44
23:AZ:85:LEU:N	23:AZ:85:LEU:HD22	2.32	0.44
31:BA:1088:G:H1	31:BA:1097:C:N4	2.15	0.44
31:BA:1133:G:C6	31:BA:1142:G:O6	2.71	0.44
31:BA:1316:G:H4'	44:BQ:18:VAL:HG11	1.99	0.44
31:BA:25:C:O2'	31:BA:26:A:H5'	2.17	0.44
31:BA:271:C:O2'	31:BA:272:C:H5'	2.17	0.44
31:BA:377:G:P	46:BS:5:ARG:HH11	2.41	0.44
31:BA:41:G:C2	31:BA:402:G:C2	3.04	0.44
31:BA:484:G:C2'	31:BA:485:G:OP2	2.63	0.44
31:BA:507:C:C5	31:BA:508:C:C6	3.05	0.44
52:BB:6:G:O6	52:BB:76:C:N3	2.51	0.44
53:BC:66:C:C2'	53:BC:67:C:H5'	2.47	0.44
52:BD:58:G:C2	52:BD:75:C:C2	3.05	0.44
32:BE:212:GLN:HG3	32:BE:235:SER:HB2	1.99	0.44
31:BA:437:U:H5"	34:BG:155:LEU:HD22	2.00	0.44
35:BH:118:ILE:HG12	35:BH:119:LEU:H	1.80	0.44
37:BJ:72:ARG:HG3	37:BJ:142:GLU:OE1	2.16	0.44
38:BK:91:ARG:NH1	38:BK:91:ARG:HG3	2.24	0.44
39:BL:118:LYS:HB3	39:BL:118:LYS:NZ	2.32	0.44
46:BS:52:ASP:OD2	46:BS:55:ARG:HG2	2.18	0.44
47:BT:45:HIS:NE2	47:BT:47:PRO:HG3	2.32	0.44
51:BX:9:ARG:HH11	51:BX:22:ARG:HG3	1.81	0.44
51:BX:9:ARG:HH12	51:BX:23:PRO:CD	2.31	0.44
52:CB:37:A:N1	54:C1:20:G:C5	2.85	0.44
31:CA:1130:A:OP2	31:CA:1131:G:OP2	2.36	0.44
31:CA:157:G:C6	31:CA:165:C:N3	2.86	0.44
31:CA:425:G:O3'	34:CG:45:GLN:NE2	2.51	0.44
31:CA:448:A:C2	31:CA:449:C:C4	3.05	0.44
31:CA:791:G:C2'	31:CA:792:A:H5'	2.47	0.44
31:CA:830:G:C2	31:CA:857:C:C2	3.04	0.44
52:CB:13:G:H1'	52:CB:24:G:H1	1.82	0.44
32:CE:185:ILE:HG22	32:CE:199:TYR:CB	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:134:ILE:HD11	33:CF:153:VAL:CG2	2.47	0.44
33:CF:22:TRP:CB	33:CF:59:ARG:HB2	2.45	0.44
33:CF:74:GLY:O	33:CF:76:VAL:N	2.49	0.44
34:CG:3:ARG:NE	34:CG:118:ARG:HD3	2.24	0.44
39:CL:127:LYS:HB3	39:CL:128:ARG:HH12	1.83	0.44
41:CN:38:ASN:HA	41:CN:39:PRO:HD3	1.86	0.44
41:CN:48:ILE:HG21	41:CN:63:LEU:HD12	1.99	0.44
43:CP:20:THR:C	43:CP:22:ILE:N	2.70	0.44
43:CP:30:ALA:O	43:CP:32:GLU:N	2.50	0.44
46:CS:48:TRP:O	46:CS:49:LEU:HB2	2.18	0.44
48:CU:23:LYS:O	48:CU:26:LEU:HD22	2.17	0.44
48:CU:87:ARG:HB3	48:CU:88:LYS:H	1.58	0.44
29:D7:10:ARG:O	29:D7:14:LYS:HB2	2.18	0.44
1:DA:118:A:OP2	1:DA:119:A:H2'	2.18	0.44
1:DA:139:G:N3	1:DA:141:A:N1	2.65	0.44
1:DA:1434:A:O2'	1:DA:1435:G:H5'	2.17	0.44
1:DA:1443:G:C8	1:DA:1443:G:H5'	2.53	0.44
1:DA:1695:G:N7	3:DD:14:ARG:NH2	2.66	0.44
1:DA:2208:U:O2'	1:DA:2209:C:H5'	2.17	0.44
1:DA:2300:G:O2'	1:DA:2301:C:H5'	2.18	0.44
1:DA:2468:G:H3'	1:DA:2476:A:H2	1.73	0.44
1:DA:2517:C:C6	1:DA:2542:A:C2	3.05	0.44
1:DA:275:G:H8	1:DA:275:G:OP2	2.00	0.44
1:DA:340:A:H2'	1:DA:341:G:H5'	1.99	0.44
1:DA:20:C:C2	1:DA:521:G:N2	2.85	0.44
1:DA:566:U:O4	17:D2:78:LYS:HE2	2.16	0.44
1:DA:638:G:C6	1:DA:639:U:C4	3.04	0.44
1:DA:663:G:C5	1:DA:664:C:C5	3.05	0.44
1:DA:714:U:O2	1:DA:716:A:C8	2.70	0.44
1:DA:7:G:C2'	1:DA:8:A:O4'	2.65	0.44
1:DA:96:G:C5	1:DA:97:C:C5	3.05	0.44
2:DB:109:G:C4	2:DB:110:G:C8	3.06	0.44
5:DF:39:TRP:CD1	5:DF:99:TYR:CE2	3.03	0.44
1:DA:2307:G:O6	6:DG:42:GLY:C	2.56	0.44
11:DO:6:LEU:HB3	11:DO:7:ARG:H	1.54	0.44
20:DU:77:PRO:O	20:DU:78:ALA:CB	2.64	0.44
21:DV:124:ILE:HD12	21:DV:125:LEU:H	1.82	0.44
21:DV:37:VAL:O	21:DV:38:TYR:HB3	2.17	0.44
1:DA:989:G:OP2	25:DX:11:SER:HB3	2.17	0.44
25:DX:19:GLN:O	25:DX:22:ALA:HB3	2.17	0.44
16:A1:80:ILE:CG2	16:A1:80:ILE:O	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:A2:47:VAL:HG22	17:A2:48:GLY:H	1.80	0.44
22:A3:40:GLN:OE1	22:A3:44:ARG:HB3	2.18	0.44
26:A4:40:HIS:H	26:A4:41:PRO:HD2	1.80	0.44
28:A6:30:THR:HG23	28:A6:30:THR:O	2.18	0.44
28:A6:25:LYS:HB2	30:A8:34:TRP:NE1	2.32	0.44
1:AA:1047:G:C6	1:AA:1110:G:N7	2.84	0.44
1:AA:1064:C:H42	1:AA:1074:G:H1	1.63	0.44
1:AA:1027:A:C6	1:AA:1126:A:C4	3.06	0.44
1:AA:116:C:C2'	1:AA:117:G:O5'	2.65	0.44
1:AA:1166:C:O2	1:AA:1184:G:C2	2.71	0.44
1:AA:1404:C:O2'	1:AA:1405:U:H5'	2.17	0.44
1:AA:1419:A:C8	1:AA:1421:G:C6	3.06	0.44
1:AA:1771:C:O2'	1:AA:1786:A:H8	2.00	0.44
1:AA:1939:U:OP1	1:AA:2604:U:O2'	2.32	0.44
1:AA:1651:G:N2	1:AA:2007:C:C2	2.85	0.44
1:AA:2156:G:C5	1:AA:2157:G:N2	2.85	0.44
1:AA:2330:G:H2'	1:AA:2331:G:O4'	2.17	0.44
1:AA:2373:G:H1	1:AA:2380:C:N4	2.12	0.44
1:AA:2536:G:C5	1:AA:2537:U:C4	3.06	0.44
1:AA:2656:U:O2	1:AA:2656:U:H2'	2.16	0.44
1:AA:271(A):C:H1'	1:AA:272:G:H1'	1.98	0.44
1:AA:2723:C:C2'	1:AA:2724:C:O5'	2.64	0.44
1:AA:643:A:C2	1:AA:644:A:C4	3.05	0.44
1:AA:814:C:O2'	1:AA:815:C:H5'	2.17	0.44
1:AA:878:A:N6	1:AA:900:A:C8	2.86	0.44
5:AF:150:GLY:HA2	5:AF:172:TRP:CD2	2.53	0.44
5:AF:28:ILE:HG22	5:AF:112:MET:HB3	1.98	0.44
7:AH:38:SER:HB2	7:AH:64:LEU:HD13	1.99	0.44
9:AM:22:THR:O	9:AM:61:ARG:O	2.36	0.44
11:AO:77:ARG:HB2	11:AO:78:PRO:HD2	1.98	0.44
14:AQ:42:ASP:O	14:AQ:43:GLU:CB	2.64	0.44
15:AR:119:LYS:HB2	31:BA:1443:G:N2	2.33	0.44
18:AS:110:LYS:O	18:AS:111:HIS:C	2.55	0.44
20:AU:52:SER:CB	20:AU:53:PRO:HD3	2.37	0.44
21:AV:150:LEU:HD23	21:AV:151:HIS:N	2.32	0.44
21:AV:155:LEU:O	21:AV:157:LEU:N	2.50	0.44
21:AV:158:PRO:CB	21:AV:159:PRO:HD2	2.46	0.44
23:AZ:46:LEU:HA	23:AZ:46:LEU:HD12	1.80	0.44
31:BA:1019:C:H2'	31:BA:1020:U:O4'	2.16	0.44
31:BA:1119:C:H2'	31:BA:1120:G:O4'	2.18	0.44
31:BA:1151:A:N6	31:BA:1152:A:C6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:115:G:H1'	31:BA:116:A:N7	2.33	0.44
31:BA:1167:A:OP1	31:BA:1167:A:H8	1.99	0.44
31:BA:1346:A:OP1	39:BL:120:ARG:NH1	2.50	0.44
31:BA:316:G:C2	31:BA:338:A:C2	3.06	0.44
31:BA:458:C:H2'	31:BA:464:G:H8	1.82	0.44
31:BA:539:A:OP1	42:BO:114:LYS:HE2	2.16	0.44
31:BA:591:U:C2	31:BA:592:G:C8	3.04	0.44
31:BA:693:G:H2'	31:BA:694:A:C8	2.52	0.44
31:BA:762:C:H6	31:BA:762:C:O5'	2.00	0.44
31:BA:945:G:C2	31:BA:1337:G:C2	3.05	0.44
32:BE:141:GLU:O	32:BE:145:LEU:HD23	2.16	0.44
32:BE:17:PHE:HA	32:BE:42:ILE:CG2	2.47	0.44
32:BE:235:SER:C	32:BE:237:ALA:N	2.71	0.44
32:BE:5:ILE:HG13	32:BE:6:THR:H	1.82	0.44
38:BK:102:ARG:H	38:BK:102:ARG:CD	2.31	0.44
42:BO:105:TYR:O	42:BO:107:ALA:N	2.50	0.44
43:BP:20:THR:C	43:BP:22:ILE:N	2.67	0.44
45:BR:76:GLU:C	45:BR:78:TYR:N	2.71	0.44
31:CA:109:A:H5'	31:CA:110:C:C5	2.51	0.44
31:CA:1134:G:C2'	31:CA:1135:U:H5'	2.48	0.44
31:CA:1219:U:OP1	44:CQ:19:ARG:NH1	2.42	0.44
31:CA:1226:C:OP2	43:CP:103:THR:OG1	2.27	0.44
31:CA:426:G:H2'	31:CA:427:U:H6	1.81	0.44
31:CA:56:U:O2'	31:CA:57:G:H5'	2.17	0.44
31:CA:889:A:H4'	31:CA:890:G:OP1	2.17	0.44
53:CC:59:A:H4'	53:CC:60:A:OP1	2.16	0.44
33:CF:152:ILE:HG22	33:CF:167:TRP:CB	2.47	0.44
33:CF:152:ILE:HG13	33:CF:199:LYS:HB2	2.00	0.44
38:CK:109:ILE:CG1	38:CK:110:ALA:N	2.80	0.44
39:CL:111:ARG:CB	39:CL:113:LYS:HE2	2.41	0.44
40:CM:64:GLU:HG2	44:CQ:59:ALA:HB2	1.99	0.44
42:CO:30:ALA:HB1	42:CO:31:PRO:HD2	1.98	0.44
43:CP:70:LEU:HD22	43:CP:74:VAL:HG23	1.99	0.44
44:CQ:43:CYS:HA	44:CQ:46:GLU:HB2	1.98	0.44
46:CS:34:GLU:CD	46:CS:55:ARG:HH11	2.21	0.44
47:CT:22:LEU:HD12	47:CT:23:VAL:N	2.32	0.44
48:CU:22:VAL:HG12	48:CU:55:ARG:O	2.18	0.44
49:CV:31:ILE:HG23	49:CV:49:ILE:HG23	1.99	0.44
26:D4:29:PRO:C	26:D4:30:GLU:HG3	2.37	0.44
30:D8:32:LEU:O	30:D8:33:ASN:HB2	2.17	0.44
30:D8:49:VAL:CG1	30:D8:50:LEU:H	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1142(A):A:N7	1:DA:1144:G:C6	2.86	0.44
1:DA:1152:C:O2'	1:DA:1153:C:H5'	2.16	0.44
1:DA:1392:A:C6	1:DA:1393:A:C6	3.06	0.44
1:DA:171:G:H2'	1:DA:172:C:C6	2.52	0.44
1:DA:2271:G:C6	1:DA:2272:U:C4	3.06	0.44
1:DA:2885:C:H2'	1:DA:2886:G:O5'	2.18	0.44
1:DA:2630:G:H1'	1:DA:2894:G:C8	2.53	0.44
56:DA:3398:OHX:N1	56:DA:3445:OHX:N2	2.65	0.44
1:DA:383:U:O2	1:DA:385:C:N4	2.50	0.44
1:DA:65:C:H4'	19:DT:69:TYR:HD1	1.81	0.44
1:DA:719:C:H6	1:DA:719:C:O5'	2.00	0.44
1:DA:844:C:N4	1:DA:845:G:N2	2.64	0.44
3:DD:267:SER:C	3:DD:269:PHE:N	2.70	0.44
3:DD:3:VAL:HG12	3:DD:3:VAL:O	2.16	0.44
5:DF:123:LEU:O	5:DF:124:LEU:C	2.55	0.44
5:DF:54:ARG:HG3	5:DF:54:ARG:NH1	2.32	0.44
7:DH:138:LYS:CA	7:DH:141:VAL:HB	2.48	0.44
18:DS:7:ALA:HB1	18:DS:10:VAL:HG21	1.98	0.44
20:DU:52:SER:N	20:DU:53:PRO:CD	2.80	0.44
21:DV:97:GLU:HA	21:DV:126:VAL:O	2.17	0.44
21:DV:165:VAL:HG23	21:DV:166:SER:H	1.82	0.44
13:A0:35:THR:OG1	13:A0:113:LEU:HD12	2.17	0.44
16:A1:28:ARG:HG2	16:A1:38:THR:OG1	2.17	0.44
1:AA:1389:G:H2'	1:AA:1390:U:H6	1.82	0.44
1:AA:1643:G:C2'	1:AA:1644:C:O5'	2.65	0.44
1:AA:2548:G:H2'	1:AA:2549:G:O5'	2.17	0.44
1:AA:311:A:N1	1:AA:328:U:C4	2.86	0.44
1:AA:526:A:N6	1:AA:2626:C:H4'	2.33	0.44
1:AA:690:G:H2'	1:AA:691:C:C6	2.53	0.44
1:AA:738:G:C6	1:AA:739:G:C2	3.06	0.44
4:AE:107:THR:O	4:AE:190:GLY:CA	2.66	0.44
4:AE:7:VAL:HG23	4:AE:7:VAL:O	2.17	0.44
5:AF:7:TYR:HA	5:AF:22:ALA:O	2.18	0.44
6:AG:91:ARG:HD2	6:AG:92:VAL:N	2.32	0.44
7:AH:139:GLN:OE1	7:AH:139:GLN:O	2.34	0.44
10:AN:107:ARG:O	10:AN:108:GLU:C	2.56	0.44
1:AA:2393:A:C5'	11:AO:62:LEU:HB3	2.41	0.44
11:AO:71:VAL:HG13	11:AO:72:PRO:HD3	1.99	0.44
12:AP:104:PHE:O	12:AP:105:GLU:CB	2.63	0.44
12:AP:109:VAL:HG22	12:AP:110:THR:N	2.31	0.44
14:AQ:15:ARG:HG3	14:AQ:19:LYS:HD2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AS:55:ALA:O	18:AS:58:ALA:N	2.49	0.44
20:AU:17:SER:OG	20:AU:71:LYS:CD	2.65	0.44
20:AU:92:ASN:N	20:AU:92:ASN:OD1	2.49	0.44
23:AZ:92:LYS:HA	23:AZ:95:LEU:CB	2.46	0.44
31:BA:1007:C:C3'	31:BA:1008:C:H5"	2.48	0.44
31:BA:1025:U:O2'	31:BA:1026:G:O4'	2.35	0.44
31:BA:1171:G:O2'	31:BA:1172:C:H5'	2.17	0.44
31:BA:1254:C:H42	31:BA:1283:G:H1	1.66	0.44
31:BA:1375:A:C4	31:BA:1376:U:C6	3.06	0.44
31:BA:16:A:O2'	31:BA:17:U:H5'	2.17	0.44
31:BA:195:A:N7	31:BA:196:A:C6	2.85	0.44
31:BA:243:A:H4'	31:BA:244:U:C5'	2.45	0.44
31:BA:428:G:C5	31:BA:430:A:C6	3.05	0.44
31:BA:507:C:C6	31:BA:508:C:C6	3.05	0.44
31:BA:827:U:C5	31:BA:872:A:N1	2.85	0.44
52:BD:43:G:C2'	52:BD:44:C:H5'	2.47	0.44
32:BE:163:PHE:HD2	32:BE:185:ILE:HG13	1.82	0.44
33:BF:62:ASP:N	33:BF:62:ASP:OD1	2.49	0.44
35:BH:127:ASN:OD1	35:BH:128:PRO:HD2	2.18	0.44
35:BH:82:VAL:HG12	35:BH:83:GLU:N	2.31	0.44
36:BI:79:LEU:HA	36:BI:79:LEU:HD23	1.68	0.44
38:BK:74:PRO:O	38:BK:75:ARG:C	2.56	0.44
40:BM:34:VAL:HG13	40:BM:73:ASP:O	2.17	0.44
40:BM:90:LEU:N	40:BM:91:PRO:CD	2.81	0.44
40:BM:94:VAL:HG12	40:BM:95:GLU:H	1.83	0.44
38:BK:91:ARG:HB2	42:BO:7:ILE:HG21	1.98	0.44
47:BT:90:ILE:O	47:BT:91:ARG:C	2.56	0.44
50:BW:14:LYS:O	50:BW:18:GLN:HG2	2.16	0.44
31:BA:1327:C:H5"	51:BX:20:LYS:HB3	2.00	0.44
31:CA:1008:C:N3	31:CA:1021:G:O6	2.51	0.44
31:CA:1004:A:H8	31:CA:1036:G:C2	2.36	0.44
31:CA:1141:C:C2'	31:CA:1142:G:H5'	2.47	0.44
31:CA:1272:G:C2	31:CA:1273:G:C4	3.06	0.44
31:CA:241:C:O2'	31:CA:242:C:H5'	2.18	0.44
31:CA:124:G:H4'	31:CA:291:C:O2'	2.17	0.44
31:CA:807:A:N6	31:CA:808:C:N4	2.65	0.44
31:CA:953:G:N7	31:CA:954:G:N7	2.65	0.44
37:CJ:144:MET:HE1	52:CD:31:G:H21	1.83	0.44
32:CE:198:ASP:OD2	32:CE:198:ASP:N	2.50	0.44
33:CF:130:VAL:O	33:CF:134:ILE:HG12	2.17	0.44
34:CG:127:THR:HG21	34:CG:149:ALA:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CI:62:TRP:CE2	48:CU:35:ARG:NH2	2.86	0.44
32:CE:195:ASP:O	38:CK:74:PRO:HG3	2.17	0.44
40:CM:5:ARG:HB3	40:CM:99:LYS:O	2.18	0.44
42:CO:117:ARG:NH2	42:CO:124:LYS:CB	2.80	0.44
42:CO:24:VAL:CG1	42:CO:26:ALA:HB2	2.47	0.44
46:CS:18:ARG:HH11	46:CS:35:LYS:HE3	1.82	0.44
49:CV:41:VAL:O	49:CV:43:GLU:N	2.49	0.44
51:CX:18:TYR:CE2	51:CX:22:ARG:HD3	2.52	0.44
1:DA:2271:G:OP1	22:D3:18:ALA:CB	2.64	0.44
26:D4:32:TYR:HB3	26:D4:33:VAL:H	1.57	0.44
27:D5:36:CYS:HB3	27:D5:37:LYS:H	1.51	0.44
1:DA:458:G:C8	29:D7:37:LYS:HG2	2.52	0.44
1:DA:155:C:C2	1:DA:171:G:N2	2.81	0.44
1:DA:1953:A:H2	1:DA:2549:G:H2'	1.83	0.44
1:DA:2211:G:C2'	1:DA:2211:G:N3	2.79	0.44
1:DA:2212:A:H1'	1:DA:2215:G:C4	2.50	0.44
1:DA:2213:U:H6	1:DA:2213:U:H3'	1.81	0.44
1:DA:240:G:C6	1:DA:241:A:C6	3.06	0.44
1:DA:2734:A:H2'	1:DA:2735:G:H5'	2.00	0.44
1:DA:288:C:H2'	1:DA:289:A:C8	2.53	0.44
1:DA:492:A:H2'	1:DA:493:G:O4'	2.17	0.44
2:DB:98:G:N7	56:DB:210:OHX:N1	2.64	0.44
3:DD:32:SER:O	3:DD:33:LEU:CB	2.62	0.44
4:DE:60:ASN:O	4:DE:62:PRO:HD2	2.17	0.44
4:DE:68:ALA:C	4:DE:70:ALA:N	2.71	0.44
5:DF:161:GLU:O	5:DF:165:ARG:HG3	2.17	0.44
6:DG:55:LYS:C	6:DG:57:ALA:H	2.20	0.44
6:DG:83:ARG:H	6:DG:86:MET:HE3	1.83	0.44
7:DH:19:VAL:HG12	7:DH:20:ALA:N	2.21	0.44
19:DT:44:GLU:OE1	19:DT:50:LYS:O	2.35	0.44
19:DT:87:GLN:HE21	19:DT:87:GLN:HB3	1.48	0.44
1:DA:380:U:H4'	23:DZ:16:ASN:O	2.18	0.44
17:A2:47:VAL:HG13	17:A2:48:GLY:H	1.82	0.44
22:A3:27:GLU:OE1	22:A3:69:PHE:N	2.33	0.44
30:A8:57:ARG:HB3	30:A8:57:ARG:HH11	1.82	0.44
1:AA:1061:U:N3	1:AA:1063:G:OP1	2.50	0.44
1:AA:1414:G:O2'	1:AA:1415:U:H5'	2.18	0.44
1:AA:1540:G:H2'	1:AA:1541:U:H6	1.83	0.44
1:AA:1884:A:H2'	1:AA:1885:A:O4'	2.18	0.44
1:AA:2100:G:H2'	1:AA:2100:G:N3	2.32	0.44
1:AA:2262:U:H4'	1:AA:2328:A:C2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2584:U:O2	1:AA:2584:U:O4'	2.34	0.44
1:AA:2607:G:H2'	1:AA:2608:G:O4'	2.17	0.44
1:AA:274:G:C4	1:AA:274:G:OP1	2.70	0.44
1:AA:2840:C:O2'	1:AA:2841:C:H5'	2.18	0.44
1:AA:28:A:C4	1:AA:29:U:C6	3.06	0.44
1:AA:27:G:C4	1:AA:512:G:C2	3.05	0.44
1:AA:646:A:H2'	1:AA:647:G:O5'	2.17	0.44
1:AA:888:C:H2'	1:AA:889:C:O2	2.17	0.44
2:AB:8:U:O2'	14:AQ:40:ILE:HD12	2.18	0.44
1:AA:1902:C:OP1	3:AD:242:ARG:HD3	2.16	0.44
4:AE:92:THR:C	4:AE:94:GLU:N	2.69	0.44
7:AH:26:VAL:HG21	7:AH:75:ALA:HB1	1.99	0.44
7:AH:58:GLU:C	7:AH:60:ARG:N	2.67	0.44
8:AK:52:ARG:C	8:AK:54:GLN:H	2.21	0.44
9:AM:137:LYS:HD2	9:AM:137:LYS:HA	1.53	0.44
10:AN:7:TYR:HE1	10:AN:20:MET:CE	2.30	0.44
21:AV:54:HIS:O	21:AV:55:HIS:ND1	2.48	0.44
23:AZ:58:ILE:HD12	23:AZ:58:ILE:N	2.32	0.44
31:BA:1092:A:C2	31:BA:1183:A:C2	3.05	0.44
31:BA:951:G:C6	31:BA:1231:G:C6	3.06	0.44
31:BA:467:G:N1	31:BA:468:A:C2	2.86	0.44
31:BA:60:A:H8	31:BA:60:A:P	2.40	0.44
31:BA:773:G:C2	31:BA:774:G:C4	3.06	0.44
31:BA:892:A:H61	31:BA:906:G:H1'	1.82	0.44
31:BA:939:G:C6	31:BA:940:C:C4	3.05	0.44
31:BA:940:C:C2	31:BA:941:G:C8	3.06	0.44
31:BA:96:G:N1	31:BA:97:U:O2	2.50	0.44
33:BF:206:GLU:O	33:BF:206:GLU:OE2	2.35	0.44
36:BI:81:ILE:HG22	36:BI:81:ILE:O	2.18	0.44
37:BJ:156:TRP:CD1	37:BJ:156:TRP:N	2.85	0.44
37:BJ:16:LEU:HD11	39:BL:45:ALA:HB2	1.98	0.44
37:BJ:58:PRO:O	37:BJ:61:VAL:N	2.50	0.44
43:BP:25:ILE:HD11	43:BP:60:VAL:HG11	1.98	0.44
43:BP:66:LEU:O	43:BP:67:GLU:C	2.54	0.44
47:BT:67:LYS:HG2	47:BT:67:LYS:O	2.16	0.44
48:BU:34:TYR:HB3	48:BU:69:THR:HG23	1.98	0.44
50:BW:71:THR:CG2	50:BW:72:LEU:H	2.31	0.44
31:CA:1368:G:O2'	31:CA:1369:C:H5'	2.18	0.44
31:CA:1399:C:C2	31:CA:1401:G:C5	3.05	0.44
31:CA:210:U:OP1	31:CA:210:U:O4'	2.35	0.44
31:CA:57:G:C5	31:CA:58:C:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:613:C:C3'	31:CA:613:C:C6	3.01	0.44
31:CA:613:C:H3'	31:CA:613:C:H6	1.82	0.44
31:CA:632:A:H4'	31:CA:633:G:O5'	2.18	0.44
31:CA:652:U:C5	31:CA:752:G:N3	2.84	0.44
31:CA:827:U:H3	31:CA:872:A:N6	2.11	0.44
31:CA:87:A:C6	31:CA:88:C:C5	3.06	0.44
52:CB:52:G:C2'	52:CB:53:A:O4'	2.64	0.44
52:CB:67:A:N6	52:CB:70:C:C1'	2.74	0.44
52:CD:14:A:C3'	52:CD:15:G:H5"	2.41	0.44
52:CD:67:A:H4'	52:CD:68:A:OP2	2.14	0.44
32:CE:52:GLU:HG2	32:CE:56:ARG:NH2	2.33	0.44
35:CH:139:LEU:C	35:CH:141:GLN:N	2.68	0.44
38:CK:101:PRO:HG2	38:CK:133:LEU:HD11	1.99	0.44
39:CL:18:PHE:O	39:CL:62:TYR:N	2.47	0.44
41:CN:54:ARG:HB3	41:CN:54:ARG:NH1	2.32	0.44
45:CR:76:GLU:HG3	45:CR:77:ARG:N	2.33	0.44
16:D1:74:LEU:HD22	16:D1:79:PHE:CA	2.48	0.44
1:DA:994:C:H1'	17:D2:10:LYS:HE2	2.00	0.44
17:D2:49:THR:CB	17:D2:50:PRO:CD	2.90	0.44
30:D8:30:ARG:C	30:D8:31:HIS:CD2	2.91	0.44
1:DA:1016:G:H2'	1:DA:1017:G:O4'	2.16	0.44
1:DA:1160:G:C6	1:DA:1161:C:N4	2.86	0.44
1:DA:1605:C:H5'	1:DA:1610:A:N6	2.32	0.44
1:DA:1788:C:O2'	1:DA:1789:A:H5'	2.17	0.44
1:DA:2080:G:O2'	1:DA:2081:C:H5'	2.18	0.44
1:DA:2271:G:H8	1:DA:2271:G:O5'	1.99	0.44
1:DA:2417:C:H2'	1:DA:2418:A:H8	1.83	0.44
1:DA:2469:A:H4'	1:DA:2469:A:OP1	2.17	0.44
1:DA:2681:C:H5	1:DA:2725:A:N6	2.05	0.44
1:DA:2791:C:C2	1:DA:2893:G:C6	3.05	0.44
1:DA:712:G:C2	1:DA:720:C:C2	3.06	0.44
1:DA:861:A:N3	2:DB:79:C:O2'	2.51	0.44
2:DB:85:G:C2	2:DB:86:G:C8	3.05	0.44
4:DE:36:ARG:HG2	4:DE:85:ASN:HD21	1.82	0.44
4:DE:28:ALA:HB3	4:DE:93:VAL:HG23	1.99	0.44
5:DF:180:GLY:O	5:DF:181:LEU:C	2.53	0.44
6:DG:172:LEU:O	6:DG:176:LEU:HD12	2.18	0.44
11:DO:112:LEU:HD13	11:DO:127:ALA:CB	2.48	0.44
18:DS:29:LEU:HD21	18:DS:33:ARG:NH2	2.32	0.44
21:DV:139:VAL:CG2	21:DV:155:LEU:HD22	2.47	0.44
21:DV:23:LYS:HE2	21:DV:40:ASP:OD2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:DV:73:GLN:O	21:DV:86:VAL:HG13	2.18	0.44
24:DW:35:LEU:HD23	24:DW:53:LEU:HD12	1.98	0.44
1:AA:1063:G:H2'	1:AA:1064:C:O4'	2.18	0.44
1:AA:1081:U:H2'	1:AA:1082:U:C1'	2.47	0.44
1:AA:1489:U:H2'	1:AA:1489:U:O2	2.18	0.44
1:AA:1577:C:H2'	1:AA:1578:U:C1'	2.47	0.44
1:AA:172:C:H2'	1:AA:173:G:C8	2.52	0.44
1:AA:1833:U:C2	1:AA:1834:U:C5	3.06	0.44
1:AA:2110:G:C2	1:AA:2120:G:H1'	2.53	0.44
1:AA:2276:G:C2	1:AA:2277:G:C8	3.06	0.44
1:AA:229:A:H1'	1:AA:230:U:OP2	2.18	0.44
1:AA:2838:G:C4	1:AA:2839:G:C8	3.06	0.44
1:AA:304:G:C4	1:AA:305:U:C6	3.06	0.44
1:AA:36:G:C5	1:AA:37:C:C5	3.06	0.44
1:AA:612:G:H2'	1:AA:613:U:O2	2.18	0.44
1:AA:880:G:HO2'	1:AA:881:G:P	2.33	0.44
1:AA:945:A:H4'	1:AA:946:G:OP2	2.13	0.44
1:AA:973:A:O4'	1:AA:1188:U:C6	2.71	0.44
1:AA:998:C:H2'	1:AA:999:U:O4'	2.18	0.44
1:AA:1825:A:OP1	3:AD:249:PRO:HD3	2.18	0.44
3:AD:79:VAL:HG22	3:AD:95:LEU:HB3	1.99	0.44
4:AE:116:VAL:HG13	4:AE:122:PHE:HB2	1.99	0.44
4:AE:188:VAL:HA	4:AE:189:PRO:HD3	1.76	0.44
5:AF:192:LEU:HD23	5:AF:193:VAL:N	2.33	0.44
7:AH:152:ARG:C	7:AH:153:LYS:HD2	2.38	0.44
7:AH:25:LYS:HE2	7:AH:34:GLU:OE2	2.18	0.44
1:AA:2277:G:OP1	12:AP:86:GLY:C	2.55	0.44
14:AQ:66:ALA:CA	14:AQ:69:VAL:HG12	2.35	0.44
21:AV:1:MET:HE2	21:AV:1:MET:O	2.18	0.44
21:AV:62:PRO:C	21:AV:64:GLY:HA2	2.38	0.44
31:BA:1028:C:C2	31:BA:1034:G:N3	2.86	0.44
31:BA:1154:G:O2'	31:BA:1155:G:H5'	2.18	0.44
31:BA:988:G:N2	31:BA:1218:C:O2	2.51	0.44
31:BA:492:G:C5	31:BA:493:G:C8	3.05	0.44
31:BA:719:C:C5	31:BA:720:C:C4	3.04	0.44
31:BA:825:G:O2'	31:BA:826:C:H5'	2.18	0.44
31:BA:937:A:C5	31:BA:938:A:N7	2.85	0.44
52:BD:44:C:O2'	52:BD:45:C:H5'	2.18	0.44
33:BF:29:TYR:O	33:BF:30:ARG:C	2.55	0.44
33:BF:55:VAL:HG12	33:BF:55:VAL:O	2.17	0.44
34:BG:148:VAL:HG12	34:BG:149:ALA:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BG:200:GLU:OE1	34:BG:200:GLU:N	2.50	0.44
35:BH:71:LEU:HD11	35:BH:114:GLY:HA3	2.00	0.44
49:BV:40:ILE:HD11	49:BV:62:ILE:HG23	2.00	0.44
50:BW:94:ALA:O	50:BW:95:ALA:HB3	2.17	0.44
31:CA:1023:G:C6	31:CA:1024:G:C8	3.05	0.44
31:CA:1054:C:N4	52:CB:35:G:C4	2.86	0.44
31:CA:1176:A:C2'	31:CA:1177:G:C5'	2.87	0.44
31:CA:145:G:H2'	31:CA:146:G:O4'	2.18	0.44
31:CA:375:U:OP1	46:CS:69:THR:OG1	2.27	0.44
31:CA:652:U:C2'	31:CA:653:A:H5"	2.45	0.44
31:CA:657:G:C2'	31:CA:658:G:H5'	2.47	0.44
31:CA:737:A:C2'	36:CI:73:ASN:HD21	2.30	0.44
31:CA:882:C:O2'	31:CA:883:C:H5'	2.17	0.44
32:CE:130:ARG:HA	32:CE:131:PRO:HD2	1.89	0.44
34:CG:101:LEU:HA	34:CG:101:LEU:HD12	1.75	0.44
34:CG:178:VAL:C	34:CG:180:GLY:N	2.71	0.44
35:CH:103:GLY:C	35:CH:106:PRO:HD2	2.38	0.44
37:CJ:68:ASN:O	37:CJ:135:VAL:HG22	2.17	0.44
39:CL:4:TYR:HB2	39:CL:19:LEU:HB2	2.00	0.44
40:CM:4:ILE:HG23	40:CM:100:THR:HG22	2.00	0.44
44:CQ:4:LYS:C	44:CQ:6:LEU:N	2.71	0.44
45:CR:82:ILE:HD11	45:CR:87:ILE:C	2.38	0.44
49:CV:9:VAL:CG1	49:CV:10:PHE:N	2.80	0.44
31:CA:1286:A:H2	51:CX:18:TYR:HH	1.65	0.44
17:D2:75:PHE:O	17:D2:75:PHE:CD1	2.70	0.44
30:D8:14:VAL:CG1	30:D8:15:LYS:N	2.80	0.44
1:DA:1488:G:C6	1:DA:1489:U:C2	3.05	0.44
1:DA:1475:G:C2	1:DA:1519:G:C2	3.05	0.44
1:DA:1731:G:O2'	1:DA:1732:A:H5'	2.17	0.44
1:DA:1845:G:H2'	1:DA:1846:G:H5'	2.00	0.44
1:DA:2300:G:C2'	1:DA:2301:C:H5'	2.48	0.44
1:DA:2483:C:O2	1:DA:2483:C:H2'	2.18	0.44
1:DA:2615:U:H2'	1:DA:2616:C:H6	1.83	0.44
1:DA:270(E):G:O2'	1:DA:270(F):U:H5'	2.17	0.44
1:DA:274:G:OP1	1:DA:274:G:O4'	2.35	0.44
1:DA:2854:G:C2	1:DA:2864:G:N3	2.86	0.44
1:DA:2893:G:C8	1:DA:2893:G:OP2	2.70	0.44
1:DA:379:G:C6	1:DA:396:G:C6	3.06	0.44
1:DA:659:C:H4'	5:DF:100:THR:O	2.17	0.44
1:DA:838:C:O2'	1:DA:839:U:H5'	2.18	0.44
1:DA:846:C:C4	1:DA:847:U:O4	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:92:G:C6	1:DA:93:C:C4	3.06	0.44
2:DB:66:A:C2	2:DB:108:C:C5	3.06	0.44
3:DD:149:PRO:O	3:DD:150:LYS:HB2	2.18	0.44
3:DD:35:LYS:HB3	3:DD:63:ARG:HA	1.99	0.44
5:DF:132:VAL:HG13	5:DF:133:ASN:OD1	2.17	0.44
5:DF:157:VAL:O	5:DF:194:MET:HA	2.18	0.44
5:DF:96:ASP:OD1	5:DF:98:SER:HB3	2.18	0.44
7:DH:89:ILE:O	7:DH:89:ILE:HG12	2.17	0.44
8:DK:46:ALA:O	8:DK:49:ALA:HB3	2.17	0.44
12:DP:132:VAL:CG2	12:DP:133:ARG:H	2.27	0.44
20:DU:88:LYS:HA	20:DU:88:LYS:HD3	1.67	0.44
20:DU:88:LYS:O	20:DU:90:LEU:N	2.44	0.44
21:DV:157:LEU:C	21:DV:161:VAL:HG21	2.38	0.44
13:A0:4:LEU:H	13:A0:4:LEU:HD23	1.83	0.44
1:AA:1138:G:N2	9:AM:106:MET:HE3	2.33	0.44
1:AA:1175:U:O2	1:AA:1175:U:C2'	2.64	0.44
1:AA:1343:G:H2'	1:AA:1384:A:C2	2.52	0.44
1:AA:1509:C:H2'	1:AA:1510:A:OP1	2.18	0.44
1:AA:1729:A:N6	1:AA:1731:G:C2	2.86	0.44
1:AA:1906:G:C8	1:AA:1929:G:H2'	2.52	0.44
1:AA:1864:U:H5"	1:AA:2410:G:O2'	2.18	0.44
1:AA:1050:A:C8	1:AA:2751:G:C8	3.06	0.44
1:AA:648:G:O2'	1:AA:649:G:H5'	2.17	0.44
1:AA:861:A:N3	2:AB:79:C:O2'	2.48	0.44
2:AB:95:U:C2	2:AB:96:G:C8	3.06	0.44
3:AD:44:ASN:HB3	3:AD:48:ARG:O	2.17	0.44
6:AG:33:ARG:H	6:AG:162:THR:HG23	1.83	0.44
1:AA:2314:C:H5"	6:AG:38:VAL:HG11	2.00	0.44
6:AG:47:LYS:HD2	6:AG:81:LYS:HB2	1.99	0.44
1:AA:2311:A:HO2'	6:AG:88:ILE:HG21	1.81	0.44
8:AK:5:LEU:HA	8:AK:36:ALA:HB2	2.00	0.44
19:AT:68:ARG:HD2	19:AT:69:TYR:CE1	2.53	0.44
20:AU:35:TYR:CE1	20:AU:69:ALA:HB3	2.53	0.44
21:AV:7:ALA:HB2	21:AV:59:LEU:HD23	2.00	0.44
54:B1:14:A:H2'	54:B1:15:A:C8	2.53	0.44
31:BA:1071:C:H2'	31:BA:1072:G:C8	2.51	0.44
31:BA:1182:G:C4'	31:BA:1183:A:H5"	2.43	0.44
31:BA:1213:A:N6	31:BA:1215:G:N3	2.66	0.44
31:BA:1318:A:OP1	49:BV:10:PHE:CE2	2.69	0.44
31:BA:134:A:H1'	31:BA:325:A:C5	2.53	0.44
31:BA:1372:U:H2'	31:BA:1373:G:O5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:173:U:N3	31:BA:197:A:N1	2.66	0.44
31:BA:199:G:O6	31:BA:218:C:N4	2.51	0.44
31:BA:376:G:H5"	46:BS:5:ARG:CD	2.46	0.44
31:BA:516:U:C4	31:BA:517:G:C6	3.05	0.44
52:BD:17:G:C1'	52:BD:18:G:P	3.06	0.44
52:BD:59:A:H2'	52:BD:60:A:H8	1.83	0.44
34:BG:162:LEU:HD13	34:BG:181:MET:HG2	2.00	0.44
37:BJ:146:GLU:O	37:BJ:149:ARG:CB	2.66	0.44
31:BA:1373:G:C5'	37:BJ:36:LYS:HB2	2.47	0.44
41:BN:38:ASN:HA	41:BN:39:PRO:HD3	1.81	0.44
44:BQ:28:GLY:O	44:BQ:29:ARG:O	2.35	0.44
44:BQ:6:LEU:C	44:BQ:23:ARG:HH21	2.20	0.44
45:BR:76:GLU:C	45:BR:78:TYR:H	2.21	0.44
47:BT:63:ARG:HG3	47:BT:64:PRO:HD2	1.99	0.44
50:BW:35:THR:O	50:BW:38:LYS:HB2	2.17	0.44
31:CA:1049:U:H4'	31:CA:1050:G:H5"	1.95	0.44
31:CA:1183:A:C2'	31:CA:1184:G:OP1	2.66	0.44
31:CA:976:G:N2	31:CA:1362(A):C:OP2	2.43	0.44
31:CA:31:G:H1'	31:CA:32:A:OP1	2.17	0.44
31:CA:35:G:H2'	31:CA:36:C:C6	2.52	0.44
31:CA:411:A:N7	31:CA:413:G:N2	2.66	0.44
31:CA:485:G:C2'	31:CA:486:U:OP2	2.65	0.44
31:CA:540:G:C4	31:CA:541:G:C8	3.06	0.44
31:CA:879:C:O2'	31:CA:880:C:H5'	2.18	0.44
32:CE:178:ARG:HH12	32:CE:196:LEU:C	2.20	0.44
32:CE:189:ASP:O	32:CE:191:ASP:N	2.50	0.44
33:CF:180:ALA:O	33:CF:205:GLY:O	2.35	0.44
37:CJ:18:TYR:HB3	37:CJ:59:LEU:HD13	2.00	0.44
37:CJ:58:PRO:C	37:CJ:60:LYS:N	2.71	0.44
41:CN:82:VAL:HG12	41:CN:108:ILE:HA	2.00	0.44
43:CP:80:ARG:O	43:CP:83:ASP:O	2.36	0.44
50:CW:59:ALA:HB3	50:CW:84:LEU:HD11	1.99	0.44
17:D2:61:VAL:HG12	17:D2:62:LEU:N	2.33	0.44
17:D2:76:LYS:HB2	17:D2:81:TYR:HD1	1.83	0.44
26:D4:10:VAL:HG13	26:D4:10:VAL:O	2.18	0.44
1:DA:1000:A:C6	1:DA:1155:A:C8	3.06	0.44
1:DA:1062:G:C6	1:DA:1063:G:C5	3.06	0.44
1:DA:1324:G:C4	1:DA:1328:G:O6	2.71	0.44
1:DA:1462:C:H4'	1:DA:2703:C:O4'	2.18	0.44
1:DA:945:A:C2	1:DA:2448:A:N9	2.86	0.44
1:DA:2469:A:H8	1:DA:2482:G:C2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2507:C:C2	1:DA:2508:G:C8	3.06	0.44
1:DA:2694:G:C6	1:DA:2695:C:C4	3.05	0.44
1:DA:2786:U:H5"	4:DE:65:GLY:N	2.32	0.44
1:DA:2863:C:O2'	1:DA:2864:G:H5'	2.18	0.44
1:DA:30:G:O2'	1:DA:31:C:H5'	2.17	0.44
1:DA:741:G:H2'	1:DA:742:G:H8	1.83	0.44
1:DA:860:U:N3	1:DA:2268:A:C8	2.86	0.44
1:DA:875:G:C6	1:DA:876:C:C2	3.05	0.44
2:DB:59:A:C6	2:DB:60:C:C2	3.06	0.44
5:DF:156:LEU:HD12	5:DF:193:VAL:HG12	1.99	0.44
7:DH:26:VAL:O	7:DH:26:VAL:HG22	2.17	0.44
11:DO:107:LYS:HB3	11:DO:110:TYR:CD2	2.49	0.44
1:DA:2415:G:C4'	11:DO:66:GLY:HA3	2.42	0.44
1:DA:2413:G:H21	11:DO:70:GLN:NE2	2.16	0.44
12:DP:26:TYR:HD2	12:DP:26:TYR:C	2.21	0.44
18:DS:73:ALA:HB3	18:DS:106:ILE:CD1	2.47	0.44
18:DS:36:LEU:HD13	18:DS:48:ALA:CA	2.47	0.44
18:DS:86:LEU:HD12	18:DS:87:PRO:HD2	1.99	0.44
1:DA:137(A):G:N3	19:DT:41:ASN:OD1	2.51	0.44
19:DT:70:LEU:N	19:DT:70:LEU:HD12	2.33	0.44
13:A0:25:ALA:O	13:A0:26:LYS:C	2.55	0.44
13:A0:48:VAL:HG23	13:A0:49:ASP:N	2.33	0.44
17:A2:49:THR:CB	17:A2:50:PRO:HD2	2.47	0.44
27:A5:9:LYS:HD3	27:A5:9:LYS:HA	1.83	0.44
30:A8:34:TRP:N	30:A8:35:GLN:CA	2.81	0.44
1:AA:1157:G:N3	1:AA:1157:G:H2'	2.32	0.44
1:AA:1177:A:C5'	1:AA:1178:C:OP1	2.66	0.44
1:AA:1600:C:C2'	1:AA:1601:G:H5'	2.47	0.44
1:AA:1799:G:H3'	1:AA:1799:G:P	2.58	0.44
1:AA:1945:G:H2'	1:AA:1946:U:C6	2.53	0.44
1:AA:2024:G:H2'	1:AA:2025:C:H6	1.82	0.44
1:AA:2133:G:H1'	1:AA:2158:A:N6	2.32	0.44
1:AA:2275:C:O2'	12:AP:84:GLY:CA	2.58	0.44
1:AA:2318:G:H22	14:AQ:2:ALA:N	2.15	0.44
1:AA:2396:G:C2'	1:AA:2397:G:H5'	2.48	0.44
1:AA:2473:U:C2'	1:AA:2473:U:O2	2.65	0.44
1:AA:2545:G:H2'	1:AA:2546:U:H5'	2.00	0.44
1:AA:2615:U:C2	27:A5:7:PRO:HA	2.53	0.44
1:AA:2732:G:H3'	1:AA:2733:A:C4'	2.48	0.44
1:AA:2793:G:C6	1:AA:2794:C:C4	3.06	0.44
1:AA:500:G:N7	56:AA:3468:OHX:N6	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:447:A:C4	1:AA:473:G:N7	2.86	0.44
1:AA:594:U:H2'	1:AA:595:C:C6	2.53	0.44
1:AA:901:A:H2'	1:AA:901:A:N3	2.32	0.44
2:AB:29:A:H2'	2:AB:30:C:O4'	2.18	0.44
3:AD:242:ARG:H	3:AD:242:ARG:HD2	1.81	0.44
4:AE:5:LEU:HD22	4:AE:197:ILE:HG22	2.00	0.44
5:AF:8:GLN:H	5:AF:8:GLN:CD	2.21	0.44
6:AG:9:ARG:O	6:AG:13:GLU:HG2	2.17	0.44
7:AH:94:TYR:CE2	7:AH:160:LYS:HG2	2.52	0.44
10:AN:9:GLU:O	10:AN:83:ALA:HA	2.18	0.44
11:AO:51:PHE:CE2	11:AO:53:GLY:HA2	2.53	0.44
14:AQ:11:LYS:HD2	14:AQ:15:ARG:NH2	2.32	0.44
18:AS:5:ALA:HB3	18:AS:54:ALA:HB2	1.99	0.44
23:AZ:83:GLU:C	23:AZ:85:LEU:N	2.72	0.44
31:BA:1175:G:C6	31:BA:1176:A:N6	2.86	0.44
31:BA:14:U:H2'	31:BA:16:A:OP2	2.18	0.44
31:BA:170:U:H2'	31:BA:171:A:H8	1.82	0.44
31:BA:224:C:H2'	31:BA:225:C:C6	2.52	0.44
31:BA:38:G:N2	31:BA:397:A:OP1	2.51	0.44
31:BA:49:U:O2'	31:BA:50:A:C2'	2.66	0.44
31:BA:615:C:N3	31:BA:616:G:N7	2.66	0.44
31:BA:682:G:C2	31:BA:709:G:C2	3.06	0.44
31:BA:960:U:O2	31:BA:960:U:O2'	2.33	0.44
32:BE:11:LEU:HB3	32:BE:213:LEU:HD11	1.99	0.44
32:BE:190:THR:O	32:BE:191:ASP:C	2.56	0.44
32:BE:7:VAL:HG23	32:BE:8:LYS:HZ1	1.82	0.44
34:BG:110:PHE:CD1	34:BG:110:PHE:N	2.86	0.44
34:BG:89:THR:HG22	34:BG:204:ILE:HD11	1.99	0.44
34:BG:22:LYS:HB3	34:BG:26:CYS:H	1.81	0.44
37:BJ:78:ARG:HG3	37:BJ:79:ARG:N	2.33	0.44
38:BK:44:PHE:HB3	38:BK:80:ILE:HG23	1.99	0.44
38:BK:72:PRO:O	38:BK:73:ASP:HB3	2.18	0.44
40:BM:58:ASP:O	40:BM:59:SER:HB3	2.17	0.44
31:BA:719:C:H1'	48:BU:49:LYS:HB3	2.00	0.44
49:BV:51:VAL:HG23	49:BV:60:VAL:CG1	2.48	0.44
52:CB:38:MIA:S10	54:C1:19:U:C4	3.11	0.44
31:CA:1159:U:O4	31:CA:1174:G:O6	2.36	0.44
31:CA:1212:U:O2'	31:CA:1213:A:C8	2.69	0.44
31:CA:438:G:O6	56:CA:1749:OHX:N4	2.51	0.44
31:CA:666:G:O6	56:CA:1755:OHX:N3	2.51	0.44
31:CA:270:A:C6	31:CA:271:C:N3	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:118:ALA:HB3	53:CC:30:G:C5'	2.48	0.44
53:CC:48:U:C2'	53:CC:49:C:OP2	2.64	0.44
52:CD:21:A:H4'	52:CD:22:A:OP1	2.17	0.44
32:CE:72:GLY:HA2	32:CE:165:VAL:HG22	1.98	0.44
34:CG:112:VAL:HG12	34:CG:116:GLN:OE1	2.18	0.44
34:CG:62:GLN:HE22	34:CG:65:ARG:NE	2.14	0.44
39:CL:18:PHE:HD1	39:CL:62:TYR:HD2	1.64	0.44
39:CL:19:LEU:HA	39:CL:61:ALA:HA	1.99	0.44
39:CL:78:LYS:NZ	39:CL:78:LYS:HB2	2.31	0.44
45:CR:9:GLN:O	45:CR:10:LYS:C	2.55	0.44
47:CT:56:VAL:O	47:CT:77:VAL:HG12	2.17	0.44
49:CV:11:VAL:HG22	49:CV:12:ASP:N	2.15	0.44
16:D1:100:VAL:C	16:D1:101:ARG:HG2	2.35	0.44
1:DA:1248:G:C4	16:D1:3:ARG:HB2	2.53	0.44
1:DA:1388:G:H2'	1:DA:1389:G:C8	2.53	0.44
1:DA:1589:C:H2'	1:DA:1590:U:H6	1.82	0.44
1:DA:1992:G:C2'	1:DA:1993:U:OP2	2.66	0.44
1:DA:2038:G:H2'	1:DA:2039:C:O4'	2.17	0.44
1:DA:2078:C:H1'	1:DA:2434:A:N3	2.32	0.44
1:DA:2087:G:O2'	1:DA:2088:G:H5'	2.17	0.44
1:DA:2331:G:O3'	22:D3:43:THR:HG22	2.18	0.44
1:DA:2335:A:O2'	1:DA:2336:A:H2'	2.17	0.44
1:DA:2389:G:H5"	1:DA:2390:U:C5'	2.33	0.44
1:DA:2394:C:H2'	1:DA:2395:C:C6	2.52	0.44
1:DA:2467:C:N4	1:DA:2468:G:N2	2.64	0.44
1:DA:2516:G:C5	1:DA:2517:C:C4	3.06	0.44
1:DA:270:A:N6	1:DA:271(A):C:H41	2.15	0.44
1:DA:2850:A:N3	1:DA:2851:A:C8	2.86	0.44
1:DA:1165:U:O4	56:DA:3427:OHX:N1	2.51	0.44
1:DA:481:G:C4	1:DA:507:A:C2	3.06	0.44
1:DA:552:G:C5	1:DA:553:U:C5	3.06	0.44
1:DA:572:A:H5"	1:DA:573:G:OP2	2.18	0.44
1:DA:631:A:N6	1:DA:632:A:C2	2.86	0.44
1:DA:666:G:H5"	11:DO:47:ASP:O	2.18	0.44
1:DA:7:G:H2'	1:DA:8:A:C8	2.53	0.44
1:DA:950:G:H2'	1:DA:951:C:O4'	2.17	0.44
2:DB:45:A:C2	2:DB:46:A:H1'	2.53	0.44
1:DA:2784:C:H1'	4:DE:37:ARG:HH21	1.81	0.44
4:DE:60:ASN:H	4:DE:60:ASN:ND2	2.15	0.44
6:DG:55:LYS:HZ1	6:DG:148:MET:HE2	1.83	0.44
7:DH:4:ILE:HB	7:DH:6:ARG:NE	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:DN:2:ILE:HD11	10:DN:82:ASN:CB	2.48	0.44
12:DP:26:TYR:C	12:DP:26:TYR:CD2	2.91	0.44
15:DR:23:ARG:HD3	15:DR:120:ARG:CZ	2.48	0.44
21:DV:157:LEU:HG	21:DV:161:VAL:HB	2.00	0.44
21:DV:149:SER:HA	21:DV:172:ALA:O	2.18	0.44
21:DV:19:ARG:HD3	21:DV:84:GLU:HA	2.00	0.44
6:AG:112:PRO:HB3	26:A4:37:SER:OG	2.17	0.44
26:A4:5:ILE:HG22	26:A4:5:ILE:O	2.18	0.44
1:AA:2623:G:H22	27:A5:22:HIS:HE1	1.61	0.44
1:AA:1101:U:H2'	1:AA:1102:C:O4'	2.17	0.44
1:AA:1433:U:O2	1:AA:1561:G:C2	2.71	0.44
1:AA:2156:G:C4	1:AA:2157:G:N2	2.86	0.44
1:AA:2124:G:H1	1:AA:2174:C:H42	1.66	0.44
1:AA:2307:G:C4	1:AA:2311:A:C2	3.05	0.44
1:AA:2504:U:H2'	1:AA:2504:U:O2	2.18	0.44
1:AA:2723:C:H4'	13:A0:1:MET:CE	2.46	0.44
1:AA:287:C:C2	1:AA:288:C:C5	3.06	0.44
1:AA:319:C:C6	1:AA:333:G:N2	2.86	0.44
1:AA:993:G:C6	1:AA:1162:G:C6	3.06	0.44
2:AB:10:C:N4	2:AB:11:C:N4	2.66	0.44
2:AB:8:U:O5'	2:AB:8:U:H6	2.01	0.44
1:AA:1803:A:H4'	3:AD:259:THR:HG23	1.97	0.44
8:AK:130:TYR:O	8:AK:135:GLU:HB3	2.18	0.44
11:AO:85:LEU:O	11:AO:87:ASP:N	2.51	0.44
14:AQ:38:GLN:HG2	14:AQ:47:THR:CG2	2.48	0.44
21:AV:150:LEU:CD2	21:AV:154:ASP:HB2	2.48	0.44
21:AV:44:PHE:CE1	21:AV:48:PHE:CG	3.06	0.44
24:AW:59:ARG:O	24:AW:63:VAL:HG23	2.18	0.44
31:BA:102:G:H2'	31:BA:103:C:H6	1.83	0.44
31:BA:108:G:C2	31:BA:109:A:H2	2.36	0.44
31:BA:517:G:N7	56:BA:1791:OHX:N1	2.66	0.44
31:BA:284:G:H2'	31:BA:285:G:C8	2.53	0.44
31:BA:515:G:N3	31:BA:537:G:C2	2.85	0.44
31:BA:57:G:H2'	31:BA:58:C:H6	1.82	0.44
31:BA:746:A:C5	31:BA:747:C:C5	3.06	0.44
31:BA:883:C:O2'	31:BA:884:U:H5'	2.18	0.44
52:BB:9:U:H4'	52:BB:10:C:OP2	2.18	0.44
53:BC:56:U:O2	53:BC:58:A:N7	2.51	0.44
52:BD:18:G:H4'	52:BD:19:C:O5'	2.18	0.44
52:BD:15:G:H1'	52:BD:68:A:H2	1.83	0.44
52:BD:9:U:H2'	52:BD:9:U:O2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:175:ARG:HA	32:BE:178:ARG:HB3	1.99	0.44
36:BI:19:LEU:HD11	36:BI:59:TYR:CE1	2.53	0.44
37:BJ:66:VAL:C	37:BJ:68:ASN:N	2.71	0.44
39:BL:11:LYS:H	39:BL:104:ARG:NH2	2.16	0.44
39:BL:44:VAL:HG23	39:BL:44:VAL:O	2.17	0.44
40:BM:81:THR:O	40:BM:85:LEU:HG	2.17	0.44
43:BP:22:ILE:HG22	43:BP:23:TYR:N	2.33	0.44
44:BQ:59:ALA:O	44:BQ:60:SER:CB	2.50	0.44
46:BS:8:ARG:HB3	46:BS:28:ARG:HH12	1.79	0.44
50:BW:89:ARG:CD	50:BW:104:LEU:HD21	2.46	0.44
54:C1:21:C:C5	54:C1:22:A:N6	2.86	0.44
31:CA:1052:U:C5'	31:CA:1053:G:OP2	2.65	0.44
31:CA:1256:A:H61	31:CA:1277:C:H3'	1.80	0.44
31:CA:1402:C:H2'	31:CA:1403:C:O4'	2.17	0.44
31:CA:416:G:H2'	31:CA:417:C:H6	1.83	0.44
31:CA:502:G:C2	31:CA:503:C:O2	2.70	0.44
31:CA:54:C:C5	31:CA:352:C:C5	3.05	0.44
31:CA:82:U:N3	31:CA:87:A:N6	2.43	0.44
52:CB:46:G:H3'	52:CB:47:U:C5	2.53	0.44
52:CB:8:U:C4'	52:CB:58:G:OP2	2.66	0.44
52:CD:20:C:C3'	52:CD:68:A:N6	2.77	0.44
33:CF:52:LEU:CD2	33:CF:52:LEU:H	2.30	0.44
34:CG:54:TYR:CE1	34:CG:206:PHE:HE1	2.36	0.44
34:CG:79:PHE:CD2	34:CG:79:PHE:C	2.91	0.44
35:CH:11:ILE:HD12	35:CH:31:LEU:CD1	2.47	0.44
35:CH:6:PHE:HB3	35:CH:35:GLY:C	2.38	0.44
36:CI:7:ASN:HB2	36:CI:89:MET:O	2.18	0.44
31:CA:1240:U:H1'	37:CJ:38:LEU:CD2	2.48	0.44
44:CQ:24:CYS:HB3	44:CQ:40:CYS:HB3	2.00	0.44
31:CA:238:G:P	47:CT:25:ARG:HH22	2.41	0.44
47:CT:67:LYS:HD3	47:CT:67:LYS:O	2.18	0.44
48:CU:51:LEU:HA	48:CU:52:PRO:HD2	1.90	0.44
13:D0:54:LEU:HD23	13:D0:66:VAL:HG23	2.00	0.44
16:D1:98:LEU:HD13	16:D1:106:PHE:HB2	2.00	0.44
17:D2:97:LYS:HA	17:D2:97:LYS:HD2	1.73	0.44
1:DA:1054:A:N7	1:DA:1055:G:N7	2.66	0.44
1:DA:1090:U:C5	1:DA:1091:G:C5	3.06	0.44
1:DA:1204:A:HO2'	1:DA:1205:U:P	2.36	0.44
1:DA:1216:G:C2	1:DA:1217:C:C6	3.06	0.44
1:DA:1265:A:O4'	1:DA:1267:U:C6	2.71	0.44
1:DA:1419:A:N6	1:DA:1421:G:C2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1480:G:C5'	1:DA:1482:U:OP2	2.65	0.44
1:DA:1558:A:C4'	1:DA:1559:G:O5'	2.66	0.44
1:DA:1815:A:C5	1:DA:1817:G:C6	3.06	0.44
1:DA:2311:A:C2	6:DG:44:GLY:HA2	2.53	0.44
1:DA:227:A:C2	1:DA:2407:G:H1'	2.52	0.44
1:DA:2532:G:H2'	1:DA:2533:A:O4'	2.17	0.44
1:DA:603:A:C8	1:DA:604:G:H1'	2.49	0.44
1:DA:631:A:N6	1:DA:632:A:N1	2.66	0.44
1:DA:854:G:H2'	1:DA:855:G:H8	1.83	0.44
1:DA:67:U:H1'	1:DA:88:G:N2	2.33	0.44
1:DA:90:U:C2'	1:DA:91:A:C5'	2.81	0.44
2:DB:3:C:C2	2:DB:118:G:N2	2.86	0.44
2:DB:53:A:H2'	2:DB:53:A:N3	2.32	0.44
5:DF:203:GLN:NE2	5:DF:203:GLN:HA	2.30	0.44
5:DF:29:ASN:N	5:DF:112:MET:CE	2.81	0.44
5:DF:29:ASN:HA	5:DF:30:PRO:HD3	1.73	0.44
8:DK:8:PRO:HD3	8:DK:15:VAL:HG23	2.00	0.44
11:DO:100:LEU:O	11:DO:105:LEU:CD1	2.66	0.44
1:DA:806:C:OP2	11:DO:41:ARG:HD3	2.18	0.44
12:DP:78:PRO:O	12:DP:79:LEU:HG	2.18	0.44
14:DQ:89:ARG:O	14:DQ:90:GLY:C	2.56	0.44
21:DV:95:PRO:HA	21:DV:128:VAL:O	2.18	0.44
23:DZ:92:LYS:HB3	23:DZ:93:GLU:H	1.58	0.44
1:AA:1652:A:N6	13:A0:11:ASN:OD1	2.51	0.43
1:AA:1454:U:OP1	13:A0:77:ARG:HD3	2.18	0.43
30:A8:23:VAL:HG11	30:A8:46:ARG:HD3	2.00	0.43
1:AA:1019:U:O2	1:AA:1144:G:C2	2.71	0.43
1:AA:116:C:H2'	1:AA:117:G:O5'	2.18	0.43
1:AA:1326:U:O2'	1:AA:1327:C:H5'	2.17	0.43
1:AA:1482:U:O4	1:AA:1510:A:C8	2.70	0.43
1:AA:1535:U:C2	1:AA:1536:A:H3'	2.52	0.43
1:AA:185:U:H2'	1:AA:186:G:O4'	2.18	0.43
1:AA:2205:C:H42	1:AA:2219:G:H1	1.66	0.43
1:AA:2364:C:C2'	1:AA:2365:G:C5'	2.95	0.43
1:AA:2774:C:H2'	1:AA:2775:A:O4'	2.17	0.43
1:AA:399:G:H2'	1:AA:400:G:O5'	2.18	0.43
1:AA:607:U:H5	1:AA:619:G:C5	2.36	0.43
1:AA:658:C:C2	1:AA:659:C:C5	3.05	0.43
1:AA:748:G:C8	18:AS:89:ALA:HB1	2.53	0.43
1:AA:883:G:H2'	1:AA:884:C:H4'	1.99	0.43
2:AB:50:G:P	14:AQ:63:THR:HG23	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:121:PRO:HD3	3:AD:190:TYR:OH	2.18	0.43
3:AD:214:TRP:N	3:AD:214:TRP:CD1	2.85	0.43
3:AD:32:SER:HA	3:AD:36:PRO:CD	2.48	0.43
5:AF:78:ILE:HA	5:AF:83:PHE:CE1	2.53	0.43
7:AH:153:LYS:CB	7:AH:154:PRO:CD	2.96	0.43
8:AK:115:ALA:C	8:AK:117:GLU:H	2.21	0.43
8:AK:120:ILE:HA	8:AK:120:ILE:HD12	1.93	0.43
1:AA:1131:G:N7	9:AM:75:TYR:CD2	2.86	0.43
11:AO:26:GLY:O	11:AO:27:HIS:C	2.56	0.43
12:AP:19:GLY:C	12:AP:98:LYS:CD	2.87	0.43
15:AR:90:GLN:HG3	15:AR:91:ARG:N	2.32	0.43
1:AA:1614:A:H61	18:AS:88:ARG:H	1.65	0.43
18:AS:8:ARG:O	18:AS:9:TYR:HB2	2.18	0.43
20:AU:90:LEU:CD1	20:AU:90:LEU:N	2.81	0.43
21:AV:18:LEU:O	21:AV:23:LYS:HB2	2.18	0.43
21:AV:52:SER:O	21:AV:53:ILE:HG12	2.18	0.43
21:AV:63:ASP:HB2	21:AV:64:GLY:CA	2.48	0.43
21:AV:63:ASP:HB2	21:AV:64:GLY:C	2.39	0.43
24:AW:31:GLU:O	24:AW:35:LEU:CD2	2.66	0.43
31:BA:1110:A:H8	31:BA:1110:A:O5'	2.01	0.43
31:BA:1248:A:C5	31:BA:1249:C:C5	3.06	0.43
31:BA:1392:G:C2'	31:BA:1393:U:H5'	2.48	0.43
31:BA:1503:A:C2'	31:BA:1504:G:O5'	2.57	0.43
31:BA:264:U:O2	47:BT:64:PRO:HG2	2.18	0.43
31:BA:395:C:O2	31:BA:396:G:C8	2.71	0.43
31:BA:557:G:C6	31:BA:558:G:C6	3.06	0.43
31:BA:686:U:O4	31:BA:703:G:H1'	2.16	0.43
31:BA:828:A:N7	31:BA:859:A:C8	2.86	0.43
31:BA:829:G:C2'	31:BA:830:G:H5'	2.48	0.43
52:BD:22:A:C2'	52:BD:22:A:N3	2.80	0.43
32:BE:142:LEU:O	32:BE:142:LEU:HD23	2.17	0.43
32:BE:178:ARG:O	38:BK:71:GLY:HA2	2.17	0.43
34:BG:135:LEU:HD13	34:BG:135:LEU:N	2.33	0.43
34:BG:198:VAL:CG1	34:BG:199:ASN:N	2.81	0.43
34:BG:38:TYR:HB2	34:BG:39:PRO:HD2	2.00	0.43
36:BI:55:ASP:HA	36:BI:56:PRO:HD3	1.83	0.43
37:BJ:67:GLU:O	37:BJ:67:GLU:HG3	2.18	0.43
42:BO:83:VAL:HG13	42:BO:84:LEU:N	2.32	0.43
47:BT:20:THR:HG23	47:BT:43:LEU:HD23	1.99	0.43
31:CA:1128:C:N3	31:CA:1139:G:C6	2.86	0.43
31:CA:1286:A:H3'	31:CA:1286:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:157:G:O6	56:CA:1742:OHX:N1	2.50	0.43
31:CA:160:A:H8	31:CA:160:A:O5'	2.01	0.43
31:CA:579:G:C6	31:CA:580:U:C4	3.06	0.43
31:CA:694:A:H2'	31:CA:695:A:O4'	2.17	0.43
31:CA:852:G:H2'	31:CA:853:G:C5'	2.47	0.43
31:CA:757:U:O2'	31:CA:879:C:H1'	2.18	0.43
31:CA:993:G:H2'	31:CA:995:C:N4	2.24	0.43
52:CB:16:C:H5	52:CB:69:U:H3	1.65	0.43
52:CD:21:A:H4'	52:CD:22:A:O5'	2.14	0.43
52:CD:49:A:N3	52:CD:49:A:H2'	2.33	0.43
32:CE:136:VAL:O	32:CE:136:VAL:HG12	2.18	0.43
32:CE:166:ASP:HA	32:CE:167:PRO:HD3	1.77	0.43
32:CE:31:TYR:CD2	32:CE:31:TYR:N	2.84	0.43
32:CE:41:ILE:HG22	32:CE:41:ILE:O	2.17	0.43
34:CG:19:LEU:HB2	34:CG:21:LEU:HD11	2.00	0.43
35:CH:79:GLU:HG3	35:CH:93:PRO:HD2	2.00	0.43
31:CA:1292:U:OP1	37:CJ:41:ARG:NH2	2.51	0.43
39:CL:40:LEU:HD12	39:CL:71:SER:OG	2.18	0.43
43:CP:3:ARG:NH2	43:CP:7:VAL:HG12	2.33	0.43
44:CQ:27:CYS:O	44:CQ:28:GLY:C	2.57	0.43
16:D1:11:ARG:CG	16:D1:11:ARG:NH1	2.79	0.43
16:D1:92:ARG:HE	16:D1:92:ARG:HB2	1.41	0.43
22:D3:72:ARG:HH21	22:D3:75:LEU:HD13	1.81	0.43
28:D6:35:GLU:O	28:D6:36:LEU:HB2	2.18	0.43
1:DA:1022:G:N2	1:DA:1142(A):A:C2	2.82	0.43
1:DA:1252:G:OP2	16:D1:14:HIS:NE2	2.50	0.43
1:DA:1386:C:OP2	1:DA:1396:U:H5	2.00	0.43
1:DA:1465:G:C2	1:DA:1466:G:N9	2.86	0.43
1:DA:1899:G:H1	1:DA:1902:C:N4	2.16	0.43
1:DA:1899:G:O2'	1:DA:1900:A:H5"	2.18	0.43
1:DA:1666:G:N2	1:DA:1995:U:C2	2.86	0.43
1:DA:2304:G:N2	1:DA:2312:U:C4	2.79	0.43
1:DA:270(P):C:H6	1:DA:270(P):C:O5'	2.01	0.43
1:DA:2900:A:N6	1:DA:2901:C:C4	2.87	0.43
1:DA:620:G:OP2	1:DA:620:G:N2	2.39	0.43
1:DA:654(D):G:H2'	1:DA:654(E):C:H6	1.81	0.43
1:DA:765:G:H2'	1:DA:766:C:C6	2.53	0.43
1:DA:828:U:H3'	1:DA:828:U:O2	2.18	0.43
1:DA:881:G:O6	1:DA:895:U:O2	2.36	0.43
1:DA:921:G:H2'	1:DA:922:U:H6	1.83	0.43
1:DA:988:A:H2'	1:DA:989:G:O5'	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DE:108:SER:OG	4:DE:163:GLU:HG3	2.18	0.43
4:DE:200:GLU:CD	4:DE:200:GLU:H	2.22	0.43
5:DF:177:ALA:HB1	5:DF:178:PRO:CD	2.48	0.43
5:DF:80:ALA:O	5:DF:82:ILE:N	2.51	0.43
15:DR:24:PRO:HB2	15:DR:99:LEU:HD11	1.99	0.43
19:DT:80:ILE:O	19:DT:80:ILE:CG1	2.64	0.43
22:A3:41:ARG:O	22:A3:57:PHE:HD2	2.01	0.43
27:A5:54:GLY:O	27:A5:55:ARG:C	2.56	0.43
1:AA:1085:A:C4'	1:AA:1086:A:OP1	2.66	0.43
1:AA:1090:U:C4	1:AA:1102:C:O2	2.71	0.43
1:AA:1173:G:C2	1:AA:1175:U:O4	2.70	0.43
1:AA:1173:G:H4'	1:AA:1174:A:H2	1.83	0.43
1:AA:1205:U:H4'	1:AA:1206:G:OP2	2.18	0.43
1:AA:1312:U:C6	1:AA:1312:U:H5'	2.53	0.43
1:AA:1388:G:O2'	1:AA:1389:G:H5'	2.18	0.43
1:AA:144:C:H2'	1:AA:145:G:H8	1.83	0.43
1:AA:1483:G:H2'	1:AA:1484:G:H8	1.83	0.43
1:AA:1655:A:H3'	1:AA:1656:C:C6	2.53	0.43
1:AA:2436:G:C4	1:AA:2437:U:C5	3.05	0.43
1:AA:2688:U:H3'	1:AA:2688:U:O2	2.18	0.43
1:AA:2689:U:C4'	1:AA:2690:C:OP2	2.66	0.43
1:AA:2741:A:H2'	1:AA:2742:C:O4'	2.18	0.43
1:AA:2830:G:C8	1:AA:2830:G:C5'	3.01	0.43
1:AA:586:A:C2	1:AA:1254:A:C2	3.06	0.43
1:AA:60:G:C8	1:AA:63:U:C5	3.07	0.43
1:AA:783:A:H2'	1:AA:784:A:H5'	1.99	0.43
1:AA:864:G:C6	1:AA:865:C:N4	2.86	0.43
1:AA:893:C:H2'	1:AA:893:C:O2	2.18	0.43
3:AD:221:VAL:HG22	3:AD:226:MET:CE	2.48	0.43
6:AG:135:LEU:HD23	6:AG:140:ILE:HD11	2.00	0.43
11:AO:38:GLN:NE2	11:AO:38:GLN:CA	2.78	0.43
12:AP:69:PHE:HA	12:AP:70:PRO:HD2	1.61	0.43
18:AS:32:ALA:O	18:AS:36:LEU:HG	2.18	0.43
21:AV:39:VAL:HG23	21:AV:40:ASP:N	2.32	0.43
24:AW:14:ARG:HG3	24:AW:63:VAL:CG1	2.48	0.43
25:AX:39:ASP:O	25:AX:39:ASP:OD1	2.37	0.43
31:BA:1004:A:OP1	31:BA:1025:U:N3	2.51	0.43
31:BA:1198:G:O2'	40:BM:54:PHE:HD2	2.01	0.43
31:BA:1322:C:H2'	31:BA:1322:C:O2	2.18	0.43
31:BA:1416:G:C6	31:BA:1417:G:C5	3.06	0.43
31:BA:141:A:C2	31:BA:142:G:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1433:A:C4	31:BA:1468:A:C2	3.06	0.43
31:BA:167:G:C2'	31:BA:168:G:H5'	2.48	0.43
31:BA:248:C:O2	31:BA:248:C:H2'	2.16	0.43
31:BA:262:A:N3	31:BA:262:A:H2'	2.33	0.43
31:BA:944:G:C6	31:BA:1337:G:H2'	2.53	0.43
53:BC:58:A:H2'	53:BC:59:A:H5'	2.01	0.43
53:BC:67:C:H6	53:BC:67:C:O5'	2.01	0.43
32:BE:200:ILE:O	32:BE:201:ILE:HD13	2.18	0.43
33:BF:9:GLY:HA2	33:BF:12:LEU:HG	2.00	0.43
33:BF:15:THR:CG2	33:BF:181:ASN:HA	2.47	0.43
34:BG:199:ASN:C	34:BG:201:GLN:N	2.69	0.43
37:BJ:31:MET:CE	37:BJ:36:LYS:HG2	2.47	0.43
31:BA:1199:U:H4'	40:BM:54:PHE:CD2	2.53	0.43
43:BP:101:GLN:HB2	43:BP:101:GLN:HE21	1.67	0.43
46:BS:6:LEU:CD1	46:BS:6:LEU:N	2.81	0.43
31:BA:278:G:N2	47:BT:95:TYR:HB3	2.33	0.43
36:BI:96:PRO:HB3	48:BU:30:ASP:OD1	2.18	0.43
31:CA:1402:C:N4	54:C1:18:G:OP2	2.49	0.43
31:CA:1065:U:C5	31:CA:1190:G:N3	2.86	0.43
31:CA:1394:A:N6	31:CA:1501:C:H5'	2.33	0.43
31:CA:167:G:C2	31:CA:168:G:C5	3.06	0.43
31:CA:115:G:C2	31:CA:289:G:N7	2.86	0.43
31:CA:418:C:H2'	31:CA:419:C:O4'	2.18	0.43
31:CA:504:C:C2	31:CA:542:G:C2	3.06	0.43
31:CA:51:A:C2	31:CA:353:A:N1	2.86	0.43
31:CA:579:G:C4	31:CA:580:U:C5	3.06	0.43
31:CA:605:U:H2'	31:CA:605:U:O2	2.18	0.43
31:CA:640:A:H2'	31:CA:641:U:H5'	1.99	0.43
31:CA:658:G:H2'	31:CA:659:U:H6	1.83	0.43
31:CA:664:G:H2'	31:CA:666:G:OP1	2.19	0.43
31:CA:953:G:C5	31:CA:954:G:C8	3.07	0.43
52:CD:80:C:H4'	1:DA:1851:U:H4'	2.00	0.43
32:CE:172:ILE:H	32:CE:172:ILE:CD1	2.28	0.43
32:CE:185:ILE:HD13	32:CE:185:ILE:H	1.83	0.43
32:CE:79:ASP:C	32:CE:81:VAL:N	2.70	0.43
39:CL:43:ALA:C	39:CL:45:ALA:H	2.18	0.43
31:CA:692:U:O4	41:CN:53:SER:HA	2.19	0.43
41:CN:93:GLN:NE2	41:CN:93:GLN:HA	2.27	0.43
43:CP:32:GLU:C	43:CP:32:GLU:OE2	2.57	0.43
47:CT:22:LEU:CD1	47:CT:39:SER:HB2	2.46	0.43
16:D1:74:LEU:HD22	16:D1:79:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D1:92:ARG:O	16:D1:94:ASN:N	2.48	0.43
22:D3:51:VAL:N	22:D3:62:LEU:HD12	2.33	0.43
27:D5:57:VAL:CG1	27:D5:58:LEU:H	2.20	0.43
1:DA:142:G:H2'	1:DA:143:C:C6	2.54	0.43
1:DA:1513:C:H2'	1:DA:1513:C:O2	2.18	0.43
1:DA:1417:C:O2'	1:DA:1587:A:N3	2.48	0.43
1:DA:1925:C:C2'	1:DA:1926:U:H5'	2.48	0.43
1:DA:1985:G:OP2	56:DA:3081:OHX:N2	2.50	0.43
1:DA:2462:U:H2'	1:DA:2463:C:O4'	2.18	0.43
1:DA:2469:A:N7	1:DA:2482:G:N7	2.66	0.43
1:DA:2738:A:OP2	56:DA:3379:OHX:N3	2.50	0.43
1:DA:34:C:O2	1:DA:35:G:N7	2.51	0.43
1:DA:864:G:OP2	12:DP:22:LYS:HE2	2.18	0.43
2:DB:46:A:C5	2:DB:47:C:C4	3.06	0.43
4:DE:116:VAL:HG12	4:DE:116:VAL:O	2.17	0.43
4:DE:13:ARG:HA	4:DE:21:VAL:O	2.19	0.43
4:DE:42:ASP:HB2	4:DE:43:GLY:HA2	0.62	0.43
6:DG:5:VAL:HG13	26:D4:23:GLU:OE1	2.18	0.43
7:DH:128:PRO:C	7:DH:129:THR:HG1	2.17	0.43
10:DN:32:TYR:CD1	10:DN:32:TYR:N	2.86	0.43
12:DP:103:MET:HG3	12:DP:103:MET:H	1.59	0.43
12:DP:79:LEU:O	12:DP:81:VAL:HG13	2.18	0.43
14:DQ:109:GLY:C	14:DQ:110:LEU:HD13	2.38	0.43
15:DR:51:ARG:HE	15:DR:62:THR:HG21	1.82	0.43
18:DS:4:LYS:CB	18:DS:106:ILE:HG22	2.48	0.43
1:DA:310:A:OP1	20:DU:18:GLY:HA2	2.17	0.43
16:A1:111:GLU:C	16:A1:113:ALA:H	2.21	0.43
16:A1:92:ARG:CD	16:A1:95:LEU:HD12	2.48	0.43
17:A2:62:LEU:CD2	17:A2:95:LEU:HB2	2.49	0.43
26:A4:16:CYS:CB	26:A4:36:CYS:H	2.28	0.43
28:A6:25:LYS:CB	30:A8:34:TRP:HE1	2.31	0.43
1:AA:1060:U:H5'	1:AA:1061:U:C5	2.53	0.43
1:AA:107:C:C2'	1:AA:107:C:O2	2.63	0.43
1:AA:1144:G:C5	1:AA:1145:C:C5	3.06	0.43
1:AA:1292:U:H2'	1:AA:1293:C:H6	1.82	0.43
1:AA:1298:C:N4	1:AA:1299:G:C6	2.86	0.43
1:AA:1491:G:H5'	3:AD:99:ASP:OD1	2.18	0.43
1:AA:1465:G:H5'	1:AA:1528:A:H1'	2.00	0.43
1:AA:1535:U:C3'	1:AA:1536:A:H5"	2.42	0.43
1:AA:1888:G:C3'	1:AA:1888:G:N3	2.81	0.43
1:AA:2126:A:C5	1:AA:2162:G:N2	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2712:U:O2'	1:AA:2712(A):A:O5'	2.32	0.43
1:AA:2814:C:C5	1:AA:2815:C:C5	3.06	0.43
1:AA:303:U:H2'	1:AA:304:G:C8	2.53	0.43
1:AA:36:G:C2'	1:AA:37:C:H5'	2.48	0.43
1:AA:857:C:N4	1:AA:858:U:O4	2.51	0.43
2:AB:112:G:H2'	2:AB:113:C:C6	2.53	0.43
2:AB:7:G:C8	2:AB:7:G:H5'	2.53	0.43
4:AE:102:VAL:N	4:AE:170:LEU:O	2.51	0.43
5:AF:183:VAL:O	5:AF:187:VAL:HG23	2.18	0.43
6:AG:28:VAL:O	6:AG:31:VAL:CG1	2.67	0.43
7:AH:117:PRO:HB3	7:AH:123:PHE:CE1	2.52	0.43
1:AA:2415:G:H4'	11:AO:66:GLY:C	2.38	0.43
14:AQ:58:LEU:N	14:AQ:58:LEU:HD23	2.28	0.43
15:AR:74:ARG:HD3	15:AR:76:PHE:CE2	2.52	0.43
15:AR:51:ARG:CB	15:AR:98:LYS:HD3	2.42	0.43
18:AS:82:LEU:HD12	18:AS:84:ARG:CZ	2.48	0.43
19:AT:3:THR:HG22	19:AT:6:ASP:OD2	2.19	0.43
21:AV:76:LEU:O	21:AV:76:LEU:HD23	2.19	0.43
23:AZ:67:ILE:N	23:AZ:68:PRO:CD	2.82	0.43
31:BA:101:A:C6	31:BA:102:G:N7	2.86	0.43
31:BA:1031:G:C6	31:BA:1032:A:N6	2.86	0.43
31:BA:1141:C:C2'	31:BA:1142:G:H5'	2.48	0.43
31:BA:1165:C:N4	31:BA:1166:G:C6	2.87	0.43
31:BA:1187:G:P	39:BL:113:LYS:HZ2	2.41	0.43
31:BA:1341:U:H3'	31:BA:1341:U:H6	1.83	0.43
31:BA:292:G:C2	31:BA:309:G:N3	2.85	0.43
52:BB:21:A:H2	52:BB:56:U:O2	2.01	0.43
52:BD:16:C:H41	52:BD:68:A:C2'	2.29	0.43
32:BE:223:ILE:C	32:BE:225:ALA:H	2.21	0.43
32:BE:238:LEU:HD12	32:BE:238:LEU:H	1.83	0.43
33:BF:59:ARG:HA	33:BF:63:ASN:O	2.18	0.43
36:BI:15:ASP:O	36:BI:18:GLN:N	2.51	0.43
36:BI:62:TRP:C	36:BI:63:TYR:HD2	2.22	0.43
38:BK:58:TYR:O	38:BK:59:LEU:HD23	2.18	0.43
39:BL:95:LYS:HB2	39:BL:95:LYS:HE2	1.57	0.43
31:BA:1153:C:P	40:BM:13:HIS:HE1	2.41	0.43
45:BR:78:TYR:CD2	45:BR:79:ARG:N	2.86	0.43
31:BA:735:C:H1'	48:BU:75:ILE:HD11	1.99	0.43
49:BV:52:TYR:CE1	49:BV:56:GLN:HA	2.54	0.43
31:CA:1004:A:H1'	31:CA:1036:G:N1	2.33	0.43
31:CA:1074:G:O3'	32:CE:103:THR:CG2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1129:C:C5	31:CA:1141:C:N4	2.85	0.43
31:CA:1239:A:H4'	31:CA:1240:U:C5'	2.48	0.43
31:CA:1442:G:H2'	31:CA:1443:G:O5'	2.19	0.43
31:CA:145:G:H2'	31:CA:146:G:O5'	2.18	0.43
31:CA:1518:A:H5"	31:CA:1519:A:OP2	2.17	0.43
31:CA:176:C:O2'	31:CA:177:C:H5'	2.18	0.43
31:CA:465:A:N6	31:CA:467:G:C2	2.86	0.43
31:CA:64:G:H3'	31:CA:64:G:OP1	2.18	0.43
33:CF:134:ILE:HG23	33:CF:151:VAL:HB	2.00	0.43
34:CG:101:LEU:HB2	34:CG:138:TYR:HB3	2.00	0.43
39:CL:4:TYR:CD2	39:CL:19:LEU:HD12	2.53	0.43
39:CL:53:VAL:HG11	39:CL:92:TYR:CD2	2.53	0.43
40:CM:44:VAL:HG12	40:CM:44:VAL:O	2.18	0.43
40:CM:46:ARG:NH1	44:CQ:61:TRP:CH2	2.86	0.43
41:CN:14:VAL:O	41:CN:14:VAL:HG12	2.19	0.43
44:CQ:24:CYS:SG	44:CQ:24:CYS:O	2.77	0.43
46:CS:14:ASN:O	46:CS:16:HIS:ND1	2.51	0.43
48:CU:58:LEU:N	48:CU:58:LEU:HD12	2.19	0.43
49:CV:41:VAL:C	49:CV:43:GLU:H	2.21	0.43
13:D0:29:LEU:HA	13:D0:29:LEU:HD12	1.82	0.43
13:D0:63:ARG:O	13:D0:67:LEU:HB2	2.18	0.43
22:D3:11:ARG:O	22:D3:14:ARG:NH2	2.51	0.43
26:D4:10:VAL:CG1	26:D4:10:VAL:O	2.66	0.43
30:D8:49:VAL:CA	30:D8:50:LEU:HD22	2.47	0.43
1:DA:1344:G:H4'	1:DA:1384:A:N7	2.32	0.43
1:DA:1507:A:H5"	1:DA:1508:A:OP2	2.18	0.43
1:DA:1792:G:H5'	3:DD:205:VAL:HG13	2.00	0.43
1:DA:1964:G:H4'	1:DA:1965:C:OP2	2.18	0.43
1:DA:2129:C:C4	1:DA:2130:U:C4	3.06	0.43
1:DA:2298:A:C2	1:DA:2321:G:C4	3.07	0.43
1:DA:2335:A:C8	1:DA:2337:G:N7	2.86	0.43
1:DA:2711:A:OP1	1:DA:2712(A):A:OP2	2.36	0.43
1:DA:2780:G:C3'	1:DA:2781:A:H5'	2.48	0.43
1:DA:2807:G:H22	1:DA:2893:G:H1	1.65	0.43
1:DA:383:U:C2	1:DA:385:C:C4	3.06	0.43
1:DA:372:G:O2'	1:DA:400:G:O6	2.35	0.43
1:DA:552:G:C5	1:DA:553:U:C4	3.06	0.43
2:DB:49:C:OP1	14:DQ:97:ARG:HG3	2.18	0.43
5:DF:148:LEU:HD23	5:DF:191:ARG:NH1	2.33	0.43
6:DG:18:GLU:HG3	6:DG:18:GLU:O	2.17	0.43
7:DH:130:ARG:O	7:DH:131:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:DH:80:SER:O	7:DH:81:GLU:HB2	2.19	0.43
8:DK:97:ILE:O	8:DK:100:ALA:HB3	2.18	0.43
9:DM:10:GLU:CG	9:DM:11:PRO:HD2	2.38	0.43
11:DO:83:VAL:O	11:DO:114:ILE:HD12	2.18	0.43
15:DR:15:VAL:HG23	15:DR:16:ARG:N	2.33	0.43
18:DS:75:TYR:CZ	18:DS:104:THR:HG21	2.53	0.43
18:DS:70:TYR:HD2	18:DS:70:TYR:H	1.65	0.43
1:DA:26:G:OP1	18:DS:80:PRO:HB3	2.19	0.43
1:DA:1614:A:H61	18:DS:88:ARG:H	1.66	0.43
16:A1:92:ARG:O	16:A1:92:ARG:HD3	2.18	0.43
1:AA:1036:G:H2'	1:AA:1037:G:O4'	2.18	0.43
1:AA:1142(A):A:C8	1:AA:1144:G:C6	3.07	0.43
1:AA:1173:G:C6	1:AA:1175:U:O4	2.71	0.43
1:AA:1372:U:O5'	1:AA:1372:U:H6	2.00	0.43
1:AA:1899:G:O2'	1:AA:1900:A:OP2	2.27	0.43
1:AA:2006:C:H6	1:AA:2006:C:O5'	2.01	0.43
1:AA:2786:U:O2'	4:AE:62:PRO:HA	2.19	0.43
1:AA:2811:G:H2'	1:AA:2812:G:O4'	2.19	0.43
1:AA:2837:G:C6	1:AA:2838:G:N7	2.87	0.43
1:AA:2869:G:C5	1:AA:2870:C:C5	3.06	0.43
1:AA:618:G:N2	1:AA:618(A):C:H1'	2.34	0.43
1:AA:633:A:C8	1:AA:633:A:H3'	2.54	0.43
1:AA:699:A:H61	1:AA:733:G:H1'	1.83	0.43
1:AA:889:C:H5"	1:AA:890:A:P	2.58	0.43
3:AD:35:LYS:CG	3:AD:64:ILE:HG23	2.47	0.43
7:AH:35:VAL:O	7:AH:37:VAL:HG23	2.19	0.43
8:AK:100:ALA:O	8:AK:102:SER:N	2.51	0.43
14:AQ:106:ARG:CZ	14:AQ:106:ARG:O	2.66	0.43
15:AR:108:ARG:CA	15:AR:111:ARG:NE	2.80	0.43
15:AR:30:VAL:HG11	15:AR:76:PHE:CE1	2.54	0.43
21:AV:101:PRO:O	21:AV:102:LEU:HD23	2.18	0.43
2:AB:83:G:H4'	25:AX:52:HIS:CG	2.53	0.43
31:BA:106:C:HO2'	31:BA:107:G:H5'	1.82	0.43
31:BA:1508:G:H2'	31:BA:1509:C:H6	1.83	0.43
31:BA:253:U:H2'	31:BA:254:G:H8	1.84	0.43
31:BA:746:A:H4'	31:BA:837:G:O2'	2.18	0.43
31:BA:758:G:H2'	31:BA:759:A:OP2	2.18	0.43
52:BB:23:A:H8	52:BB:23:A:OP2	2.00	0.43
52:BB:44:C:H2'	52:BB:45:C:O4'	2.18	0.43
52:BD:2:G:N2	52:BD:81:C:C2	2.86	0.43
32:BE:162:ILE:CG1	32:BE:184:VAL:HG22	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BE:20:GLU:HB2	32:BE:190:THR:HG1	1.81	0.43
32:BE:88:ALA:HB2	32:BE:219:VAL:CG1	2.36	0.43
33:BF:150:LYS:HE3	33:BF:152:ILE:HD11	2.00	0.43
34:BG:206:PHE:HD2	34:BG:207:TYR:CE1	2.36	0.43
37:BJ:147:ALA:O	37:BJ:149:ARG:N	2.51	0.43
35:BH:153:LYS:N	38:BK:64:LYS:HZ1	2.13	0.43
42:BO:42:THR:O	42:BO:43:VAL:HG13	2.17	0.43
42:BO:44:THR:HA	42:BO:45:PRO:HD3	1.83	0.43
31:BA:1014:A:H4'	49:BV:14:HIS:CG	2.53	0.43
31:CA:1129:C:N4	31:CA:1141:C:N4	2.62	0.43
31:CA:1381:U:O2	31:CA:1381:U:C2'	2.66	0.43
31:CA:152:A:N6	31:CA:170:U:C2	2.86	0.43
31:CA:1474:G:N7	56:CA:1764:OHX:N5	2.66	0.43
31:CA:886:G:N7	56:CA:1790:OHX:N4	2.66	0.43
31:CA:887:G:O6	56:CA:1790:OHX:N5	2.51	0.43
31:CA:245:C:H6	31:CA:245:C:O5'	2.02	0.43
31:CA:465:A:N6	31:CA:467:G:N1	2.67	0.43
31:CA:491:G:H2'	31:CA:492:G:O4'	2.18	0.43
31:CA:527:G:H2'	31:CA:528:C:H5'	2.00	0.43
31:CA:52:G:C6	31:CA:53:A:C5	3.06	0.43
31:CA:692:U:O2	31:CA:695:A:C8	2.72	0.43
31:CA:686:U:O4	31:CA:703:G:H1'	2.18	0.43
31:CA:745:C:H1'	31:CA:836:G:O2'	2.19	0.43
31:CA:799:G:O6	31:CA:800:G:C2	2.70	0.43
31:CA:940:C:H2'	31:CA:941:G:C8	2.51	0.43
52:CD:48:C:N4	52:CD:52:G:H1	2.11	0.43
52:CD:9:U:O2	52:CD:9:U:C2'	2.65	0.43
32:CE:141:GLU:C	32:CE:143:GLU:H	2.22	0.43
32:CE:28:PHE:CD1	32:CE:28:PHE:O	2.72	0.43
32:CE:75:LYS:C	32:CE:77:ALA:H	2.22	0.43
33:CF:8:ILE:C	33:CF:10:PHE:N	2.71	0.43
38:CK:103:VAL:HG21	38:CK:110:ALA:HB2	2.00	0.43
39:CL:10:ARG:HH21	39:CL:11:LYS:CE	2.31	0.43
39:CL:33:PHE:CE2	39:CL:47:LEU:HD23	2.51	0.43
40:CM:46:ARG:NH2	44:CQ:61:TRP:CH2	2.87	0.43
42:CO:26:ALA:HA	42:CO:98:TYR:HE2	1.83	0.43
48:CU:87:ARG:O	48:CU:88:LYS:HB2	2.18	0.43
50:CW:33:ILE:O	50:CW:33:ILE:HG22	2.17	0.43
27:D5:36:CYS:SG	27:D5:49:CYS:HB3	2.58	0.43
1:DA:1065:U:C2	1:DA:1074:G:N2	2.86	0.43
1:DA:1386:C:H2'	1:DA:1387:C:C6	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1342:A:C5	1:DA:1397:U:C6	3.06	0.43
1:DA:1535:U:C2'	1:DA:1535:U:O2	2.65	0.43
1:DA:1632:A:N6	1:DA:1633:G:N1	2.66	0.43
1:DA:2335:A:O2'	1:DA:2336:A:O5'	2.32	0.43
1:DA:2617:C:C2	1:DA:2618:G:C8	3.06	0.43
1:DA:2627:G:N3	1:DA:2781:A:C2	2.85	0.43
1:DA:288:C:O2	1:DA:288:C:H2'	2.18	0.43
1:DA:327:G:C2	1:DA:336:C:C2	3.07	0.43
1:DA:587:C:C6	1:DA:671:C:H1'	2.54	0.43
1:DA:790:C:H6	1:DA:790:C:H2'	1.42	0.43
2:DB:14:U:O2'	2:DB:107:U:C2'	2.64	0.43
2:DB:24:G:H2'	2:DB:24:G:OP2	2.17	0.43
1:DA:2599:G:H8	3:DD:236:GLY:HA2	1.83	0.43
3:DD:33:LEU:CD2	3:DD:34:VAL:N	2.82	0.43
4:DE:66:HIS:HB3	4:DE:68:ALA:H	1.82	0.43
1:DA:617:G:H5'	5:DF:40:GLN:NE2	2.33	0.43
5:DF:93:LYS:HB3	5:DF:94:PRO:HD2	2.00	0.43
9:DM:17:ASP:C	9:DM:55:VAL:CG2	2.83	0.43
10:DN:48:PRO:HB2	10:DN:49:ARG:HD3	2.01	0.43
12:DP:32:TYR:O	12:DP:105:GLU:HB3	2.18	0.43
14:DQ:84:GLN:CB	14:DQ:110:LEU:H	2.31	0.43
15:DR:52:ILE:H	15:DR:98:LYS:HZ2	1.66	0.43
19:DT:21:PHE:HE1	19:DT:26:TYR:HD2	1.66	0.43
21:DV:39:VAL:HG23	21:DV:40:ASP:N	2.32	0.43
23:DZ:81:LYS:O	23:DZ:81:LYS:HG3	2.19	0.43
16:A1:92:ARG:HD2	17:A2:11:GLN:HB2	2.00	0.43
26:A4:15:ILE:O	26:A4:33:VAL:HB	2.18	0.43
6:AG:112:PRO:HB3	26:A4:37:SER:CB	2.49	0.43
26:A4:37:SER:OG	26:A4:42:PHE:CD1	2.69	0.43
11:AO:62:LEU:HD21	30:A8:25:MET:HB2	1.99	0.43
1:AA:1069:A:C6	1:AA:1073:A:N7	2.86	0.43
1:AA:1215:G:C5	1:AA:1216:G:C8	3.06	0.43
1:AA:1485:G:H2'	1:AA:1486:A:C8	2.50	0.43
1:AA:1536:A:C2'	1:AA:1537:C:OP1	2.67	0.43
1:AA:2026:C:H2'	1:AA:2027:G:O5'	2.19	0.43
1:AA:2262:U:H2'	1:AA:2263:C:H6	1.83	0.43
1:AA:311:A:O4'	1:AA:332:A:C8	2.72	0.43
1:AA:1934:C:N4	56:AA:3561:OHX:N5	2.67	0.43
1:AA:40:C:OP1	56:AA:3383:OHX:N5	2.51	0.43
1:AA:803:U:C2'	1:AA:804:A:H5'	2.48	0.43
1:AA:889:C:H5"	1:AA:890:A:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AD:241:PRO:O	3:AD:242:ARG:C	2.57	0.43
3:AD:24:ILE:HD11	3:AD:91:ARG:HD3	2.01	0.43
6:AG:144:ILE:HG22	6:AG:145:THR:N	2.33	0.43
8:AK:33:ARG:C	8:AK:35:LEU:N	2.72	0.43
15:AR:107:ASP:C	15:AR:109:GLU:N	2.68	0.43
18:AS:17:VAL:C	18:AS:19:LEU:N	2.72	0.43
18:AS:82:LEU:HD12	18:AS:84:ARG:NH2	2.34	0.43
1:AA:64:A:C5	19:AT:66:LEU:HD22	2.53	0.43
20:AU:96:ILE:CG2	20:AU:101:LYS:HG2	2.47	0.43
21:AV:169:GLU:O	21:AV:170:THR:HG23	2.18	0.43
23:AZ:78:LYS:HD2	23:AZ:78:LYS:H	1.84	0.43
31:BA:232:G:H1'	31:BA:262:A:N1	2.33	0.43
31:BA:439:A:OP2	31:BA:493:G:C2	2.71	0.43
31:BA:491:G:C4	31:BA:492:G:C8	3.06	0.43
31:BA:595:G:N2	31:BA:643:C:H41	2.16	0.43
31:BA:725:G:O2'	31:BA:726:C:H5'	2.18	0.43
31:BA:836:G:C6	31:BA:851:G:C6	3.06	0.43
31:BA:901:A:H8	31:BA:901:A:O5'	2.02	0.43
31:BA:992:U:C1'	31:BA:993:G:OP2	2.60	0.43
52:BB:83:C:H2'	52:BB:84:C:C5'	2.39	0.43
52:BD:37:A:H2'	52:BD:38:MIA:O4'	2.19	0.43
52:BD:21:A:C6	52:BD:55:U:O4	2.71	0.43
46:BS:12:LYS:C	46:BS:14:ASN:N	2.72	0.43
46:BS:58:TYR:C	46:BS:58:TYR:HD1	2.22	0.43
47:BT:46:ASP:OD2	47:BT:51:TYR:HD1	2.02	0.43
49:BV:43:GLU:CD	49:BV:43:GLU:H	2.21	0.43
31:CA:1153:C:N3	31:CA:1154:G:N7	2.66	0.43
31:CA:1206:G:H4'	33:CF:193:TYR:N	2.34	0.43
31:CA:123:C:H2'	31:CA:124:G:H8	1.84	0.43
31:CA:1486:G:H2'	31:CA:1487:G:O4'	2.18	0.43
31:CA:1503:A:N6	54:C1:12:A:C2	2.87	0.43
31:CA:629:G:H2'	31:CA:630:G:C8	2.53	0.43
31:CA:591:U:C2	31:CA:649:G:N2	2.86	0.43
31:CA:803:G:C6	31:CA:804:U:N3	2.87	0.43
31:CA:89:U:O2'	31:CA:90:C:O5'	2.37	0.43
52:CB:48:C:H2'	52:CB:49:A:N9	2.33	0.43
52:CB:4:G:C2	52:CB:79:A:C6	3.05	0.43
32:CE:168:THR:HG23	32:CE:192:SER:HA	2.01	0.43
34:CG:108:LEU:HA	34:CG:108:LEU:HD12	1.80	0.43
34:CG:168:ARG:HA	34:CG:168:ARG:HD3	1.70	0.43
38:CK:6:ILE:O	38:CK:7:ALA:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CP:82:MET:SD	43:CP:83:ASP:CG	2.97	0.43
46:CS:69:THR:O	46:CS:69:THR:CG2	2.66	0.43
47:CT:45:HIS:HB3	47:CT:72:ARG:HG3	2.00	0.43
48:CU:29:PHE:HD1	48:CU:39:VAL:HG11	1.82	0.43
49:CV:32:LYS:NZ	49:CV:57:HIS:HB2	2.33	0.43
26:D4:15:ILE:HD12	26:D4:15:ILE:N	2.33	0.43
28:D6:27:LYS:NZ	28:D6:27:LYS:HB2	2.33	0.43
30:D8:54:GLU:CG	30:D8:57:ARG:HH21	2.32	0.43
1:DA:128:C:C6	1:DA:128:C:C3'	3.02	0.43
1:DA:1491:G:C6	1:DA:1500:G:C2	3.07	0.43
1:DA:1783:A:N1	1:DA:2587:A:C4	2.86	0.43
1:DA:1815:A:H8	1:DA:1815:A:OP1	2.01	0.43
1:DA:19:C:O2'	1:DA:20:C:H5'	2.18	0.43
1:DA:2312:U:C3'	1:DA:2313:C:H5'	2.48	0.43
1:DA:2391:G:O5'	30:D8:32:LEU:HD12	2.17	0.43
1:DA:2656:U:N3	1:DA:2665:A:H2	2.07	0.43
1:DA:1002:G:N7	56:DA:3438:OHX:N1	2.66	0.43
1:DA:374:A:C2	1:DA:401:A:C4	3.06	0.43
1:DA:519:U:H2'	1:DA:520:G:H8	1.84	0.43
1:DA:563:G:C6	1:DA:564:C:C4	3.07	0.43
1:DA:872:A:H2'	1:DA:873:G:C8	2.54	0.43
1:DA:947:G:H2'	1:DA:948:G:C8	2.53	0.43
1:DA:994:C:OP1	16:D1:53:ARG:NH2	2.51	0.43
2:DB:41:U:OP1	2:DB:42:C:H5	2.01	0.43
2:DB:33:G:C2	2:DB:50:G:C2	3.07	0.43
3:DD:33:LEU:HD23	3:DD:34:VAL:N	2.34	0.43
4:DE:51:PHE:CE2	4:DE:52:LEU:HG	2.53	0.43
6:DG:10:LYS:O	6:DG:14:GLU:HB3	2.17	0.43
6:DG:162:THR:O	6:DG:162:THR:OG1	2.28	0.43
6:DG:55:LYS:HZ2	6:DG:58:GLN:HE22	1.66	0.43
10:DN:28:SER:O	10:DN:29:ASN:HB3	2.18	0.43
12:DP:19:GLY:C	12:DP:98:LYS:HD2	2.39	0.43
15:DR:80:SER:H	15:DR:83:ILE:HD12	1.83	0.43
21:DV:48:PHE:CE1	21:DV:52:SER:HB2	2.52	0.43
24:DW:51:ARG:HG2	24:DW:52:ASP:H	1.83	0.43
1:AA:686:G:N7	29:A7:5:TRP:CH2	2.87	0.43
1:AA:1202:C:H2'	1:AA:1203:G:C5'	2.44	0.43
1:AA:1473:G:H2'	1:AA:1474:C:H5'	1.98	0.43
1:AA:1535:U:O4	1:AA:1537:C:O4'	2.37	0.43
1:AA:1649:G:C6	1:AA:2009:G:O6	2.71	0.43
1:AA:1668:A:N3	1:AA:1670:C:C4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1775:U:H2'	1:AA:1776:G:O5'	2.18	0.43
1:AA:1786:A:C4	1:AA:1938:A:C6	3.06	0.43
1:AA:2184:G:C6	1:AA:2185:C:C4	3.06	0.43
1:AA:241:A:O4'	1:AA:243:U:C6	2.72	0.43
1:AA:2629:A:N6	1:AA:2895:U:O2	2.51	0.43
1:AA:2895:U:H2'	1:AA:2896:C:O4'	2.18	0.43
1:AA:300:A:C5	1:AA:334:C:H4'	2.54	0.43
1:AA:354:G:O2'	1:AA:355:G:H5'	2.19	0.43
1:AA:1858:G:C6	56:AA:3569:OHX:N6	2.87	0.43
1:AA:44:A:C2'	1:AA:45:G:H5'	2.49	0.43
1:AA:589:C:H2'	1:AA:590:A:C8	2.53	0.43
1:AA:609(A):G:N2	1:AA:619:G:H1'	2.33	0.43
1:AA:7:G:H1	1:AA:2896:C:N4	2.15	0.43
3:AD:70:TRP:CZ3	3:AD:150:LYS:HA	2.53	0.43
6:AG:133:LEU:C	6:AG:133:LEU:HD12	2.39	0.43
11:AO:46:LYS:HB3	11:AO:46:LYS:HE2	1.73	0.43
15:AR:23:ARG:O	15:AR:24:PRO:C	2.56	0.43
18:AS:29:LEU:HD21	18:AS:33:ARG:NH2	2.34	0.43
18:AS:37:ARG:HD3	18:AS:38:TYR:HE2	1.79	0.43
19:AT:18:TYR:HD1	19:AT:21:PHE:CE1	2.36	0.43
23:AZ:80:LEU:N	23:AZ:80:LEU:CD2	2.82	0.43
33:BF:162:GLN:CG	54:B1:24:A:H1'	2.38	0.43
31:BA:1106:G:C5	31:BA:1107:C:C5	3.07	0.43
31:BA:468:A:C2'	31:BA:474:G:H5'	2.42	0.43
31:BA:533:A:C2	31:BA:536:C:C5	3.07	0.43
31:BA:79:G:HO2'	31:BA:80:G:P	2.40	0.43
52:BB:10:C:O2'	52:BB:11:C:H5'	2.18	0.43
52:BB:6:G:H2'	52:BB:7:G:OP1	2.16	0.43
53:BC:47:G:C5'	53:BC:48:U:OP2	2.66	0.43
52:BD:51:C:C6	52:BD:52:G:H1'	2.54	0.43
35:BH:24:ARG:CG	35:BH:24:ARG:O	2.67	0.43
35:BH:31:LEU:HD23	35:BH:45:PHE:HD1	1.83	0.43
35:BH:36:ASP:C	35:BH:36:ASP:OD1	2.56	0.43
40:BM:31:GLY:HA3	40:BM:78:ASN:OD1	2.19	0.43
31:BA:538:G:OP2	42:BO:115:LYS:HG3	2.18	0.43
42:BO:119:LYS:H	42:BO:119:LYS:HG3	1.25	0.43
43:BP:82:MET:C	43:BP:84:ILE:N	2.69	0.43
44:BQ:40:CYS:O	44:BQ:43:CYS:N	2.51	0.43
45:BR:51:HIS:O	45:BR:54:ARG:HB3	2.19	0.43
46:BS:18:ARG:HD3	46:BS:35:LYS:HE3	2.00	0.43
31:BA:835:U:P	48:BU:60:ALA:HB3	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:72:LEU:HD11	50:BW:80:ARG:NH1	2.33	0.43
50:BW:89:ARG:HB2	50:BW:104:LEU:CD2	2.49	0.43
31:BA:1305:G:OP1	51:BX:2:GLY:HA3	2.19	0.43
31:CA:1208:C:H2'	31:CA:1209:C:C6	2.54	0.43
31:CA:1275:A:C2	31:CA:1276:G:H1'	2.53	0.43
31:CA:1357:A:C5	31:CA:1358:U:C5	3.07	0.43
31:CA:172:A:N6	31:CA:174:C:O2	2.51	0.43
31:CA:197:A:C6	31:CA:221:C:H4'	2.54	0.43
31:CA:449:C:O4'	31:CA:449:C:O2	2.35	0.43
31:CA:697:U:H2'	31:CA:698:G:C5'	2.48	0.43
31:CA:652:U:C5	31:CA:752:G:C4	3.07	0.43
53:CC:48:U:O2'	53:CC:49:C:P	2.69	0.43
32:CE:31:TYR:CE1	32:CE:200:ILE:HG21	2.54	0.43
32:CE:98:LEU:HA	32:CE:98:LEU:HD22	1.82	0.43
34:CG:180:GLY:O	34:CG:181:MET:HB2	2.18	0.43
39:CL:97:LYS:HB3	39:CL:98:PRO:HD3	2.00	0.43
41:CN:60:ALA:C	41:CN:62:GLN:N	2.71	0.43
49:CV:41:VAL:C	49:CV:43:GLU:N	2.72	0.43
49:CV:71:LEU:O	49:CV:73:GLU:N	2.51	0.43
13:D0:96:ARG:NH1	13:D0:115:GLU:OE1	2.51	0.43
16:D1:109:LEU:HA	16:D1:109:LEU:HD23	1.88	0.43
1:DA:997:G:OP1	16:D1:93:LYS:HB2	2.18	0.43
1:DA:109:G:C6	1:DA:110:G:N7	2.87	0.43
1:DA:1517:G:O2'	1:DA:1518:C:H5'	2.18	0.43
1:DA:1664:A:H1'	1:DA:2726:U:C5	2.54	0.43
1:DA:1912:A:C8	1:DA:1918:A:C2	3.07	0.43
1:DA:2763:G:C5'	1:DA:2763:G:H8	2.31	0.43
1:DA:1607:C:O2	56:DA:3478:OHX:N5	2.51	0.43
1:DA:37:C:O2'	1:DA:38:A:H5'	2.19	0.43
1:DA:654:A:H5"	1:DA:654(A):A:OP1	2.19	0.43
2:DB:42:C:N4	6:DG:91:ARG:HH12	2.15	0.43
3:DD:26:LYS:N	3:DD:26:LYS:HD2	2.16	0.43
4:DE:101:ARG:CZ	4:DE:171:GLU:HB2	2.49	0.43
5:DF:124:LEU:O	5:DF:124:LEU:CG	2.66	0.43
6:DG:7:LEU:HD22	6:DG:100:TRP:HE3	1.83	0.43
6:DG:121:ASN:OD1	6:DG:124:SER:N	2.52	0.43
7:DH:109:PHE:CE1	7:DH:152:ARG:NH1	2.87	0.43
8:DK:58:LEU:C	8:DK:60:GLU:N	2.72	0.43
11:DO:128:HIS:HA	11:DO:147:LEU:HB3	1.99	0.43
14:DQ:7:TYR:CZ	14:DQ:91:PRO:HG3	2.53	0.43
15:DR:104:ASN:O	15:DR:105:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:DR:58:ASN:OD1	15:DR:58:ASN:N	2.51	0.43
18:DS:75:TYR:OH	18:DS:104:THR:HG21	2.19	0.43
19:DT:28:PHE:HD1	19:DT:28:PHE:H	1.58	0.43
24:DW:24:LEU:HD22	24:DW:60:LEU:HD21	2.00	0.43
25:DX:12:PRO:O	25:DX:14:GLY:N	2.51	0.43
23:DZ:91:LYS:HB2	23:DZ:91:LYS:HE2	1.79	0.43
1:AA:1654:A:P	13:A0:2:ARG:HD3	2.58	0.43
16:A1:85:LYS:O	16:A1:86:ALA:C	2.57	0.43
16:A1:92:ARG:CZ	17:A2:11:GLN:H	2.32	0.43
17:A2:35:LEU:N	17:A2:35:LEU:CD2	2.79	0.43
22:A3:66:VAL:O	22:A3:81:VAL:HA	2.17	0.43
1:AA:1016:G:H2'	1:AA:1017:G:O5'	2.19	0.43
1:AA:1104:C:O2	1:AA:1104:C:C2'	2.64	0.43
1:AA:125:G:H3'	29:A7:19:ARG:HD3	2.00	0.43
1:AA:1281:G:H2'	1:AA:1282:U:H6	1.84	0.43
1:AA:1603:A:OP1	1:AA:1604:C:OP2	2.37	0.43
1:AA:1833:U:O2'	1:AA:1834:U:H5'	2.17	0.43
1:AA:1839:G:H2'	1:AA:1840:G:H8	1.83	0.43
1:AA:1972:A:H2'	1:AA:1973:G:H8	1.84	0.43
1:AA:211:A:H2'	1:AA:212:G:O4'	2.19	0.43
1:AA:2131:G:H1'	1:AA:2158:A:N7	2.33	0.43
1:AA:2399:G:O2'	1:AA:2400:G:H5'	2.18	0.43
1:AA:2700:C:O2'	1:AA:2701:C:H5'	2.19	0.43
1:AA:2768:C:C4	1:AA:2769:C:C5	3.06	0.43
1:AA:2835:A:C2	1:AA:2879:C:N3	2.87	0.43
1:AA:513:A:OP1	56:AA:3342:OHX:N4	2.52	0.43
1:AA:579:G:N2	1:AA:1262:A:C4	2.86	0.43
1:AA:705:A:C2	1:AA:706:A:C4	3.07	0.43
1:AA:784:A:C5	3:AD:229:VAL:HG21	2.53	0.43
2:AB:83:G:C6	2:AB:84:C:C5	3.06	0.43
3:AD:270:ILE:CG2	3:AD:271:ILE:N	2.80	0.43
4:AE:131:ALA:HB1	4:AE:135:HIS:HE1	1.79	0.43
1:AA:2316:C:H1'	6:AG:128:ARG:NH2	2.34	0.43
7:AH:88:LEU:CD1	7:AH:165:ALA:HA	2.49	0.43
7:AH:77:LYS:HE2	7:AH:138:LYS:CE	2.48	0.43
8:AK:104:GLN:O	8:AK:105:HIS:HB2	2.18	0.43
8:AK:21:VAL:HG22	8:AK:22:LYS:H	1.84	0.43
12:AP:11:LYS:HG2	12:AP:87:LYS:CG	2.49	0.43
15:AR:136:GLN:HG3	15:AR:137:LYS:N	2.29	0.43
15:AR:5:ALA:HA	15:AR:8:LYS:HG2	2.01	0.43
18:AS:11:ARG:NH2	18:AS:99:ARG:N	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AV:133:ILE:HA	21:AV:134:PRO:HD2	1.83	0.43
21:AV:120:ILE:HB	21:AV:171:ILE:HA	2.01	0.43
25:AX:56:VAL:HG12	25:AX:57:GLU:N	2.34	0.43
31:BA:1505:G:H4'	54:B1:13:A:N6	2.33	0.43
31:BA:1227:A:C8	31:BA:1228:C:O4'	2.71	0.43
31:BA:1343:G:C6	31:BA:1344:C:C4	3.07	0.43
31:BA:1358:U:H5"	44:BQ:33:VAL:O	2.18	0.43
31:BA:411:A:C2	31:BA:431:A:N6	2.87	0.43
31:BA:611:A:N6	31:BA:629:G:N1	2.59	0.43
31:BA:668:G:O2'	45:BR:46:HIS:CD2	2.65	0.43
31:BA:903:G:H2'	31:BA:904:C:H6	1.84	0.43
31:BA:939:G:H5"	37:BJ:102:ARG:NH1	2.34	0.43
31:BA:951:G:C2	31:BA:952:U:C2	3.06	0.43
32:BE:144:ARG:HG3	32:BE:145:LEU:N	2.34	0.43
33:BF:123:GLN:O	33:BF:128:PHE:HB2	2.19	0.43
34:BG:104:VAL:C	34:BG:106:TYR:N	2.72	0.43
34:BG:150:GLU:C	34:BG:152:SER:N	2.72	0.43
36:BI:19:LEU:O	36:BI:23:LYS:HB2	2.18	0.43
36:BI:37:VAL:O	36:BI:38:GLU:HG3	2.18	0.43
36:BI:6:VAL:O	36:BI:6:VAL:HG12	2.18	0.43
37:BJ:26:PHE:CD1	37:BJ:62:PHE:CE1	3.07	0.43
37:BJ:38:LEU:O	37:BJ:42:ILE:HG13	2.19	0.43
37:BJ:8:GLU:CD	37:BJ:8:GLU:H	2.21	0.43
42:BO:30:ALA:HB1	42:BO:31:PRO:HD2	2.01	0.43
31:BA:1316:G:H4'	44:BQ:18:VAL:CG1	2.49	0.43
52:CB:36:U:H3	54:C1:20:G:H1	1.66	0.43
31:CA:1134:G:H2'	31:CA:1134:G:N3	2.32	0.43
31:CA:1148:U:H2'	31:CA:1149:C:O4'	2.19	0.43
31:CA:954:G:O6	43:CP:104:ARG:NH1	2.51	0.43
31:CA:1054:C:N4	52:CB:35:G:N9	2.66	0.43
52:CB:48:C:C2'	52:CB:49:A:C8	3.01	0.43
52:CB:17:G:O6	52:CB:67:A:N6	2.52	0.43
52:CB:79:A:H3'	52:CB:80:C:H5"	2.01	0.43
32:CE:84:GLU:H	32:CE:84:GLU:HG2	1.64	0.43
33:CF:50:ALA:O	33:CF:70:VAL:HG13	2.19	0.43
36:CI:39:LYS:O	36:CI:40:VAL:HB	2.19	0.43
39:CL:54:ASP:O	39:CL:56:LEU:N	2.46	0.43
41:CN:86:GLY:H	41:CN:112:THR:HG1	1.65	0.43
42:CO:23:LYS:HE2	42:CO:23:LYS:N	2.33	0.43
47:CT:80:GLY:O	47:CT:81:ARG:C	2.57	0.43
17:D2:37:VAL:CG2	17:D2:57:VAL:H	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:49:PHE:CG	26:D4:50:VAL:N	2.85	0.43
27:D5:16:ARG:NH1	27:D5:17:ASP:OD1	2.51	0.43
1:DA:1075:C:C4	1:DA:1076:C:N4	2.87	0.43
1:DA:1142(A):A:C8	1:DA:1144:G:C5	3.06	0.43
1:DA:1169:G:N2	1:DA:1181:C:C2	2.86	0.43
1:DA:973:A:O4'	1:DA:1188:U:C6	2.72	0.43
1:DA:1198:U:C2	1:DA:1199:U:C5	3.06	0.43
1:DA:1421:G:C2	1:DA:1422:G:C8	3.06	0.43
1:DA:1468:C:H2'	1:DA:1469:A:C8	2.54	0.43
1:DA:1553:A:N6	1:DA:1555:G:H1'	2.34	0.43
1:DA:1786:A:N9	1:DA:1938:A:N6	2.67	0.43
1:DA:200:U:H5"	1:DA:201:C:OP2	2.18	0.43
1:DA:2312:U:C5	1:DA:2313:C:C4	3.07	0.43
1:DA:535:C:H2'	1:DA:536:A:H5'	1.99	0.43
1:DA:776:G:H4'	1:DA:777:A:O5'	2.18	0.43
1:DA:842:G:N2	1:DA:937:U:C2	2.86	0.43
1:DA:875:G:C2	1:DA:903:C:C2	3.06	0.43
1:DA:988:A:O2'	1:DA:989:G:O5'	2.29	0.43
3:DD:166:GLN:CA	3:DD:166:GLN:NE2	2.75	0.43
3:DD:245:PRO:HA	3:DD:246:PRO:HD3	1.93	0.43
4:DE:57:LYS:HD3	4:DE:57:LYS:HA	1.83	0.43
8:DK:117:GLU:HB2	8:DK:118:LYS:H	1.68	0.43
8:DK:122:GLU:O	8:DK:126:TYR:OH	2.26	0.43
9:DM:17:ASP:O	9:DM:18:ALA:HB3	2.19	0.43
11:DO:106:LEU:O	11:DO:107:LYS:CB	2.43	0.43
11:DO:138:LEU:HD12	11:DO:144:GLU:HG3	2.00	0.43
11:DO:19:VAL:HG21	11:DO:32:THR:HG23	2.01	0.43
14:DQ:66:ALA:O	14:DQ:67:ARG:C	2.55	0.43
18:DS:39:THR:O	18:DS:39:THR:HG22	2.19	0.43
21:DV:121:HIS:HB3	21:DV:123:ASP:O	2.18	0.43
21:DV:4:ARG:NH1	21:DV:58:VAL:HG11	2.33	0.43
13:A0:70:LEU:O	13:A0:72:ASP:N	2.42	0.43
13:A0:77:ARG:O	13:A0:78:LYS:C	2.57	0.43
22:A3:49:LYS:O	22:A3:50:ASN:HB2	2.19	0.43
29:A7:19:ARG:NH1	29:A7:19:ARG:HG2	2.33	0.43
1:AA:1021:A:C8	1:AA:1021:A:C3'	3.01	0.43
1:AA:103:A:C8	1:AA:103:A:O5'	2.72	0.43
1:AA:1435:G:H2'	1:AA:1436:G:O4'	2.18	0.43
1:AA:1509:C:C2'	1:AA:1510:A:OP1	2.66	0.43
1:AA:1579:A:H2'	1:AA:1580:A:H8	1.82	0.43
1:AA:1853:A:N6	1:AA:1889:A:C8	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2127:G:H2'	1:AA:2128:C:O4'	2.19	0.43
1:AA:2135:A:C2'	1:AA:2136:C:OP1	2.67	0.43
1:AA:2274:A:N7	1:AA:2276:G:C8	2.87	0.43
1:AA:2304:G:C2'	1:AA:2305:A:O5'	2.67	0.43
1:AA:2393:A:C5'	11:AO:62:LEU:CB	2.96	0.43
1:AA:2537:U:O4	56:AA:3466:OHX:N6	2.52	0.43
1:AA:1662:C:O2'	1:AA:2687:U:H5"	2.19	0.43
1:AA:2715:C:H2'	1:AA:2716:U:H6	1.84	0.43
1:AA:2789:C:C3'	1:AA:2790:A:H5"	2.49	0.43
1:AA:2841:C:O2	1:AA:2877:G:C2	2.72	0.43
1:AA:396:G:O3'	23:AZ:44:PRO:HA	2.19	0.43
1:AA:633:A:C8	1:AA:633:A:C3'	3.02	0.43
1:AA:880:G:OP1	1:AA:880:G:C4'	2.64	0.43
1:AA:979:G:N2	1:AA:985:C:C4	2.87	0.43
2:AB:30:C:H2'	2:AB:31:C:C5'	2.42	0.43
2:AB:94:C:C4	2:AB:95:U:C5	3.07	0.43
3:AD:85:ASP:HB2	3:AD:92:ILE:HD13	2.01	0.43
4:AE:167:VAL:CG1	4:AE:189:PRO:HD3	2.49	0.43
4:AE:21:VAL:CG2	4:AE:22:PRO:HB3	2.49	0.43
5:AF:123:LEU:CD1	5:AF:192:LEU:HD22	2.48	0.43
6:AG:95:ARG:C	6:AG:99:MET:HG2	2.38	0.43
1:AA:2751:G:N2	7:AH:3:ARG:HB3	2.34	0.43
7:AH:24:VAL:HG11	7:AH:72:ILE:HD11	2.01	0.43
8:AK:132:PRO:O	8:AK:133:HIS:CG	2.71	0.43
12:AP:35:VAL:CG1	12:AP:130:LYS:HD2	2.49	0.43
18:AS:59:VAL:HG12	18:AS:60:ASN:N	2.33	0.43
19:AT:18:TYR:HA	19:AT:21:PHE:CE1	2.54	0.43
21:AV:28:MET:HB2	21:AV:37:VAL:CG1	2.48	0.43
1:AA:851:U:H5'	25:AX:46:ASN:ND2	2.34	0.43
31:BA:1039:C:C4	31:BA:1040:U:C4	3.07	0.43
31:BA:1103:C:C4	31:BA:1104:G:N7	2.86	0.43
31:BA:1160:G:C6	31:BA:1177:G:C2	3.06	0.43
31:BA:1170:A:H2'	31:BA:1171:G:O4'	2.19	0.43
31:BA:1269:A:H5"	31:BA:1270:C:OP2	2.18	0.43
31:BA:1266:G:N2	31:BA:1270:C:N3	2.67	0.43
31:BA:1315:U:O2	31:BA:1360:A:H2	2.02	0.43
31:BA:1416:G:C5	31:BA:1417:G:C5	3.07	0.43
31:BA:254:G:H21	47:BT:16:GLN:NE2	2.16	0.43
31:BA:408:A:C2	31:BA:409:G:C4	3.07	0.43
31:BA:853:G:N7	56:BA:1762:OHX:N1	2.67	0.43
31:BA:871:U:C4'	31:BA:872:A:OP1	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:35:G:H8	52:BB:35:G:O5'	2.02	0.43
32:BE:74:LYS:HD2	32:BE:74:LYS:N	2.24	0.43
33:BF:120:VAL:CG1	33:BF:198:VAL:HG11	2.49	0.43
33:BF:138:VAL:O	33:BF:142:MET:HG2	2.19	0.43
38:BK:126:LYS:HZ2	38:BK:126:LYS:HB3	1.84	0.43
38:BK:25:ASP:C	38:BK:26:VAL:HG12	2.39	0.43
43:BP:36:LYS:HB3	43:BP:59:TYR:CE1	2.54	0.43
44:BQ:21:TYR:N	44:BQ:21:TYR:CD1	2.86	0.43
45:BR:25:THR:O	45:BR:28:GLN:HB2	2.19	0.43
46:BS:39:TYR:CG	46:BS:40:ASP:N	2.85	0.43
46:BS:8:ARG:HB3	46:BS:28:ARG:HH11	1.80	0.43
47:BT:33:GLY:O	47:BT:34:LYS:C	2.57	0.43
47:BT:91:ARG:NH1	47:BT:92:ARG:NH2	2.55	0.43
48:BU:21:LYS:O	48:BU:22:VAL:CB	2.59	0.43
31:CA:1057:G:H2'	31:CA:1058:G:O4'	2.19	0.43
31:CA:1061:G:C2'	31:CA:1062:U:H5'	2.48	0.43
31:CA:1200:C:O2	31:CA:1200:C:C2'	2.66	0.43
31:CA:1212:U:H2'	31:CA:1212:U:H6	1.66	0.43
31:CA:1305:G:H22	31:CA:1331:G:H2'	1.81	0.43
31:CA:1369:C:H2'	31:CA:1370:G:O4'	2.19	0.43
31:CA:1472:U:H2'	31:CA:1473:A:O4'	2.18	0.43
31:CA:166:G:H2'	31:CA:167:G:H5'	1.99	0.43
31:CA:198:G:C2'	31:CA:199:G:O5'	2.66	0.43
31:CA:20:U:C2'	31:CA:21:G:H5'	2.49	0.43
31:CA:49:U:C2	31:CA:361:G:N2	2.87	0.43
31:CA:5:U:C6	56:CA:1788:OHX:N1	2.87	0.43
31:CA:92:G:O2'	31:CA:93:U:H5'	2.18	0.43
53:CC:14:A:C2	53:CC:23:G:C4	3.07	0.43
52:CD:28:G:H2'	52:CD:29:C:H6	1.84	0.43
32:CE:10:LEU:O	32:CE:13:ALA:HB3	2.18	0.43
32:CE:209:ARG:HG3	32:CE:240:GLN:NE2	2.34	0.43
33:CF:115:LEU:O	33:CF:116:VAL:C	2.57	0.43
33:CF:126:ARG:HB2	33:CF:128:PHE:CD1	2.54	0.43
34:CG:4:TYR:CD1	34:CG:4:TYR:C	2.90	0.43
37:CJ:115:ARG:O	37:CJ:117:ALA:N	2.51	0.43
42:CO:60:LEU:HA	42:CO:60:LEU:HD13	1.61	0.43
49:CV:32:LYS:HZ1	49:CV:57:HIS:HB2	1.84	0.43
1:DA:444:C:P	16:D1:2:PRO:HD3	2.59	0.43
17:D2:43:GLU:C	17:D2:44:LYS:HD3	2.39	0.43
26:D4:4:GLY:C	26:D4:5:ILE:HD12	2.39	0.43
1:DA:107:C:N3	1:DA:108:U:C5	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1342:A:C6	1:DA:1397:U:C6	3.04	0.43
1:DA:1444:G:C2	1:DA:1548:C:C2	3.07	0.43
1:DA:2259:G:H1'	1:DA:2427:C:H2'	2.00	0.43
1:DA:2493:U:H2'	1:DA:2494:G:O5'	2.18	0.43
1:DA:1999:C:H1'	1:DA:2687:U:O2'	2.18	0.43
1:DA:2786:U:H4'	4:DE:64:LYS:C	2.36	0.43
1:DA:271(B):G:N7	1:DA:421:U:H2'	2.34	0.43
1:DA:471:A:N6	1:DA:472:A:C2	2.86	0.43
1:DA:497:A:H2'	1:DA:498:G:O4'	2.18	0.43
1:DA:526:A:H5"	1:DA:527:C:OP1	2.19	0.43
1:DA:537:C:H5"	1:DA:537:C:H6	1.84	0.43
1:DA:569:U:H5'	1:DA:821:A:H2	1.84	0.43
1:DA:745:G:C2'	1:DA:746:A:H5'	2.49	0.43
1:DA:796:C:H2'	1:DA:797:C:H6	1.80	0.43
2:DB:30:C:O2	2:DB:30:C:H2'	2.19	0.43
4:DE:38:THR:N	4:DE:42:ASP:OD2	2.49	0.43
1:DA:2638:G:OP2	4:DE:82:ARG:NH2	2.51	0.43
6:DG:2:PRO:C	6:DG:4:ASP:N	2.71	0.43
6:DG:96:ARG:NH1	6:DG:96:ARG:HG2	2.33	0.43
7:DH:139:GLN:O	7:DH:143:GLN:HB2	2.18	0.43
12:DP:21:THR:H	12:DP:98:LYS:HB2	1.84	0.43
18:DS:4:LYS:HB2	18:DS:106:ILE:HG22	2.01	0.43
19:DT:53:LYS:HZ2	19:DT:55:ASN:ND2	2.15	0.43
21:DV:157:LEU:HD21	21:DV:163:LEU:HD22	2.01	0.43
21:DV:30:ASN:HB2	21:DV:90:VAL:HG23	1.99	0.43
23:DZ:7:ILE:HD13	23:DZ:70:VAL:HG22	2.00	0.43
16:A1:60:LEU:CD2	16:A1:64:ARG:HD3	2.49	0.43
22:A3:70:GLN:HG2	22:A3:72:ARG:HG3	2.00	0.43
11:AO:62:LEU:H	30:A8:13:ARG:HH11	1.67	0.43
30:A8:32:LEU:HA	30:A8:32:LEU:HD22	1.76	0.43
1:AA:1400:G:H2'	1:AA:1401:G:C8	2.53	0.43
1:AA:1491:G:O2'	1:AA:1492:G:H5'	2.19	0.43
1:AA:1535:U:O2	1:AA:1536:A:H5"	2.18	0.43
1:AA:1833:U:N3	1:AA:1834:U:C5	2.87	0.43
1:AA:2102:U:H2'	1:AA:2103:C:O4'	2.18	0.43
1:AA:2111:C:C2	1:AA:2118:U:H4'	2.53	0.43
1:AA:2157:G:H2'	1:AA:2158:A:OP2	2.19	0.43
1:AA:2566:A:H4'	1:AA:2567:G:O5'	2.18	0.43
1:AA:2587:A:H8	1:AA:2587:A:O5'	2.02	0.43
1:AA:2729:G:H2'	1:AA:2730:C:O4'	2.19	0.43
1:AA:31:C:O2'	1:AA:32:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:371:A:O3'	1:AA:372:G:H4'	2.19	0.43
1:AA:886:C:H2'	1:AA:887:A:O4'	2.19	0.43
3:AD:142:VAL:HG23	3:AD:193:VAL:HA	2.01	0.43
3:AD:186:HIS:HD2	3:AD:188:GLU:HB2	1.83	0.43
3:AD:268:ARG:CG	3:AD:268:ARG:O	2.67	0.43
3:AD:61:LEU:O	3:AD:63:ARG:NH1	2.48	0.43
4:AE:181:LEU:HD21	15:AR:7:ILE:CG2	2.45	0.43
5:AF:135:LYS:O	5:AF:136:THR:C	2.57	0.43
11:AO:101:VAL:CG1	11:AO:102:ARG:N	2.82	0.43
11:AO:34:GLY:O	11:AO:35:HIS:C	2.56	0.43
11:AO:46:LYS:O	11:AO:47:ASP:HB2	2.18	0.43
12:AP:43:THR:HG22	12:AP:94:VAL:CG1	2.47	0.43
12:AP:77:LYS:HD2	12:AP:81:VAL:HG21	2.00	0.43
20:AU:8:LYS:HB2	20:AU:8:LYS:HE3	1.75	0.43
21:AV:28:MET:O	21:AV:34:ASN:HA	2.19	0.43
23:AZ:76:ARG:HG2	23:AZ:76:ARG:NH1	2.10	0.43
31:BA:1055:A:H2'	31:BA:1056:U:O5'	2.19	0.43
31:BA:1069:C:H2'	31:BA:1070:U:O5'	2.18	0.43
31:BA:1331:G:O2'	31:BA:1332:A:H8	2.02	0.43
31:BA:1362:C:H2'	31:BA:1362(A):C:H5"	2.01	0.43
31:BA:1369:C:H2'	31:BA:1370:G:O4'	2.19	0.43
31:BA:380:G:OP2	56:BA:1773:OHX:N3	2.52	0.43
31:BA:321:A:N7	31:BA:328:C:C6	2.87	0.43
31:BA:36:C:N4	31:BA:37:U:C4	2.87	0.43
31:BA:977:A:H1'	31:BA:982:U:O4	2.19	0.43
52:BD:14:A:H3'	52:BD:15:G:H5"	1.99	0.43
52:BD:44:C:C2'	52:BD:45:C:H5'	2.49	0.43
32:BE:169:LYS:HD3	32:BE:169:LYS:O	2.19	0.43
32:BE:19:HIS:HD2	32:BE:20:GLU:CD	2.22	0.43
33:BF:68:VAL:HG12	33:BF:70:VAL:HG23	2.01	0.43
34:BG:38:TYR:CZ	34:BG:45:GLN:OE1	2.71	0.43
34:BG:38:TYR:HB2	34:BG:39:PRO:CD	2.48	0.43
36:BI:75:LEU:CD2	36:BI:79:LEU:HG	2.40	0.43
38:BK:116:LYS:HG2	38:BK:129:VAL:HG11	2.01	0.43
40:BM:38:ILE:HG23	40:BM:71:LEU:HB3	2.01	0.43
40:BM:39:PRO:HB3	40:BM:70:ARG:HH12	1.81	0.43
40:BM:57:LYS:CE	40:BM:60:ARG:HH12	2.28	0.43
41:BN:104:GLN:O	41:BN:106:LYS:HG3	2.19	0.43
41:BN:111:ASP:OD1	48:BU:84:LYS:NZ	2.38	0.43
44:BQ:47:LEU:C	44:BQ:49:HIS:H	2.22	0.43
44:BQ:4:LYS:HD2	44:BQ:7:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BS:40:ASP:C	46:BS:42:ARG:N	2.72	0.43
48:BU:43:PHE:C	48:BU:44:LEU:HD12	2.39	0.43
48:BU:47:THR:O	48:BU:83:GLU:HG2	2.19	0.43
31:CA:1031:G:C6	31:CA:1032:A:N6	2.87	0.43
31:CA:1095:U:H5'	31:CA:1109:C:O2	2.18	0.43
31:CA:1095:U:N3	31:CA:1096:C:N3	2.67	0.43
31:CA:1128:C:N4	31:CA:1139:G:N3	2.67	0.43
31:CA:1128:C:O2'	31:CA:1129:C:O5'	2.36	0.43
31:CA:1307:U:H2'	31:CA:1308:U:C6	2.53	0.43
31:CA:62:U:O2'	31:CA:379:C:O2'	2.08	0.43
31:CA:491:G:H2'	31:CA:492:G:H5'	1.99	0.43
31:CA:836:G:C6	31:CA:851:G:C6	3.07	0.43
31:CA:853:G:N3	31:CA:854:G:C8	2.86	0.43
31:CA:86:U:O2'	31:CA:87:A:P	2.76	0.43
31:CA:994:A:N1	44:CQ:5:ALA:HB2	2.34	0.43
31:CA:996:A:C2'	31:CA:997:U:H5'	2.49	0.43
52:CB:20:C:O2'	52:CB:68:A:C8	2.70	0.43
32:CE:24:TRP:CZ3	32:CE:40:HIS:CE1	3.07	0.43
34:CG:162:LEU:CD1	34:CG:181:MET:HG2	2.49	0.43
36:CI:39:LYS:H	36:CI:64:GLN:HB3	1.84	0.43
38:CK:14:ARG:HG2	38:CK:14:ARG:O	2.19	0.43
31:CA:1292:U:H5'	39:CL:38:GLN:NE2	2.33	0.43
40:CM:13:HIS:O	40:CM:17:ASP:HB2	2.18	0.43
41:CN:27:ASN:OD1	41:CN:28:THR:N	2.52	0.43
45:CR:43:LEU:HA	45:CR:43:LEU:HD23	1.79	0.43
46:CS:18:ARG:HD2	46:CS:35:LYS:HD2	2.00	0.43
13:D0:24:GLN:HE22	13:D0:36:THR:CG2	2.32	0.43
13:D0:49:ASP:O	13:D0:50:HIS:C	2.56	0.43
13:D0:67:LEU:HD12	13:D0:76:VAL:HG11	2.00	0.43
17:D2:51:VAL:HG12	17:D2:52:VAL:H	1.83	0.43
28:D6:44:ARG:O	28:D6:45:LYS:HD3	2.19	0.43
1:DA:1015:G:C5	1:DA:1148:A:N1	2.87	0.43
1:DA:1144:G:N1	1:DA:1145:C:N3	2.66	0.43
1:DA:1190:G:C2	1:DA:1191:G:N7	2.87	0.43
1:DA:1310:G:C2'	1:DA:1311:G:H5'	2.49	0.43
1:DA:1332:G:N2	1:DA:1610:A:C8	2.87	0.43
1:DA:1439:A:H2'	1:DA:1440:G:O4'	2.19	0.43
1:DA:1575:C:H2'	1:DA:1576:U:H6	1.84	0.43
1:DA:1716:U:O2'	1:DA:1717:G:H5'	2.19	0.43
1:DA:1932:A:OP2	56:DA:3118:OHX:N4	2.51	0.43
1:DA:2225:A:H4'	1:DA:2226:C:O5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2271:G:H5"	22:D3:20:ARG:NE	2.34	0.43
1:DA:2315:G:H2'	1:DA:2316:C:H6	1.83	0.43
1:DA:218:A:C2	1:DA:235:U:H4'	2.54	0.43
1:DA:2418:A:OP2	30:D8:29:LYS:NZ	2.50	0.43
1:DA:2063:C:O2	1:DA:2450:A:N1	2.52	0.43
1:DA:1953:A:C2	1:DA:2549:G:H2'	2.53	0.43
1:DA:253:C:H2'	1:DA:254:G:O4'	2.19	0.43
1:DA:1050:A:O2'	1:DA:2752:C:H1'	2.18	0.43
1:DA:281:G:O2'	1:DA:282:A:O4'	2.36	0.43
1:DA:2897:U:H2'	1:DA:2898:U:O4'	2.19	0.43
1:DA:460:A:H2'	1:DA:461:C:O4'	2.19	0.43
1:DA:524:U:C2	1:DA:525:U:C5	3.06	0.43
1:DA:633:A:H2'	1:DA:634:C:C5'	2.48	0.43
1:DA:857:C:H1'	22:D3:26:TYR:CE2	2.54	0.43
1:DA:893:C:C2	1:DA:894:C:C5	3.07	0.43
1:DA:945:A:C5	1:DA:2448:A:N1	2.87	0.43
1:DA:990:A:OP2	1:DA:991:C:OP2	2.36	0.43
3:DD:206:LEU:HD22	3:DD:211:ARG:CG	2.38	0.43
4:DE:101:ARG:CG	4:DE:203:LYS:HE3	2.47	0.43
5:DF:164:ARG:HG3	5:DF:175:THR:OG1	2.19	0.43
5:DF:31:HIS:O	5:DF:31:HIS:CG	2.71	0.43
7:DH:86:GLU:O	7:DH:87:LEU:HD23	2.17	0.43
8:DK:7:GLU:O	8:DK:9:LEU:HD23	2.18	0.43
9:DM:123:TYR:OH	9:DM:129:PRO:HD3	2.19	0.43
9:DM:1:MET:HE2	9:DM:2:LYS:O	2.19	0.43
31:CA:1422:G:O3'	10:DN:49:ARG:NH1	2.51	0.43
11:DO:146:VAL:HG13	11:DO:147:LEU:HD13	2.00	0.43
14:DQ:7:TYR:CE2	14:DQ:91:PRO:HG3	2.54	0.43
19:DT:36:LYS:O	19:DT:54:VAL:HG21	2.18	0.43
20:DU:68:HIS:O	20:DU:70:SER:N	2.51	0.43
16:A1:115:ALA:O	16:A1:116:ALA:HB3	2.17	0.43
16:A1:65:ILE:O	16:A1:66:ASN:C	2.56	0.43
1:AA:2814:C:O2'	27:A5:29:THR:CG2	2.66	0.43
30:A8:34:TRP:H	30:A8:35:GLN:C	2.21	0.43
30:A8:29:LYS:CG	30:A8:44:LYS:HG2	2.49	0.43
1:AA:1086:A:H4'	1:AA:1103:A:N1	2.34	0.43
1:AA:990:A:H5'	1:AA:1157:G:OP1	2.19	0.43
1:AA:1173:G:H4'	1:AA:1174:A:C2	2.54	0.43
1:AA:1324:G:C5	1:AA:1328:G:O6	2.72	0.43
1:AA:1412:A:C6	1:AA:1413:G:C6	3.07	0.43
1:AA:1576:U:N3	1:AA:1577:C:C5	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2082:A:H2'	1:AA:2083:G:O4'	2.19	0.43
1:AA:240:G:O5'	1:AA:240:G:H8	2.02	0.43
1:AA:2665:A:H2'	1:AA:2666:C:C5'	2.49	0.43
1:AA:2892:A:H2'	1:AA:2893:G:O4'	2.19	0.43
1:AA:1921:G:C5	56:AA:3391:OHX:N2	2.86	0.43
1:AA:502:A:O3'	56:AA:3494:OHX:N1	2.52	0.43
1:AA:511:U:O4	1:AA:512:G:C2	2.72	0.43
1:AA:557:U:C2	1:AA:558:G:C8	3.07	0.43
1:AA:729:G:H5'	1:AA:730:C:H5"	2.00	0.43
1:AA:732:C:H2'	1:AA:733:G:H5'	2.00	0.43
1:AA:784:A:C8	1:AA:792:G:C5	3.06	0.43
5:AF:32:LEU:O	5:AF:36:VAL:HG23	2.19	0.43
6:AG:99:MET:HG3	6:AG:100:TRP:H	1.83	0.43
6:AG:95:ARG:O	6:AG:96:ARG:C	2.57	0.43
7:AH:74:ASN:O	7:AH:77:LYS:HG2	2.18	0.43
7:AH:85:LYS:HA	7:AH:86:GLU:OE1	2.18	0.43
7:AH:89:ILE:HG12	7:AH:129:THR:HA	1.99	0.43
8:AK:114:LEU:HD13	8:AK:130:TYR:CD1	2.54	0.43
9:AM:79:PRO:C	9:AM:81:GLY:H	2.22	0.43
5:AF:33:LEU:HD23	11:AO:1:MET:HG3	2.00	0.43
12:AP:3:MET:HB2	12:AP:93:TYR:CD1	2.53	0.43
14:AQ:83:LYS:C	14:AQ:109:GLY:HA2	2.36	0.43
14:AQ:24:LEU:HD12	14:AQ:24:LEU:HA	1.79	0.43
14:AQ:74:ALA:O	14:AQ:75:GLU:C	2.57	0.43
21:AV:48:PHE:CZ	21:AV:74:VAL:HG21	2.54	0.43
21:AV:7:ALA:HB3	21:AV:61:LEU:HB2	2.01	0.43
19:AT:3:THR:HG22	24:AW:29:LYS:NZ	2.33	0.43
1:AA:72:U:H1'	24:AW:58:ALA:HB1	2.01	0.43
25:AX:9:VAL:HG21	25:AX:55:ARG:HB2	2.00	0.43
31:BA:1004:A:O5'	31:BA:1036:G:O6	2.36	0.43
31:BA:1057:G:H2'	31:BA:1058:G:O4'	2.18	0.43
31:BA:1178:G:C3'	31:BA:1178:G:C8	3.02	0.43
31:BA:1227:A:OP2	43:BP:111:LYS:HE3	2.17	0.43
31:BA:412:A:H1'	31:BA:413:G:OP2	2.19	0.43
31:BA:510:A:H5"	31:BA:511:C:P	2.59	0.43
31:BA:791:G:N1	31:BA:792:A:N6	2.67	0.43
31:BA:93:U:N3	31:BA:95:G:C8	2.87	0.43
53:BC:50:G:N2	53:BC:67:C:C2	2.86	0.43
32:BE:158:LEU:HD12	32:BE:158:LEU:H	1.84	0.43
33:BF:107:GLN:N	33:BF:107:GLN:CD	2.71	0.43
35:BH:82:VAL:HG21	35:BH:138:ALA:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BK:6:ILE:HG12	38:BK:31:PHE:HE2	1.84	0.43
40:BM:34:VAL:HG22	40:BM:74:ILE:CG2	2.39	0.43
44:BQ:26:ARG:HD3	44:BQ:43:CYS:HB3	2.01	0.43
47:BT:20:THR:CG2	47:BT:41:LYS:HG2	2.48	0.43
31:CA:1001:G:C6	31:CA:1002:G:C5	3.07	0.43
31:CA:1126:U:O4	31:CA:1281:U:C1'	2.67	0.43
31:CA:1166:G:C2	31:CA:1171:G:C6	3.07	0.43
31:CA:1259:C:C4	31:CA:1260:C:H1'	2.54	0.43
31:CA:1305:G:H8	31:CA:1305:G:OP2	2.02	0.43
31:CA:1405:G:H1	31:CA:1496:C:H42	1.66	0.43
31:CA:270:A:C5	31:CA:271:C:C4	3.07	0.43
31:CA:376:G:H2'	31:CA:377:G:H8	1.84	0.43
31:CA:543:C:OP1	34:CG:14:ARG:NE	2.51	0.43
31:CA:601:C:N4	31:CA:637:G:H1	2.14	0.43
52:CD:5:G:H1	52:CD:77:C:N4	2.16	0.43
32:CE:91:PRO:CG	32:CE:155:LEU:HB2	2.47	0.43
33:CF:152:ILE:HG22	33:CF:167:TRP:CA	2.49	0.43
33:CF:5:ILE:HD13	33:CF:5:ILE:N	2.28	0.43
33:CF:91:LEU:CD1	33:CF:101:LEU:HD12	2.49	0.43
34:CG:162:LEU:HD23	34:CG:162:LEU:HA	1.77	0.43
35:CH:41:VAL:O	35:CH:66:MET:HA	2.19	0.43
39:CL:4:TYR:CE2	39:CL:88:TYR:CB	3.02	0.43
42:CO:95:GLY:O	42:CO:96:VAL:C	2.56	0.43
40:CM:47:PHE:HB3	44:CQ:34:TYR:CE2	2.54	0.43
45:CR:4:THR:C	45:CR:6:GLU:H	2.22	0.43
46:CS:43:LYS:HG3	46:CS:48:TRP:CG	2.54	0.43
49:CV:53:ASN:HA	49:CV:77:THR:HG22	1.99	0.43
16:D1:41:ALA:HB1	16:D1:45:TYR:CE1	2.54	0.43
17:D2:45:THR:O	17:D2:47:VAL:HG12	2.18	0.43
22:D3:71:ASP:OD1	22:D3:71:ASP:C	2.57	0.43
22:D3:74:ARG:NH1	22:D3:74:ARG:HB2	2.33	0.43
1:DA:254:G:O6	30:D8:5:LYS:HG2	2.19	0.43
1:DA:1062:G:H1'	1:DA:1088:A:N7	2.34	0.43
1:DA:1205:U:H4'	1:DA:1206:G:OP2	2.18	0.43
1:DA:1382:G:O2'	1:DA:1383:C:H5'	2.18	0.43
1:DA:1480:G:N2	1:DA:1514:U:H1'	2.34	0.43
1:DA:1775:U:H2'	1:DA:1776:G:O5'	2.19	0.43
1:DA:1990:C:H2'	1:DA:1991:U:C6	2.52	0.43
1:DA:2289:G:N3	1:DA:2289:G:H2'	2.34	0.43
1:DA:2477:C:C5	56:DA:3173:OHX:N4	2.86	0.43
1:DA:2709:G:C2'	1:DA:2710:C:H5'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2805:G:C2	1:DA:2807:G:C2	3.06	0.43
1:DA:286:C:H2'	1:DA:287:C:H5'	2.01	0.43
1:DA:332:A:C4	1:DA:335:C:N4	2.87	0.43
1:DA:2490:G:C2	56:DA:3344:OHX:N4	2.86	0.43
1:DA:499:U:O3'	20:DU:44:ILE:HD11	2.19	0.43
1:DA:509:C:OP1	56:DA:3418:OHX:N4	2.52	0.43
1:DA:588:U:H2'	1:DA:589:C:C6	2.53	0.43
1:DA:638:G:C8	1:DA:651:G:N2	2.87	0.43
1:DA:68:G:O2'	1:DA:69:C:H5'	2.18	0.43
1:DA:860:U:H2'	1:DA:861:A:C8	2.53	0.43
1:DA:91:A:OP1	1:DA:91:A:C4'	2.67	0.43
4:DE:29:GLY:H	4:DE:51:PHE:HE1	1.67	0.43
4:DE:96:PHE:O	4:DE:175:VAL:HG11	2.19	0.43
6:DG:97:ASP:HA	6:DG:100:TRP:HD1	1.83	0.43
8:DK:81:VAL:HG22	8:DK:143:SER:HB2	2.01	0.43
9:DM:56:ASN:H	9:DM:126:PRO:HA	1.83	0.43
11:DO:31:ALA:C	11:DO:33:ARG:N	2.72	0.43
1:DA:244:A:O3'	11:DO:74:GLU:HB3	2.18	0.43
12:DP:23:GLY:HA2	12:DP:24:GLY:HA3	1.75	0.43
31:CA:1443:G:N2	15:DR:119:LYS:HB2	2.34	0.43
20:DU:17:SER:HB3	20:DU:71:LYS:HA	2.01	0.43
21:DV:145:GLU:HA	21:DV:174:VAL:HG11	2.01	0.43
1:AA:2882:A:P	13:A0:96:ARG:HH11	2.40	0.42
16:A1:14:HIS:CE1	16:A1:32:PHE:CD2	3.07	0.42
1:AA:1064:C:N4	1:AA:1070:A:OP1	2.39	0.42
1:AA:1301:A:H2'	1:AA:1301:A:N3	2.34	0.42
1:AA:1316:U:H2'	1:AA:1317:A:H8	1.83	0.42
1:AA:1489:U:O3'	1:AA:1490:A:H8	2.02	0.42
1:AA:1925:C:O2'	1:AA:1926:U:H5'	2.18	0.42
1:AA:2248:C:C5	1:AA:2249:U:C4	3.06	0.42
1:AA:2321:G:C2'	1:AA:2321:G:N3	2.82	0.42
1:AA:2744:G:N2	7:AH:143:GLN:HE22	2.17	0.42
1:AA:969:U:C4	56:AA:3547:OHX:N1	2.87	0.42
1:AA:531:C:C5	1:AA:2035:G:C2	3.07	0.42
1:AA:752:A:O2'	1:AA:753:C:P	2.77	0.42
1:AA:917:A:C2'	1:AA:918:A:O5'	2.67	0.42
1:AA:959:A:N1	1:AA:960:A:C2	2.87	0.42
2:AB:102:G:O2'	2:AB:103:U:H5'	2.18	0.42
2:AB:86:G:O6	56:AB:215:OHX:N2	2.52	0.42
2:AB:35:U:H2'	2:AB:36:C:O4'	2.19	0.42
3:AD:270:ILE:C	3:AD:271:ILE:CG1	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:78:LEU:O	4:AE:78:LEU:CG	2.66	0.42
6:AG:60:LEU:O	6:AG:62:LEU:N	2.42	0.42
18:AS:86:LEU:C	18:AS:86:LEU:HD12	2.40	0.42
21:AV:60:GLU:O	21:AV:61:LEU:CD2	2.66	0.42
25:AX:22:ALA:O	25:AX:25:ALA:N	2.52	0.42
31:BA:1022:G:H2'	31:BA:1023:G:O4'	2.19	0.42
31:BA:1074:G:N2	31:BA:1102:A:C4	2.87	0.42
31:BA:1112:C:N4	33:BF:178:LEU:HD22	2.33	0.42
31:BA:1053:G:N7	31:BA:1199:U:C6	2.87	0.42
31:BA:1302:U:OP1	43:BP:21:TYR:OH	2.36	0.42
31:BA:1329:A:OP1	43:BP:26:GLY:O	2.36	0.42
31:BA:1338:G:C6	31:BA:1339:A:C6	3.07	0.42
31:BA:1465:C:H2'	31:BA:1466:C:O4'	2.18	0.42
31:BA:250:A:H4'	31:BA:251:G:H5"	1.99	0.42
31:BA:266:G:H5'	31:BA:268:C:H41	1.83	0.42
31:BA:273:A:O2'	31:BA:274:A:H5'	2.19	0.42
31:BA:415:A:OP2	56:BA:1785:OHX:N3	2.52	0.42
31:BA:596:C:O5'	31:BA:596:C:H6	2.01	0.42
31:BA:632:A:H8	31:BA:633:G:C8	2.37	0.42
31:BA:689:C:C2'	31:BA:690:G:H5'	2.49	0.42
32:BE:19:HIS:O	32:BE:39:ILE:HG23	2.18	0.42
33:BF:19:GLU:HA	33:BF:54:ARG:HH12	1.83	0.42
34:BG:138:TYR:HD2	34:BG:139:ARG:N	2.16	0.42
34:BG:9:CYS:O	34:BG:13:ARG:HG2	2.19	0.42
35:BH:63:ARG:H	35:BH:63:ARG:HG2	1.40	0.42
35:BH:78:HIS:HE1	35:BH:142:LEU:HA	1.81	0.42
38:BK:113:SER:H	38:BK:134:ILE:HG12	1.84	0.42
40:BM:42:THR:HG22	40:BM:67:THR:O	2.19	0.42
41:BN:112:THR:HA	41:BN:113:PRO:HD3	1.69	0.42
44:BQ:8:GLU:O	44:BQ:10:ALA:N	2.52	0.42
46:BS:67:THR:O	46:BS:68:ASP:C	2.57	0.42
26:A4:63:TYR:OH	49:BV:41:VAL:O	2.34	0.42
31:CA:1023:G:H2'	31:CA:1023:G:N3	2.34	0.42
31:CA:1179:A:C6	31:CA:1180:A:C2	3.07	0.42
31:CA:1187:G:H2'	31:CA:1187:G:N3	2.34	0.42
31:CA:271:C:H2'	31:CA:272:C:H6	1.84	0.42
31:CA:309:G:O2'	31:CA:310:G:H5'	2.19	0.42
31:CA:511:C:H2'	31:CA:534:U:O2	2.18	0.42
31:CA:713:G:N7	56:CA:1805:OHX:N2	2.67	0.42
31:CA:957:U:O2'	31:CA:959:A:N7	2.36	0.42
31:CA:972:C:O3'	40:CM:57:LYS:CG	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CB:9:U:C5	52:CB:21:A:C8	3.07	0.42
53:CC:15:G:OP2	56:CC:108:OHX:N4	2.52	0.42
32:CE:77:ALA:CB	32:CE:211:ILE:HD13	2.41	0.42
33:CF:119:ARG:HH22	33:CF:140:ARG:CD	2.32	0.42
35:CH:51:VAL:O	35:CH:54:ALA:HB3	2.19	0.42
37:CJ:113:GLU:HB3	37:CJ:118:VAL:HG23	2.00	0.42
37:CJ:50:ILE:O	37:CJ:50:ILE:HG22	2.18	0.42
40:CM:54:PHE:CE1	40:CM:55:LYS:CE	3.02	0.42
43:CP:65:LYS:HA	43:CP:69:GLU:OE1	2.19	0.42
45:CR:9:GLN:O	45:CR:11:VAL:N	2.51	0.42
50:CW:25:ARG:NH1	50:CW:25:ARG:HG3	2.27	0.42
50:CW:30:LYS:O	50:CW:33:ILE:N	2.48	0.42
13:D0:63:ARG:HA	13:D0:80:PHE:CZ	2.54	0.42
22:D3:54:GLY:C	22:D3:56:ASP:H	2.22	0.42
28:D6:28:ARG:HD2	28:D6:30:THR:O	2.19	0.42
1:DA:1069:A:O2'	1:DA:1072:C:OP2	2.31	0.42
1:DA:1139:G:O5'	9:DM:70:LYS:NZ	2.41	0.42
1:DA:1021:A:H62	1:DA:1141:U:H3	1.66	0.42
1:DA:1495:A:H2'	1:DA:1496:A:H5'	1.97	0.42
1:DA:1625:C:O2	1:DA:1625:C:H2'	2.18	0.42
1:DA:2142:C:O2'	1:DA:2143:C:H5'	2.19	0.42
1:DA:2186:G:C2	1:DA:2187:G:C8	3.07	0.42
1:DA:2536:G:C5	1:DA:2537:U:C5	3.07	0.42
1:DA:2704:C:H2'	1:DA:2704:C:O2	2.19	0.42
1:DA:972:G:H3'	1:DA:973:A:H2'	2.01	0.42
2:DB:50:G:H8	2:DB:50:G:O5'	2.02	0.42
8:DK:131:LYS:CD	8:DK:131:LYS:N	2.82	0.42
9:DM:137:LYS:HA	9:DM:137:LYS:HZ2	1.79	0.42
1:DA:1665:A:H1'	10:DN:1:MET:CG	2.49	0.42
12:DP:4:PRO:CG	12:DP:71:ASP:HA	2.48	0.42
21:DV:116:VAL:O	21:DV:117:LEU:HD13	2.19	0.42
21:DV:54:HIS:CE1	21:DV:123:ASP:OD1	2.72	0.42
21:DV:161:VAL:HG23	21:DV:162:GLU:H	1.83	0.42
21:DV:149:SER:CB	21:DV:170:THR:OG1	2.67	0.42
21:DV:24:LEU:HA	21:DV:25:PRO:HD3	1.71	0.42
2:DB:104:A:OP1	21:DV:72:ARG:NH2	2.52	0.42
21:DV:93:ASP:O	21:DV:131:ARG:NH2	2.52	0.42
23:DZ:74:VAL:O	23:DZ:76:ARG:N	2.52	0.42
13:A0:61:HIS:CE1	13:A0:65:LEU:HD22	2.54	0.42
17:A2:22:VAL:CG1	17:A2:23:GLU:N	2.81	0.42
26:A4:33:VAL:O	26:A4:34:GLU:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:A7:43:THR:HG22	29:A7:44:PRO:N	2.34	0.42
1:AA:99:U:C6	1:AA:102:G:N1	2.88	0.42
1:AA:1062:G:H1'	1:AA:1088:A:C5	2.53	0.42
1:AA:1084:A:N7	1:AA:1085:A:N7	2.67	0.42
1:AA:1110:G:H2'	1:AA:1111:A:C8	2.54	0.42
1:AA:1487:G:C2	1:AA:1488:G:C8	3.07	0.42
1:AA:1638:C:OP1	1:AA:2710:C:O2'	2.35	0.42
1:AA:1680:U:O2	1:AA:1763:G:H3'	2.19	0.42
1:AA:2184:G:C6	1:AA:2185:C:N4	2.87	0.42
1:AA:2250:G:N1	12:AP:83:MET:HB2	2.34	0.42
1:AA:2436:G:C4	1:AA:2437:U:C6	3.07	0.42
1:AA:2599:G:C2'	1:AA:2600:A:H5'	2.50	0.42
1:AA:2749:A:C4	1:AA:2750:A:N7	2.87	0.42
1:AA:316:C:H2'	1:AA:317:G:O5'	2.19	0.42
1:AA:698:C:O2'	1:AA:734:A:N6	2.52	0.42
1:AA:876:C:H2'	1:AA:877:U:O4'	2.20	0.42
2:AB:70:C:C2	2:AB:71:C:C6	3.07	0.42
3:AD:245:PRO:HA	3:AD:246:PRO:HD3	1.87	0.42
3:AD:34:VAL:O	3:AD:35:LYS:HG3	2.19	0.42
4:AE:167:VAL:HG21	4:AE:187:ALA:HB1	2.00	0.42
5:AF:67:GLN:O	5:AF:68:LYS:CB	2.59	0.42
6:AG:83:ARG:HB2	6:AG:86:MET:CE	2.49	0.42
10:AN:93:PRO:HG3	10:AN:114:ILE:HG12	2.01	0.42
12:AP:76:LYS:HD3	12:AP:77:LYS:N	2.34	0.42
14:AQ:80:LEU:HA	14:AQ:80:LEU:HD23	1.67	0.42
15:AR:106:SER:O	15:AR:111:ARG:NH1	2.52	0.42
15:AR:38:ASN:HA	15:AR:38:ASN:HD22	1.62	0.42
20:AU:51:VAL:HA	20:AU:56:PRO:HA	2.00	0.42
25:AX:59:VAL:CG1	25:AX:60:GLU:H	2.31	0.42
31:BA:1105:A:C2	31:BA:1106:G:C8	3.07	0.42
31:BA:1152:A:O3'	40:BM:13:HIS:CE1	2.65	0.42
31:BA:368:U:OP1	8:DK:91:SER:OG	2.36	0.42
31:BA:659:U:C2	31:BA:660:G:C8	3.06	0.42
31:BA:925:G:C6	31:BA:1392:G:C2	3.07	0.42
52:BD:77:C:C4	52:BD:78:C:N4	2.87	0.42
32:BE:105:PHE:O	32:BE:108:ILE:HG22	2.19	0.42
33:BF:101:LEU:HD23	33:BF:101:LEU:C	2.40	0.42
33:BF:23:TYR:CG	33:BF:24:ALA:N	2.87	0.42
41:BN:33:THR:HB	41:BN:37:GLY:C	2.40	0.42
44:BQ:47:LEU:O	44:BQ:49:HIS:N	2.52	0.42
31:CA:1060:C:C2'	31:CA:1061:G:H5'	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1157:A:C6	31:CA:1181:G:C8	3.07	0.42
31:CA:1252:A:H2	31:CA:1355:G:O4'	2.02	0.42
31:CA:151:A:H2'	31:CA:152:A:O4'	2.19	0.42
31:CA:409:G:C2'	31:CA:410:G:H5'	2.49	0.42
31:CA:45:U:H2'	31:CA:46:G:C8	2.53	0.42
52:CD:46:G:C2	52:CD:54:C:O2	2.72	0.42
32:CE:92:TYR:C	32:CE:92:TYR:CD2	2.91	0.42
35:CH:102:ALA:HB1	35:CH:106:PRO:HG2	2.01	0.42
35:CH:146:ALA:O	35:CH:147:ASP:C	2.58	0.42
38:CK:84:ARG:O	38:CK:135:CYS:HB2	2.19	0.42
39:CL:79:LEU:O	39:CL:79:LEU:HD13	2.18	0.42
43:CP:81:LEU:HD11	43:CP:88:ARG:NH1	2.33	0.42
43:CP:87:TYR:CD2	43:CP:87:TYR:C	2.92	0.42
49:CV:17:GLU:OE1	56:CV:101:OHX:N3	2.51	0.42
49:CV:17:GLU:O	49:CV:21:GLU:HG2	2.19	0.42
16:D1:52:ARG:O	16:D1:56:ASP:HB2	2.19	0.42
22:D3:51:VAL:HG23	22:D3:81:VAL:HG23	2.00	0.42
27:D5:16:ARG:HD2	27:D5:20:ARG:NH1	2.34	0.42
27:D5:20:ARG:C	27:D5:22:HIS:N	2.71	0.42
28:D6:11:LEU:HG	28:D6:53:LYS:O	2.19	0.42
1:DA:1012:U:C2'	1:DA:1012:U:O2	2.67	0.42
1:DA:1213:A:N3	1:DA:1238:G:O2'	2.46	0.42
1:DA:1507:A:C4	1:DA:1508:A:H1'	2.55	0.42
1:DA:1530:G:H2'	1:DA:1531:C:C6	2.53	0.42
1:DA:1689:A:N6	1:DA:1698:A:C2	2.60	0.42
1:DA:1899:G:O2'	1:DA:1900:A:P	2.76	0.42
1:DA:1924:C:H2'	1:DA:1925:C:O4'	2.19	0.42
1:DA:826:U:OP1	1:DA:2428:G:H3'	2.18	0.42
1:DA:2707:G:H2'	1:DA:2708:G:H8	1.84	0.42
1:DA:2645:G:N2	1:DA:2767:C:OP2	2.52	0.42
1:DA:428:A:H8	1:DA:428:A:OP2	2.01	0.42
1:DA:431:U:O2'	1:DA:432:A:H5'	2.19	0.42
1:DA:28:A:C4	1:DA:513:A:C8	3.07	0.42
1:DA:581:C:H2'	1:DA:582:G:H8	1.84	0.42
1:DA:620:G:N3	1:DA:620:G:C2'	2.82	0.42
1:DA:810:U:O5'	1:DA:810:U:H6	2.02	0.42
1:DA:847:U:N3	1:DA:933:A:N6	2.34	0.42
1:DA:867:C:C5	1:DA:868:U:H5	2.37	0.42
2:DB:116:G:H2'	2:DB:117:G:O4'	2.20	0.42
2:DB:40:U:C4	2:DB:43:C:OP2	2.72	0.42
5:DF:4:VAL:HG11	5:DF:17:ARG:NE	2.29	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:DH:138:LYS:O	7:DH:141:VAL:HB	2.19	0.42
8:DK:124:GLY:N	8:DK:142:VAL:CG1	2.80	0.42
8:DK:54:GLN:HE21	8:DK:54:GLN:HB2	1.52	0.42
8:DK:92:VAL:HB	8:DK:120:ILE:HB	2.01	0.42
12:DP:45:GLN:H	12:DP:45:GLN:HG2	1.65	0.42
14:DQ:44:LYS:HE3	14:DQ:44:LYS:HB2	1.83	0.42
15:DR:85:LYS:HD2	15:DR:87:ASP:OD2	2.20	0.42
18:DS:75:TYR:HE2	18:DS:104:THR:HG1	1.66	0.42
20:DU:23:ARG:CG	20:DU:23:ARG:NH1	2.82	0.42
21:DV:76:LEU:HD23	21:DV:76:LEU:H	1.84	0.42
25:DX:6:VAL:O	25:DX:34:GLU:HA	2.19	0.42
13:A0:97:VAL:HA	13:A0:113:LEU:O	2.18	0.42
16:A1:62:ILE:O	16:A1:63:VAL:C	2.56	0.42
30:A8:51:ALA:O	30:A8:52:LYS:HB3	2.19	0.42
1:AA:1019:U:H2'	1:AA:1020:A:H8	1.84	0.42
1:AA:1253:A:C3'	1:AA:1254:A:H5'	2.50	0.42
1:AA:1394:U:C4	1:AA:1395:A:C6	3.06	0.42
1:AA:1424:G:H2'	1:AA:1425:G:O4'	2.18	0.42
1:AA:16:G:C2	1:AA:17:G:C8	3.08	0.42
1:AA:2013:A:C2'	1:AA:2014:A:H5'	2.50	0.42
1:AA:828:U:O4	1:AA:2247:A:H1'	2.19	0.42
1:AA:2320:A:H8	1:AA:2321:G:O6	2.02	0.42
1:AA:2469:A:H2	1:AA:2481:G:H21	1.67	0.42
1:AA:2734:A:H5"	1:AA:2734:A:H8	1.83	0.42
1:AA:2824:C:H2'	1:AA:2825:C:O4'	2.19	0.42
1:AA:1423:G:N7	56:AA:3346:OHX:N3	2.68	0.42
1:AA:363(D):G:H2'	1:AA:363(E):U:C6	2.54	0.42
1:AA:552:G:C5	1:AA:553:U:C5	3.07	0.42
7:AH:52:VAL:HG12	7:AH:65:HIS:CD2	2.54	0.42
7:AH:86:GLU:O	7:AH:87:LEU:CB	2.67	0.42
9:AM:55:VAL:CG1	9:AM:126:PRO:HA	2.48	0.42
9:AM:131:GLN:HB3	9:AM:131:GLN:HE21	1.63	0.42
9:AM:41:ASP:O	9:AM:42:TRP:C	2.56	0.42
10:AN:22:ILE:HD12	10:AN:22:ILE:O	2.19	0.42
11:AO:135:LEU:HA	11:AO:135:LEU:HD23	1.84	0.42
11:AO:42:SER:OG	11:AO:43:GLY:N	2.52	0.42
11:AO:85:LEU:C	11:AO:87:ASP:H	2.23	0.42
12:AP:136:ALA:HB1	21:AV:52:SER:CB	2.50	0.42
12:AP:92:GLY:C	12:AP:93:TYR:CG	2.92	0.42
20:AU:46:LYS:HE3	20:AU:63:LYS:CB	2.49	0.42
21:AV:78:LYS:H	21:AV:78:LYS:HG2	1.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AW:48:HIS:N	24:AW:50:ILE:HD11	2.33	0.42
25:AX:40:THR:HG23	25:AX:43:ILE:HG13	2.01	0.42
31:BA:1083:U:C5	31:BA:1084:G:C6	3.05	0.42
31:BA:1189:C:OP1	40:BM:51:ARG:NH2	2.27	0.42
31:BA:1325:C:O2'	31:BA:1326:C:H5'	2.20	0.42
31:BA:1346:A:O4'	31:BA:1348:U:C6	2.72	0.42
31:BA:186(D):C:N4	31:BA:186(E):C:N4	2.67	0.42
31:BA:31:G:C2'	31:BA:32:A:OP1	2.67	0.42
31:BA:380:G:N1	31:BA:384:G:C6	2.88	0.42
31:BA:413:G:O2'	31:BA:414:A:OP2	2.37	0.42
31:BA:436:C:H2'	31:BA:437:U:O4'	2.19	0.42
31:BA:530:G:OP1	31:BA:530:G:H3'	2.19	0.42
31:BA:789:U:O2	31:BA:789:U:H3'	2.19	0.42
52:BB:12:C:O2	52:BB:13:G:H1'	2.19	0.42
52:BB:40:U:H2'	52:BB:41:C:H6	1.85	0.42
52:BB:51:C:OP2	52:BB:51:C:H6	2.02	0.42
33:BF:32:LEU:O	33:BF:33:LEU:C	2.57	0.42
34:BG:102:ASP:OD2	34:BG:103:ASN:N	2.52	0.42
35:BH:127:ASN:HD21	35:BH:130:ASN:H	1.63	0.42
35:BH:13:ILE:HA	35:BH:13:ILE:HD12	1.82	0.42
39:BL:112:LYS:HD3	39:BL:112:LYS:C	2.39	0.42
40:BM:47:PHE:CE1	44:BQ:37:PHE:HE2	2.37	0.42
31:CA:1033:G:C2'	31:CA:1034:G:O4'	2.64	0.42
31:CA:1122:U:C4	31:CA:1123:A:C5	3.07	0.42
31:CA:1160:G:H22	31:CA:1177:G:N2	2.17	0.42
31:CA:116:A:C5	31:CA:117:G:N7	2.87	0.42
31:CA:417:C:H2'	31:CA:418:C:H5'	1.99	0.42
31:CA:797:C:O2'	31:CA:798:G:H5'	2.19	0.42
31:CA:907:A:H2'	31:CA:907:A:N3	2.34	0.42
37:CJ:143:ARG:HD2	52:CD:42:U:O3'	2.20	0.42
52:CD:17:G:C6	52:CD:67:A:N6	2.87	0.42
32:CE:71:VAL:HG22	32:CE:93:VAL:HB	2.00	0.42
33:CF:125:GLU:HG3	33:CF:189:ALA:HB1	2.01	0.42
35:CH:72:GLN:C	35:CH:74:GLY:N	2.69	0.42
49:CV:49:ILE:CG1	49:CV:62:ILE:HD11	2.45	0.42
13:D0:77:ARG:O	13:D0:80:PHE:N	2.51	0.42
16:D1:86:ALA:O	17:D2:49:THR:HG22	2.19	0.42
28:D6:24:GLU:CG	28:D6:25:LYS:N	2.75	0.42
28:D6:24:GLU:HA	56:D8:101:OHX:N6	2.34	0.42
1:DA:1057:A:H2'	1:DA:1058:U:O4'	2.19	0.42
1:DA:1404:C:N3	1:DA:1405:U:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:204:A:O2'	1:DA:205:G:OP2	2.25	0.42
1:DA:2105:C:H3'	1:DA:2105:C:C6	2.55	0.42
1:DA:2803:C:C4	1:DA:2804:C:N4	2.87	0.42
1:DA:2901:C:H2'	1:DA:2902:C:H5'	2.01	0.42
1:DA:474:G:O6	56:DA:3422:OHX:N5	2.52	0.42
1:DA:552:G:H2'	1:DA:553:U:H6	1.84	0.42
1:DA:775:G:C5	1:DA:794:G:C8	3.07	0.42
1:DA:783:A:H8	1:DA:784:A:H4'	1.84	0.42
2:DB:83:G:H4'	25:DX:52:HIS:CD2	2.54	0.42
3:DD:106:ILE:O	3:DD:108:PRO:HD3	2.20	0.42
4:DE:88:GLY:O	4:DE:90:THR:N	2.43	0.42
5:DF:18:ARG:HG2	5:DF:19:GLU:N	2.34	0.42
5:DF:38:ARG:NH1	5:DF:38:ARG:CG	2.80	0.42
6:DG:37:VAL:HG23	6:DG:99:MET:HE3	2.01	0.42
7:DH:127:GLU:OE2	7:DH:130:ARG:NH2	2.53	0.42
11:DO:116:GLY:O	11:DO:117:GLU:C	2.57	0.42
12:DP:59:ARG:O	12:DP:60:ARG:C	2.57	0.42
14:DQ:9:ARG:O	14:DQ:10:ARG:C	2.56	0.42
15:DR:90:GLN:HG3	15:DR:91:ARG:N	2.34	0.42
18:DS:73:ALA:HB3	18:DS:106:ILE:HG12	2.01	0.42
18:DS:34:ASN:HA	18:DS:34:ASN:HD22	1.66	0.42
21:DV:24:LEU:HD12	21:DV:25:PRO:N	2.34	0.42
17:A2:62:LEU:HA	17:A2:62:LEU:HD12	1.80	0.42
22:A3:23:VAL:HG13	22:A3:38:VAL:CG2	2.47	0.42
22:A3:37:LEU:HD21	22:A3:61:ALA:HB2	2.01	0.42
1:AA:1084:A:N6	1:AA:1085:A:H62	2.18	0.42
1:AA:1324:G:C2	1:AA:1328:G:C6	3.07	0.42
1:AA:1337:G:C4	1:AA:1338:G:C8	3.08	0.42
1:AA:1751:C:H2'	1:AA:1752:C:C6	2.54	0.42
1:AA:1771:C:HO2'	1:AA:1786:A:C1'	2.32	0.42
1:AA:1786:A:H4'	1:AA:1787:A:OP2	2.20	0.42
1:AA:2186:G:H2'	1:AA:2187:G:H8	1.85	0.42
1:AA:2443:C:H2'	1:AA:2444:G:H8	1.84	0.42
1:AA:2474:C:H3'	1:AA:2475:C:C6	2.55	0.42
1:AA:394:A:C6	1:AA:395:U:C4	3.07	0.42
3:AD:125:ILE:HD11	3:AD:131:LEU:CD2	2.36	0.42
3:AD:270:ILE:C	3:AD:271:ILE:HG12	2.40	0.42
4:AE:92:THR:CB	4:AE:94:GLU:HG2	2.48	0.42
5:AF:33:LEU:HD12	5:AF:33:LEU:HA	1.83	0.42
7:AH:99:VAL:O	7:AH:102:ALA:HB3	2.19	0.42
18:AS:36:LEU:O	18:AS:37:ARG:C	2.56	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AU:101:LYS:HZ2	20:AU:101:LYS:HB3	1.82	0.42
21:AV:23:LYS:HD3	21:AV:40:ASP:HA	2.01	0.42
31:BA:1267:C:C5	31:BA:1268:A:C5	3.07	0.42
31:BA:222:U:H2'	31:BA:223:U:C6	2.54	0.42
31:BA:38:G:N3	31:BA:397:A:C2	2.88	0.42
31:BA:41:G:H2'	31:BA:42:G:C8	2.54	0.42
31:BA:468:A:H8	31:BA:474:G:C8	2.30	0.42
31:BA:475:G:C4	31:BA:476:G:C8	3.07	0.42
31:BA:611:A:N1	31:BA:629:G:N2	2.62	0.42
31:BA:633:G:H5"	31:BA:633:G:H8	1.84	0.42
31:BA:730:G:C5	31:BA:731:G:H1'	2.54	0.42
31:BA:902:G:H2'	31:BA:903:G:H8	1.83	0.42
1:AA:2602:A:N1	53:BC:77:A:H4'	2.32	0.42
32:BE:122:PHE:HB3	32:BE:123:ALA:H	1.53	0.42
34:BG:155:LEU:O	34:BG:157:LEU:N	2.52	0.42
34:BG:6:GLY:O	34:BG:7:PRO:C	2.57	0.42
39:BL:43:ALA:O	39:BL:46:ALA:N	2.47	0.42
40:BM:48:THR:HG23	40:BM:62:HIS:CG	2.52	0.42
31:BA:1059:C:O2	40:BM:53:PRO:HG3	2.19	0.42
43:BP:28:ALA:C	43:BP:30:ALA:H	2.22	0.42
45:BR:18:PHE:CZ	45:BR:21:ASP:HB2	2.54	0.42
31:BA:277:C:P	47:BT:68:ARG:HH12	2.42	0.42
48:BU:29:PHE:CD2	48:BU:29:PHE:N	2.87	0.42
50:BW:48:LYS:O	50:BW:49:ALA:C	2.58	0.42
50:BW:52:ALA:O	50:BW:53:LEU:C	2.58	0.42
31:CA:1037:C:O2'	31:CA:1038:C:O4'	2.32	0.42
31:CA:983:A:H1'	31:CA:1049:U:O2	2.18	0.42
31:CA:1084:G:C5	31:CA:1085:U:C5	3.08	0.42
31:CA:1118:C:H1'	31:CA:1179:A:C5	2.54	0.42
31:CA:1129:C:C4	31:CA:1139:G:C2	3.07	0.42
31:CA:1357:A:C8	31:CA:1358:U:H5	2.38	0.42
31:CA:243:A:C8	31:CA:281:G:N2	2.87	0.42
31:CA:304:U:O5'	31:CA:304:U:H6	2.02	0.42
31:CA:422:C:H6	31:CA:422:C:H2'	1.73	0.42
31:CA:484:G:H21	31:CA:485:G:H21	1.67	0.42
53:CC:19:G:C6	53:CC:58:A:N6	2.88	0.42
32:CE:69:LEU:HD23	32:CE:71:VAL:HG23	2.02	0.42
33:CF:119:ARG:HH22	33:CF:140:ARG:HD2	1.84	0.42
33:CF:83:ARG:O	33:CF:86:VAL:HG22	2.19	0.42
31:CA:511:C:O3'	34:CG:43:HIS:CE1	2.72	0.42
35:CH:100:VAL:O	35:CH:100:VAL:CG1	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CI:32:ASN:ND2	36:CI:32:ASN:H	2.17	0.42
32:CE:178:ARG:HH21	38:CK:68:ARG:NH2	2.17	0.42
39:CL:33:PHE:HB3	39:CL:34:ASN:OD1	2.19	0.42
40:CM:23:ILE:C	40:CM:25:GLU:H	2.23	0.42
41:CN:112:THR:HA	41:CN:113:PRO:HD2	1.83	0.42
46:CS:82:GLN:O	46:CS:83:GLU:HB2	2.20	0.42
47:CT:83:ASP:O	47:CT:86:GLU:HB2	2.19	0.42
50:CW:70:SER:O	50:CW:71:THR:O	2.37	0.42
1:DA:1006:C:C2	1:DA:1138:G:C2	3.07	0.42
1:DA:1015:G:H2'	1:DA:1015:G:N3	2.33	0.42
1:DA:1022:G:N3	1:DA:1024:G:C6	2.87	0.42
1:DA:1024:G:OP2	1:DA:1025:G:H3'	2.19	0.42
1:DA:1087:G:C8	1:DA:1089:G:H1'	2.54	0.42
1:DA:1149:G:H2'	1:DA:1150:C:O4'	2.20	0.42
1:DA:1163:G:N2	1:DA:1164:G:C4	2.87	0.42
1:DA:1215:G:H2'	1:DA:1216:G:H5'	2.00	0.42
1:DA:1416:G:C2'	1:DA:1417:C:C6	3.02	0.42
1:DA:1578:U:C2'	1:DA:1579:A:H5'	2.49	0.42
31:CA:1418:A:H2	1:DA:1948:G:N3	2.17	0.42
1:DA:2016:U:C1'	27:D5:6:VAL:CG1	2.97	0.42
1:DA:2127:G:H1	1:DA:2161:C:N4	2.17	0.42
1:DA:2074:U:H4'	1:DA:2598:A:O4'	2.20	0.42
1:DA:2744:G:H8	1:DA:2755:C:C5	2.37	0.42
1:DA:2102:U:O4	56:DA:3132:OHX:N3	2.53	0.42
1:DA:592:G:N3	30:D8:4:MET:CE	2.82	0.42
1:DA:951:C:C2'	1:DA:952:G:H5'	2.50	0.42
3:DD:53:PHE:CD1	3:DD:219:PRO:O	2.73	0.42
4:DE:47:VAL:HG21	4:DE:85:ASN:HA	2.01	0.42
6:DG:50:ALA:O	6:DG:53:LEU:HD23	2.20	0.42
7:DH:2:SER:O	7:DH:3:ARG:C	2.56	0.42
9:DM:131:GLN:HB3	9:DM:131:GLN:HE21	1.63	0.42
9:DM:46:VAL:O	9:DM:46:VAL:CG1	2.66	0.42
10:DN:110:GLY:O	10:DN:112:MET:N	2.52	0.42
10:DN:47:ILE:O	10:DN:48:PRO:C	2.58	0.42
11:DO:114:ILE:O	11:DO:115:LEU:HD23	2.19	0.42
18:DS:39:THR:HG22	18:DS:44:ALA:HB2	2.01	0.42
19:DT:29:TRP:CH2	19:DT:78:LYS:CE	3.01	0.42
19:DT:84:ALA:O	19:DT:87:GLN:HG3	2.19	0.42
20:DU:44:ILE:HG12	20:DU:45:VAL:N	2.34	0.42
13:A0:109:ALA:HA	13:A0:110:PRO:HD2	1.75	0.42
16:A1:88:ILE:HG21	16:A1:109:LEU:CD2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:A1:98:LEU:HD23	16:A1:98:LEU:C	2.40	0.42
1:AA:686:G:O6	29:A7:12:ARG:HG3	2.20	0.42
30:A8:14:VAL:HG13	30:A8:22:VAL:HG13	2.01	0.42
1:AA:1314:C:C2	1:AA:1315:C:C5	3.07	0.42
1:AA:1729:A:C6	1:AA:1731:G:C6	3.08	0.42
1:AA:1783:A:C2	1:AA:2587:A:C5	3.07	0.42
1:AA:2111:C:C5	1:AA:2145:C:C4	3.08	0.42
1:AA:2339:G:N2	1:AA:2340:G:C4	2.88	0.42
1:AA:2358:G:H2'	1:AA:2359:C:O5'	2.19	0.42
1:AA:266:G:O6	1:AA:267:C:C4	2.72	0.42
1:AA:2789:C:OP1	1:AA:2789:C:H4'	2.18	0.42
1:AA:450:G:O6	1:AA:453:C:OP1	2.38	0.42
1:AA:719:C:H2'	1:AA:720:C:H6	1.85	0.42
1:AA:807:U:H2'	1:AA:808:G:O4'	2.20	0.42
8:AK:77:LEU:HD11	8:AK:79:ILE:HD11	2.00	0.42
9:AM:131:GLN:OE1	9:AM:132:ALA:HB2	2.20	0.42
9:AM:37:LYS:HB3	9:AM:37:LYS:HE2	1.70	0.42
11:AO:100:LEU:HD12	11:AO:100:LEU:HA	1.79	0.42
20:AU:95:LYS:O	20:AU:96:ILE:C	2.55	0.42
23:AZ:16:ASN:HB3	23:AZ:37:ILE:HG22	2.01	0.42
31:BA:1015:A:H2'	31:BA:1016:A:H8	1.84	0.42
31:BA:1090:U:HO2'	31:BA:1091:U:H5'	1.80	0.42
31:BA:1211:U:H1'	31:BA:1213:A:N3	2.34	0.42
31:BA:1301:U:C4	31:BA:1303:C:C6	3.07	0.42
31:BA:160:A:C6	31:BA:161:A:C4	3.08	0.42
31:BA:273:A:N6	31:BA:274:A:C6	2.88	0.42
31:BA:344:A:H4'	31:BA:345:C:OP2	2.19	0.42
31:BA:425:G:C5	31:BA:426:G:C8	3.07	0.42
31:BA:580:U:O4	31:BA:581:G:C6	2.73	0.42
31:BA:66:G:H4'	31:BA:173:U:C5	2.55	0.42
31:BA:854:G:C6	31:BA:855:G:N7	2.87	0.42
31:BA:958:A:N6	31:BA:959:A:N6	2.68	0.42
52:BB:48:C:C5'	52:BB:49:A:OP2	2.68	0.42
52:BD:52:G:H2'	52:BD:53:A:H8	1.79	0.42
32:BE:187:LEU:HD11	32:BE:204:ASN:O	2.19	0.42
32:BE:31:TYR:O	32:BE:42:ILE:HG13	2.19	0.42
34:BG:111:ALA:HB2	34:BG:120:LEU:HD12	2.01	0.42
39:BL:9:ARG:O	39:BL:104:ARG:HG3	2.19	0.42
40:BM:54:PHE:CZ	40:BM:55:LYS:CE	3.02	0.42
40:BM:8:LEU:HD12	40:BM:20:ALA:CB	2.47	0.42
43:BP:87:TYR:HA	43:BP:90:LEU:HG	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:90:LEU:CB	43:BP:93:ARG:HD2	2.48	0.42
31:BA:279:A:C8	47:BT:98:LEU:HD13	2.55	0.42
31:CA:103:C:C4	31:CA:104:G:N7	2.88	0.42
31:CA:1107:C:C4	31:CA:1108:G:C8	3.06	0.42
31:CA:114:U:H2'	31:CA:115:G:C8	2.54	0.42
31:CA:1182:G:H4'	31:CA:1183:A:C5'	2.49	0.42
31:CA:1298:C:C6	37:CJ:114:ARG:NH1	2.87	0.42
31:CA:1269:A:H2	31:CA:1312:G:H21	1.65	0.42
31:CA:1446:A:C2'	31:CA:1447:G:O5'	2.68	0.42
31:CA:409:G:H1	31:CA:433:C:N4	2.16	0.42
31:CA:407:G:C2	31:CA:436:C:N3	2.88	0.42
31:CA:475:G:C4	31:CA:476:G:C8	3.07	0.42
31:CA:509:A:C8	31:CA:509:A:C3'	3.02	0.42
31:CA:563:A:C8	31:CA:567:G:O4'	2.72	0.42
31:CA:765:G:O6	31:CA:812:C:C6	2.72	0.42
31:CA:773:G:C2'	31:CA:774:G:O5'	2.67	0.42
31:CA:824:C:H2'	31:CA:825:G:C8	2.54	0.42
31:CA:866:C:H6	31:CA:866:C:H3'	1.84	0.42
31:CA:994:A:N7	31:CA:1216:G:H4'	2.34	0.42
52:CB:78:C:H4'	52:CB:79:A:OP1	2.19	0.42
53:CC:37:U:H2'	53:CC:38:A:O4'	2.19	0.42
53:CC:46:G:O5'	53:CC:46:G:H8	2.02	0.42
53:CC:63:C:H2'	53:CC:63:C:O2	2.19	0.42
52:CD:10:C:C6	52:CD:10:C:H3'	2.54	0.42
52:CD:42:U:H2'	52:CD:43:G:H8	1.83	0.42
32:CE:144:ARG:HG3	32:CE:145:LEU:N	2.34	0.42
33:CF:186:PHE:HD1	33:CF:198:VAL:O	2.01	0.42
31:CA:619:U:H3	34:CG:135:LEU:HD13	1.85	0.42
35:CH:122:GLU:HB3	35:CH:126:ARG:CG	2.37	0.42
35:CH:7:GLU:OE1	35:CH:37:ARG:NH2	2.53	0.42
37:CJ:69:VAL:HG11	37:CJ:104:LEU:HD22	2.00	0.42
37:CJ:38:LEU:O	37:CJ:42:ILE:HG13	2.19	0.42
35:CH:79:GLU:OE1	38:CK:104:ARG:HA	2.19	0.42
38:CK:86:ILE:HG21	38:CK:133:LEU:HD22	2.00	0.42
41:CN:112:THR:HG22	41:CN:112:THR:O	2.19	0.42
31:CA:690:G:N2	41:CN:55:LYS:CE	2.82	0.42
42:CO:28:LYS:HE3	42:CO:33:ARG:NH1	2.33	0.42
31:CA:128:G:O2'	47:CT:3:LYS:HE2	2.20	0.42
1:DA:2852:G:P	13:D0:64:ARG:HH22	2.42	0.42
16:D1:65:ILE:N	16:D1:65:ILE:HD12	2.35	0.42
1:DA:1162:G:N2	17:D2:89:GLN:HE22	2.15	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1260:G:C5	1:DA:1261:C:C5	3.07	0.42
1:DA:1313:U:H2'	1:DA:1313:U:O2	2.18	0.42
1:DA:1818:U:H2'	3:DD:157:ARG:HG3	2.00	0.42
1:DA:2288:A:C2	1:DA:2325:G:C8	3.08	0.42
1:DA:2400:G:N3	1:DA:2401:U:C6	2.87	0.42
1:DA:2744:G:C8	1:DA:2755:C:C6	3.07	0.42
1:DA:2786:U:H5"	4:DE:65:GLY:CA	2.49	0.42
1:DA:2846:G:H2'	1:DA:2847:U:H6	1.84	0.42
1:DA:288:C:O3'	1:DA:289:A:O4'	2.38	0.42
1:DA:296:C:C2'	1:DA:297:C:H5'	2.50	0.42
1:DA:464:U:H2'	1:DA:465:G:O4'	2.19	0.42
1:DA:654(A):A:C2	1:DA:654(U):A:N3	2.88	0.42
1:DA:842:G:N2	1:DA:937:U:O2	2.52	0.42
3:DD:26:LYS:H	3:DD:26:LYS:CD	2.16	0.42
3:DD:45:ASN:CG	3:DD:46:GLN:N	2.72	0.42
5:DF:117:ARG:HD2	5:DF:117:ARG:HA	1.61	0.42
5:DF:178:PRO:HB3	5:DF:198:ALA:CB	2.48	0.42
6:DG:146:TYR:C	6:DG:148:MET:H	2.21	0.42
8:DK:118:LYS:HB2	8:DK:119:PRO:HD2	2.01	0.42
14:DQ:74:ALA:HB1	14:DQ:107:GLU:CB	2.49	0.42
20:DU:9:LYS:O	20:DU:27:VAL:O	2.38	0.42
24:DW:46:GLN:HG2	24:DW:49:LYS:NZ	2.34	0.42
1:DA:61:G:OP1	24:DW:51:ARG:NH1	2.53	0.42
13:A0:42:LYS:O	13:A0:45:ARG:HD2	2.20	0.42
13:A0:72:ASP:C	13:A0:72:ASP:OD2	2.58	0.42
17:A2:37:VAL:CG2	17:A2:37:VAL:O	2.67	0.42
1:AA:1082:U:C4	1:AA:1083:U:N3	2.88	0.42
1:AA:1203:G:C4	1:AA:1204:A:C2	3.07	0.42
1:AA:1827:C:C2'	1:AA:1828:G:H5'	2.49	0.42
1:AA:1914:C:O4'	1:AA:1914:C:O2	2.38	0.42
1:AA:1919:A:H2'	1:AA:1919:A:N3	2.35	0.42
1:AA:2037:G:H2'	1:AA:2038:G:H8	1.81	0.42
1:AA:2140:C:N3	1:AA:2151:G:N2	2.67	0.42
1:AA:2157:G:O2'	1:AA:2158:A:O5'	2.36	0.42
1:AA:2168:G:OP1	1:AA:2168:G:H4'	2.19	0.42
1:AA:2564:A:C6	1:AA:2565:A:C6	3.07	0.42
1:AA:2590:A:OP2	3:AD:238:GLY:HA2	2.19	0.42
1:AA:2631:G:C6	1:AA:2632:A:C8	3.08	0.42
3:AD:27:THR:O	3:AD:28:GLU:CD	2.58	0.42
4:AE:117:MET:HG2	4:AE:117:MET:O	2.20	0.42
1:AA:2574:G:O2'	4:AE:143:ASN:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:86:PRO:HB2	4:AE:87:GLU:H	1.58	0.42
8:AK:123:LEU:HA	8:AK:142:VAL:HG21	2.02	0.42
8:AK:61:ARG:HE	8:AK:61:ARG:HA	1.84	0.42
11:AO:135:LEU:HD13	11:AO:139:LYS:NZ	2.34	0.42
5:AF:33:LEU:CD2	11:AO:1:MET:HG3	2.49	0.42
11:AO:49:ARG:CG	11:AO:49:ARG:HH11	2.33	0.42
1:AA:831:G:N2	11:AO:53:GLY:O	2.53	0.42
12:AP:24:GLY:CA	12:AP:25:ASP:HB2	2.23	0.42
12:AP:17:LEU:HD11	12:AP:41:TRP:CD1	2.54	0.42
15:AR:55:ASN:N	15:AR:59:THR:HG22	2.31	0.42
20:AU:63:LYS:NZ	20:AU:64:GLU:HG2	2.35	0.42
21:AV:98:MET:O	21:AV:125:LEU:HA	2.19	0.42
21:AV:53:ILE:O	21:AV:53:ILE:HG13	2.19	0.42
21:AV:5:LEU:HD11	21:AV:39:VAL:HB	2.02	0.42
31:BA:1133:G:H2'	31:BA:1134:G:H8	1.85	0.42
31:BA:1187:G:O5'	39:BL:113:LYS:NZ	2.52	0.42
31:BA:1329:A:OP1	43:BP:28:ALA:HB3	2.20	0.42
1:AA:1703:G:O2'	31:BA:1429:C:H4'	2.19	0.42
31:BA:216:G:C2	31:BA:217:C:N3	2.88	0.42
31:BA:387:U:P	56:BA:1721:OHX:N1	2.92	0.42
31:BA:390:C:H4'	46:BS:28:ARG:HH21	1.83	0.42
31:BA:425:G:C6	31:BA:426:G:C8	3.08	0.42
31:BA:644:G:C2'	31:BA:645:C:H5'	2.50	0.42
52:BD:5:G:N2	52:BD:78:C:O2	2.53	0.42
32:BE:141:GLU:O	32:BE:145:LEU:HB2	2.20	0.42
33:BF:114:PRO:HA	33:BF:185:GLY:HA3	2.02	0.42
39:BL:120:ARG:O	39:BL:121:ARG:C	2.57	0.42
39:BL:36:TYR:CD2	39:BL:37:PHE:CE2	3.08	0.42
40:BM:54:PHE:CE2	40:BM:55:LYS:CE	3.03	0.42
42:BO:48:PRO:CD	42:BO:49:ASN:N	2.81	0.42
43:BP:16:ASP:HB2	43:BP:31:LYS:HG2	2.02	0.42
46:BS:38:TYR:HB2	46:BS:39:TYR:H	1.58	0.42
54:C1:11:U:H2'	54:C1:12:A:N1	2.34	0.42
31:CA:1074:G:O3'	32:CE:103:THR:HG22	2.20	0.42
31:CA:1083:U:C3'	31:CA:1084:G:H5'	2.49	0.42
31:CA:1264:C:H2'	31:CA:1265:G:C8	2.55	0.42
31:CA:1301:U:O3'	43:CP:21:TYR:OH	2.28	0.42
31:CA:1413:A:C2	31:CA:1488:G:C2	3.08	0.42
31:CA:1501:C:N4	31:CA:1504:G:C2	2.87	0.42
31:CA:150:C:C5	31:CA:170:U:C4	3.08	0.42
31:CA:1517:G:C4	31:CA:1518:A:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:323:U:H6	31:CA:323:U:O5'	2.03	0.42
31:CA:32:A:C2	31:CA:33:A:C5	3.08	0.42
31:CA:723:U:H2'	31:CA:724:G:OP1	2.18	0.42
31:CA:952:U:C5	43:CP:104:ARG:NH2	2.75	0.42
52:CD:49:A:C8	52:CD:49:A:O5'	2.72	0.42
52:CD:59:A:C6	52:CD:60:A:C5	3.07	0.42
32:CE:42:ILE:HD13	32:CE:42:ILE:C	2.39	0.42
34:CG:139:ARG:CG	34:CG:139:ARG:NH1	2.67	0.42
39:CL:117:HIS:O	39:CL:118:LYS:HB2	2.19	0.42
42:CO:89:ARG:HG2	42:CO:90:VAL:H	1.84	0.42
43:CP:80:ARG:HB3	43:CP:80:ARG:CZ	2.48	0.42
50:CW:97:ALA:HB3	50:CW:99:LEU:CD1	2.50	0.42
28:D6:25:LYS:CA	30:D8:34:TRP:CH2	3.02	0.42
1:DA:111:A:C2	1:DA:112:U:C2	3.07	0.42
1:DA:49:A:C6	1:DA:118:A:C5	3.08	0.42
1:DA:142:G:H1'	19:DT:37:THR:CG2	2.50	0.42
1:DA:1668:A:N7	1:DA:1674:G:C6	2.87	0.42
1:DA:1815:A:P	3:DD:54:ARG:HH22	2.42	0.42
1:DA:2127:G:N2	1:DA:2161:C:N3	2.61	0.42
1:DA:2301:C:H6	1:DA:2301:C:H3'	1.85	0.42
1:DA:2340:G:O2'	1:DA:2341:G:H5'	2.19	0.42
1:DA:26:G:H8	1:DA:26:G:O5'	2.02	0.42
1:DA:2785:C:C4	1:DA:2786:U:C5	3.07	0.42
1:DA:532:A:C8	1:DA:2021:C:C5	3.08	0.42
1:DA:620:G:H4'	1:DA:621:A:C5'	2.50	0.42
1:DA:816:C:O2'	1:DA:817:C:H5'	2.19	0.42
3:DD:36:PRO:HB3	3:DD:61:LEU:CD1	2.50	0.42
1:DA:1570:A:H4'	3:DD:38:LYS:HE2	2.00	0.42
4:DE:175:VAL:HG12	4:DE:182:LEU:CD1	2.50	0.42
4:DE:61:ARG:CB	4:DE:62:PRO:CD	2.97	0.42
9:DM:59:LYS:O	9:DM:61:ARG:NH1	2.53	0.42
11:DO:9:ASN:ND2	11:DO:9:ASN:N	2.67	0.42
14:DQ:99:LYS:O	14:DQ:103:GLU:HG2	2.20	0.42
14:DQ:46:VAL:HG12	14:DQ:47:THR:O	2.20	0.42
20:DU:17:SER:HB3	20:DU:71:LYS:HD2	2.00	0.42
21:DV:170:THR:OG1	21:DV:170:THR:O	2.31	0.42
26:A4:39:CYS:O	26:A4:40:HIS:CB	2.32	0.42
1:AA:1069:A:C5	1:AA:1073:A:N7	2.88	0.42
1:AA:1287:A:C6	1:AA:1288:U:C4	3.08	0.42
1:AA:1474:C:H2'	1:AA:1475:G:H8	1.83	0.42
1:AA:1488:G:C4	1:AA:1489:U:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1952:A:C6	1:AA:1953:A:N1	2.88	0.42
1:AA:1992:G:C2	1:AA:1997:G:C5	3.08	0.42
1:AA:2249:U:H4'	1:AA:2250:G:OP2	2.18	0.42
1:AA:2393:A:H5'	11:AO:62:LEU:CB	2.41	0.42
1:AA:2409:G:H2'	1:AA:2410:G:O4'	2.19	0.42
1:AA:2508:G:H5'	52:BB:83:C:H42	1.84	0.42
1:AA:270(J):G:C2	1:AA:270(K):C:O2	2.73	0.42
1:AA:416:C:C2'	1:AA:417:C:H5'	2.50	0.42
1:AA:791:C:H4'	1:AA:792:G:OP1	2.19	0.42
1:AA:834:C:C2'	1:AA:835:A:H5'	2.50	0.42
1:AA:887:A:OP2	1:AA:887:A:O4'	2.38	0.42
2:AB:86:G:C2	2:AB:91:C:C2	3.07	0.42
3:AD:77:ALA:CB	3:AD:97:TYR:HA	2.49	0.42
4:AE:41:LYS:HA	4:AE:41:LYS:CE	2.22	0.42
1:AA:2636:U:P	4:AE:79:ARG:HA	2.59	0.42
5:AF:116:ASP:O	5:AF:120:GLU:HG3	2.19	0.42
5:AF:167:ALA:C	5:AF:169:ASN:N	2.73	0.42
1:AA:2312:U:OP1	6:AG:74:LYS:HB2	2.19	0.42
8:AK:144:VAL:HG23	8:AK:145:VAL:H	1.83	0.42
10:AN:120:GLU:OE1	15:AR:67:SER:OG	2.36	0.42
10:AN:35:VAL:HG22	10:AN:69:ILE:HG12	2.01	0.42
11:AO:144:GLU:HA	11:AO:145:PRO:HD3	1.73	0.42
11:AO:21:ARG:HB3	11:AO:22:GLY:H	1.51	0.42
15:AR:100:TYR:C	15:AR:102:ILE:H	2.23	0.42
20:AU:28:LYS:HD2	20:AU:38:ILE:HD11	2.01	0.42
31:BA:1307:U:H2'	31:BA:1308:U:O4'	2.20	0.42
31:BA:1375:A:C2'	31:BA:1376:U:H5'	2.49	0.42
31:BA:1387:G:C6	31:BA:1388:C:N4	2.88	0.42
31:BA:187:C:C4	31:BA:188:U:O2	2.73	0.42
31:BA:191(B):G:H2'	31:BA:191(C):G:O4'	2.19	0.42
31:BA:465:A:H2'	31:BA:466:C:O5'	2.19	0.42
31:BA:51:A:C6	31:BA:353:A:C2	3.08	0.42
31:BA:553:A:C5	31:BA:554:C:C4	3.07	0.42
31:BA:593:G:C4	31:BA:594:G:C8	3.08	0.42
52:BD:49:A:O5'	52:BD:49:A:C8	2.72	0.42
52:BD:51:C:C2'	52:BD:52:G:O4'	2.64	0.42
32:BE:221:LEU:O	32:BE:221:LEU:HD13	2.20	0.42
36:BI:11:ASN:OD1	36:BI:12:PRO:HD2	2.20	0.42
37:BJ:15:ASP:OD2	37:BJ:44:TYR:OH	2.38	0.42
39:BL:70:LYS:HD3	39:BL:70:LYS:H	1.83	0.42
42:BO:62:SER:C	42:BO:64:TYR:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BV:42:PRO:C	49:BV:44:MET:N	2.73	0.42
50:BW:36:LEU:C	50:BW:38:LYS:N	2.73	0.42
31:CA:1028:C:C2	31:CA:1034:G:N2	2.77	0.42
31:CA:1152:A:C2'	31:CA:1153:C:H5'	2.50	0.42
31:CA:1151:A:C2'	31:CA:1152:A:O5'	2.68	0.42
31:CA:1192:C:H6	31:CA:1192:C:H3'	1.84	0.42
31:CA:1261:A:N7	31:CA:1262:C:C5	2.88	0.42
31:CA:1348:U:H5	31:CA:1349:A:N7	2.15	0.42
31:CA:381:C:C4	31:CA:382:A:C5	3.08	0.42
31:CA:628:G:O2'	31:CA:629:G:H5'	2.19	0.42
31:CA:828:A:C2'	31:CA:829:G:O5'	2.67	0.42
52:CB:57:C:C4'	52:CB:58:G:OP2	2.66	0.42
53:CC:44:A:C2	53:CC:45:A:C5	3.08	0.42
52:CD:14:A:H2'	52:CD:14:A:N3	2.34	0.42
52:CD:77:C:N4	52:CD:78:C:N4	2.67	0.42
32:CE:208:ILE:HA	32:CE:211:ILE:HG13	2.01	0.42
34:CG:19:LEU:HB2	34:CG:21:LEU:HD12	2.01	0.42
38:CK:103:VAL:HG11	38:CK:109:ILE:O	2.20	0.42
40:CM:38:ILE:O	40:CM:38:ILE:HG22	2.19	0.42
43:CP:78:ILE:HG23	43:CP:92:HIS:CD2	2.40	0.42
13:D0:70:LEU:HA	13:D0:70:LEU:HD23	1.87	0.42
16:D1:19:LYS:O	16:D1:22:LYS:N	2.36	0.42
26:D4:22:ILE:HD13	26:D4:22:ILE:N	2.32	0.42
1:DA:1445:C:OP2	1:DA:1446:C:OP2	2.38	0.42
1:DA:1821:A:H2'	1:DA:1822:G:C8	2.55	0.42
1:DA:1970:A:OP1	1:DA:1970:A:H4'	2.19	0.42
1:DA:2138:C:O2	1:DA:2154:G:N2	2.52	0.42
1:DA:2211:G:H2'	1:DA:2211:G:N3	2.34	0.42
1:DA:2292:C:O5'	1:DA:2292:C:H6	2.02	0.42
1:DA:2537:U:N3	1:DA:2538:C:C4	2.88	0.42
1:DA:2548:G:H2'	1:DA:2549:G:O5'	2.20	0.42
1:DA:2695:C:HO2'	1:DA:2696:U:C5'	2.33	0.42
1:DA:2774:C:N4	1:DA:2775:A:C6	2.87	0.42
1:DA:2859:G:H4'	1:DA:2860:A:OP1	2.20	0.42
2:DB:103:U:O2'	21:DV:72:ARG:CG	2.68	0.42
2:DB:38:C:N4	2:DB:39:A:N6	2.67	0.42
3:DD:11:PRO:O	3:DD:12:SER:OG	2.31	0.42
3:DD:242:ARG:HG3	3:DD:246:PRO:HG3	2.01	0.42
3:DD:94:LEU:HD23	3:DD:94:LEU:HA	1.78	0.42
5:DF:103:LYS:HG2	5:DF:106:ARG:NH2	2.35	0.42
5:DF:151:SER:C	5:DF:152:GLU:HG3	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DF:72:ARG:C	5:DF:73:ALA:O	2.57	0.42
6:DG:131:TYR:O	6:DG:159:VAL:HG23	2.19	0.42
7:DH:107:VAL:HG23	7:DH:109:PHE:CE1	2.54	0.42
7:DH:138:LYS:C	7:DH:141:VAL:HB	2.40	0.42
7:DH:36:PRO:O	7:DH:37:VAL:HB	2.20	0.42
1:DA:2758:A:C5	7:DH:67:LEU:HD21	2.55	0.42
8:DK:31:LEU:HD21	8:DK:38:LEU:HD11	2.01	0.42
10:DN:14:THR:O	10:DN:14:THR:CG2	2.67	0.42
10:DN:69:ILE:HD12	10:DN:77:ILE:CG2	2.50	0.42
11:DO:107:LYS:O	11:DO:110:TYR:N	2.52	0.42
14:DQ:102:ALA:O	14:DQ:103:GLU:C	2.58	0.42
18:DS:24:ILE:HA	18:DS:27:LYS:HG3	2.01	0.42
18:DS:20:VAL:CG2	18:DS:47:VAL:HG21	2.50	0.42
20:DU:75:ILE:HB	20:DU:80:GLY:H	1.85	0.42
21:DV:93:ASP:N	21:DV:130:PRO:HG2	2.34	0.42
25:DX:52:HIS:CD2	25:DX:52:HIS:H	2.37	0.42
1:AA:1278:A:C3'	13:A0:34:ILE:HD11	2.49	0.42
1:AA:559:G:N2	16:A1:49:HIS:CD2	2.77	0.42
16:A1:86:ALA:CB	16:A1:88:ILE:HG12	2.50	0.42
16:A1:91:ASP:O	16:A1:95:LEU:HB2	2.19	0.42
17:A2:34:GLU:HG3	17:A2:56:SER:OG	2.20	0.42
26:A4:24:THR:O	26:A4:25:TYR:HB2	2.20	0.42
26:A4:58:ARG:C	26:A4:60:GLN:H	2.23	0.42
1:AA:1063:G:C6	1:AA:1064:C:C4	3.07	0.42
1:AA:1284:A:N6	1:AA:1285:G:C2	2.88	0.42
1:AA:1516:U:C2	1:AA:1517:G:C8	3.08	0.42
1:AA:1827:C:O2'	1:AA:1828:G:H5'	2.19	0.42
1:AA:2216:G:N3	1:AA:2217:G:C8	2.87	0.42
1:AA:2391:G:N2	1:AA:2429:G:O4'	2.53	0.42
1:AA:2579:C:O5'	1:AA:2579:C:H6	2.03	0.42
1:AA:2639:A:C2'	1:AA:2640:G:H5'	2.50	0.42
1:AA:2656:U:N3	1:AA:2665:A:H2	2.07	0.42
1:AA:270(K):C:H5"	1:AA:270(L):U:OP2	2.19	0.42
1:AA:2797:U:C2'	1:AA:2797:U:O2	2.66	0.42
1:AA:2875:C:O2'	15:AR:5:ALA:HB3	2.19	0.42
1:AA:2894:G:C2'	1:AA:2895:U:OP2	2.68	0.42
1:AA:631:A:O2'	11:AO:67:MET:HB3	2.19	0.42
1:AA:719:C:O2'	1:AA:720:C:H5'	2.20	0.42
2:AB:94:C:H2'	2:AB:95:U:H6	1.85	0.42
2:AB:95:U:H2'	2:AB:96:G:H8	1.85	0.42
4:AE:57:LYS:NZ	4:AE:59:VAL:HG11	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AF:135:LYS:O	5:AF:138:GLU:N	2.43	0.42
5:AF:184:TYR:O	5:AF:188:ARG:HG3	2.20	0.42
1:AA:2304:G:N2	6:AG:156:ASP:OD2	2.46	0.42
6:AG:65:GLY:HA2	26:A4:7:PRO:HG2	2.02	0.42
7:AH:105:LEU:N	7:AH:105:LEU:CD2	2.77	0.42
7:AH:67:LEU:O	7:AH:71:LEU:HB2	2.20	0.42
7:AH:83:TYR:CB	7:AH:135:GLY:N	2.77	0.42
1:AA:1952:A:C4	10:AN:22:ILE:HG13	2.55	0.42
11:AO:16:ARG:NH1	11:AO:16:ARG:CG	2.80	0.42
11:AO:23:PRO:O	11:AO:23:PRO:CG	2.67	0.42
11:AO:27:HIS:N	11:AO:27:HIS:ND1	2.67	0.42
5:AF:34:TRP:HA	11:AO:6:LEU:HD12	2.02	0.42
12:AP:32:TYR:CE1	12:AP:133:ARG:CG	3.01	0.42
18:AS:70:TYR:CD2	18:AS:70:TYR:N	2.87	0.42
20:AU:29:GLU:HB3	20:AU:38:ILE:HG23	2.01	0.42
20:AU:95:LYS:HA	20:AU:101:LYS:HG3	2.01	0.42
21:AV:152:ALA:C	21:AV:154:ASP:N	2.73	0.42
23:AZ:3:LYS:HG3	23:AZ:46:LEU:CD2	2.50	0.42
31:BA:1187:G:H3'	31:BA:1188:A:H8	1.85	0.42
31:BA:150:C:C2	31:BA:151:A:C8	3.08	0.42
31:BA:192:U:H2'	31:BA:193:C:C6	2.55	0.42
31:BA:229:U:H6	31:BA:229:U:H3'	1.85	0.42
31:BA:230:G:H2'	31:BA:231:G:O4'	2.19	0.42
31:BA:492:G:C5	31:BA:493:G:N7	2.88	0.42
31:BA:621:A:H2'	31:BA:622:A:O4'	2.19	0.42
31:BA:644:G:H2'	31:BA:645:C:O4'	2.20	0.42
31:BA:578:C:O2'	31:BA:728:A:N3	2.33	0.42
31:BA:781:A:C3'	31:BA:782:A:H5'	2.50	0.42
31:BA:828:A:H2'	31:BA:829:G:O4'	2.19	0.42
31:BA:939:G:C4	31:BA:940:C:C5	3.07	0.42
52:BB:46:G:O2'	52:BB:47:U:P	2.78	0.42
52:BD:26:G:C2	52:BD:27:A:C1'	3.03	0.42
33:BF:91:LEU:HD11	33:BF:101:LEU:HD12	2.02	0.42
33:BF:158:GLY:C	33:BF:160:ALA:H	2.22	0.42
37:BJ:117:ALA:C	37:BJ:119:ARG:H	2.23	0.42
38:BK:116:LYS:CG	38:BK:129:VAL:HG11	2.50	0.42
39:BL:4:TYR:CG	39:BL:88:TYR:HB2	2.55	0.42
40:BM:5:ARG:HB2	40:BM:73:ASP:OD1	2.20	0.42
47:BT:31:LEU:HD23	47:BT:32:TYR:CZ	2.55	0.42
31:CA:1052:U:C4	31:CA:1200:C:N3	2.88	0.42
31:CA:1160:G:C2	31:CA:1177:G:N2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1328:C:O2'	31:CA:1329:A:H5'	2.20	0.42
31:CA:1480:G:C4	31:CA:1481:U:C6	3.08	0.42
31:CA:925:G:C6	56:CA:1785:OHX:N3	2.88	0.42
31:CA:20:U:H2'	31:CA:21:G:H5'	2.00	0.42
31:CA:357:G:O2'	31:CA:358:U:H5'	2.19	0.42
31:CA:485:G:N7	56:CA:1734:OHX:N1	2.68	0.42
31:CA:631:G:H3'	31:CA:632:A:C4	2.54	0.42
31:CA:638:G:C2	31:CA:639:G:C8	3.07	0.42
31:CA:951:G:H2'	31:CA:970:C:O2'	2.19	0.42
53:CC:35:C:H2'	53:CC:35:C:O2	2.17	0.42
32:CE:75:LYS:C	32:CE:77:ALA:N	2.73	0.42
34:CG:151:LYS:HB3	34:CG:151:LYS:HE2	1.79	0.42
31:CA:1080:A:H4'	35:CH:16:THR:HB	2.01	0.42
31:CA:921:U:O2'	35:CH:18:ARG:HG3	2.20	0.42
36:CI:12:PRO:HG3	36:CI:57:GLN:O	2.20	0.42
37:CJ:113:GLU:HB3	37:CJ:118:VAL:CG2	2.49	0.42
38:CK:12:ARG:O	38:CK:24:THR:HG21	2.20	0.42
40:CM:89:ASP:C	40:CM:91:PRO:HD3	2.40	0.42
41:CN:96:ARG:O	41:CN:99:GLN:N	2.52	0.42
42:CO:55:VAL:HG23	42:CO:68:ALA:O	2.20	0.42
45:CR:60:VAL:HG12	45:CR:61:GLY:N	2.34	0.42
13:D0:103:ARG:HD3	13:D0:109:ALA:C	2.40	0.42
13:D0:59:ASP:O	13:D0:61:HIS:N	2.52	0.42
27:D5:9:LYS:HA	27:D5:9:LYS:HD3	1.89	0.42
1:DA:1024:G:C6	1:DA:1025:G:C6	3.08	0.42
1:DA:1062:G:C6	1:DA:1063:G:C6	3.08	0.42
1:DA:1069:A:H2	1:DA:1094:U:N3	2.17	0.42
1:DA:1149:G:C2	1:DA:1150:C:C2	3.07	0.42
1:DA:1408:C:H2'	1:DA:1409:C:C6	2.55	0.42
1:DA:1486:A:C2'	1:DA:1487:G:H5'	2.49	0.42
1:DA:1478:G:N2	1:DA:1516:U:C2	2.88	0.42
1:DA:2037:G:H2'	1:DA:2038:G:H8	1.82	0.42
1:DA:2390:U:O2'	1:DA:2391:G:H5'	2.20	0.42
1:DA:2416:C:O2'	1:DA:2417:C:H5'	2.19	0.42
1:DA:2795:G:H2'	1:DA:2798:C:OP2	2.20	0.42
1:DA:2337:G:OP2	56:DA:3221:OHX:N3	2.53	0.42
1:DA:480:A:H1'	20:DU:44:ILE:HD13	2.02	0.42
1:DA:528:A:C2'	1:DA:529:A:H5'	2.50	0.42
1:DA:582:G:H2'	1:DA:583:G:H8	1.85	0.42
1:DA:90:U:HO2'	1:DA:91:A:H8	1.57	0.42
2:DB:49:C:OP1	14:DQ:97:ARG:CG	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:DH:151:ILE:O	7:DH:151:ILE:HG22	2.20	0.42
8:DK:127:VAL:HA	8:DK:138:ILE:O	2.19	0.42
8:DK:9:LEU:HD11	8:DK:12:LEU:HD22	2.01	0.42
10:DN:44:LYS:O	10:DN:45:GLU:HB3	2.20	0.42
11:DO:19:VAL:CG2	11:DO:20:GLY:H	2.19	0.42
12:DP:115:MET:O	12:DP:117:ALA:N	2.50	0.42
2:DB:29:A:OP2	14:DQ:31:SER:HB2	2.20	0.42
15:DR:29:ARG:CG	15:DR:29:ARG:O	2.67	0.42
19:DT:27:THR:C	19:DT:28:PHE:CG	2.93	0.42
20:DU:89:PHE:CE1	20:DU:90:LEU:HB2	2.55	0.42
21:DV:100:VAL:N	21:DV:124:ILE:O	2.41	0.42
17:A2:81:TYR:HE2	17:A2:83:ARG:NH1	2.18	0.42
11:AO:62:LEU:HD11	30:A8:30:ARG:HH12	1.71	0.42
1:AA:1288:U:C2	1:AA:1327:C:C2	3.07	0.42
1:AA:1337:G:H2'	1:AA:1338:G:O5'	2.20	0.42
1:AA:1711:C:O2'	1:AA:1712:C:H5'	2.20	0.42
1:AA:1728:G:N2	1:AA:1730:U:OP2	2.51	0.42
1:AA:1863:G:C5	1:AA:1864:U:C4	3.08	0.42
1:AA:2166:G:P	1:AA:2166:G:O4'	2.78	0.42
1:AA:2185:C:H2'	1:AA:2186:G:H8	1.84	0.42
1:AA:2528:U:H2'	1:AA:2530:A:O5'	2.20	0.42
1:AA:2572:A:N9	4:AE:144:ARG:NH1	2.68	0.42
1:AA:2712:U:HO2'	1:AA:2712(A):A:P	2.43	0.42
1:AA:274:G:OP1	1:AA:274:G:O4'	2.38	0.42
1:AA:2751:G:C6	7:AH:2:SER:O	2.73	0.42
1:AA:2766:G:N3	1:AA:2766:G:H2'	2.34	0.42
1:AA:27:G:C4	1:AA:512:G:N2	2.88	0.42
1:AA:2875:C:H4'	15:AR:5:ALA:CB	2.35	0.42
1:AA:321:G:OP2	5:AF:135:LYS:HG3	2.20	0.42
1:AA:291:C:OP1	56:AA:3362:OHX:N6	2.53	0.42
1:AA:469:G:O6	29:A7:37:LYS:CE	2.67	0.42
1:AA:665:C:H2'	1:AA:666:G:C8	2.55	0.42
1:AA:699:A:H2'	1:AA:700:G:O4'	2.19	0.42
1:AA:956:G:H4'	12:AP:83:MET:CE	2.50	0.42
1:AA:957:A:N1	1:AA:2458:G:H4'	2.34	0.42
2:AB:115:G:N3	2:AB:115:G:H2'	2.34	0.42
2:AB:95:U:H2'	2:AB:96:G:C8	2.54	0.42
3:AD:125:ILE:N	3:AD:125:ILE:CD1	2.79	0.42
3:AD:263:ARG:O	3:AD:264:LYS:C	2.58	0.42
3:AD:2:ALA:O	3:AD:3:VAL:CB	2.55	0.42
3:AD:35:LYS:NZ	3:AD:64:ILE:C	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AE:11:MET:HG2	4:AE:24:THR:HA	2.00	0.42
5:AF:24:LEU:N	5:AF:24:LEU:HD12	2.35	0.42
7:AH:30:LYS:HZ1	7:AH:81:GLU:HB3	1.85	0.42
8:AK:94:ALA:C	8:AK:111:PRO:HG3	2.40	0.42
8:AK:94:ALA:HB1	8:AK:111:PRO:CG	2.49	0.42
9:AM:21:LYS:O	9:AM:22:THR:C	2.57	0.42
9:AM:5:VAL:HA	9:AM:6:PRO:HD3	1.85	0.42
10:AN:9:GLU:OE1	10:AN:18:LYS:HE2	2.20	0.42
15:AR:125:ARG:NH1	31:BA:1446:A:O2'	2.52	0.42
15:AR:16:ARG:HH21	15:AR:19:LEU:HD21	1.85	0.42
21:AV:143:GLY:HA2	21:AV:144:LEU:C	2.40	0.42
31:BA:1034:G:C2	31:BA:1035:A:N6	2.88	0.42
31:BA:1125:U:C2'	31:BA:1125:U:O2	2.68	0.42
31:BA:1160:G:C2	31:BA:1177:G:N2	2.88	0.42
31:BA:1202:G:O2'	31:BA:1203:C:H5'	2.20	0.42
31:BA:1285:A:OP1	31:BA:1285:A:C8	2.72	0.42
31:BA:18:C:H2'	31:BA:19:C:O4'	2.19	0.42
31:BA:267:C:OP1	47:BT:67:LYS:CD	2.67	0.42
31:BA:27:G:C4	31:BA:28:G:C8	3.07	0.42
31:BA:356:A:H2'	31:BA:357:G:O5'	2.20	0.42
31:BA:394:G:C4	31:BA:395:C:C6	3.08	0.42
31:BA:448:A:OP2	31:BA:485:G:C2	2.71	0.42
31:BA:621:A:O2'	31:BA:622:A:H5'	2.19	0.42
31:BA:706:A:O2'	41:BN:31:THR:CG2	2.68	0.42
31:BA:843:U:H2'	31:BA:848:C:OP1	2.19	0.42
31:BA:946:A:H2'	31:BA:947:G:C8	2.55	0.42
31:BA:976:G:N7	31:BA:1358:U:C2	2.88	0.42
34:BG:9:CYS:HA	34:BG:12:CYS:HB2	2.02	0.42
38:BK:4:ASP:HA	38:BK:5:PRO:HD3	1.72	0.42
31:BA:1187:G:P	39:BL:113:LYS:HZ1	2.43	0.42
41:BN:76:GLY:O	41:BN:77:MET:O	2.38	0.42
45:BR:62:GLN:O	45:BR:65:ARG:N	2.52	0.42
31:BA:255:G:H5'	47:BT:16:GLN:O	2.20	0.42
31:CA:1112:C:N4	33:CF:178:LEU:HD23	2.35	0.42
31:CA:1252:A:H2'	31:CA:1253:G:O4'	2.20	0.42
31:CA:1446:A:O2'	31:CA:1447:G:O5'	2.36	0.42
31:CA:468:A:C8	31:CA:474:G:C8	3.08	0.42
31:CA:475:G:C2	31:CA:476:G:N9	2.87	0.42
31:CA:5:U:H1'	56:CA:1788:OHX:N1	2.35	0.42
31:CA:631:G:C1'	31:CA:632:A:OP1	2.67	0.42
52:CD:40:U:C2'	52:CD:41:C:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CE:41:ILE:HD12	32:CE:41:ILE:N	2.35	0.42
33:CF:33:LEU:O	33:CF:36:ASP:N	2.53	0.42
33:CF:43:LEU:HD22	33:CF:43:LEU:HA	1.93	0.42
34:CG:70:ILE:CD1	34:CG:100:ARG:HD2	2.50	0.42
35:CH:140:ARG:HG3	35:CH:140:ARG:O	2.19	0.42
36:CI:3:ARG:HA	36:CI:65:VAL:O	2.20	0.42
39:CL:108:VAL:O	39:CL:109:VAL:C	2.57	0.42
42:CO:23:LYS:HE2	42:CO:23:LYS:H	1.85	0.42
42:CO:27:LEU:HB2	42:CO:33:ARG:CB	2.48	0.42
43:CP:49:THR:O	43:CP:53:VAL:HG23	2.20	0.42
43:CP:89:GLY:HA2	43:CP:92:HIS:HB2	2.02	0.42
43:CP:89:GLY:O	43:CP:92:HIS:HB2	2.20	0.42
43:CP:94:ARG:O	43:CP:95:GLY:C	2.57	0.42
31:CA:127:G:N2	47:CT:61:GLU:OE1	2.46	0.42
13:D0:96:ARG:NH2	13:D0:117:VAL:HG23	2.35	0.42
13:D0:24:GLN:HE22	13:D0:36:THR:HG21	1.85	0.42
1:DA:1790:C:H2'	1:DA:1791:A:C5	2.54	0.42
1:DA:2333:A:C2'	1:DA:2334:G:OP2	2.67	0.42
1:DA:244:A:C2	1:DA:255:A:C4	3.08	0.42
1:DA:2651:C:H42	1:DA:2669:G:H1	1.68	0.42
1:DA:27:G:N2	1:DA:512:G:O2'	2.38	0.42
1:DA:288:C:H3'	1:DA:289:A:C8	2.47	0.42
1:DA:428:A:N6	1:DA:429:A:N1	2.68	0.42
1:DA:447:A:C6	1:DA:454:A:C8	3.07	0.42
1:DA:636:G:O5'	1:DA:636:G:H8	2.02	0.42
1:DA:721:C:O2	1:DA:721:C:H2'	2.19	0.42
1:DA:844:C:C5	1:DA:845:G:C6	3.08	0.42
2:DB:17:C:OP2	56:DB:212:OHX:N1	2.53	0.42
3:DD:35:LYS:CE	3:DD:64:ILE:O	2.66	0.42
4:DE:89:ASP:O	4:DE:90:THR:CB	2.65	0.42
5:DF:119:ARG:NH1	5:DF:119:ARG:O	2.53	0.42
5:DF:158:THR:CB	5:DF:195:ASP:HB2	2.50	0.42
7:DH:16:SER:OG	7:DH:17:VAL:N	2.53	0.42
7:DH:92:ILE:CD1	7:DH:92:ILE:N	2.83	0.42
8:DK:94:ALA:O	8:DK:95:LYS:C	2.59	0.42
1:DA:1138:G:H21	9:DM:106:MET:HE3	1.85	0.42
9:DM:1:MET:HB2	9:DM:2:LYS:H	1.66	0.42
11:DO:23:PRO:HB2	11:DO:24:GLY:H	1.70	0.42
11:DO:46:LYS:HB3	11:DO:46:LYS:HZ3	1.69	0.42
12:DP:58:PHE:O	12:DP:59:ARG:C	2.58	0.42
14:DQ:32:LEU:HD23	14:DQ:32:LEU:HA	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:DT:65:ARG:O	19:DT:65:ARG:HG3	2.19	0.42
20:DU:75:ILE:HB	20:DU:80:GLY:N	2.35	0.42
21:DV:5:LEU:O	21:DV:6:LYS:C	2.58	0.42
21:DV:70:LEU:HD23	21:DV:70:LEU:HA	1.93	0.42
23:DZ:66:HIS:C	23:DZ:68:PRO:HD2	2.39	0.42
13:A0:81:ASP:O	13:A0:85:PRO:HG2	2.20	0.42
16:A1:65:ILE:O	16:A1:68:ALA:N	2.52	0.42
17:A2:38:LEU:HD23	17:A2:40:LEU:H	1.84	0.42
1:AA:1386:C:P	1:AA:1396:U:H5	2.43	0.42
1:AA:2281:C:C2'	1:AA:2282:G:H5'	2.49	0.42
1:AA:1888:G:N1	56:AA:3567:OHX:N5	2.67	0.42
1:AA:50:U:H4'	1:AA:51:G:OP2	2.19	0.42
1:AA:528:A:H2	1:AA:2043:C:C5'	2.31	0.42
1:AA:571:A:C8	1:AA:2030:A:N6	2.87	0.42
1:AA:865:C:H4'	1:AA:866:A:OP1	2.20	0.42
1:AA:883:G:H2'	1:AA:884:C:C4'	2.50	0.42
3:AD:260:ARG:HG2	3:AD:261:LYS:O	2.20	0.42
4:AE:21:VAL:HG23	4:AE:22:PRO:N	2.35	0.42
6:AG:56:ALA:C	6:AG:58:GLN:H	2.24	0.42
9:AM:96:GLU:O	9:AM:97:ARG:CB	2.66	0.42
11:AO:50:ARG:O	11:AO:57:THR:HG21	2.19	0.42
11:AO:66:GLY:O	11:AO:67:MET:CB	2.67	0.42
12:AP:26:TYR:O	12:AP:138:ASP:OD2	2.38	0.42
2:AB:49:C:OP1	14:AQ:97:ARG:HG2	2.20	0.42
15:AR:77:PRO:HG2	15:AR:80:SER:CB	2.39	0.42
20:AU:13:VAL:HG12	20:AU:74:PRO:HA	2.00	0.42
31:BA:1327:C:O2'	31:BA:1328:C:H5'	2.20	0.42
31:BA:438:G:O2'	31:BA:439:A:H5"	2.20	0.42
31:BA:457:C:O5'	31:BA:457:C:H6	2.03	0.42
31:BA:940:C:H2'	31:BA:941:G:H8	1.85	0.42
32:BE:54:THR:O	32:BE:57:PHE:N	2.45	0.42
33:BF:39:ILE:O	33:BF:40:ARG:C	2.58	0.42
34:BG:24:GLU:HG3	34:BG:112:VAL:HG21	2.02	0.42
34:BG:98:GLU:C	34:BG:100:ARG:H	2.23	0.42
38:BK:103:VAL:HG11	38:BK:138:TRP:HD1	1.85	0.42
39:BL:33:PHE:O	39:BL:35:GLU:N	2.48	0.42
31:BA:1150:U:O2'	40:BM:39:PRO:O	2.32	0.42
42:BO:78:GLN:HB3	42:BO:79:GLU:H	1.55	0.42
46:BS:57:ARG:HG3	46:BS:57:ARG:HH11	1.85	0.42
48:BU:86:VAL:HG12	48:BU:87:ARG:H	1.84	0.42
49:BV:15:LEU:O	49:BV:16:LEU:C	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1054:C:OP1	31:CA:1197:G:P	2.78	0.42
31:CA:1056:U:C5	31:CA:1200:C:C5	3.08	0.42
31:CA:985:C:C2	31:CA:1221:G:N2	2.88	0.42
31:CA:1306:A:H1'	31:CA:1332:A:C2	2.54	0.42
31:CA:1394:A:C6	31:CA:1501:C:H4'	2.55	0.42
31:CA:418:C:N4	31:CA:425:G:N1	2.59	0.42
31:CA:438:G:O2'	31:CA:493:G:C2	2.73	0.42
31:CA:38:G:H4'	31:CA:547:A:N6	2.35	0.42
31:CA:753:A:H4'	31:CA:754:C:O5'	2.19	0.42
31:CA:833:U:H2'	31:CA:834:C:H6	1.84	0.42
31:CA:881:G:C6	31:CA:882:C:C4	3.08	0.42
53:CC:42:C:C4	53:CC:43:G:N7	2.88	0.42
52:CD:54:C:H2'	52:CD:55:U:O5'	2.20	0.42
52:CD:16:C:N4	52:CD:68:A:N9	2.67	0.42
32:CE:144:ARG:C	32:CE:146:GLN:N	2.74	0.42
32:CE:213:LEU:O	32:CE:213:LEU:HD23	2.20	0.42
40:CM:13:HIS:CE1	40:CM:14:LYS:HG3	2.55	0.42
40:CM:23:ILE:C	40:CM:25:GLU:N	2.74	0.42
40:CM:78:ASN:ND2	40:CM:80:LYS:HB3	2.32	0.42
43:CP:87:TYR:C	43:CP:89:GLY:H	2.22	0.42
44:CQ:52:GLN:O	44:CQ:53:LEU:HD23	2.20	0.42
45:CR:78:TYR:O	45:CR:82:ILE:HG22	2.19	0.42
46:CS:21:VAL:O	46:CS:33:ILE:HG13	2.20	0.42
48:CU:66:LEU:HD11	48:CU:70:ILE:HD11	2.02	0.42
31:CA:1320:C:OP1	49:CV:70:LYS:HD3	2.19	0.42
16:D1:95:LEU:O	16:D1:98:LEU:HG	2.20	0.42
30:D8:33:ASN:OD1	30:D8:41:ILE:HD11	2.20	0.42
1:DA:1050:A:C5	1:DA:1051:G:C8	3.08	0.42
1:DA:1316:U:H2'	1:DA:1317:A:C8	2.55	0.42
1:DA:1479:G:C2	1:DA:1480:G:C4	3.08	0.42
1:DA:1515:C:H2'	1:DA:1516:U:C6	2.55	0.42
1:DA:1652:A:O2'	1:DA:1653:G:H5'	2.20	0.42
1:DA:2056:G:H2'	1:DA:2056:G:N3	2.35	0.42
1:DA:2303:G:N2	1:DA:2314:C:C2	2.88	0.42
1:DA:2329:G:H2'	1:DA:2330:G:H8	1.82	0.42
1:DA:231:C:O2'	1:DA:232:G:H5'	2.20	0.42
1:DA:2808:U:H2'	1:DA:2809:A:H5'	2.02	0.42
1:DA:2833:G:C8	1:DA:2833:G:OP1	2.64	0.42
1:DA:288:C:C3'	1:DA:289:A:H8	2.30	0.42
1:DA:305:U:H2'	1:DA:306:U:C6	2.55	0.42
1:DA:342:G:C2	1:DA:343:C:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:638:G:C4	1:DA:651:G:C2	3.08	0.42
1:DA:773:U:H4'	3:DD:47:GLY:CA	2.46	0.42
1:DA:898:C:O5'	1:DA:899:A:OP2	2.38	0.42
3:DD:223:GLY:HA2	3:DD:231:HIS:CD2	2.55	0.42
4:DE:201:THR:C	4:DE:202:LYS:HD2	2.41	0.42
4:DE:41:LYS:HG3	4:DE:42:ASP:N	2.35	0.42
6:DG:179:PRO:HB2	26:D4:43:TYR:HE2	1.84	0.42
1:DA:2415:G:C4'	11:DO:67:MET:H	2.23	0.42
15:DR:118:ARG:HD3	15:DR:118:ARG:HA	1.85	0.42
15:DR:4:GLY:O	15:DR:7:ILE:HG22	2.20	0.42
21:DV:152:ALA:CB	21:DV:171:ILE:HD11	2.48	0.42
17:A2:64:HIS:HA	17:A2:92:THR:HG22	2.02	0.41
1:AA:1388:G:H2'	1:AA:1389:G:C8	2.55	0.41
1:AA:1426:G:H8	1:AA:1426:G:O5'	2.03	0.41
1:AA:1494:A:C2'	1:AA:1495:A:H5'	2.49	0.41
1:AA:1510:A:O3'	1:AA:1510:A:OP1	2.38	0.41
1:AA:1983:C:C2'	1:AA:1984:G:H5'	2.50	0.41
1:AA:2355:C:H4'	22:A3:36:ILE:HD11	2.02	0.41
1:AA:1215:G:OP1	56:AA:3373:OHX:N5	2.53	0.41
1:AA:1761:C:OP1	56:AA:3462:OHX:N1	2.53	0.41
1:AA:546:C:C5	1:AA:547:A:C6	3.08	0.41
1:AA:90:U:C4'	1:AA:91:A:H8	2.32	0.41
3:AD:231:HIS:CD2	3:AD:249:PRO:HG3	2.55	0.41
4:AE:111:ARG:HG2	4:AE:111:ARG:H	1.56	0.41
5:AF:20:LEU:HD12	5:AF:21:ALA:H	1.83	0.41
5:AF:24:LEU:HA	5:AF:25:PRO:HD2	1.59	0.41
6:AG:70:VAL:CG2	6:AG:70:VAL:O	2.67	0.41
7:AH:43:VAL:CG2	7:AH:43:VAL:O	2.67	0.41
7:AH:6:ARG:C	7:AH:8:PRO:HD2	2.40	0.41
9:AM:60:ILE:HG12	9:AM:60:ILE:H	1.44	0.41
11:AO:108:LYS:C	11:AO:110:TYR:N	2.74	0.41
12:AP:17:LEU:HD11	12:AP:41:TRP:NE1	2.35	0.41
12:AP:78:PRO:O	12:AP:79:LEU:CG	2.66	0.41
14:AQ:66:ALA:O	14:AQ:67:ARG:C	2.55	0.41
18:AS:20:VAL:O	18:AS:23:LEU:HB3	2.20	0.41
18:AS:70:TYR:CD2	18:AS:70:TYR:C	2.92	0.41
21:AV:165:VAL:HA	21:AV:166:SER:HA	1.74	0.41
21:AV:27:VAL:CG1	21:AV:87:ASP:CB	2.95	0.41
23:AZ:92:LYS:O	23:AZ:94:LEU:N	2.53	0.41
31:BA:1005:A:H3'	31:BA:1006:C:H5'	2.01	0.41
31:BA:1022:G:C6	31:BA:1023:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1058:G:C6	31:BA:1059:C:N3	2.88	0.41
31:BA:1129:C:C2	31:BA:1139:G:O6	2.73	0.41
31:BA:1164:G:H2'	31:BA:1165:C:C6	2.55	0.41
31:BA:1330:U:O4	31:BA:1331:G:C2	2.73	0.41
31:BA:1372:U:C4	31:BA:1373:G:C5	3.08	0.41
31:BA:195:A:C5	31:BA:196:A:C2	3.08	0.41
31:BA:269:C:H2'	31:BA:270:A:C8	2.55	0.41
31:BA:355:C:H5'	31:BA:389:A:OP2	2.20	0.41
31:BA:380:G:N2	31:BA:384:G:C5	2.88	0.41
31:BA:52:G:H2'	31:BA:53:A:O4'	2.21	0.41
31:BA:565:U:C6	31:BA:566:G:C8	3.07	0.41
31:BA:649:G:H2'	31:BA:650:G:H8	1.85	0.41
31:BA:66:G:C2	31:BA:67:C:C6	3.08	0.41
31:BA:748:C:H1'	31:BA:749:C:OP2	2.20	0.41
31:BA:922:G:H2'	31:BA:923:A:C8	2.54	0.41
52:BB:81:C:C6	52:BB:81:C:OP2	2.68	0.41
33:BF:186:PHE:CE2	33:BF:188:LEU:HD23	2.55	0.41
34:BG:96:LEU:HD13	34:BG:139:ARG:NH1	2.35	0.41
35:BH:34:VAL:HG11	35:BH:63:ARG:HD3	2.02	0.41
36:BI:39:LYS:O	36:BI:40:VAL:HB	2.19	0.41
36:BI:65:VAL:HG23	36:BI:66:GLU:N	2.34	0.41
37:BJ:115:ARG:O	37:BJ:118:VAL:HG12	2.19	0.41
39:BL:114:TYR:HD1	40:BM:60:ARG:HG3	1.85	0.41
41:BN:125:PHE:CD2	41:BN:125:PHE:N	2.86	0.41
46:BS:21:VAL:HG11	46:BS:59:TRP:CE2	2.55	0.41
46:BS:4:ILE:HD11	46:BS:64:ALA:HB1	2.02	0.41
48:BU:86:VAL:O	48:BU:87:ARG:C	2.59	0.41
49:BV:66:MET:O	49:BV:67:VAL:C	2.58	0.41
50:BW:25:ARG:CG	50:BW:25:ARG:NH1	2.80	0.41
31:CA:1121:U:C4	31:CA:1122:U:C5	3.08	0.41
31:CA:1128:C:O2'	31:CA:1130:A:C8	2.61	0.41
31:CA:1127:G:H22	31:CA:1144:G:N2	2.17	0.41
31:CA:1159:U:C1'	31:CA:1181:G:H22	2.33	0.41
31:CA:1227:A:C3'	31:CA:1227:A:C8	3.03	0.41
31:CA:1435:G:H2'	31:CA:1436:U:H6	1.82	0.41
31:CA:241:C:C2'	31:CA:242:C:H5'	2.50	0.41
31:CA:455:C:O2	31:CA:478:A:C2	2.73	0.41
31:CA:880:C:H5	42:CO:9:GLN:HE21	1.68	0.41
53:CC:60:A:C2'	53:CC:61:U:H5'	2.50	0.41
52:CD:44:C:C6	52:CD:44:C:OP2	2.73	0.41
32:CE:230:VAL:O	32:CE:231:GLU:HG2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:126:ARG:O	33:CF:128:PHE:N	2.52	0.41
33:CF:129:ALA:O	33:CF:132:ARG:N	2.53	0.41
33:CF:64:VAL:HG12	33:CF:64:VAL:O	2.20	0.41
39:CL:42:ARG:O	39:CL:43:ALA:C	2.58	0.41
40:CM:50:ILE:HD12	40:CM:60:ARG:HH11	1.85	0.41
41:CN:33:THR:HG22	41:CN:39:PRO:N	2.34	0.41
42:CO:7:ILE:HA	42:CO:10:LEU:HD12	2.02	0.41
42:CO:83:VAL:O	42:CO:105:TYR:CE1	2.73	0.41
46:CS:22:THR:HG23	46:CS:22:THR:O	2.20	0.41
51:CX:9:ARG:O	51:CX:13:ILE:HG13	2.19	0.41
51:CX:9:ARG:HG3	51:CX:10:ARG:H	1.84	0.41
13:D0:33:ARG:HB2	13:D0:33:ARG:CZ	2.50	0.41
17:D2:81:TYR:HB3	17:D2:82:ARG:H	1.72	0.41
26:D4:24:THR:O	26:D4:25:TYR:CB	2.67	0.41
1:DA:1364:G:OP1	23:DZ:3:LYS:HD2	2.20	0.41
1:DA:1449:A:N6	1:DA:1449(A):G:C2	2.88	0.41
1:DA:1784:A:H4'	1:DA:1785:A:O5'	2.20	0.41
1:DA:2314:C:H2'	1:DA:2315:G:H8	1.84	0.41
1:DA:2410:G:C2	1:DA:2411:A:H1'	2.55	0.41
1:DA:2472:G:C4	1:DA:2475:C:N4	2.88	0.41
1:DA:2536:G:C5	1:DA:2537:U:C4	3.08	0.41
1:DA:362:U:H3'	1:DA:362:U:C6	2.54	0.41
1:DA:696:G:H2'	1:DA:697:C:C6	2.51	0.41
1:DA:794:G:H2'	1:DA:795:C:C6	2.53	0.41
1:DA:912:C:N3	1:DA:913:U:C5	2.88	0.41
14:DQ:84:GLN:HA	14:DQ:110:LEU:H	1.84	0.41
21:DV:29:TYR:CB	21:DV:34:ASN:HD22	2.32	0.41
25:DX:42:ALA:O	25:DX:45:GLY:N	2.53	0.41
22:A3:51:VAL:H	22:A3:62:LEU:HD12	1.81	0.41
27:A5:16:ARG:HG2	27:A5:16:ARG:HH11	1.86	0.41
27:A5:60:VAL:O	27:A5:60:VAL:HG22	2.20	0.41
30:A8:15:LYS:HE2	30:A8:15:LYS:HB3	1.92	0.41
1:AA:1184:G:C5	1:AA:1185:C:C5	3.08	0.41
1:AA:1252:G:C2	1:AA:1253:A:C2	3.08	0.41
1:AA:1537:C:H2'	1:AA:1538:G:O4'	2.20	0.41
1:AA:1884:A:C4	1:AA:1885:A:C8	3.07	0.41
1:AA:2019:A:N6	1:AA:2020:A:C5	2.88	0.41
1:AA:2036:C:H2'	1:AA:2037:G:O5'	2.20	0.41
1:AA:2135:A:N3	1:AA:2135:A:H2'	2.35	0.41
1:AA:228:A:C2'	1:AA:228:A:N3	2.83	0.41
1:AA:2307:G:H1'	1:AA:2308:G:C2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2383:G:O2'	1:AA:2384:G:H5'	2.20	0.41
1:AA:10:G:C2	1:AA:2629:A:C2	3.08	0.41
1:AA:377:C:H2'	1:AA:378:C:C6	2.56	0.41
1:AA:181:A:C2	1:AA:435:C:C5	3.08	0.41
1:AA:586:A:H5'	5:AF:89:VAL:HG21	2.02	0.41
1:AA:654(A):A:C2	1:AA:654(T):A:N1	2.88	0.41
1:AA:731:C:C2'	1:AA:731:C:O2	2.68	0.41
1:AA:883:G:N2	1:AA:894:C:N3	2.69	0.41
3:AD:240:ALA:O	3:AD:241:PRO:C	2.59	0.41
3:AD:32:SER:HA	3:AD:35:LYS:O	2.20	0.41
4:AE:50:GLY:HA2	4:AE:76:ARG:O	2.20	0.41
5:AF:136:THR:O	5:AF:140:LEU:HB2	2.20	0.41
6:AG:178:PHE:CB	6:AG:180:PHE:HE1	2.33	0.41
7:AH:89:ILE:HG22	7:AH:162:ILE:HG12	2.02	0.41
9:AM:89:LYS:O	9:AM:93:THR:HB	2.19	0.41
10:AN:3:GLN:CG	10:AN:4:PRO:HD2	2.51	0.41
11:AO:62:LEU:HA	11:AO:63:PRO:HD3	1.67	0.41
12:AP:70:PRO:N	12:AP:95:ALA:HB2	2.35	0.41
14:AQ:101:LEU:HD12	14:AQ:101:LEU:O	2.19	0.41
21:AV:120:ILE:O	21:AV:121:HIS:CG	2.74	0.41
24:AW:53:LEU:O	24:AW:57:ILE:HG13	2.20	0.41
31:BA:1028(B):C:C4	31:BA:1032(A):G:N1	2.82	0.41
31:BA:1054:C:H2'	31:BA:1054:C:O2	2.18	0.41
31:BA:1061:G:C4	31:BA:1197:G:N2	2.88	0.41
31:BA:1290:G:N3	31:BA:1290:G:H2'	2.35	0.41
31:BA:1297:C:O2'	37:BJ:114:ARG:NH1	2.49	0.41
31:BA:1442:G:H8	31:BA:1442:G:H3'	1.85	0.41
31:BA:415:A:N6	31:BA:416:G:C6	2.87	0.41
31:BA:424:G:C2	31:BA:425:G:C8	3.08	0.41
31:BA:431:A:H2'	31:BA:432:A:O4'	2.20	0.41
31:BA:542:G:C2	31:BA:543:C:C5	3.08	0.41
31:BA:58:C:H2'	31:BA:59:A:O5'	2.19	0.41
31:BA:604:G:C6	31:BA:605:U:C4	3.08	0.41
31:BA:740:U:O2'	31:BA:741:G:H5'	2.20	0.41
31:BA:892:A:N6	31:BA:906:G:H1'	2.35	0.41
31:BA:980:C:H2'	31:BA:981:U:O4'	2.20	0.41
52:BB:74:C:H2'	52:BB:75:C:O4'	2.20	0.41
52:BD:59:A:C4	52:BD:60:A:N7	2.88	0.41
32:BE:4:GLU:HG2	32:BE:5:ILE:HG12	2.02	0.41
33:BF:14:ILE:HG13	33:BF:15:THR:N	2.36	0.41
34:BG:196:LEU:C	34:BG:198:VAL:N	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:148:VAL:HG13	35:BH:152:ARG:HE	1.85	0.41
35:BH:36:ASP:OD2	35:BH:40:ARG:HG3	2.20	0.41
38:BK:129:VAL:HG23	38:BK:130:GLY:N	2.31	0.41
38:BK:11:THR:HG22	38:BK:15:ASN:ND2	2.36	0.41
39:BL:113:LYS:N	39:BL:113:LYS:CD	2.83	0.41
39:BL:39:GLY:O	39:BL:41:VAL:HG22	2.19	0.41
43:BP:87:TYR:O	43:BP:90:LEU:N	2.54	0.41
46:BS:47:ASP:C	46:BS:49:LEU:N	2.73	0.41
50:BW:22:ARG:O	50:BW:26:ASN:ND2	2.54	0.41
50:BW:36:LEU:O	50:BW:38:LYS:N	2.54	0.41
31:BA:1305:G:C5'	51:BX:4:GLY:HA3	2.47	0.41
31:CA:1370:G:O2'	31:CA:1371:G:H5'	2.20	0.41
31:CA:31:G:C1'	31:CA:32:A:OP1	2.68	0.41
31:CA:753:A:H4'	31:CA:754:C:C5'	2.49	0.41
31:CA:933:G:N7	37:CJ:3:ARG:NH2	2.68	0.41
31:CA:973:G:H1'	40:CM:55:LYS:HZ2	1.84	0.41
33:CF:59:ARG:O	40:CM:93:GLY:HA2	2.20	0.41
33:CF:95:THR:C	33:CF:97:LYS:N	2.69	0.41
34:CG:20:TYR:CD2	34:CG:27:TYR:HD1	2.38	0.41
40:CM:82:ILE:O	40:CM:82:ILE:HG22	2.20	0.41
41:CN:121:PRO:C	41:CN:122:LYS:O	2.57	0.41
42:CO:40:VAL:HG21	42:CO:77:LEU:C	2.41	0.41
31:CA:974:A:P	44:CQ:41:ARG:HH12	2.42	0.41
46:CS:21:VAL:HG13	46:CS:34:GLU:HB3	2.02	0.41
31:CA:468:A:O2'	46:CS:82:GLN:HG2	2.19	0.41
16:D1:91:ASP:O	16:D1:92:ARG:C	2.58	0.41
16:D1:92:ARG:NH2	17:D2:10:LYS:HA	2.35	0.41
17:D2:2:PHE:CD2	17:D2:13:ARG:NH2	2.88	0.41
26:D4:15:ILE:O	26:D4:33:VAL:HG13	2.20	0.41
26:D4:56:VAL:O	26:D4:57:GLU:CB	2.68	0.41
28:D6:10:LEU:CD2	30:D8:34:TRP:CE2	3.02	0.41
1:DA:1190:G:N3	1:DA:1191:G:C8	2.89	0.41
1:DA:1213:A:H8	1:DA:1213:A:O5'	2.02	0.41
1:DA:1308:A:H2'	1:DA:1309:G:O4'	2.20	0.41
1:DA:1337:G:H2'	1:DA:1338:G:O4'	2.19	0.41
1:DA:1430:C:H2'	1:DA:1431:U:C6	2.55	0.41
1:DA:1638:C:H4'	1:DA:2710:C:O2	2.19	0.41
1:DA:1649:G:OP2	56:DA:3377:OHX:N3	2.53	0.41
1:DA:1657:C:H2'	1:DA:1658:C:H6	1.84	0.41
1:DA:1726:G:O2'	1:DA:1727:U:H5'	2.20	0.41
1:DA:1814:G:H2'	1:DA:1815:A:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1991:U:C2'	1:DA:1992:G:H5"	2.50	0.41
1:DA:2099:U:H2'	1:DA:2099:U:O2	2.19	0.41
1:DA:2111:C:C2	1:DA:2118:U:O2'	2.72	0.41
1:DA:2104:G:N1	1:DA:2186:G:C6	2.89	0.41
1:DA:220:G:H5"	1:DA:221:A:OP1	2.20	0.41
1:DA:1681:G:N2	56:DA:3488:OHX:N2	2.67	0.41
1:DA:547:A:C6	1:DA:548:A:C2	3.08	0.41
1:DA:579:G:H2'	1:DA:580:C:H6	1.82	0.41
2:DB:109:G:C5	2:DB:110:G:N7	2.88	0.41
1:DA:773:U:H5'	3:DD:47:GLY:HA3	2.03	0.41
4:DE:8:LYS:CG	4:DE:192:ASN:HA	2.50	0.41
5:DF:164:ARG:HB2	5:DF:164:ARG:HH11	1.85	0.41
5:DF:30:PRO:O	5:DF:33:LEU:N	2.53	0.41
5:DF:93:LYS:HB3	5:DF:94:PRO:CD	2.51	0.41
7:DH:92:ILE:CD1	7:DH:160:LYS:HZ3	2.33	0.41
8:DK:76:THR:CG2	8:DK:77:LEU:N	2.75	0.41
12:DP:16:ARG:HB3	12:DP:16:ARG:HE	1.63	0.41
12:DP:58:PHE:O	12:DP:60:ARG:N	2.53	0.41
20:DU:87:LYS:HB3	20:DU:92:ASN:HA	2.02	0.41
21:DV:133:ILE:N	21:DV:133:ILE:HD12	2.35	0.41
13:A0:44:LEU:O	13:A0:45:ARG:C	2.57	0.41
13:A0:85:PRO:C	13:A0:87:TYR:N	2.69	0.41
1:AA:533:G:N2	16:A1:45:TYR:CD1	2.80	0.41
16:A1:75:ASN:HB3	16:A1:77:SER:HB3	2.02	0.41
28:A6:30:THR:HA	28:A6:31:PRO:C	2.39	0.41
1:AA:1011:G:O5'	16:A1:77:SER:HB2	2.21	0.41
1:AA:1059:G:C6	1:AA:1080:A:C2	3.08	0.41
1:AA:1091:G:C2	1:AA:1092:C:C5	3.08	0.41
1:AA:1170:G:N2	1:AA:1180:C:C2	2.88	0.41
1:AA:1349:A:N6	1:AA:1598:C:N4	2.68	0.41
1:AA:1307:A:N6	1:AA:1606:G:H2'	2.34	0.41
1:AA:1725:G:C2	1:AA:1741:C:C2	3.09	0.41
1:AA:1778:U:C4	1:AA:1784:A:C4	3.08	0.41
1:AA:2377:A:O2'	1:AA:2378:A:H5'	2.20	0.41
1:AA:2419:U:OP2	30:A8:33:ASN:ND2	2.47	0.41
1:AA:2689:U:C5'	1:AA:2690:C:H5'	2.50	0.41
1:AA:270(P):C:H2'	1:AA:270(Q):C:C6	2.55	0.41
1:AA:2690:C:H5"	1:AA:2872:G:N2	2.35	0.41
1:AA:384:U:O2'	1:AA:385:C:H5'	2.21	0.41
1:AA:35:G:H1'	1:AA:454:A:C4	2.55	0.41
1:AA:650:C:C2'	1:AA:651:G:O5'	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:795:C:H2'	1:AA:796:C:C6	2.55	0.41
1:AA:885:C:H2'	1:AA:890:A:N6	2.35	0.41
1:AA:7:G:C2	1:AA:8:A:C4	3.08	0.41
1:AA:904:C:H5'	1:AA:905:U:OP2	2.20	0.41
1:AA:989:G:N7	25:AX:13:ILE:CD1	2.79	0.41
2:AB:59:A:C5	2:AB:60:C:C5	3.07	0.41
2:AB:66:A:C2	2:AB:108:C:C4	3.08	0.41
3:AD:68:LYS:HB3	3:AD:70:TRP:CH2	2.55	0.41
4:AE:116:VAL:HG13	4:AE:122:PHE:CB	2.50	0.41
4:AE:103:ASP:OD2	4:AE:168:MET:HE2	2.20	0.41
5:AF:198:ALA:O	5:AF:201:VAL:N	2.51	0.41
6:AG:106:LEU:HG	6:AG:111:LEU:CD1	2.49	0.41
7:AH:137:ASP:HB3	7:AH:138:LYS:H	1.45	0.41
7:AH:77:LYS:NZ	7:AH:82:GLY:O	2.53	0.41
7:AH:88:LEU:CD1	7:AH:88:LEU:N	2.81	0.41
8:AK:112:LYS:O	8:AK:113:ARG:HB2	2.20	0.41
1:AA:2094:G:OP1	8:AK:22:LYS:HG3	2.20	0.41
10:AN:114:ILE:C	10:AN:116:SER:N	2.71	0.41
11:AO:106:LEU:O	11:AO:107:LYS:CB	2.68	0.41
2:AB:31:C:N4	14:AQ:32:LEU:HD22	2.35	0.41
15:AR:33:LYS:HG2	15:AR:33:LYS:H	1.68	0.41
18:AS:41:LYS:C	18:AS:43:GLY:N	2.71	0.41
19:AT:8:ILE:CD1	19:AT:42:ALA:HB1	2.50	0.41
20:AU:57:GLN:O	20:AU:58:GLY:O	2.38	0.41
21:AV:141:VAL:HG21	21:AV:150:LEU:CD1	2.49	0.41
1:AA:2199:A:H5'	23:AZ:50:ARG:HH21	1.85	0.41
31:BA:1008:C:N3	31:BA:1021:G:N2	2.55	0.41
31:BA:1152:A:OP1	40:BM:68:HIS:CD2	2.74	0.41
31:BA:1238:A:N3	31:BA:1241:G:O2'	2.48	0.41
31:BA:252:U:C4	31:BA:253:U:O4	2.73	0.41
31:BA:430:A:OP1	34:BG:9:CYS:HB2	2.20	0.41
31:BA:502:G:OP1	42:BO:118:SER:HB2	2.20	0.41
31:BA:61:G:H2'	31:BA:62:U:O4'	2.21	0.41
31:BA:96:G:C6	31:BA:97:U:O2	2.72	0.41
52:BD:17:G:C4	52:BD:66:G:N1	2.89	0.41
32:BE:139:LYS:O	32:BE:142:LEU:HB3	2.20	0.41
32:BE:19:HIS:CE1	32:BE:206:ASP:HB2	2.55	0.41
32:BE:216:SER:O	32:BE:218:ALA:N	2.53	0.41
32:BE:217:ARG:HE	32:BE:217:ARG:HB2	1.59	0.41
32:BE:36:ARG:HA	32:BE:36:ARG:HD3	1.78	0.41
33:BF:141:VAL:O	33:BF:141:VAL:HG12	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BF:64:VAL:HB	33:BF:99:VAL:HG12	2.03	0.41
34:BG:188:LEU:HD23	34:BG:188:LEU:HA	1.83	0.41
41:BN:106:LYS:O	41:BN:107:SER:OG	2.22	0.41
43:BP:86:CYS:HA	49:BV:73:GLU:O	2.20	0.41
49:BV:41:VAL:CB	49:BV:42:PRO:CA	2.89	0.41
50:BW:42:GLN:O	50:BW:46:GLU:HG2	2.19	0.41
31:CA:1028(B):C:N4	31:CA:1032(A):G:N1	2.68	0.41
31:CA:953:G:C2	31:CA:1229:A:C4	3.08	0.41
31:CA:1299:A:N1	31:CA:1301:U:C2	2.88	0.41
31:CA:54:C:C5	31:CA:352:C:H5	2.38	0.41
31:CA:60:A:H4'	31:CA:61:G:O5'	2.20	0.41
31:CA:719:C:H5	31:CA:720:C:N4	2.18	0.41
52:CB:35:G:C2	52:CB:36:U:C2	3.09	0.41
52:CB:67:A:O2'	52:CB:68:A:H5"	2.21	0.41
52:CD:59:A:N6	52:CD:60:A:N6	2.68	0.41
33:CF:150:LYS:HB3	33:CF:201:TYR:HB2	2.02	0.41
37:CJ:69:VAL:HG21	37:CJ:104:LEU:HD21	2.01	0.41
37:CJ:119:ARG:O	37:CJ:120:ILE:C	2.59	0.41
38:CK:6:ILE:C	38:CK:8:ASP:N	2.73	0.41
41:CN:126:ARG:O	41:CN:127:LYS:C	2.59	0.41
42:CO:22:SER:C	42:CO:24:VAL:N	2.74	0.41
43:CP:67:GLU:HB3	43:CP:68:GLY:H	1.63	0.41
46:CS:39:TYR:OH	46:CS:41:PRO:HB3	2.19	0.41
31:CA:193:C:O4'	50:CW:60:GLU:OE2	2.38	0.41
50:CW:93:GLU:O	50:CW:93:GLU:HG2	2.19	0.41
16:D1:60:LEU:O	16:D1:61:TRP:C	2.57	0.41
22:D3:36:ILE:CD1	22:D3:36:ILE:H	2.33	0.41
28:D6:51:GLU:HG2	28:D6:52:VAL:N	2.35	0.41
1:DA:1420:U:O2'	1:DA:1421:G:O5'	2.37	0.41
1:DA:1467:C:N3	1:DA:1526:G:N2	2.68	0.41
1:DA:1516:U:O2'	1:DA:1517:G:H5'	2.20	0.41
1:DA:1657:C:O2'	1:DA:1658:C:H5'	2.20	0.41
1:DA:1770:G:OP1	56:DA:3062:OHX:N1	2.53	0.41
1:DA:2100:G:C6	1:DA:2190:G:C6	3.08	0.41
1:DA:2450:A:O2'	1:DA:2451:A:H5'	2.21	0.41
1:DA:2468:G:C5	1:DA:2481:G:N1	2.88	0.41
1:DA:2607:G:H2'	1:DA:2608:G:O4'	2.20	0.41
1:DA:2767:C:H2'	1:DA:2768:C:C6	2.56	0.41
1:DA:2777:G:OP2	1:DA:2781:A:O2'	2.31	0.41
1:DA:2899:G:O2'	1:DA:2900:A:H5'	2.20	0.41
1:DA:66:C:C4	1:DA:67:U:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:693:C:H2'	1:DA:694:U:O4'	2.19	0.41
1:DA:885:C:N3	1:DA:890:A:C6	2.85	0.41
2:DB:54:G:N3	2:DB:55:U:C6	2.88	0.41
3:DD:35:LYS:HB3	3:DD:36:PRO:HA	2.03	0.41
4:DE:16:ARG:O	4:DE:17:ASP:HB2	2.20	0.41
5:DF:170:LEU:HA	5:DF:171:PRO:HD3	1.85	0.41
6:DG:101:ILE:HD12	6:DG:102:PHE:N	2.36	0.41
7:DH:118:PRO:HD2	7:DH:121:ILE:HG13	2.02	0.41
7:DH:40:GLU:O	7:DH:41:MET:HB2	2.20	0.41
7:DH:71:LEU:HD12	7:DH:71:LEU:O	2.20	0.41
10:DN:105:GLU:CA	10:DN:108:GLU:HG3	2.42	0.41
11:DO:111:ARG:HB3	11:DO:112:LEU:H	1.68	0.41
11:DO:62:LEU:O	11:DO:62:LEU:HD23	2.20	0.41
15:DR:100:TYR:O	15:DR:102:ILE:N	2.53	0.41
19:DT:45:THR:OG1	19:DT:45:THR:O	2.35	0.41
21:DV:54:HIS:C	21:DV:55:HIS:HD1	2.23	0.41
13:A0:71:GLN:NE2	13:A0:71:GLN:HA	2.35	0.41
29:A7:15:THR:HG22	29:A7:16:HIS:ND1	2.35	0.41
29:A7:5:TRP:CE3	29:A7:5:TRP:HA	2.55	0.41
1:AA:1057:A:H2'	1:AA:1058:U:C5	2.54	0.41
1:AA:1363:C:H2'	1:AA:1364:G:H8	1.84	0.41
1:AA:1518:C:C2'	1:AA:1519:G:H5'	2.50	0.41
1:AA:1523:U:H2'	1:AA:1524:G:O4'	2.19	0.41
1:AA:1716:U:H1'	1:AA:1746:G:N2	2.35	0.41
1:AA:2017:U:H5"	1:AA:2018:G:OP2	2.21	0.41
1:AA:2402:C:OP1	1:AA:2402:C:C4'	2.67	0.41
1:AA:391:G:H2'	1:AA:392:C:C6	2.54	0.41
1:AA:731:C:N3	1:AA:732:C:C5	2.89	0.41
1:AA:857:C:C4	1:AA:858:U:O4	2.73	0.41
2:AB:22:U:H6	2:AB:22:U:O5'	2.03	0.41
2:AB:53:A:C4	2:AB:54:G:C8	3.09	0.41
1:AA:1568:G:H5"	3:AD:61:LEU:HD22	2.02	0.41
4:AE:144:ARG:HB3	4:AE:145:LYS:H	1.49	0.41
5:AF:123:LEU:HD21	5:AF:199:TRP:CH2	2.56	0.41
5:AF:170:LEU:HB2	5:AF:173:VAL:HB	2.01	0.41
5:AF:192:LEU:HD21	5:AF:194:MET:HG3	2.00	0.41
6:AG:146:TYR:C	6:AG:146:TYR:CD2	2.94	0.41
7:AH:77:LYS:HE2	7:AH:138:LYS:CD	2.50	0.41
8:AK:33:ARG:O	8:AK:34:GLY:C	2.57	0.41
9:AM:95:PRO:O	9:AM:96:GLU:CB	2.68	0.41
12:AP:43:THR:O	12:AP:44:ALA:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AT:35:THR:HG22	19:AT:35:THR:H	1.62	0.41
19:AT:57:LEU:CD1	19:AT:78:LYS:HG2	2.50	0.41
19:AT:65:ARG:HG3	19:AT:67:GLY:H	1.84	0.41
21:AV:157:LEU:O	21:AV:158:PRO:O	2.39	0.41
24:AW:6:VAL:H	24:AW:6:VAL:HG23	1.59	0.41
31:BA:1003:G:C3'	31:BA:1004:A:H5'	2.51	0.41
31:BA:1008:C:H5'	31:BA:1008:C:H6	1.85	0.41
31:BA:1130:A:P	31:BA:1131:G:OP2	2.79	0.41
31:BA:1133:G:N2	31:BA:1142:G:C8	2.89	0.41
31:BA:329:A:C2	31:BA:332:G:N9	2.89	0.41
31:BA:373:A:H2'	31:BA:374:A:O4'	2.20	0.41
31:BA:403:C:H4'	34:BG:122:ARG:NH1	2.34	0.41
31:BA:411:A:N7	31:BA:413:G:H1'	2.32	0.41
31:BA:491:G:C6	31:BA:492:G:N7	2.88	0.41
31:BA:509:A:HO2'	31:BA:510:A:P	2.37	0.41
31:BA:599:C:O2'	31:BA:600:C:H5'	2.20	0.41
31:BA:923:A:C2	31:BA:924:C:C2	3.08	0.41
52:BD:26:G:C5	52:BD:27:A:C8	3.09	0.41
35:BH:139:LEU:C	35:BH:141:GLN:N	2.72	0.41
38:BK:119:LEU:HD12	38:BK:124:ALA:HB2	2.02	0.41
38:BK:20:TYR:HA	38:BK:65:TYR:HE2	1.85	0.41
38:BK:41:ARG:HH11	38:BK:41:ARG:HG3	1.85	0.41
41:BN:19:ALA:O	41:BN:82:VAL:HA	2.20	0.41
41:BN:93:GLN:HA	41:BN:93:GLN:HE21	1.85	0.41
48:BU:38:GLU:OE1	48:BU:38:GLU:HA	2.20	0.41
48:BU:40:LEU:O	48:BU:42:ARG:N	2.53	0.41
48:BU:53:ARG:O	48:BU:56:THR:N	2.48	0.41
50:BW:11:SER:C	50:BW:13:LEU:N	2.74	0.41
31:CA:1131:G:C8	31:CA:1132:C:C5	3.09	0.41
31:CA:1200:C:H1'	31:CA:1204:A:N6	2.34	0.41
31:CA:1317:C:C6	44:CQ:16:PHE:HD1	2.36	0.41
31:CA:1330:U:C2'	31:CA:1331:G:OP1	2.69	0.41
31:CA:1375:A:C2	31:CA:1376:U:C2	3.09	0.41
31:CA:325:A:H2'	31:CA:326:G:O4'	2.20	0.41
31:CA:49:U:C5	31:CA:364:A:C6	3.09	0.41
31:CA:504:C:O2	31:CA:542:G:C2	2.74	0.41
31:CA:642:A:C2	31:CA:643:C:C2	3.08	0.41
31:CA:67:C:H2'	31:CA:68:G:H8	1.85	0.41
52:CD:59:A:N1	52:CD:60:A:C5	2.89	0.41
32:CE:48:MET:O	32:CE:51:LEU:N	2.51	0.41
32:CE:90:MET:HA	32:CE:91:PRO:HD3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CF:66:VAL:CG1	33:CF:67:THR:N	2.83	0.41
34:CG:96:LEU:CD1	34:CG:139:ARG:NH2	2.84	0.41
35:CH:40:ARG:HG2	35:CH:40:ARG:NH1	2.34	0.41
38:CK:58:TYR:O	38:CK:59:LEU:HD23	2.19	0.41
39:CL:96:LEU:HD12	39:CL:96:LEU:HA	1.88	0.41
44:CQ:33:VAL:HA	44:CQ:39:LEU:O	2.20	0.41
45:CR:26:GLU:H	45:CR:26:GLU:HG2	1.70	0.41
45:CR:66:LEU:HA	45:CR:66:LEU:HD12	1.75	0.41
46:CS:8:ARG:CG	46:CS:8:ARG:NH1	2.57	0.41
47:CT:59:ILE:HD13	47:CT:73:VAL:HA	2.02	0.41
49:CV:66:MET:CE	26:D4:59:PHE:HD1	2.33	0.41
16:D1:74:LEU:HD12	16:D1:74:LEU:N	2.36	0.41
17:D2:33:VAL:HG13	17:D2:33:VAL:O	2.20	0.41
22:D3:36:ILE:CD1	22:D3:36:ILE:N	2.83	0.41
28:D6:28:ARG:CD	28:D6:31:PRO:HD2	2.45	0.41
1:DA:1021:A:C2	1:DA:1023:U:C2	3.08	0.41
1:DA:1174:A:N1	1:DA:1175:U:O2'	2.53	0.41
1:DA:1192:G:O2'	1:DA:1193:G:H5'	2.20	0.41
1:DA:1342:A:C2	1:DA:1397:U:N3	2.88	0.41
1:DA:1349:A:N3	1:DA:1349:A:H5'	2.35	0.41
1:DA:171:G:O2'	1:DA:172:C:O5'	2.32	0.41
1:DA:2304:G:N2	1:DA:2312:U:N3	2.52	0.41
1:DA:2439:A:P	1:DA:2439:A:H3'	2.60	0.41
1:DA:2465:C:O2	1:DA:2486:G:C2	2.74	0.41
1:DA:2468:G:C8	1:DA:2476:A:N6	2.87	0.41
1:DA:2477:C:O4'	1:DA:2477:C:O2	2.37	0.41
1:DA:2531:A:N3	1:DA:2658:C:O2'	2.41	0.41
1:DA:2832:U:C2	1:DA:2834:G:N2	2.88	0.41
1:DA:440:G:H2'	1:DA:441:U:C6	2.55	0.41
1:DA:780:G:N2	1:DA:783:A:H62	2.18	0.41
1:DA:875:G:C6	1:DA:876:C:N3	2.89	0.41
1:DA:881:G:O6	1:DA:882:G:N1	2.54	0.41
1:DA:945:A:C2	1:DA:2448:A:C1'	3.04	0.41
2:DB:66:A:C6	2:DB:108:C:C5	3.09	0.41
2:DB:110:G:C4	2:DB:111:U:C6	3.09	0.41
2:DB:3:C:H42	2:DB:117:G:H1	1.69	0.41
3:DD:120:GLY:HA2	3:DD:190:TYR:OH	2.20	0.41
3:DD:28:GLU:N	3:DD:29:PRO:HD2	2.35	0.41
5:DF:63:LYS:HE3	5:DF:63:LYS:HB3	1.88	0.41
6:DG:161:THR:HG22	6:DG:162:THR:N	2.35	0.41
6:DG:32:PRO:HB2	6:DG:172:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:DG:41:GLN:HE21	6:DG:60:LEU:HD13	1.85	0.41
6:DG:78:SER:O	6:DG:79:ASN:C	2.58	0.41
7:DH:33:LEU:HD12	7:DH:75:ALA:O	2.21	0.41
7:DH:4:ILE:HD11	7:DH:7:LEU:CD2	2.50	0.41
11:DO:101:VAL:HG13	11:DO:102:ARG:N	2.35	0.41
11:DO:49:ARG:HD2	30:D8:58:ILE:HG23	2.01	0.41
11:DO:83:VAL:O	11:DO:83:VAL:HG22	2.20	0.41
19:DT:29:TRP:CZ3	19:DT:78:LYS:HB2	2.55	0.41
21:DV:157:LEU:CB	21:DV:161:VAL:HG21	2.49	0.41
13:A0:107:ASP:OD2	13:A0:109:ALA:CB	2.68	0.41
13:A0:18:LEU:HD13	13:A0:18:LEU:C	2.41	0.41
13:A0:30:THR:HG22	13:A0:31:HIS:ND1	2.35	0.41
1:AA:2016:U:O4'	27:A5:6:VAL:HG21	2.20	0.41
1:AA:1675:C:H2'	1:AA:1676:A:O4'	2.20	0.41
1:AA:1788:C:H2'	1:AA:1789:A:O4'	2.19	0.41
1:AA:1916:A:H3'	1:AA:1917:U:H6	1.85	0.41
1:AA:2212:A:H1'	1:AA:2215:G:C6	2.56	0.41
1:AA:2864:G:C6	1:AA:2865:U:N3	2.89	0.41
1:AA:2849:U:H1'	1:AA:2866:U:O2	2.19	0.41
1:AA:776:G:C8	1:AA:793:A:C2	3.08	0.41
1:AA:945:A:O4'	1:AA:946:G:OP1	2.38	0.41
2:AB:8:U:H2'	2:AB:9:G:O5'	2.19	0.41
3:AD:125:ILE:HA	3:AD:125:ILE:HD12	1.78	0.41
3:AD:109:ASP:HB2	3:AD:197:GLY:CA	2.50	0.41
3:AD:217:ARG:H	3:AD:217:ARG:HG2	1.74	0.41
3:AD:230:ASP:O	3:AD:231:HIS:HB2	2.20	0.41
4:AE:47:VAL:O	4:AE:80:GLU:HA	2.20	0.41
5:AF:64:ILE:O	5:AF:64:ILE:HD12	2.19	0.41
5:AF:70:THR:OG1	5:AF:72:ARG:HB2	2.20	0.41
7:AH:167:GLU:HA	7:AH:168:PRO:HD3	1.48	0.41
8:AK:109:ILE:HB	8:AK:130:TYR:CZ	2.55	0.41
8:AK:64:GLU:O	8:AK:67:ARG:N	2.53	0.41
1:AA:1141:U:C5	9:AM:64:GLY:HA3	2.55	0.41
9:AM:75:TYR:HA	9:AM:81:GLY:O	2.20	0.41
15:AR:31:SER:OG	15:AR:85:LYS:NZ	2.52	0.41
19:AT:26:TYR:CE1	19:AT:83:VAL:HG21	2.55	0.41
31:BA:1122:U:C5	31:BA:1123:A:N7	2.88	0.41
31:BA:1148:U:C4	31:BA:1149:C:C2	3.08	0.41
31:BA:1239:A:C6	31:BA:1298:C:H5	2.37	0.41
31:BA:1286:A:H8	31:BA:1286:A:H3'	1.86	0.41
31:BA:1452:C:H3'	31:BA:1452:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:1499:A:H2'	31:BA:1499:A:N3	2.33	0.41
31:BA:28:G:C6	31:BA:29:G:N7	2.88	0.41
31:BA:49:U:O2'	31:BA:50:A:C3'	2.68	0.41
31:BA:514:C:H42	31:BA:537:G:H1	1.69	0.41
31:BA:625:G:H2'	31:BA:626:U:C6	2.55	0.41
31:BA:792:A:H4'	31:BA:793:U:O5'	2.21	0.41
31:BA:926:G:C6	31:BA:1505:G:C5	3.07	0.41
31:BA:968:A:H4'	31:BA:969:A:OP2	2.21	0.41
31:BA:982:U:H4'	31:BA:983:A:OP1	2.20	0.41
53:BC:44:A:H2'	53:BC:45:A:H8	1.86	0.41
53:BC:22:A:H62	53:BC:47:G:H2'	1.85	0.41
52:BD:24:G:OP2	52:BD:24:G:H8	2.04	0.41
32:BE:120:ALA:C	32:BE:121:LEU:HD12	2.41	0.41
32:BE:147:LYS:HE2	32:BE:148:TYR:HE1	1.86	0.41
32:BE:149:LEU:HA	32:BE:149:LEU:HD23	1.84	0.41
33:BF:73:PRO:C	33:BF:75:VAL:H	2.23	0.41
37:BJ:139:GLU:C	37:BJ:141:VAL:N	2.74	0.41
39:BL:16:ARG:HB2	39:BL:64:THR:OG1	2.21	0.41
41:BN:40:ILE:HG13	41:BN:77:MET:HE1	2.03	0.41
31:CA:1015:A:C6	31:CA:1016:A:C5	3.09	0.41
31:CA:1316:G:H22	31:CA:1318:A:H3'	1.82	0.41
31:CA:1330:U:H2'	31:CA:1331:G:OP1	2.20	0.41
31:CA:1403:C:H1'	31:CA:1500:A:N1	2.35	0.41
31:CA:307:C:H2'	31:CA:307:C:O2	2.20	0.41
31:CA:311:C:C4	31:CA:312:C:C5	3.09	0.41
31:CA:337:C:H2'	31:CA:338:A:C8	2.55	0.41
31:CA:431:A:H2'	31:CA:432:A:O4'	2.20	0.41
31:CA:518:C:H5"	31:CA:519:C:C6	2.56	0.41
31:CA:706:A:C4'	41:CN:29:ILE:HD11	2.51	0.41
31:CA:803:G:H2'	31:CA:804:U:O4'	2.20	0.41
31:CA:853:G:C4	31:CA:854:G:C8	3.08	0.41
32:CE:160:ASP:O	32:CE:161:ALA:HB2	2.20	0.41
32:CE:26:PRO:C	32:CE:28:PHE:H	2.22	0.41
33:CF:35:GLU:O	33:CF:39:ILE:HG13	2.20	0.41
38:CK:17:THR:HG22	38:CK:78:GLN:NE2	2.36	0.41
40:CM:6:ILE:HG22	40:CM:98:ILE:HA	2.03	0.41
49:CV:11:VAL:HG13	49:CV:12:ASP:N	2.35	0.41
50:CW:26:ASN:O	50:CW:30:LYS:HB2	2.21	0.41
50:CW:55:ILE:O	50:CW:58:LYS:HB3	2.20	0.41
22:D3:43:THR:C	22:D3:45:PHE:N	2.72	0.41
28:D6:24:GLU:OE2	56:D8:101:OHX:N6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1000:A:C5	1:DA:1001:A:C2	3.09	0.41
1:DA:1026:U:C2'	1:DA:1026:U:O2	2.68	0.41
1:DA:1144:G:C6	1:DA:1145:C:N3	2.89	0.41
1:DA:1155:A:C6	1:DA:1157:G:C4	3.09	0.41
1:DA:1213:A:O2'	1:DA:1214:A:H5'	2.19	0.41
1:DA:1319:G:N1	1:DA:1320:C:N4	2.69	0.41
1:DA:1477:A:C2	1:DA:1517:G:C2	3.09	0.41
1:DA:1589:C:H2'	1:DA:1590:U:C6	2.56	0.41
1:DA:1675:C:O5'	1:DA:1675:C:H6	2.04	0.41
1:DA:1726:G:C6	1:DA:1727:U:C4	3.07	0.41
1:DA:2012:G:H8	1:DA:2012:G:O5'	2.03	0.41
1:DA:2418:A:C5	1:DA:2419:U:C4	3.08	0.41
1:DA:2435:A:C2'	1:DA:2436:G:O5'	2.68	0.41
1:DA:263:C:H2'	1:DA:264:C:O4'	2.20	0.41
1:DA:2705:A:H2'	1:DA:2706:G:O4'	2.21	0.41
1:DA:2807:G:H2'	1:DA:2808:U:O4'	2.21	0.41
1:DA:2892:A:N6	1:DA:2893:G:N2	2.67	0.41
1:DA:289:A:C5'	1:DA:290:G:OP2	2.67	0.41
1:DA:817:C:O5'	1:DA:817:C:H6	2.02	0.41
1:DA:918:A:C5	1:DA:919:G:H1'	2.55	0.41
2:DB:15:A:H2'	2:DB:16:G:OP1	2.21	0.41
3:DD:124:PRO:HG2	3:DD:129:ASN:HD21	1.84	0.41
3:DD:210:GLY:O	3:DD:213:ARG:HB2	2.20	0.41
3:DD:34:VAL:O	3:DD:34:VAL:HG13	2.20	0.41
4:DE:13:ARG:HD2	4:DE:20:ALA:HB1	2.03	0.41
6:DG:44:GLY:O	6:DG:47:LYS:N	2.53	0.41
7:DH:91:GLY:O	7:DH:92:ILE:C	2.58	0.41
11:DO:97:PRO:HD3	11:DO:126:VAL:O	2.20	0.41
5:DF:31:HIS:CB	11:DO:9:ASN:ND2	2.74	0.41
15:DR:24:PRO:HD3	15:DR:52:ILE:HG13	2.03	0.41
18:DS:35:ILE:HG23	27:D5:28:PRO:HD2	2.01	0.41
21:DV:158:PRO:HD2	21:DV:161:VAL:HG11	2.03	0.41
23:DZ:83:GLU:O	23:DZ:85:LEU:N	2.54	0.41
16:A1:90:VAL:HG22	17:A2:39:LEU:CB	2.41	0.41
26:A4:15:ILE:HD11	26:A4:32:TYR:CD1	2.56	0.41
26:A4:42:PHE:CD1	26:A4:42:PHE:C	2.92	0.41
27:A5:42:PRO:HB3	27:A5:43:HIS:HD2	1.86	0.41
1:AA:1057:A:N7	1:AA:1086:A:N3	2.68	0.41
1:AA:1448:G:N3	1:AA:1529:A:H2	2.18	0.41
1:AA:1991:U:C2'	1:AA:1992:G:H5"	2.47	0.41
1:AA:205:G:HO2'	1:AA:206:U:P	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2137:C:H2'	1:AA:2138:C:C6	2.55	0.41
1:AA:2171:A:O2'	1:AA:2172:U:O4'	2.39	0.41
1:AA:2283:C:N3	1:AA:2389:G:C2	2.89	0.41
1:AA:2592:G:C6	1:AA:2593:U:C4	3.09	0.41
1:AA:488:G:OP2	56:AA:3497:OHX:N6	2.54	0.41
1:AA:449:A:C4	1:AA:450:G:C8	3.09	0.41
1:AA:463:G:N1	1:AA:467:G:C6	2.89	0.41
1:AA:531:C:N3	1:AA:563:G:C8	2.88	0.41
1:AA:863:A:H2'	1:AA:864:G:C8	2.56	0.41
3:AD:213:ARG:NH2	3:AD:218:ARG:HD2	2.35	0.41
4:AE:114:ALA:O	4:AE:157:ALA:HB1	2.20	0.41
4:AE:14:ILE:HD13	4:AE:14:ILE:HA	1.90	0.41
5:AF:170:LEU:O	5:AF:172:TRP:N	2.53	0.41
6:AG:131:TYR:HB3	6:AG:159:VAL:CG2	2.50	0.41
12:AP:52:VAL:O	12:AP:53:ALA:C	2.59	0.41
14:AQ:106:ARG:HH22	14:AQ:107:GLU:HB2	1.85	0.41
14:AQ:66:ALA:HA	14:AQ:69:VAL:CG1	2.37	0.41
1:AA:518:G:C4'	18:AS:18:ARG:NH1	2.82	0.41
19:AT:47:PHE:O	19:AT:48:LYS:C	2.59	0.41
1:AA:484:C:OP1	20:AU:51:VAL:HG11	2.21	0.41
31:BA:1002:G:C4	31:BA:1003:G:N7	2.89	0.41
31:BA:120:A:H2'	31:BA:121:C:O5'	2.21	0.41
31:BA:1287:A:C2	31:BA:1353:G:H1'	2.56	0.41
31:BA:142:G:N3	31:BA:143:A:N7	2.68	0.41
31:BA:1521:G:H2'	31:BA:1522:U:C6	2.56	0.41
31:BA:132:C:N3	31:BA:231:G:C2	2.88	0.41
31:BA:542:G:C2'	31:BA:543:C:H5'	2.50	0.41
31:BA:565:U:C5	31:BA:566:G:C4	3.09	0.41
31:BA:657:G:C2	31:BA:658:G:C8	3.08	0.41
31:BA:663:A:H5"	48:BU:61:LYS:HZ3	1.85	0.41
31:BA:69:G:N2	31:BA:73:G:C4	2.88	0.41
32:BE:97:TRP:CZ2	32:BE:102:LEU:HD13	2.55	0.41
33:BF:28:GLN:O	33:BF:31:HIS:N	2.49	0.41
38:BK:100:ILE:HA	38:BK:101:PRO:HD3	1.83	0.41
39:BL:116:LYS:HB3	39:BL:121:ARG:O	2.19	0.41
37:BJ:16:LEU:CD1	39:BL:45:ALA:HB2	2.50	0.41
31:BA:1302:U:C5	43:BP:17:VAL:HG21	2.54	0.41
45:BR:31:LEU:HA	45:BR:31:LEU:HD12	1.95	0.41
46:BS:73:LEU:O	46:BS:77:ALA:HB2	2.20	0.41
31:BA:636:U:C5'	47:BT:2:PRO:HG3	2.50	0.41
49:BV:40:ILE:HG21	49:BV:66:MET:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:32:ALA:O	50:BW:34:LYS:N	2.54	0.41
31:CA:101:A:H2'	31:CA:102:G:O4'	2.20	0.41
31:CA:1049:U:H4'	31:CA:1050:G:O5'	2.11	0.41
31:CA:1060:C:O2	31:CA:1198:G:C2	2.74	0.41
31:CA:1116:C:N4	31:CA:1184:G:H1	2.17	0.41
31:CA:1240:U:H3'	31:CA:1241:G:C5'	2.50	0.41
31:CA:1250:A:H2	31:CA:1353:G:H21	1.68	0.41
31:CA:1446:A:OP1	31:CA:1446:A:H4'	2.21	0.41
31:CA:187:C:C4	31:CA:188:U:O2	2.73	0.41
31:CA:250:A:H4'	31:CA:251:G:O5'	2.21	0.41
31:CA:451:A:C1'	31:CA:452:A:C8	3.04	0.41
31:CA:539:A:H2'	31:CA:540:G:C8	2.56	0.41
31:CA:578:C:H2'	31:CA:579:G:O4'	2.21	0.41
31:CA:57:G:C6	31:CA:58:C:N4	2.89	0.41
31:CA:634:C:H6	31:CA:634:C:O5'	2.03	0.41
31:CA:702:A:H3'	31:CA:703:G:C5'	2.48	0.41
31:CA:852:G:H2'	31:CA:853:G:H5'	2.02	0.41
31:CA:872:A:C4	31:CA:874:G:N7	2.88	0.41
31:CA:914:A:H2'	31:CA:915:A:H5'	2.02	0.41
31:CA:930:C:N4	31:CA:931:C:C5	2.89	0.41
31:CA:942:G:H21	39:CL:124:GLN:HE22	1.66	0.41
52:CB:60:A:H2'	52:CB:61:G:C8	2.56	0.41
53:CC:11:A:C6	53:CC:12:G:C5	3.09	0.41
52:CD:10:C:C6	52:CD:10:C:C3'	3.03	0.41
32:CE:124:SER:C	32:CE:126:GLU:N	2.73	0.41
32:CE:16:HIS:HE2	32:CE:209:ARG:CG	2.18	0.41
34:CG:173:TRP:O	34:CG:186:LEU:HB2	2.21	0.41
34:CG:72:GLU:O	34:CG:73:ARG:C	2.58	0.41
39:CL:23:ASN:ND2	39:CL:25:LYS:H	2.19	0.41
39:CL:33:PHE:CD1	39:CL:37:PHE:HD1	2.37	0.41
39:CL:95:LYS:C	39:CL:95:LYS:HE2	2.39	0.41
39:CL:95:LYS:HZ3	39:CL:96:LEU:CB	2.32	0.41
42:CO:93:LEU:O	42:CO:94:PRO:C	2.59	0.41
43:CP:5:ALA:HB2	43:CP:22:ILE:HD13	2.02	0.41
44:CQ:43:CYS:O	44:CQ:46:GLU:N	2.53	0.41
1:DA:2840:C:C5'	13:D0:53:HIS:CD2	2.98	0.41
16:D1:65:ILE:CD1	16:D1:65:ILE:H	2.34	0.41
22:D3:83:PRO:O	22:D3:84:LEU:C	2.59	0.41
30:D8:48:PHE:CD1	30:D8:48:PHE:N	2.89	0.41
1:DA:1027:A:C6	1:DA:1126:A:C5	3.09	0.41
1:DA:1070:A:C5'	1:DA:1071:G:OP1	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1063:G:N2	1:DA:1076:C:C2	2.88	0.41
1:DA:1208:C:H2'	1:DA:1209:G:H5'	2.02	0.41
1:DA:1416:G:C4	1:DA:1417:C:C5	3.08	0.41
1:DA:1434:A:C2'	1:DA:1435:G:H5'	2.50	0.41
1:DA:1607:C:C2	56:DA:3406:OHX:N5	2.89	0.41
1:DA:1831:G:H1	1:DA:1974:C:H42	1.68	0.41
1:DA:2364:C:C2'	1:DA:2365:G:H5'	2.51	0.41
1:DA:273(E):U:H2'	1:DA:273(F):C:H5'	2.01	0.41
1:DA:409:C:P	56:DA:3385:OHX:N1	2.93	0.41
1:DA:363(F):A:H1'	1:DA:364:C:H5	1.85	0.41
1:DA:46:C:OP2	1:DA:215:G:H2'	2.20	0.41
1:DA:552:G:H2'	1:DA:553:U:C6	2.55	0.41
1:DA:55:G:H2'	1:DA:56:A:H8	1.84	0.41
1:DA:763:G:H1'	1:DA:765:G:O4'	2.21	0.41
1:DA:952:G:C6	1:DA:953:A:N7	2.89	0.41
2:DB:113:C:H2'	2:DB:114:G:C8	2.56	0.41
4:DE:197:ILE:HD11	4:DE:199:ARG:CZ	2.50	0.41
4:DE:58:ARG:H	4:DE:60:ASN:HD21	1.68	0.41
8:DK:74:ASN:O	8:DK:139:GLN:NE2	2.54	0.41
10:DN:2:ILE:HD11	10:DN:82:ASN:ND2	2.35	0.41
11:DO:61:ARG:NH2	11:DO:61:ARG:HB3	2.24	0.41
12:DP:2:LEU:HG	12:DP:69:PHE:CE1	2.55	0.41
18:DS:12:ILE:HG13	18:DS:42:ARG:NH1	2.35	0.41
22:A3:49:LYS:CB	22:A3:80:HIS:HB3	2.49	0.41
26:A4:37:SER:HA	26:A4:41:PRO:HD2	2.03	0.41
1:AA:1092:C:H2'	1:AA:1093:G:H5'	2.03	0.41
1:AA:1385:G:H1'	1:AA:1386:C:C6	2.56	0.41
1:AA:1478:G:N2	1:AA:1516:U:C2	2.89	0.41
1:AA:1643:G:H2'	1:AA:1644:C:O5'	2.20	0.41
1:AA:1814:G:C6	1:AA:1815:A:C6	3.09	0.41
1:AA:1854:A:H61	1:AA:1888:G:H1'	1.86	0.41
1:AA:2049:G:N2	1:AA:2620:C:C2	2.89	0.41
1:AA:2112:G:C8	1:AA:2112:G:P	3.13	0.41
1:AA:2301:C:C6	1:AA:2301:C:H3'	2.56	0.41
1:AA:2523:G:O2'	1:AA:2524:G:H5'	2.20	0.41
1:AA:2543:G:H2'	1:AA:2544:G:O4'	2.20	0.41
1:AA:2645:G:C3'	1:AA:2646:C:C5'	2.94	0.41
1:AA:2661:G:OP2	1:AA:2661:G:H8	2.03	0.41
1:AA:27:G:O6	56:AA:3365:OHX:N4	2.53	0.41
1:AA:2842:G:H2'	1:AA:2843:G:O4'	2.21	0.41
1:AA:540:G:C4	1:AA:541:C:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:871:U:H4'	12:AP:69:PHE:CE2	2.56	0.41
1:AA:881:G:C3'	1:AA:882:G:O4'	2.62	0.41
3:AD:118:VAL:CG1	3:AD:124:PRO:HD2	2.50	0.41
1:AA:673:C:H4'	5:AF:82:ILE:CG2	2.50	0.41
7:AH:151:ILE:HG12	7:AH:151:ILE:H	1.73	0.41
7:AH:15:VAL:HG12	7:AH:28:GLY:HA3	2.03	0.41
9:AM:133:GLN:C	9:AM:134:ARG:HG3	2.40	0.41
9:AM:13:TRP:O	9:AM:135:PRO:HD2	2.21	0.41
11:AO:37:GLY:C	11:AO:41:ARG:HD2	2.40	0.41
11:AO:42:SER:O	11:AO:43:GLY:C	2.59	0.41
11:AO:86:LYS:HB3	11:AO:118:GLY:CA	2.51	0.41
12:AP:52:VAL:HA	12:AP:55:VAL:CG1	2.46	0.41
14:AQ:89:ARG:HG3	14:AQ:92:TYR:O	2.21	0.41
15:AR:35:LYS:N	15:AR:35:LYS:HD2	2.35	0.41
15:AR:5:ALA:O	15:AR:8:LYS:HG2	2.21	0.41
19:AT:18:TYR:HD1	19:AT:21:PHE:HE1	1.69	0.41
31:BA:1053:G:C6	31:BA:1199:U:C2	3.09	0.41
31:BA:1111:A:N1	33:BF:177:THR:HG23	2.35	0.41
31:BA:115:G:H4'	31:BA:116:A:O5'	2.20	0.41
31:BA:1243:C:H2'	31:BA:1244:C:O4'	2.20	0.41
31:BA:1298:C:H4'	31:BA:1299:A:O4'	2.20	0.41
31:BA:1350:A:C5	31:BA:1351:U:N3	2.88	0.41
31:BA:156:G:C2	31:BA:166:G:C2	3.09	0.41
31:BA:201:C:C2	31:BA:216:G:N2	2.82	0.41
31:BA:130:A:H1'	31:BA:263:A:O2'	2.21	0.41
31:BA:458:C:H2'	31:BA:464:G:C8	2.55	0.41
31:BA:507:C:H5	31:BA:508:C:HO2'	1.63	0.41
31:BA:556:C:O2'	31:BA:557:G:H5'	2.21	0.41
31:BA:562:C:H4'	31:BA:563:A:O5'	2.21	0.41
31:BA:942:G:C2	31:BA:943:U:N1	2.89	0.41
31:BA:996:A:O5'	31:BA:996:A:H8	2.04	0.41
52:BB:11:C:C2	52:BB:26:G:N2	2.89	0.41
31:BA:530:G:H1'	52:BB:36:U:H1'	2.03	0.41
52:BB:38:MIA:C4	52:BB:39:A:C8	3.03	0.41
32:BE:163:PHE:CD2	32:BE:185:ILE:HG13	2.54	0.41
35:BH:36:ASP:C	35:BH:38:GLN:H	2.24	0.41
36:BI:16:GLN:CD	36:BI:16:GLN:H	2.24	0.41
36:BI:88:VAL:HG12	36:BI:89:MET:N	2.36	0.41
38:BK:134:ILE:HD13	38:BK:134:ILE:N	2.35	0.41
38:BK:39:LEU:HB3	38:BK:45:ILE:CD1	2.50	0.41
39:BL:4:TYR:CD2	39:BL:88:TYR:HB2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BM:96:ILE:HD13	40:BM:96:ILE:H	1.85	0.41
31:BA:110:C:O2'	46:BS:25:ARG:O	2.36	0.41
50:BW:37:SER:O	50:BW:41:ILE:HG12	2.21	0.41
31:CA:1052:U:O5'	31:CA:1052:U:H6	2.03	0.41
31:CA:1064:G:O4'	31:CA:1066:C:C6	2.73	0.41
31:CA:106:C:C2'	31:CA:107:G:H5'	2.51	0.41
31:CA:1153:C:N3	31:CA:1154:G:C8	2.88	0.41
31:CA:1176:A:N6	31:CA:1177:G:C4	2.89	0.41
31:CA:1256:A:H4'	31:CA:1257:U:OP1	2.20	0.41
31:CA:1286:A:C8	31:CA:1286:A:H3'	2.55	0.41
31:CA:1301:U:C4	31:CA:1303:C:C6	3.09	0.41
31:CA:1486:G:H2'	31:CA:1487:G:C1'	2.51	0.41
31:CA:162:A:H8	31:CA:162:A:O5'	2.03	0.41
31:CA:6:G:H4'	31:CA:298:A:H4'	2.01	0.41
31:CA:464:G:N2	31:CA:467:G:C8	2.88	0.41
31:CA:85:U:O2	31:CA:85:U:O4'	2.38	0.41
31:CA:987:G:H2'	31:CA:988:G:H8	1.86	0.41
52:CB:63:U:H2'	52:CB:64:U:O4'	2.21	0.41
32:CE:87:ARG:NH2	32:CE:232:PRO:HA	2.36	0.41
32:CE:87:ARG:HH21	32:CE:233:SER:H	1.68	0.41
32:CE:67:THR:HA	32:CE:90:MET:HE2	2.02	0.41
33:CF:129:ALA:CB	33:CF:132:ARG:CZ	2.99	0.41
31:CA:619:U:C2	34:CG:135:LEU:CD2	3.03	0.41
34:CG:149:ALA:O	34:CG:150:GLU:O	2.38	0.41
38:CK:19:VAL:HG23	38:CK:21:LYS:HB2	2.03	0.41
39:CL:18:PHE:HD1	39:CL:62:TYR:CD2	2.38	0.41
41:CN:54:ARG:O	41:CN:56:GLY:N	2.54	0.41
45:CR:55:GLY:O	45:CR:59:MET:HG3	2.21	0.41
46:CS:45:THR:HB	46:CS:46:PRO:HD2	2.01	0.41
13:D0:57:ARG:NE	13:D0:59:ASP:OD2	2.52	0.41
17:D2:21:ARG:HG3	17:D2:21:ARG:HH11	1.86	0.41
17:D2:5:VAL:HA	17:D2:38:LEU:H	1.86	0.41
29:D7:34:ARG:HH12	29:D7:39:ARG:CG	2.26	0.41
1:DA:592:G:O2'	30:D8:4:MET:HB2	2.20	0.41
1:DA:1080:A:H2'	1:DA:1081:U:C6	2.55	0.41
1:DA:1098:A:C3'	1:DA:1099:G:H5'	2.51	0.41
1:DA:1354:A:C8	1:DA:1355:G:C8	3.08	0.41
1:DA:1540:G:H2'	1:DA:1541:U:O4'	2.20	0.41
1:DA:1711:C:O2'	1:DA:1712:C:H5'	2.21	0.41
1:DA:1749:A:H2'	1:DA:1750:G:O5'	2.21	0.41
1:DA:1771:C:O2'	1:DA:1786:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1819:A:H5"	3:DD:161:THR:HG21	2.03	0.41
1:DA:198:C:O2'	1:DA:199:A:H5'	2.20	0.41
1:DA:2330:G:H2'	1:DA:2331:G:O4'	2.21	0.41
1:DA:2364:C:O2'	1:DA:2365:G:H5'	2.19	0.41
1:DA:2472:G:H3'	1:DA:2473:U:H5"	2.01	0.41
1:DA:250:G:C6	1:DA:251:A:C6	3.09	0.41
1:DA:2693:A:H2'	1:DA:2694:G:C8	2.54	0.41
1:DA:339:U:O5'	1:DA:339:U:H6	2.04	0.41
1:DA:382:G:OP1	56:DA:3441:OHX:N5	2.53	0.41
1:DA:839:U:H2'	1:DA:840:C:H6	1.84	0.41
1:DA:915:C:H2'	1:DA:916:G:H5'	2.03	0.41
3:DD:52:ARG:HB2	3:DD:53:PHE:CD2	2.55	0.41
7:DH:146:ALA:O	7:DH:149:ARG:N	2.53	0.41
7:DH:19:VAL:O	7:DH:20:ALA:HB2	2.21	0.41
7:DH:41:MET:SD	7:DH:41:MET:N	2.94	0.41
11:DO:126:VAL:HG22	11:DO:145:PRO:HG2	2.02	0.41
12:DP:32:TYR:CD1	12:DP:114:ALA:HB2	2.56	0.41
12:DP:59:ARG:O	12:DP:60:ARG:HD2	2.20	0.41
12:DP:76:LYS:O	12:DP:77:LYS:O	2.39	0.41
12:DP:75:THR:HG22	12:DP:89:ASN:H	1.86	0.41
14:DQ:110:LEU:HD23	14:DQ:112:PHE:CE1	2.56	0.41
14:DQ:85:VAL:HG23	14:DQ:86:ALA:N	2.35	0.41
21:DV:18:LEU:O	21:DV:23:LYS:N	2.46	0.41
25:DX:7:LYS:CD	25:DX:34:GLU:HG2	2.46	0.41
23:DZ:86:SER:O	23:DZ:87:PRO:C	2.59	0.41
13:A0:100:LEU:HD12	13:A0:100:LEU:N	2.35	0.41
17:A2:62:LEU:HD21	17:A2:95:LEU:HB2	2.02	0.41
11:AO:64:LYS:HB2	30:A8:25:MET:HG3	2.02	0.41
1:AA:1025:G:C4	1:AA:1135:C:H1'	2.56	0.41
1:AA:1141:U:P	9:AM:63:THR:HG21	2.59	0.41
1:AA:1206:G:C4	1:AA:1207:C:C6	3.09	0.41
1:AA:1332:G:N2	1:AA:1609:A:C2'	2.83	0.41
1:AA:1540:G:H2'	1:AA:1541:U:O4'	2.21	0.41
1:AA:2182:G:N2	1:AA:2183:C:C2	2.88	0.41
1:AA:2363:C:O2	22:A3:39:ARG:NH2	2.54	0.41
1:AA:2694:G:C4	1:AA:2695:C:C6	3.09	0.41
1:AA:2816:C:H1'	1:AA:2831:G:N2	2.36	0.41
1:AA:297:C:H2'	1:AA:298:G:O4'	2.20	0.41
1:AA:299:A:C6	1:AA:300:A:C6	3.09	0.41
1:AA:1863:G:O6	56:AA:3502:OHX:N5	2.53	0.41
1:AA:425:G:H2'	1:AA:426:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:654(M):C:C3'	1:AA:654(N):G:C8	2.99	0.41
1:AA:681:G:H2'	1:AA:682:G:O4'	2.21	0.41
3:AD:262:ARG:HH11	3:AD:262:ARG:CG	2.24	0.41
4:AE:1:MET:CB	4:AE:200:GLU:OE1	2.66	0.41
7:AH:26:VAL:HG12	7:AH:79:VAL:HG21	2.03	0.41
1:AA:2751:G:C5	7:AH:2:SER:O	2.74	0.41
1:AA:1006:C:O2	9:AM:106:MET:HG3	2.21	0.41
10:AN:88:ASN:HD22	10:AN:92:GLU:H	1.69	0.41
14:AQ:38:GLN:HG2	14:AQ:47:THR:HG23	2.02	0.41
31:BA:1060:C:O2'	31:BA:1061:G:H5'	2.21	0.41
31:BA:1129:C:H41	31:BA:1141:C:H41	1.68	0.41
31:BA:1175:G:C2	31:BA:1176:A:C6	3.09	0.41
31:BA:1275:A:H2'	31:BA:1276:G:O4'	2.21	0.41
31:BA:158:G:H2'	31:BA:159:G:H5'	2.01	0.41
31:BA:178:C:C4	31:BA:179:A:N7	2.88	0.41
31:BA:240:C:H2'	31:BA:241:C:C6	2.55	0.41
31:BA:327:A:C5	31:BA:329:A:C5	3.09	0.41
31:BA:339:C:H2'	31:BA:340:U:C6	2.55	0.41
31:BA:371:G:H2'	31:BA:372:C:O4'	2.20	0.41
31:BA:412:A:C2'	31:BA:413:G:OP2	2.68	0.41
31:BA:424:G:C2	31:BA:425:G:C5	3.08	0.41
31:BA:601:C:O2'	31:BA:602:A:H5'	2.21	0.41
31:BA:643:C:H5'	38:BK:31:PHE:CD1	2.56	0.41
31:BA:8:A:H62	34:BG:208:SER:CB	2.16	0.41
31:BA:901:A:C5	31:BA:902:G:H1'	2.55	0.41
31:BA:948:C:C2'	31:BA:949:A:H5'	2.51	0.41
52:BB:75:C:H4'	52:BB:75:C:OP1	2.20	0.41
53:BC:34:U:N3	53:BC:37:U:OP2	2.51	0.41
32:BE:80:ILE:CD1	32:BE:208:ILE:HG12	2.50	0.41
33:BF:130:VAL:HG12	33:BF:134:ILE:HD11	2.02	0.41
34:BG:119:GLN:HG3	34:BG:123:HIS:HD2	1.86	0.41
34:BG:158:ILE:HG13	34:BG:158:ILE:H	1.64	0.41
35:BH:78:HIS:CE1	35:BH:143:ARG:N	2.74	0.41
36:BI:3:ARG:C	36:BI:93:SER:HB2	2.41	0.41
36:BI:94:GLN:O	36:BI:96:PRO:HD3	2.21	0.41
37:BJ:146:GLU:O	37:BJ:149:ARG:HB3	2.20	0.41
38:BK:86:ILE:O	38:BK:87:SER:C	2.59	0.41
40:BM:54:PHE:CZ	40:BM:55:LYS:HE3	2.55	0.41
43:BP:94:ARG:O	43:BP:95:GLY:C	2.58	0.41
44:BQ:29:ARG:HB3	44:BQ:30:ALA:H	1.41	0.41
45:BR:63:ARG:HG3	45:BR:67:LEU:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BS:8:ARG:CB	46:BS:28:ARG:NH1	2.79	0.41
48:BU:29:PHE:HD2	48:BU:29:PHE:N	2.19	0.41
31:CA:1011:G:N2	31:CA:1019:C:C2	2.89	0.41
31:CA:1138:G:C6	31:CA:1140:C:C2	3.09	0.41
31:CA:1296:C:H5'	31:CA:1297:C:P	2.61	0.41
31:CA:1238:A:H62	31:CA:1301:U:H3	1.69	0.41
31:CA:1390:U:O4	56:CA:1785:OHX:N1	2.54	0.41
31:CA:186(D):C:H2'	31:CA:186(E):C:C6	2.56	0.41
53:CC:14:A:C4	53:CC:23:G:C2	3.09	0.41
52:CD:54:C:H2'	52:CD:55:U:O4'	2.21	0.41
32:CE:190:THR:O	32:CE:191:ASP:CB	2.68	0.41
32:CE:82:ARG:HD2	32:CE:92:TYR:HE1	1.86	0.41
41:CN:54:ARG:O	41:CN:57:THR:N	2.54	0.41
43:CP:115:LYS:C	43:CP:117:VAL:N	2.74	0.41
44:CQ:22:THR:HB	44:CQ:33:VAL:CG1	2.42	0.41
44:CQ:36:PHE:CG	44:CQ:36:PHE:O	2.74	0.41
50:CW:87:LYS:O	50:CW:91:LEU:HG	2.21	0.41
16:D1:114:LYS:HE3	16:D1:114:LYS:HB2	1.77	0.41
29:D7:43:THR:HG23	29:D7:44:PRO:HD2	2.01	0.41
30:D8:25:MET:O	30:D8:48:PHE:HE1	2.03	0.41
1:DA:1085:A:H1'	1:DA:1086:A:O5'	2.21	0.41
1:DA:1204:A:N1	1:DA:1241:A:C2	2.89	0.41
1:DA:1453:A:C5	1:DA:2702:U:H6	2.39	0.41
1:DA:1504:C:O2'	1:DA:1505:C:H5'	2.21	0.41
1:DA:2168:G:O6	1:DA:2171:A:C6	2.73	0.41
1:DA:2289:G:H1'	1:DA:2346:A:H2	1.86	0.41
1:DA:2304:G:O2'	1:DA:2305:A:O5'	2.39	0.41
1:DA:2432:A:H5"	1:DA:2433:A:OP2	2.21	0.41
1:DA:2472:G:H3'	1:DA:2473:U:C5'	2.51	0.41
1:DA:2637:U:H2'	1:DA:2638:G:O4'	2.21	0.41
1:DA:273(A):G:C2	1:DA:364:C:C2	3.09	0.41
1:DA:2762:G:N3	1:DA:2762:G:H2'	2.34	0.41
1:DA:277:C:H5"	1:DA:278:A:N7	2.36	0.41
1:DA:2803:C:N4	1:DA:2804:C:H41	2.18	0.41
1:DA:289:A:C2	1:DA:353:G:C2	3.09	0.41
1:DA:432:A:O2'	1:DA:433:C:H5'	2.20	0.41
1:DA:528:A:H8	1:DA:528:A:H3'	1.85	0.41
1:DA:574:C:H1'	1:DA:2055:C:C6	2.56	0.41
1:DA:833:U:H1'	11:DO:55:ARG:HH12	1.86	0.41
1:DA:834:C:O3'	30:D8:52:LYS:HG2	2.21	0.41
2:DB:14:U:H5'	2:DB:71:C:C1'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DB:11:C:C2	2:DB:15:A:N6	2.89	0.41
3:DD:64:ILE:HG21	3:DD:64:ILE:HD13	1.84	0.41
4:DE:204:ALA:O	4:DE:205:ALA:HB3	2.21	0.41
4:DE:57:LYS:HZ2	4:DE:57:LYS:N	2.18	0.41
4:DE:80:GLU:O	4:DE:81:ILE:C	2.58	0.41
5:DF:122:LYS:O	5:DF:124:LEU:N	2.50	0.41
5:DF:25:PRO:O	5:DF:26:ALA:HB3	2.21	0.41
7:DH:26:VAL:HG11	7:DH:33:LEU:HB2	2.03	0.41
7:DH:54:ARG:HD3	7:DH:65:HIS:HB2	2.02	0.41
7:DH:72:ILE:HG13	7:DH:72:ILE:H	1.64	0.41
11:DO:144:GLU:HA	11:DO:145:PRO:HD3	1.83	0.41
14:DQ:110:LEU:HD22	14:DQ:111:GLU:CA	2.50	0.41
15:DR:102:ILE:HB	15:DR:110:ILE:HD11	2.02	0.41
15:DR:3:ARG:CG	15:DR:6:LEU:H	2.27	0.41
15:DR:50:ILE:CD1	15:DR:99:LEU:HB2	2.50	0.41
20:DU:12:THR:O	20:DU:75:ILE:HG23	2.20	0.41
20:DU:90:LEU:HB3	20:DU:91:GLU:H	1.58	0.41
21:DV:67:LEU:HA	21:DV:68:PRO:HD3	1.84	0.41
13:A0:18:LEU:CD1	13:A0:22:ARG:NE	2.83	0.41
26:A4:47:GLN:O	26:A4:48:ARG:C	2.57	0.41
27:A5:41:PRO:O	27:A5:42:PRO:O	2.39	0.41
1:AA:1067:A:H8	1:AA:1068:G:C5	2.38	0.41
1:AA:138:G:C2'	1:AA:139:G:H5'	2.51	0.41
1:AA:1530:G:C6	1:AA:1531:C:C4	3.09	0.41
1:AA:1478:G:O2'	1:AA:1558:A:C2	2.74	0.41
1:AA:1644:C:C2'	1:AA:1645:G:H5'	2.51	0.41
1:AA:1913:A:H4'	1:AA:1914:C:C5'	2.51	0.41
1:AA:2413:G:H2'	1:AA:2414:G:O4'	2.21	0.41
1:AA:2748:A:O2'	7:AH:66:GLY:HA3	2.20	0.41
1:AA:2852:G:C6	1:AA:2853:C:N3	2.89	0.41
1:AA:440:G:H2'	1:AA:441:U:C6	2.55	0.41
1:AA:762:U:H4'	1:AA:763:G:O5'	2.21	0.41
1:AA:834:C:H2'	1:AA:835:A:H5'	2.03	0.41
3:AD:105:ILE:HA	3:AD:105:ILE:HD12	1.59	0.41
3:AD:61:LEU:HA	3:AD:61:LEU:HD13	1.88	0.41
4:AE:181:LEU:HA	4:AE:181:LEU:HD12	1.82	0.41
7:AH:166:GLY:O	7:AH:167:GLU:CG	2.69	0.41
8:AK:135:GLU:HB2	8:AK:136:VAL:H	1.42	0.41
8:AK:7:GLU:HA	8:AK:8:PRO:HD3	1.92	0.41
9:AM:14:VAL:HG23	9:AM:50:ASP:HB3	2.02	0.41
9:AM:35:ARG:NH2	9:AM:42:TRP:HH2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AO:38:GLN:HE21	11:AO:38:GLN:CA	2.12	0.41
1:AA:2428:G:N2	11:AO:60:MET:HE2	2.31	0.41
11:AO:61:ARG:O	11:AO:62:LEU:CD2	2.61	0.41
12:AP:54:MET:C	12:AP:56:ARG:H	2.23	0.41
18:AS:27:LYS:HE2	18:AS:27:LYS:HB3	1.91	0.41
24:AW:4:SER:HB2	24:AW:5:GLU:H	1.60	0.41
1:AA:850:C:C2'	25:AX:46:ASN:HD21	2.33	0.41
31:BA:1008:C:C2	31:BA:1022:G:C2	3.09	0.41
31:BA:1017:G:C5	31:BA:1018:C:C4	3.09	0.41
31:BA:1142:G:H2'	31:BA:1143:G:C8	2.56	0.41
31:BA:1273:G:OP2	56:BA:1794:OHX:N4	2.54	0.41
31:BA:191(C):G:C2	31:BA:191(D):U:C2	3.09	0.41
31:BA:286:G:H2'	31:BA:287:U:H6	1.85	0.41
31:BA:475:G:H2'	31:BA:476:G:H8	1.85	0.41
31:BA:484:G:HO2'	31:BA:485:G:P	2.30	0.41
31:BA:605:U:C2	31:BA:606:G:C8	3.09	0.41
31:BA:668:G:C4	31:BA:669:U:C5	3.08	0.41
31:BA:76:G:C2	31:BA:95:G:N3	2.89	0.41
31:BA:991:U:O2	31:BA:991:U:H2'	2.21	0.41
52:BB:75:C:HO2'	52:BB:76:C:P	2.37	0.41
52:BD:34:U:H2'	52:BD:36:U:OP2	2.21	0.41
32:BE:238:LEU:O	32:BE:239:VAL:C	2.59	0.41
35:BH:70:PRO:HB3	35:BH:144:THR:HG23	2.02	0.41
48:BU:25:THR:O	48:BU:25:THR:HG22	2.20	0.41
48:BU:30:ASP:HB3	48:BU:33:ASP:HB2	2.03	0.41
50:BW:101:GLY:O	50:BW:102:GLY:C	2.59	0.41
54:C1:10:G:N3	54:C1:10:G:H2'	2.34	0.41
31:CA:1110:A:N6	31:CA:1111:A:N1	2.69	0.41
31:CA:1381:U:H2'	31:CA:1381:U:O2	2.20	0.41
31:CA:1443:G:H22	15:DR:119:LYS:HB2	1.85	0.41
31:CA:292:G:H8	31:CA:292:G:O5'	2.04	0.41
31:CA:398:C:P	56:CA:1738:OHX:N1	2.94	0.41
31:CA:413:G:C2'	31:CA:428:G:H21	2.34	0.41
31:CA:444:C:C2	31:CA:445:G:C8	3.09	0.41
31:CA:617:G:C2	31:CA:618:C:C4	3.09	0.41
31:CA:781:A:C5'	31:CA:782:A:OP2	2.69	0.41
31:CA:867:G:C2'	31:CA:868:C:H5'	2.51	0.41
52:CD:62:G:C2	52:CD:63:U:C4	3.09	0.41
32:CE:126:GLU:C	32:CE:128:GLU:N	2.73	0.41
33:CF:28:GLN:HE21	33:CF:28:GLN:HB3	1.63	0.41
33:CF:62:ASP:O	33:CF:97:LYS:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CG:39:PRO:O	34:CG:44:GLY:HA3	2.20	0.41
38:CK:134:ILE:HG22	38:CK:135:CYS:SG	2.61	0.41
31:CA:1347:G:C6	39:CL:107:ARG:NH2	2.89	0.41
39:CL:90:PRO:C	39:CL:92:TYR:H	2.24	0.41
43:CP:93:ARG:O	43:CP:95:GLY:N	2.53	0.41
44:CQ:37:PHE:O	44:CQ:39:LEU:HG	2.20	0.41
47:CT:69:LYS:O	47:CT:70:ARG:HD2	2.20	0.41
47:CT:59:ILE:HG23	47:CT:71:PHE:HB3	2.02	0.41
49:CV:29:ARG:HG2	49:CV:29:ARG:H	1.75	0.41
16:D1:83:LEU:HG	16:D1:88:ILE:HD11	2.03	0.41
22:D3:40:GLN:HG3	22:D3:42:GLY:O	2.21	0.41
28:D6:20:ASN:O	28:D6:20:ASN:ND2	2.54	0.41
28:D6:44:ARG:O	28:D6:45:LYS:CB	2.67	0.41
28:D6:37:ARG:O	28:D6:49:HIS:HB3	2.21	0.41
1:DA:1072:C:H6	1:DA:1072:C:O5'	2.04	0.41
1:DA:1027:A:C6	1:DA:1126:A:C4	3.08	0.41
1:DA:1235:G:C6	1:DA:1236:G:N1	2.89	0.41
1:DA:1423:G:C4	1:DA:1424:G:C8	3.08	0.41
1:DA:1495:A:C6	1:DA:1496:A:C6	3.08	0.41
1:DA:1553:A:C6	1:DA:1555:G:H1'	2.56	0.41
1:DA:1688:U:H1'	1:DA:1701:A:C6	2.56	0.41
1:DA:1710:C:O2'	1:DA:1711:C:H5'	2.20	0.41
1:DA:2186:G:C2	1:DA:2187:G:N7	2.89	0.41
1:DA:2270:G:C2'	1:DA:2271:G:H5'	2.51	0.41
1:DA:2493:U:C2'	1:DA:2494:G:O5'	2.69	0.41
1:DA:2554:U:H2'	1:DA:2555:U:C6	2.56	0.41
1:DA:2671:A:H2'	1:DA:2672:G:O4'	2.20	0.41
1:DA:2697:G:H2'	1:DA:2698:U:O4'	2.21	0.41
1:DA:2853:C:H2'	1:DA:2854:G:H8	1.82	0.41
1:DA:329:G:N7	20:DU:19:LYS:HE2	2.35	0.41
1:DA:74:A:O5'	1:DA:74:A:C8	2.74	0.41
1:DA:847:U:H5'	1:DA:848:G:OP2	2.21	0.41
1:DA:954:G:H4'	12:DP:13:GLN:NE2	2.36	0.41
3:DD:70:TRP:O	3:DD:73:VAL:HG22	2.21	0.41
5:DF:168:ARG:HG3	5:DF:175:THR:HG21	2.02	0.41
5:DF:152:GLU:CD	5:DF:191:ARG:HD2	2.41	0.41
8:DK:69:LYS:HD3	8:DK:69:LYS:O	2.21	0.41
9:DM:49:GLY:O	9:DM:50:ASP:C	2.59	0.41
12:DP:135:ASP:O	12:DP:136:ALA:C	2.59	0.41
1:DA:71:A:H2	19:DT:31:HIS:CE1	2.38	0.41
20:DU:63:LYS:HA	20:DU:63:LYS:HZ1	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DW:6:VAL:CG2	24:DW:7:ARG:N	2.84	0.41
25:DX:24:LYS:CE	25:DX:24:LYS:HA	2.50	0.41
16:A1:34:LYS:HE3	16:A1:34:LYS:HA	2.02	0.41
17:A2:71:LEU:HD13	17:A2:84:LYS:HE2	2.03	0.41
28:A6:21:TYR:HB3	28:A6:22:ALA:H	1.73	0.41
1:AA:1071:G:H8	1:AA:1071:G:O5'	2.04	0.41
1:AA:1309:G:P	29:A7:9:ARG:HD3	2.61	0.41
1:AA:1488:G:C6	1:AA:1489:U:C5	3.09	0.41
1:AA:1519:G:P	56:AA:3331:OHX:N2	2.94	0.41
1:AA:1887:C:C3'	1:AA:1888:G:C5'	2.99	0.41
1:AA:2277:G:OP1	12:AP:86:GLY:CA	2.69	0.41
1:AA:2327:A:H2'	1:AA:2328:A:H8	1.78	0.41
1:AA:218:A:C2	1:AA:235:U:H4'	2.49	0.41
1:AA:2504:U:H5"	1:AA:2505:G:OP2	2.21	0.41
1:AA:274:G:C3'	1:AA:274:G:C8	3.03	0.41
1:AA:344:G:O6	56:AA:3362:OHX:N5	2.54	0.41
1:AA:247:G:H5"	1:AA:386:G:O2'	2.21	0.41
1:AA:438:G:H2'	1:AA:439:G:H8	1.86	0.41
1:AA:260:G:O4'	1:AA:621:A:H1'	2.21	0.41
1:AA:73:A:H2'	1:AA:74:A:OP2	2.20	0.41
3:AD:131:LEU:HD12	3:AD:131:LEU:N	2.35	0.41
3:AD:182:LEU:HD23	3:AD:182:LEU:HA	1.58	0.41
4:AE:7:VAL:CG2	15:AR:1:MET:HE1	2.51	0.41
5:AF:105:VAL:HG12	5:AF:105:VAL:O	2.20	0.41
6:AG:5:VAL:HG21	6:AG:101:ILE:HG22	2.03	0.41
7:AH:17:VAL:O	7:AH:17:VAL:HG12	2.21	0.41
7:AH:58:GLU:O	7:AH:59:ARG:C	2.59	0.41
7:AH:3:ARG:HH21	7:AH:7:LEU:CD1	2.33	0.41
8:AK:116:LEU:O	8:AK:118:LYS:N	2.54	0.41
8:AK:93:THR:O	8:AK:96:ASP:HB2	2.20	0.41
10:AN:19:ILE:HD11	10:AN:84:ALA:HB3	2.02	0.41
11:AO:20:GLY:N	11:AO:27:HIS:O	2.48	0.41
11:AO:35:HIS:O	11:AO:40:SER:CB	2.69	0.41
21:AV:129:SER:HA	21:AV:130:PRO:HD3	1.78	0.41
24:AW:32:LEU:HD11	24:AW:54:LYS:HG3	2.02	0.41
31:BA:1173:G:C4	31:BA:1174:G:C8	3.08	0.41
31:BA:1331:G:HO2'	31:BA:1332:A:P	2.33	0.41
31:BA:149:A:N1	31:BA:150:C:C4	2.89	0.41
31:BA:209:U:OP2	31:BA:209:U:O4'	2.38	0.41
31:BA:251:G:N2	31:BA:253:U:C5	2.89	0.41
31:BA:383:A:H8	31:BA:383:A:O5'	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:438:G:H4'	34:BG:123:HIS:CG	2.56	0.41
31:BA:439:A:H2'	31:BA:440:A:O5'	2.21	0.41
31:BA:445:G:C6	31:BA:490:G:N1	2.89	0.41
31:BA:458:C:O2'	31:BA:464:G:H5'	2.20	0.41
31:BA:55:A:C4	31:BA:56:U:C5	3.09	0.41
31:BA:55:A:C2	31:BA:56:U:C6	3.09	0.41
31:BA:605:U:C4	31:BA:606:G:N7	2.89	0.41
31:BA:652:U:OP2	56:BA:1807:OHX:N6	2.54	0.41
1:AA:1848:A:C6	31:BA:702:A:C6	3.09	0.41
31:BA:725:G:C2	31:BA:726:C:C6	3.09	0.41
31:BA:766:A:C8	31:BA:814:A:C6	3.09	0.41
31:BA:872:A:C2	31:BA:874:G:C6	3.09	0.41
31:BA:956:U:H2'	31:BA:957:U:C5'	2.51	0.41
31:BA:989:C:H42	31:BA:1216:G:H1	1.69	0.41
52:BB:31:G:H2'	52:BB:32:A:O4'	2.20	0.41
38:BK:32:LYS:O	38:BK:36:LEU:HD12	2.20	0.41
38:BK:87:SER:HB2	38:BK:93:VAL:CB	2.39	0.41
38:BK:9:MET:CE	38:BK:35:ILE:HG21	2.51	0.41
41:BN:114:VAL:HG23	41:BN:115:PRO:HD2	2.03	0.41
43:BP:27:LYS:HA	43:BP:31:LYS:HE3	2.03	0.41
46:BS:5:ARG:CZ	46:BS:22:THR:HG21	2.51	0.41
46:BS:72:ARG:O	46:BS:75:ARG:HB3	2.21	0.41
50:BW:18:GLN:C	50:BW:20:LEU:N	2.73	0.41
50:BW:81:LYS:O	50:BW:82:SER:C	2.59	0.41
51:BX:9:ARG:HH12	51:BX:22:ARG:HA	1.86	0.41
31:CA:1512:U:H2'	31:CA:1513:A:C8	2.54	0.41
31:CA:415:A:H2'	31:CA:416:G:O4'	2.21	0.41
31:CA:527:G:O2'	31:CA:535:A:N1	2.44	0.41
31:CA:721:G:O5'	31:CA:721:G:H8	2.04	0.41
31:CA:656:C:H42	31:CA:750:G:H1	1.69	0.41
31:CA:814:A:N7	31:CA:816:A:C4	2.89	0.41
31:CA:905:U:OP1	56:CA:1756:OHX:N1	2.53	0.41
31:CA:941:G:H21	31:CA:942:G:H1'	1.86	0.41
31:CA:971:G:H5"	31:CA:972:C:H5"	2.02	0.41
52:CB:40:U:C4	52:CB:41:C:C4	3.09	0.41
53:CC:22:A:N6	53:CC:47:G:C4	2.89	0.41
52:CD:17:G:N2	52:CD:66:G:H2'	2.35	0.41
32:CE:5:ILE:O	32:CE:6:THR:C	2.59	0.41
33:CF:11:ARG:HB3	33:CF:15:THR:HB	2.03	0.41
31:CA:1107:C:OP1	33:CF:172:ARG:HB3	2.21	0.41
34:CG:138:TYR:C	34:CG:138:TYR:HD2	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CH:102:ALA:HB2	35:CH:120:THR:OG1	2.20	0.41
35:CH:19:MET:CE	35:CH:24:ARG:HB3	2.51	0.41
35:CH:83:GLU:HB3	35:CH:88:LYS:CG	2.48	0.41
40:CM:5:ARG:O	40:CM:99:LYS:O	2.38	0.41
44:CQ:24:CYS:SG	44:CQ:29:ARG:CG	3.09	0.41
44:CQ:32:SER:O	44:CQ:40:CYS:HA	2.21	0.41
45:CR:85:LEU:O	45:CR:86:GLY:O	2.39	0.41
49:CV:58:VAL:O	49:CV:60:VAL:HG12	2.21	0.41
50:CW:44:ALA:C	50:CW:46:GLU:H	2.23	0.41
51:CX:6:ARG:HG2	51:CX:15:ARG:NH2	2.35	0.41
13:D0:34:ILE:HD12	13:D0:34:ILE:HA	1.64	0.41
13:D0:59:ASP:O	13:D0:60:LEU:C	2.58	0.41
13:D0:79:LEU:HA	13:D0:83:ILE:HD12	2.03	0.41
16:D1:58:ARG:HD3	16:D1:62:ILE:CD1	2.51	0.41
16:D1:95:LEU:C	16:D1:97:ASP:N	2.74	0.41
17:D2:44:LYS:N	17:D2:44:LYS:HD3	2.36	0.41
2:DB:40:U:C5	26:D4:1:MET:HE2	2.56	0.41
26:D4:49:PHE:C	26:D4:51:ASP:H	2.24	0.41
28:D6:34:LEU:HB2	28:D6:51:GLU:HB3	2.02	0.41
1:DA:1042:G:H2'	1:DA:1043:C:C6	2.56	0.41
1:DA:1047:G:C5	1:DA:1110:G:O6	2.74	0.41
1:DA:1790:C:O2'	3:DD:209:ALA:HB2	2.21	0.41
1:DA:2056:G:N2	1:DA:2057:A:C1'	2.83	0.41
1:DA:2123:G:N2	1:DA:2124:G:H1'	2.36	0.41
1:DA:2298:A:C2	1:DA:2321:G:C2	3.09	0.41
1:DA:2415:G:C6	1:DA:2416:C:N3	2.89	0.41
1:DA:181:A:H1'	1:DA:435:C:H5'	2.02	0.41
1:DA:971:C:C2'	1:DA:972:G:C5'	2.96	0.41
3:DD:218:ARG:CB	3:DD:219:PRO:HD2	2.45	0.41
3:DD:25:THR:C	3:DD:27:THR:N	2.58	0.41
3:DD:60:ARG:CD	3:DD:86:PRO:HB2	2.41	0.41
4:DE:25:VAL:HG12	4:DE:26:ILE:N	2.35	0.41
4:DE:62:PRO:C	4:DE:64:LYS:H	2.24	0.41
6:DG:37:VAL:O	6:DG:94:LEU:CD2	2.68	0.41
11:DO:147:LEU:C	11:DO:148:LEU:HG	2.40	0.41
11:DO:38:GLN:HG2	11:DO:45:LEU:HD13	2.03	0.41
12:DP:111:GLU:O	12:DP:114:ALA:HB3	2.20	0.41
12:DP:115:MET:H	12:DP:115:MET:HG2	1.65	0.41
23:DZ:80:LEU:HD12	23:DZ:82:LEU:CD2	2.51	0.41
16:A1:75:ASN:HB2	16:A1:78:THR:H	1.86	0.41
1:AA:2352:A:C2	22:A3:33:ALA:O	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A5:40:LYS:NZ	27:A5:46:CYS:CB	2.76	0.41
1:AA:141(A):C:H2'	1:AA:142:G:O4'	2.21	0.41
1:AA:1921:G:H2'	1:AA:1922:G:H8	1.86	0.41
1:AA:2013:A:H2'	1:AA:2014:A:H5'	2.02	0.41
1:AA:2056:G:C2	1:AA:2057:A:C8	3.09	0.41
1:AA:205:G:O2'	1:AA:206:U:P	2.79	0.41
1:AA:2154:G:N1	1:AA:2155:G:O6	2.54	0.41
1:AA:2168:G:H22	1:AA:2170:A:N6	2.17	0.41
1:AA:270(E):G:C6	1:AA:270(F):U:N3	2.89	0.41
1:AA:2852:G:C6	1:AA:2853:C:C4	3.09	0.41
1:AA:2881:C:N3	1:AA:2882:A:C5	2.89	0.41
1:AA:2630:G:O4'	1:AA:2894:G:H1'	2.22	0.41
1:AA:459:U:HO2'	1:AA:460:A:H5'	1.85	0.41
1:AA:471:A:N6	1:AA:472:A:C2	2.89	0.41
1:AA:259:G:N2	1:AA:621:A:H8	2.17	0.41
1:AA:968:G:O6	56:AA:3547:OHX:N6	2.54	0.41
1:AA:2599:G:C8	3:AD:236:GLY:O	2.72	0.41
4:AE:21:VAL:HG23	4:AE:22:PRO:HG3	2.00	0.41
5:AF:185:ASP:HA	5:AF:188:ARG:HD3	2.03	0.41
6:AG:46:ALA:HB1	6:AG:49:ASP:O	2.21	0.41
10:AN:118:ALA:HA	10:AN:119:PRO:HD2	1.72	0.41
10:AN:60:ALA:HB1	10:AN:84:ALA:HB1	2.02	0.41
10:AN:3:GLN:O	10:AN:6:THR:HB	2.21	0.41
11:AO:19:VAL:HG22	11:AO:20:GLY:N	2.32	0.41
11:AO:91:PHE:HE1	11:AO:99:LEU:HG	1.86	0.41
1:AA:864:G:OP2	12:AP:22:LYS:HG2	2.20	0.41
31:BA:1028:C:N4	31:BA:1028(A):C:N4	2.69	0.41
31:BA:1058:G:N2	31:BA:1203:C:H42	2.19	0.41
31:BA:1099:G:H2'	31:BA:1100:C:O4'	2.21	0.41
31:BA:1100:C:O2'	31:BA:1102:A:OP1	2.37	0.41
31:BA:1124:G:C3'	31:BA:1145:C:H41	2.26	0.41
31:BA:1151:A:C6	31:BA:1152:A:C5	3.09	0.41
31:BA:1199:U:H5"	31:BA:1200:C:P	2.61	0.41
31:BA:1263:C:HO2'	31:BA:1264:C:H5'	1.85	0.41
31:BA:1355:G:H2'	31:BA:1356:G:C8	2.56	0.41
31:BA:153:C:H42	31:BA:168:G:H1	1.69	0.41
31:BA:476:G:N7	56:BA:1813:OHX:N5	2.69	0.41
31:BA:363:A:O2'	31:BA:364:A:H5'	2.21	0.41
31:BA:378:G:N2	31:BA:386:C:C2	2.89	0.41
31:BA:397:A:H5'	31:BA:398:C:OP1	2.21	0.41
31:BA:411:A:C5	31:BA:429:U:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:411:A:C8	31:BA:413:G:H1'	2.56	0.41
31:BA:604:G:C5	31:BA:605:U:C4	3.09	0.41
31:BA:860:A:H2'	31:BA:861:G:O4'	2.21	0.41
31:BA:871:U:C1'	31:BA:872:A:OP1	2.68	0.41
31:BA:911:U:H2'	31:BA:912:C:C6	2.56	0.41
31:BA:976:G:C8	31:BA:1358:U:C2	3.09	0.41
32:BE:71:VAL:HG23	32:BE:164:VAL:HA	2.02	0.41
32:BE:18:GLY:H	32:BE:42:ILE:CG2	2.23	0.41
33:BF:32:LEU:HD13	33:BF:59:ARG:CD	2.51	0.41
36:BI:39:LYS:HB2	36:BI:64:GLN:HB2	2.03	0.41
36:BI:64:GLN:HE21	36:BI:64:GLN:HB3	1.66	0.41
38:BK:100:ILE:HD13	38:BK:112:LEU:HD11	2.02	0.41
43:BP:66:LEU:HA	43:BP:66:LEU:HD22	1.67	0.41
43:BP:84:ILE:CG2	43:BP:86:CYS:HB3	2.51	0.41
45:BR:18:PHE:HD1	45:BR:19:PRO:O	2.03	0.41
31:BA:739:C:O2'	45:BR:42:HIS:ND1	2.45	0.41
46:BS:58:TYR:O	46:BS:61:SER:N	2.54	0.41
31:CA:1007:C:N4	31:CA:1008:C:C4	2.89	0.41
31:CA:1049:U:H4'	31:CA:1050:G:H5'	1.96	0.41
31:CA:1154:G:N1	31:CA:1155:G:C5	2.89	0.41
31:CA:1378:C:H3'	31:CA:1379:G:H5"	2.02	0.41
31:CA:683:G:C6	31:CA:684:A:C6	3.09	0.41
31:CA:994:A:N3	31:CA:995:C:C6	2.89	0.41
52:CD:51:C:OP2	52:CD:52:G:N1	2.54	0.41
32:CE:237:ALA:O	32:CE:238:LEU:HB3	2.21	0.41
34:CG:142:PRO:HA	34:CG:185:PHE:O	2.21	0.41
34:CG:191:ARG:HD2	34:CG:200:GLU:OE1	2.21	0.41
39:CL:58:HIS:ND1	39:CL:58:HIS:N	2.69	0.41
31:CA:1329:A:O2'	43:CP:70:LEU:HD11	2.21	0.41
36:CI:100:ASN:HD22	48:CU:23:LYS:HE3	1.85	0.41
16:D1:79:PHE:C	16:D1:79:PHE:CD2	2.94	0.41
17:D2:75:PHE:C	17:D2:75:PHE:CD1	2.94	0.41
27:D5:16:ARG:CG	27:D5:16:ARG:HH11	2.34	0.41
11:DO:62:LEU:CD1	30:D8:26:LYS:O	2.69	0.41
1:DA:1053:C:H3'	1:DA:1054:A:H5"	2.02	0.41
1:DA:1131:G:C2	1:DA:1132:A:C4	3.09	0.41
1:DA:1158:C:O2'	1:DA:1159:U:H5'	2.21	0.41
1:DA:1314:C:N3	1:DA:1339:G:C2	2.89	0.41
1:DA:1450:C:N3	1:DA:1451:C:N4	2.69	0.41
1:DA:1465:G:N2	1:DA:1466:G:C4	2.89	0.41
1:DA:1821:A:H2'	1:DA:1822:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2105:C:O2'	1:DA:2106:G:H5'	2.21	0.41
1:DA:2138:C:C2	1:DA:2154:G:N2	2.88	0.41
1:DA:2287:A:C4	1:DA:2289:G:C8	3.08	0.41
1:DA:2621:A:P	4:DE:119:ARG:HH22	2.44	0.41
1:DA:2656:U:C4	1:DA:2664:G:N2	2.89	0.41
1:DA:270(O):U:H2'	1:DA:270(P):C:OP1	2.21	0.41
1:DA:300:A:C5	1:DA:334:C:H4'	2.56	0.41
1:DA:409:C:OP2	56:DA:3385:OHX:N1	2.54	0.41
1:DA:669:G:C2'	1:DA:670:A:OP1	2.69	0.41
1:DA:779:U:OP1	3:DD:49:ILE:HG23	2.21	0.41
2:DB:75:G:N3	21:DV:85:HIS:CE1	2.89	0.41
3:DD:49:ILE:CD1	3:DD:52:ARG:HA	2.51	0.41
4:DE:44:TYR:O	4:DE:45:THR:O	2.38	0.41
5:DF:7:TYR:HA	5:DF:125:LEU:O	2.20	0.41
10:DN:111:PHE:O	10:DN:115:VAL:HG23	2.20	0.41
10:DN:35:VAL:HG21	10:DN:69:ILE:HD11	2.02	0.41
1:DA:805:G:O5'	11:DO:41:ARG:HG2	2.20	0.41
14:DQ:106:ARG:H	14:DQ:106:ARG:HG3	1.53	0.41
21:DV:14:LYS:O	21:DV:14:LYS:HG2	2.20	0.41
21:DV:3:TYR:O	21:DV:58:VAL:HG23	2.21	0.41
13:A0:52:ILE:HG21	13:A0:94:TYR:CD1	2.56	0.40
17:A2:79:VAL:HG13	17:A2:81:TYR:HB3	2.03	0.40
1:AA:1097:U:H2'	1:AA:1098:A:H5'	2.03	0.40
1:AA:1107:G:C4	1:AA:1108:U:C5	3.08	0.40
1:AA:1156:A:H4'	1:AA:1157:G:OP2	2.21	0.40
1:AA:1165:U:C2	1:AA:1166:C:C5	3.10	0.40
1:AA:1171:G:C2	1:AA:1179:C:O2	2.74	0.40
1:AA:1203:G:H3'	1:AA:1204:A:H5"	2.04	0.40
1:AA:1321:A:H2'	1:AA:1322:A:O4'	2.20	0.40
1:AA:1344:G:C2	1:AA:1385:G:C8	3.10	0.40
1:AA:1535:U:H3'	1:AA:1535:U:O2	2.21	0.40
1:AA:1681:G:HO2'	1:AA:1762:A:HO2'	1.58	0.40
1:AA:2019:A:H2'	1:AA:2020:A:O5'	2.21	0.40
1:AA:2056:G:N2	1:AA:2057:A:H1'	2.36	0.40
1:AA:2109:U:H1'	1:AA:2181:G:N2	2.35	0.40
1:AA:2213:U:C1'	23:AZ:52:ARG:NH2	2.84	0.40
1:AA:2299:G:O6	56:AA:3550:OHX:N2	2.54	0.40
1:AA:2507:C:O2	1:AA:2507:C:H2'	2.22	0.40
1:AA:2519:U:C6	1:AA:2542:A:N6	2.89	0.40
1:AA:301:G:C4	1:AA:302:C:C4	3.09	0.40
1:AA:330:A:H2	1:AA:1210:A:C2'	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:333:G:C5	1:AA:334:C:C5	3.08	0.40
1:AA:444:C:H2'	1:AA:445:C:H6	1.86	0.40
1:AA:635:C:H2'	1:AA:636:G:O4'	2.21	0.40
1:AA:639:U:N3	1:AA:640:C:C4	2.89	0.40
1:AA:717:G:H2'	1:AA:718:A:O4'	2.20	0.40
2:AB:31:C:H2'	2:AB:32:C:C6	2.56	0.40
3:AD:35:LYS:HZ3	3:AD:104:TYR:HD1	1.67	0.40
5:AF:107:LYS:O	5:AF:108:LYS:C	2.60	0.40
5:AF:95:ARG:HH11	5:AF:95:ARG:HD2	1.73	0.40
8:AK:131:LYS:N	8:AK:131:LYS:CD	2.81	0.40
9:AM:95:PRO:O	9:AM:96:GLU:HB3	2.21	0.40
11:AO:140:ALA:O	11:AO:141:ALA:CB	2.69	0.40
12:AP:59:ARG:CD	12:AP:59:ARG:H	2.31	0.40
14:AQ:34:HIS:CB	14:AQ:36:TYR:HE1	2.34	0.40
10:AN:119:PRO:HB2	15:AR:68:TYR:CD2	2.56	0.40
18:AS:29:LEU:O	18:AS:29:LEU:HG	2.21	0.40
20:AU:90:LEU:HB2	20:AU:91:GLU:H	1.49	0.40
2:AB:104:A:P	21:AV:72:ARG:HD3	2.61	0.40
31:BA:1004:A:H1'	31:BA:1036:G:N1	2.35	0.40
31:BA:1028(B):C:N4	31:BA:1032(A):G:C6	2.84	0.40
31:BA:1106:G:C6	31:BA:1107:C:C4	3.08	0.40
31:BA:1301:U:O4	31:BA:1303:C:C1'	2.63	0.40
31:BA:209:U:O2'	31:BA:216:G:C4	2.74	0.40
31:BA:226:G:C2	31:BA:227:G:H1'	2.55	0.40
31:BA:233:C:N3	31:BA:234:C:C5	2.90	0.40
31:BA:393:A:O2'	31:BA:394:G:H5'	2.21	0.40
31:BA:560:U:O5'	31:BA:560:U:H6	2.04	0.40
31:BA:756:C:H2'	31:BA:757:U:O4'	2.20	0.40
52:BB:36:U:C4	52:BB:37:A:N7	2.89	0.40
52:BD:85:A:H5'	52:BD:85:A:H8	1.85	0.40
32:BE:111:ARG:HH11	32:BE:111:ARG:CG	2.18	0.40
32:BE:119:GLU:OE2	32:BE:142:LEU:HD21	2.21	0.40
34:BG:19:LEU:HD22	34:BG:19:LEU:H	1.86	0.40
34:BG:22:LYS:O	34:BG:23:GLY:O	2.39	0.40
37:BJ:137:LYS:C	37:BJ:139:GLU:N	2.74	0.40
39:BL:97:LYS:HA	39:BL:102:LEU:HD12	2.03	0.40
39:BL:114:TYR:N	39:BL:114:TYR:CD2	2.88	0.40
39:BL:53:VAL:HG21	39:BL:92:TYR:CD2	2.55	0.40
39:BL:69:GLY:O	39:BL:73:GLN:HG3	2.21	0.40
47:BT:29:HIS:CE1	47:BT:32:TYR:HD1	2.39	0.40
47:BT:10:VAL:HG23	47:BT:55:ASP:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BW:55:ILE:HD13	50:BW:55:ILE:HA	1.91	0.40
31:CA:1093:A:C5	31:CA:1095:U:O4'	2.74	0.40
31:CA:1097:C:C2'	31:CA:1097:C:O2	2.69	0.40
31:CA:1171:G:H2'	31:CA:1172:C:C6	2.56	0.40
31:CA:1208:C:H2'	31:CA:1209:C:H6	1.86	0.40
31:CA:1216:G:H5"	44:CQ:5:ALA:CB	2.51	0.40
31:CA:1224:G:N1	31:CA:1322:C:O2'	2.53	0.40
31:CA:1309:G:N2	31:CA:1329:A:H1'	2.36	0.40
31:CA:1349:A:H2'	31:CA:1350:A:O4'	2.22	0.40
31:CA:259:G:C6	31:CA:260:G:C5	3.09	0.40
31:CA:474:G:N1	31:CA:475:G:C5	2.89	0.40
31:CA:564:C:OP1	42:CO:15:ARG:NE	2.50	0.40
31:CA:592:G:N7	56:CA:1730:OHX:N5	2.69	0.40
31:CA:807:A:C6	31:CA:808:C:C4	3.09	0.40
31:CA:765:G:O6	31:CA:812:C:C5	2.74	0.40
31:CA:864:A:C6	31:CA:865:A:C2	3.10	0.40
31:CA:872:A:OP1	56:CA:1773:OHX:N4	2.54	0.40
31:CA:922:G:C2	31:CA:923:A:C4	3.09	0.40
52:CB:34:U:HO2'	52:CB:36:U:H5	1.70	0.40
52:CD:59:A:H2'	52:CD:60:A:O4'	2.22	0.40
32:CE:130:ARG:O	32:CE:135:GLN:HG3	2.21	0.40
34:CG:58:LEU:HD22	34:CG:62:GLN:HG3	2.03	0.40
35:CH:50:GLU:HA	35:CH:50:GLU:OE2	2.21	0.40
37:CJ:44:TYR:O	37:CJ:45:ASP:C	2.59	0.40
46:CS:39:TYR:CZ	46:CS:41:PRO:HB3	2.57	0.40
49:CV:72:GLY:C	49:CV:74:PHE:N	2.74	0.40
50:CW:58:LYS:O	50:CW:58:LYS:HD2	2.21	0.40
51:CX:5:ASP:O	51:CX:11:GLY:HA3	2.21	0.40
13:D0:94:TYR:CD1	13:D0:94:TYR:N	2.87	0.40
22:D3:50:ASN:O	22:D3:62:LEU:HB2	2.21	0.40
1:DA:1065:U:O4	1:DA:1066:U:C4	2.74	0.40
1:DA:1127:A:N1	1:DA:2463:C:O2'	2.44	0.40
1:DA:1011:G:C2	1:DA:1151:G:C2	3.09	0.40
1:DA:1444(A):A:H4'	1:DA:1460:A:H2'	2.03	0.40
1:DA:1786:A:C4	1:DA:1938:A:C6	3.09	0.40
1:DA:2001:A:H2'	1:DA:2002:G:C8	2.55	0.40
1:DA:2300:G:C2	1:DA:2317:C:O2	2.74	0.40
1:DA:2502:G:H5"	1:DA:2503:A:H5"	2.02	0.40
1:DA:273(F):C:H3'	1:DA:274:G:H5"	2.03	0.40
1:DA:2901:C:C2'	1:DA:2902:C:H5'	2.51	0.40
1:DA:424:G:C2	1:DA:425:G:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:795:C:C2'	1:DA:796:C:H5'	2.50	0.40
1:DA:92:G:H2'	1:DA:93:C:O4'	2.21	0.40
3:DD:35:LYS:HD2	3:DD:104:TYR:CD1	2.51	0.40
4:DE:111:ARG:HD2	4:DE:160:TYR:CE1	2.55	0.40
4:DE:165:VAL:HG12	4:DE:165:VAL:O	2.21	0.40
4:DE:48:GLN:O	4:DE:49:LEU:O	2.40	0.40
7:DH:83:TYR:HB3	7:DH:84:SER:H	1.65	0.40
8:DK:37:VAL:HB	8:DK:43:ASN:ND2	2.36	0.40
9:DM:39:ARG:C	9:DM:41:ASP:N	2.71	0.40
9:DM:78:TYR:CD1	9:DM:78:TYR:N	2.89	0.40
1:DA:195:A:OP1	11:DO:46:LYS:HE2	2.21	0.40
12:DP:110:THR:OG1	12:DP:111:GLU:N	2.53	0.40
1:DA:2012:G:OP2	18:DS:16:LYS:NZ	2.54	0.40
21:DV:48:PHE:O	21:DV:49:ARG:C	2.58	0.40
25:DX:36:VAL:O	25:DX:36:VAL:HG23	2.21	0.40
1:DA:380:U:H5'	23:DZ:18:ILE:HG13	2.03	0.40
13:A0:12:ARG:HB3	13:A0:16:HIS:CD2	2.55	0.40
17:A2:89:GLN:NE2	17:A2:90:PRO:HD2	2.36	0.40
22:A3:50:ASN:O	22:A3:51:VAL:HG23	2.21	0.40
27:A5:19:ARG:HD2	27:A5:19:ARG:HH11	1.72	0.40
27:A5:48:GLU:O	27:A5:49:CYS:HB2	2.22	0.40
27:A5:6:VAL:CG2	27:A5:7:PRO:CD	2.92	0.40
30:A8:47:LYS:HG2	30:A8:47:LYS:HZ2	1.67	0.40
1:AA:1060:U:C2	1:AA:1062:G:H5'	2.57	0.40
1:AA:1102:C:C2'	1:AA:1103:A:H8	2.11	0.40
1:AA:1116:C:C2	1:AA:1117:G:C8	3.09	0.40
1:AA:1259:G:H2'	1:AA:1260:G:H8	1.87	0.40
1:AA:142:G:H2'	1:AA:143:C:C6	2.57	0.40
1:AA:1475:G:C4	1:AA:1519:G:N2	2.89	0.40
1:AA:1816:G:H8	3:AD:62:TYR:CZ	2.39	0.40
1:AA:2048:G:H1'	1:AA:2823:A:N6	2.36	0.40
1:AA:2157:G:O2'	1:AA:2158:A:P	2.79	0.40
1:AA:2481:G:H2'	1:AA:2482:G:OP2	2.22	0.40
1:AA:2646:C:H2'	1:AA:2647:U:O4'	2.22	0.40
1:AA:300:A:C5	1:AA:334:C:C4'	3.04	0.40
1:AA:300:A:N3	1:AA:319:C:H1'	2.36	0.40
1:AA:572:A:H3'	1:AA:573:G:O4'	2.21	0.40
1:AA:714:U:O2'	1:AA:716:A:N7	2.48	0.40
3:AD:213:ARG:O	3:AD:214:TRP:C	2.59	0.40
5:AF:93:LYS:HB3	5:AF:94:PRO:HD2	2.03	0.40
6:AG:110:ALA:HA	6:AG:140:ILE:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AG:181:ARG:O	6:AG:182:LYS:CB	2.70	0.40
7:AH:151:ILE:O	7:AH:153:LYS:HD2	2.21	0.40
9:AM:100:GLU:C	9:AM:102:ALA:H	2.24	0.40
1:AA:2277:G:OP1	12:AP:87:LYS:N	2.55	0.40
15:AR:3:ARG:HB2	15:AR:6:LEU:HB3	2.03	0.40
20:AU:6:HIS:ND1	20:AU:7:VAL:HG13	2.36	0.40
21:AV:156:LYS:O	21:AV:157:LEU:C	2.59	0.40
25:AX:59:VAL:HG13	25:AX:60:GLU:H	1.86	0.40
31:BA:1161:C:C4	31:BA:1162:C:N4	2.90	0.40
31:BA:1221:G:H4'	49:BV:77:THR:CG2	2.51	0.40
31:BA:1254:C:N4	31:BA:1283:G:H1	2.19	0.40
31:BA:1286:A:C8	31:BA:1286:A:H3'	2.56	0.40
31:BA:1290:G:H3'	31:BA:1291:G:H8	1.86	0.40
31:BA:1296:C:C6	31:BA:1297:C:H5	2.39	0.40
31:BA:1375:A:O2'	31:BA:1376:U:H5'	2.21	0.40
31:BA:181:G:N2	31:BA:183:G:N2	2.70	0.40
31:BA:245:C:O2	31:BA:283:C:N3	2.54	0.40
31:BA:31:G:C1'	31:BA:32:A:OP1	2.70	0.40
31:BA:449:C:O2	31:BA:449:C:O4'	2.38	0.40
31:BA:525:C:OP1	42:BO:89:ARG:NH2	2.54	0.40
31:BA:543:C:C2'	31:BA:544:G:H5'	2.51	0.40
31:BA:562:C:C4	31:BA:884:U:C5	3.09	0.40
31:BA:889:A:H4'	31:BA:890:G:OP1	2.21	0.40
31:BA:944:G:C2	31:BA:1340:A:C6	3.09	0.40
52:BB:46:G:N2	52:BB:55:U:C2	2.89	0.40
32:BE:33:TYR:HB2	32:BE:43:ASP:HB2	2.02	0.40
33:BF:139:GLN:OE1	33:BF:139:GLN:HA	2.21	0.40
33:BF:159:GLY:O	33:BF:160:ALA:C	2.59	0.40
31:BA:427:U:H5'	34:BG:41:GLY:HA2	2.03	0.40
35:BH:53:LEU:HD23	35:BH:53:LEU:HA	1.85	0.40
38:BK:88:LYS:CB	38:BK:89:PRO:HD2	2.48	0.40
39:BL:28:VAL:O	39:BL:29:ASN:C	2.59	0.40
40:BM:16:LEU:HD13	40:BM:70:ARG:HB2	2.03	0.40
40:BM:24:VAL:CG2	40:BM:34:VAL:HG11	2.50	0.40
45:BR:16:ALA:HB1	45:BR:18:PHE:O	2.22	0.40
46:BS:42:ARG:O	46:BS:43:LYS:C	2.60	0.40
48:BU:88:LYS:HB3	48:BU:88:LYS:NZ	2.37	0.40
31:CA:1046:A:H2'	31:CA:1047:G:O4'	2.21	0.40
31:CA:116:A:C6	31:CA:117:G:C5	3.09	0.40
31:CA:1203:C:C2'	31:CA:1204:A:O4'	2.67	0.40
31:CA:1207:G:C4	31:CA:1208:C:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CA:1149:C:O2'	31:CA:1280:A:N1	2.45	0.40
31:CA:159:G:N2	31:CA:163:C:C4	2.89	0.40
31:CA:767:A:OP1	56:CA:1784:OHX:N2	2.54	0.40
31:CA:198:G:N7	31:CA:220:G:N2	2.68	0.40
31:CA:333:G:N2	31:CA:334:C:C2	2.90	0.40
31:CA:375:U:OP1	46:CS:69:THR:CG2	2.68	0.40
31:CA:516:U:O2'	31:CA:519:C:N3	2.48	0.40
31:CA:620:C:H2'	31:CA:621:A:O4'	2.22	0.40
31:CA:655:A:H2	31:CA:754:C:C4	2.39	0.40
31:CA:690:G:C2'	31:CA:691:G:H5'	2.51	0.40
31:CA:885:G:O2'	31:CA:914:A:N1	2.51	0.40
31:CA:945:G:C2	31:CA:946:A:C8	3.09	0.40
52:CB:23:A:C2'	52:CB:24:G:H5'	2.44	0.40
53:CC:17:C:C3'	53:CC:18:C:C5'	2.72	0.40
52:CD:62:G:C2	52:CD:63:U:C5	3.10	0.40
32:CE:32:ILE:HD11	32:CE:34:ALA:O	2.21	0.40
33:CF:186:PHE:HA	33:CF:198:VAL:O	2.21	0.40
34:CG:163:GLU:C	34:CG:165:MET:N	2.74	0.40
37:CJ:81:GLY:C	37:CJ:83:ALA:N	2.70	0.40
37:CJ:89:MET:HA	37:CJ:89:MET:HE3	2.04	0.40
38:CK:100:ILE:HA	38:CK:101:PRO:HD3	1.63	0.40
42:CO:23:LYS:CE	42:CO:23:LYS:H	2.33	0.40
42:CO:85:ILE:HA	42:CO:85:ILE:HD12	1.65	0.40
43:CP:62:ASN:O	26:D4:49:PHE:CE2	2.64	0.40
43:CP:6:GLY:O	43:CP:7:VAL:HG13	2.21	0.40
45:CR:27:VAL:CG1	45:CR:31:LEU:HD22	2.51	0.40
47:CT:16:GLN:O	47:CT:17:LYS:HB2	2.21	0.40
50:CW:72:LEU:O	50:CW:73:HIS:CB	2.69	0.40
16:D1:61:TRP:CZ2	16:D1:94:ASN:OD1	2.73	0.40
16:D1:90:VAL:O	16:D1:91:ASP:C	2.59	0.40
22:D3:32:ARG:CG	22:D3:33:ALA:N	2.83	0.40
30:D8:33:ASN:O	30:D8:34:TRP:C	2.59	0.40
30:D8:60:LEU:C	30:D8:61:LEU:HG	2.39	0.40
1:DA:1141:U:HO2'	1:DA:1142:U:P	2.34	0.40
1:DA:1443:G:C8	1:DA:1443:G:C5'	3.05	0.40
1:DA:1463:C:C4	1:DA:1464:C:C5	3.08	0.40
1:DA:1490:A:H4'	1:DA:1491:G:OP2	2.20	0.40
1:DA:14:A:N7	1:DA:15:G:C8	2.90	0.40
1:DA:1558:A:H1'	1:DA:1559:G:OP2	2.21	0.40
1:DA:1705:G:C6	1:DA:1706:U:C4	3.09	0.40
1:DA:1773:A:H2'	1:DA:1774:C:C5'	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:1956:U:H2'	1:DA:1957:C:H5'	2.03	0.40
1:DA:1980:G:O5'	1:DA:1980:G:H2'	2.22	0.40
1:DA:2016:U:C1'	27:D5:6:VAL:HG11	2.51	0.40
1:DA:2275:C:O2'	1:DA:2276:G:P	2.78	0.40
1:DA:2304:G:C2'	1:DA:2305:A:O5'	2.69	0.40
1:DA:2472:G:H5"	1:DA:2473:U:H5"	2.03	0.40
1:DA:2504:U:O2	1:DA:2504:U:H2'	2.21	0.40
1:DA:2542:A:OP1	1:DA:2542:A:H4'	2.21	0.40
1:DA:2553:G:H3'	1:DA:2554:U:C5'	2.49	0.40
1:DA:2553:G:H2'	1:DA:2554:U:O4'	2.21	0.40
1:DA:2648:C:H2'	1:DA:2649:U:H6	1.84	0.40
1:DA:2703:C:C2	1:DA:2704:C:C5	3.09	0.40
1:DA:278:A:H1'	1:DA:279:C:P	2.61	0.40
1:DA:319:C:C2'	1:DA:320:A:H5'	2.51	0.40
1:DA:513:A:N3	1:DA:514:A:C8	2.89	0.40
1:DA:28:A:C4	1:DA:513:A:N7	2.89	0.40
1:DA:21:A:C6	1:DA:520:G:C6	3.10	0.40
1:DA:812:C:H5"	1:DA:1250:G:HO2'	1.85	0.40
1:DA:988:A:C6	25:DX:13:ILE:HG21	2.56	0.40
3:DD:154:LYS:C	3:DD:155:LEU:HD12	2.41	0.40
3:DD:5:LYS:HZ3	3:DD:5:LYS:HB2	1.86	0.40
4:DE:48:GLN:HE21	4:DE:48:GLN:HB3	1.77	0.40
4:DE:64:LYS:C	4:DE:66:HIS:H	2.24	0.40
5:DF:155:LEU:HD22	5:DF:185:ASP:C	2.42	0.40
6:DG:104:GLU:HG2	26:D4:23:GLU:OE2	2.22	0.40
8:DK:1:MET:HB2	8:DK:21:VAL:O	2.21	0.40
1:DA:908:C:OP2	12:DP:22:LYS:HD3	2.21	0.40
14:DQ:78:LEU:C	14:DQ:80:LEU:H	2.25	0.40
15:DR:8:LYS:O	15:DR:9:LEU:C	2.57	0.40
18:DS:9:TYR:HA	18:DS:100:THR:HG23	2.04	0.40
18:DS:75:TYR:CE2	18:DS:104:THR:HB	2.56	0.40
19:DT:25:LYS:HG3	19:DT:82:GLN:HG3	2.02	0.40
21:DV:111:VAL:HG13	21:DV:111:VAL:O	2.21	0.40
27:A5:40:LYS:HB3	27:A5:41:PRO:HD2	2.03	0.40
30:A8:22:VAL:HB	30:A8:53:PRO:CB	2.51	0.40
1:AA:1212:G:HO2'	1:AA:1213:A:P	2.44	0.40
1:AA:143:C:H5'	19:AT:35:THR:CG2	2.49	0.40
1:AA:1547:C:H2'	1:AA:1548:C:H6	1.86	0.40
1:AA:1686:C:H2'	1:AA:1687:G:O4'	2.21	0.40
1:AA:1869:G:C5'	1:AA:1869:G:H8	2.34	0.40
1:AA:981:A:H4'	1:AA:2037:G:H5'	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2119:A:H2	1:AA:2171:A:H1'	1.86	0.40
1:AA:2133:G:C5	1:AA:2157:G:C6	3.10	0.40
1:AA:2244:U:O2'	1:AA:2245:U:H5'	2.21	0.40
1:AA:2315:G:C5	1:AA:2316:C:C4	3.10	0.40
1:AA:2575:C:H5"	1:AA:2576:G:OP2	2.20	0.40
1:AA:449:A:C5	1:AA:450:G:C8	3.09	0.40
1:AA:27:G:N2	1:AA:512:G:H1'	2.35	0.40
1:AA:888:C:H41	43:BP:93:ARG:HH12	1.69	0.40
1:AA:910:A:C6	1:AA:911:A:C6	3.09	0.40
3:AD:213:ARG:HE	3:AD:213:ARG:HB3	1.48	0.40
5:AF:23:ASP:O	5:AF:24:LEU:O	2.39	0.40
5:AF:52:LYS:HA	5:AF:56:GLU:OE1	2.21	0.40
5:AF:59:TYR:O	56:AF:303:OHX:N5	2.54	0.40
6:AG:25:TYR:C	6:AG:27:ASN:N	2.75	0.40
8:AK:85:GLU:OE2	8:AK:85:GLU:HA	2.21	0.40
11:AO:83:VAL:CG1	11:AO:112:LEU:HD21	2.50	0.40
11:AO:75:ILE:N	11:AO:75:ILE:CD1	2.75	0.40
14:AQ:81:GLY:O	14:AQ:82:ILE:C	2.60	0.40
21:AV:104:PHE:HA	21:AV:104:PHE:HD2	1.73	0.40
21:AV:172:ALA:O	21:AV:173:ALA:HB2	2.20	0.40
21:AV:44:PHE:CE1	21:AV:48:PHE:CB	3.05	0.40
25:AX:58:VAL:HG12	25:AX:59:VAL:H	1.87	0.40
31:BA:1021:G:C2	31:BA:1022:G:C8	3.09	0.40
31:BA:1057:G:C4	31:BA:1204:A:C2	3.09	0.40
31:BA:1125:U:C2'	31:BA:1126:U:OP2	2.69	0.40
31:BA:960:U:N3	31:BA:1225:A:C8	2.86	0.40
31:BA:1236:A:HO2'	31:BA:1304:G:H4'	1.83	0.40
31:BA:926:G:C6	31:BA:1505:G:C6	3.09	0.40
31:BA:181:G:N2	31:BA:183:G:H22	2.19	0.40
31:BA:246:A:C6	31:BA:279:A:C2	3.09	0.40
31:BA:307:C:H2'	31:BA:308:C:O5'	2.21	0.40
31:BA:648:A:C6	31:BA:649:G:N7	2.89	0.40
31:BA:670:G:C4	31:BA:671:G:C8	3.10	0.40
52:BB:1:G:H2'	52:BB:2:G:C8	2.42	0.40
52:BB:46:G:O2'	52:BB:47:U:C5'	2.64	0.40
52:BB:17:G:H22	52:BB:66:G:H2'	1.83	0.40
52:BB:6:G:C6	52:BB:7:G:C6	3.09	0.40
52:BB:72:U:O2'	52:BB:73:U:H5'	2.21	0.40
52:BD:7:G:C6	52:BD:58:G:N7	2.90	0.40
32:BE:42:ILE:HG13	32:BE:43:ASP:N	2.36	0.40
32:BE:75:LYS:O	32:BE:77:ALA:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BH:132:ALA:O	35:BH:135:THR:N	2.45	0.40
38:BK:134:ILE:O	38:BK:135:CYS:HB3	2.21	0.40
39:BL:19:LEU:O	39:BL:20:ARG:HD3	2.21	0.40
39:BL:23:ASN:H	39:BL:23:ASN:HD22	1.70	0.40
43:BP:12:ASN:CG	43:BP:13:LYS:H	2.17	0.40
31:CA:1001:G:H1	31:CA:1039:C:H42	1.70	0.40
31:CA:1144:G:C6	31:CA:1145:C:C5	3.10	0.40
31:CA:1194:U:H4'	35:CH:22:GLY:O	2.22	0.40
31:CA:979:C:OP1	31:CA:1222:G:O6	2.40	0.40
31:CA:423:G:N2	31:CA:424:G:C4	2.89	0.40
31:CA:465:A:N7	31:CA:467:G:C6	2.90	0.40
31:CA:476:G:O2'	31:CA:477:G:H5'	2.21	0.40
52:CB:40:U:O4	52:CB:41:C:N4	2.55	0.40
32:CE:5:ILE:O	32:CE:6:THR:O	2.39	0.40
34:CG:49:ARG:O	34:CG:50:ARG:C	2.59	0.40
35:CH:68:GLU:O	35:CH:70:PRO:HD3	2.22	0.40
36:CI:19:LEU:O	36:CI:22:GLU:HB2	2.21	0.40
36:CI:45:LEU:HD21	36:CI:57:GLN:CD	2.42	0.40
37:CJ:137:LYS:HB3	37:CJ:137:LYS:HE3	1.77	0.40
37:CJ:49:ILE:HG22	37:CJ:49:ILE:O	2.21	0.40
39:CL:96:LEU:O	39:CL:101:PHE:HB2	2.21	0.40
40:CM:22:LYS:HD2	40:CM:22:LYS:O	2.21	0.40
41:CN:22:HIS:O	41:CN:28:THR:HA	2.21	0.40
41:CN:95:ILE:O	41:CN:98:LEU:HB2	2.21	0.40
44:CQ:12:ARG:H	44:CQ:12:ARG:HG3	1.68	0.40
44:CQ:40:CYS:O	44:CQ:44:LEU:HB3	2.20	0.40
45:CR:4:THR:C	45:CR:6:GLU:N	2.73	0.40
45:CR:56:LEU:C	45:CR:56:LEU:HD12	2.42	0.40
49:CV:23:ASN:HD22	49:CV:23:ASN:H	1.70	0.40
49:CV:32:LYS:HZ3	49:CV:57:HIS:CG	2.39	0.40
26:D4:16:CYS:HB3	26:D4:19:GLY:HA2	2.01	0.40
30:D8:34:TRP:O	30:D8:35:GLN:C	2.60	0.40
1:DA:1005:C:O2'	9:DM:28:THR:HG23	2.22	0.40
1:DA:1025:G:C5	1:DA:1135:C:H1'	2.57	0.40
1:DA:1523:U:C2'	1:DA:1524:G:H5'	2.51	0.40
1:DA:1652:A:H62	13:D0:11:ASN:ND2	1.96	0.40
1:DA:1925:C:O2'	1:DA:1926:U:H5'	2.22	0.40
1:DA:2056:G:N2	1:DA:2057:A:N9	2.69	0.40
1:DA:2128:C:H2'	1:DA:2129:C:C6	2.56	0.40
1:DA:2354:G:N3	1:DA:2354:G:H2'	2.36	0.40
1:DA:2478:A:H2'	1:DA:2479:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:2595:G:N2	1:DA:2599:G:C4	2.89	0.40
1:DA:2681:C:N4	1:DA:2727:G:C6	2.85	0.40
1:DA:304:G:C4	1:DA:305:U:C5	3.09	0.40
1:DA:57:C:C2'	1:DA:58:G:O5'	2.69	0.40
1:DA:684:G:O2'	1:DA:788:A:N7	2.48	0.40
1:DA:773:U:C5'	3:DD:47:GLY:HA3	2.51	0.40
4:DE:116:VAL:CG1	4:DE:122:PHE:HB2	2.51	0.40
4:DE:30:PRO:O	4:DE:32:PRO:HD3	2.20	0.40
5:DF:129:PHE:HA	5:DF:142:TRP:HE1	1.87	0.40
5:DF:99:TYR:O	5:DF:99:TYR:CD2	2.74	0.40
8:DK:88:ILE:HG13	8:DK:122:GLU:N	2.36	0.40
11:DO:111:ARG:HG3	11:DO:128:HIS:CG	2.56	0.40
11:DO:84:ASN:O	11:DO:85:LEU:C	2.59	0.40
1:DA:910:A:N7	12:DP:13:GLN:HG3	2.36	0.40
12:DP:54:MET:C	12:DP:56:ARG:N	2.74	0.40
19:DT:57:LEU:H	19:DT:57:LEU:HD23	1.86	0.40
20:DU:20:TYR:CZ	20:DU:42:VAL:HA	2.57	0.40
21:DV:166:SER:HA	21:DV:167:PRO:HD3	1.82	0.40
23:DZ:7:ILE:CD1	23:DZ:62:VAL:HG11	2.49	0.40
1:AA:2870:C:C5'	13:A0:65:LEU:HD21	2.51	0.40
17:A2:22:VAL:HG12	17:A2:23:GLU:O	2.22	0.40
17:A2:83:ARG:HA	17:A2:83:ARG:HD3	1.90	0.40
29:A7:27:GLY:C	29:A7:29:LYS:N	2.74	0.40
1:AA:593:G:H1'	30:A8:4:MET:HE1	2.02	0.40
1:AA:1155:A:C4	1:AA:1157:G:C8	3.09	0.40
1:AA:1170:G:C2	1:AA:1180:C:C2	3.10	0.40
1:AA:1291:C:H5"	1:AA:1536:A:H5'	2.03	0.40
1:AA:1359:A:N3	1:AA:1359:A:H5'	2.35	0.40
1:AA:1394:U:C4	1:AA:1395:A:C5	3.09	0.40
1:AA:150:C:H2'	1:AA:151:C:H6	1.83	0.40
1:AA:1517:G:H4'	1:AA:1556:C:O2'	2.22	0.40
1:AA:1675:C:C4	1:AA:1676:A:C5	3.09	0.40
1:AA:188:G:H1	1:AA:208:C:N4	2.18	0.40
1:AA:1934:C:H2'	1:AA:1935:G:O4'	2.22	0.40
1:AA:2017:U:H5"	1:AA:2018:G:P	2.61	0.40
1:AA:2101:G:H2'	1:AA:2102:U:O4'	2.21	0.40
1:AA:229:A:C4'	1:AA:230:U:OP2	2.70	0.40
1:AA:2376:A:C2	14:AQ:112:PHE:HB2	2.56	0.40
1:AA:2469:A:H61	1:AA:2481:G:H1'	1.87	0.40
1:AA:2679:A:H4'	4:AE:165:VAL:HG11	2.03	0.40
1:AA:2787:C:H1'	4:AE:62:PRO:HG3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:2811:G:H8	1:AA:2811:G:OP2	2.04	0.40
1:AA:2884:U:H2'	1:AA:2885:C:C5'	2.49	0.40
1:AA:299:A:C5	1:AA:300:A:C6	3.10	0.40
1:AA:315:G:C2'	1:AA:316:C:H6	2.21	0.40
1:AA:389:G:N1	11:AO:70:GLN:HB3	2.36	0.40
1:AA:654:A:O2'	1:AA:654(A):A:C8	2.68	0.40
1:AA:836:G:H5"	1:AA:837:C:OP2	2.21	0.40
1:AA:883:G:H1	1:AA:893:C:H42	0.61	0.40
3:AD:270:ILE:HG22	3:AD:271:ILE:H	1.83	0.40
6:AG:44:GLY:O	6:AG:47:LYS:HG3	2.21	0.40
7:AH:153:LYS:N	7:AH:153:LYS:CD	2.80	0.40
8:AK:47:LEU:O	8:AK:51:ILE:HG13	2.22	0.40
11:AO:91:PHE:N	11:AO:91:PHE:CD2	2.90	0.40
19:AT:40:LYS:O	19:AT:43:VAL:N	2.54	0.40
20:AU:96:ILE:CD1	20:AU:98:VAL:HG12	2.50	0.40
24:AW:47:ASN:HB2	24:AW:48:HIS:H	1.49	0.40
31:BA:1004:A:N1	31:BA:1024:G:O2'	2.39	0.40
31:BA:1005:A:C3'	31:BA:1006:C:H5'	2.51	0.40
31:BA:1084:G:C8	31:BA:1085:U:C5	3.09	0.40
31:BA:10:A:O2'	31:BA:11:G:H5'	2.21	0.40
31:BA:1153:C:H2'	31:BA:1154:G:O4'	2.21	0.40
31:BA:1157:A:O2'	31:BA:1158:C:H5"	2.21	0.40
31:BA:1290:G:H5"	31:BA:1291:G:OP2	2.20	0.40
31:BA:129:U:O2	31:BA:131:C:C5	2.75	0.40
31:BA:1331:G:O2'	31:BA:1332:A:C8	2.73	0.40
31:BA:1450:U:H2'	31:BA:1451:A:O5'	2.21	0.40
31:BA:542:G:H5'	34:BG:41:GLY:HA3	2.02	0.40
31:BA:397:A:N6	31:BA:548:G:C4	2.90	0.40
31:BA:585:G:O6	56:BA:1734:OHX:N5	2.54	0.40
31:BA:819:A:C4'	31:BA:820:U:OP2	2.65	0.40
31:BA:821:G:C2	31:BA:880:C:C2	3.09	0.40
31:BA:88:C:C2'	31:BA:88:C:O2	2.69	0.40
31:BA:946:A:C6	31:BA:947:G:C6	3.10	0.40
32:BE:168:THR:O	32:BE:170:GLU:N	2.54	0.40
32:BE:204:ASN:ND2	32:BE:206:ASP:N	2.54	0.40
34:BG:97:LEU:O	34:BG:100:ARG:HG3	2.22	0.40
31:BA:7:G:H2'	35:BH:119:LEU:HD22	2.03	0.40
35:BH:56:GLN:C	35:BH:58:ALA:N	2.75	0.40
38:BK:49:GLU:O	38:BK:51:VAL:HG13	2.21	0.40
42:BO:43:VAL:HG22	42:BO:55:VAL:HG22	2.03	0.40
43:BP:44:ARG:O	43:BP:46:LYS:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:66:LEU:O	43:BP:68:GLY:N	2.54	0.40
44:BQ:53:LEU:HA	44:BQ:54:PRO:HD3	1.82	0.40
45:BR:66:LEU:O	45:BR:69:TYR:HB3	2.21	0.40
46:BS:9:PHE:HB3	46:BS:10:GLY:H	1.71	0.40
31:CA:1095:U:O2'	31:CA:1096:C:H5'	2.21	0.40
31:CA:1133:G:C5	31:CA:1134:G:N7	2.89	0.40
31:CA:1152:A:O2'	31:CA:1153:C:H5'	2.21	0.40
31:CA:951:G:C5	31:CA:1231:G:N1	2.90	0.40
31:CA:522:C:H42	31:CA:527:G:H1	1.70	0.40
31:CA:35:G:N2	31:CA:550:G:H1'	2.36	0.40
31:CA:64:G:H2'	31:CA:64:G:H8	1.79	0.40
52:CB:51:C:C2'	52:CB:52:G:O5'	2.69	0.40
33:CF:14:ILE:CG1	33:CF:15:THR:N	2.68	0.40
33:CF:35:GLU:OE2	33:CF:95:THR:HG23	2.22	0.40
33:CF:71:ALA:HB1	33:CF:109:PRO:HB3	2.03	0.40
34:CG:173:TRP:CB	34:CG:187:ARG:HH11	2.27	0.40
34:CG:61:LYS:C	34:CG:63:LYS:N	2.75	0.40
35:CH:48:ALA:CB	35:CH:49:PRO:HD2	2.50	0.40
36:CI:68:PRO:HG2	36:CI:71:ARG:HG3	2.02	0.40
38:CK:20:TYR:CE2	38:CK:75:ARG:HB3	2.56	0.40
39:CL:110:GLU:CG	39:CL:111:ARG:N	2.84	0.40
31:CA:1148:U:O2'	39:CL:14:VAL:HG21	2.20	0.40
47:CT:50:LYS:O	47:CT:50:LYS:HG3	2.21	0.40
47:CT:77:VAL:O	47:CT:78:GLU:HB3	2.21	0.40
49:CV:66:MET:HA	49:CV:67:VAL:HB	2.03	0.40
31:CA:1226:C:H4'	49:CV:80:TYR:CZ	2.56	0.40
31:CA:1236:A:OP1	51:CX:3:LYS:HE3	2.21	0.40
29:D7:19:ARG:HG2	29:D7:19:ARG:HH11	1.85	0.40
1:DA:1050:A:C5	1:DA:2751:G:C6	3.10	0.40
1:DA:1224:G:N2	1:DA:1227:A:OP2	2.44	0.40
1:DA:1290:C:H2'	1:DA:1291:C:H6	1.87	0.40
1:DA:1921:G:C6	56:DA:3064:OHX:N2	2.89	0.40
1:DA:2205:C:O2'	1:DA:2227:A:N1	2.51	0.40
1:DA:2426:A:H4'	1:DA:2427:C:OP2	2.22	0.40
1:DA:2581:G:N2	1:DA:2610:C:H2'	2.37	0.40
1:DA:271(A):C:H1'	1:DA:272:G:H1'	2.03	0.40
1:DA:2727:G:C2	1:DA:2728:U:C6	3.09	0.40
1:DA:2859:G:O2'	1:DA:2860:A:C5'	2.70	0.40
1:DA:303:U:C2	1:DA:304:G:C8	3.09	0.40
1:DA:444:C:O2'	1:DA:445:C:H5'	2.22	0.40
1:DA:653:A:H5"	1:DA:654:A:OP1	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:969:U:H2'	1:DA:970:C:C6	2.57	0.40
1:DA:971:C:O2'	1:DA:972:G:H5'	2.21	0.40
3:DD:246:PRO:C	3:DD:254:THR:HG22	2.41	0.40
5:DF:38:ARG:HH11	5:DF:38:ARG:CG	2.23	0.40
11:DO:139:LYS:HE2	11:DO:139:LYS:HB3	1.87	0.40
11:DO:9:ASN:O	11:DO:10:PRO:C	2.58	0.40
14:DQ:95:HIS:CG	14:DQ:96:GLY:N	2.90	0.40
14:DQ:97:ARG:O	14:DQ:100:ALA:HB3	2.21	0.40
15:DR:24:PRO:HD3	15:DR:52:ILE:CD1	2.52	0.40
19:DT:28:PHE:CZ	19:DT:81:VAL:HG21	2.41	0.40
19:DT:63:LYS:HZ3	19:DT:63:LYS:N	2.16	0.40
23:DZ:27:GLU:O	23:DZ:28:GLY:C	2.60	0.40
16:A1:66:ASN:HD21	16:A1:70:ARG:HE	1.70	0.40
16:A1:69:CYS:O	16:A1:74:LEU:O	2.39	0.40
26:A4:15:ILE:HG13	26:A4:16:CYS:N	2.35	0.40
13:A0:101:ALA:HA	27:A5:44:THR:HG21	2.02	0.40
27:A5:51:TYR:HB3	27:A5:52:TYR:H	1.41	0.40
30:A8:42:ARG:NH1	30:A8:42:ARG:CG	2.84	0.40
1:AA:1047:G:N1	1:AA:1110:G:N7	2.70	0.40
1:AA:1252:G:OP2	16:A1:14:HIS:NE2	2.46	0.40
1:AA:1313:U:H2'	1:AA:1610:A:N1	2.35	0.40
1:AA:2094:G:O2'	1:AA:2095:C:H5'	2.21	0.40
1:AA:2359:C:H2'	1:AA:2360:A:O4'	2.21	0.40
1:AA:238:C:H2'	1:AA:239:U:O4'	2.21	0.40
1:AA:2581:G:N3	1:AA:2581:G:H2'	2.36	0.40
1:AA:2700:C:C2'	1:AA:2701:C:H5'	2.52	0.40
1:AA:2723:C:OP1	13:A0:3:HIS:CD2	2.66	0.40
1:AA:26:G:N1	1:AA:27:G:C2	2.90	0.40
1:AA:2863:C:O2	1:AA:2863:C:H2'	2.21	0.40
1:AA:322:A:H3'	5:AF:169:ASN:ND2	2.36	0.40
1:AA:337:C:C2'	1:AA:338:G:O5'	2.68	0.40
1:AA:539:G:H2'	1:AA:540:G:H5'	2.04	0.40
1:AA:601:C:O2'	1:AA:605:C:OP1	2.35	0.40
1:AA:693:C:H2'	1:AA:694:U:H6	1.86	0.40
2:AB:109:G:C5	2:AB:110:G:N7	2.90	0.40
2:AB:46:A:C5	2:AB:47:C:C4	3.10	0.40
2:AB:7:G:P	14:AQ:29:PHE:CE1	3.10	0.40
7:AH:111:HIS:HB2	7:AH:112:PRO:HD2	2.03	0.40
10:AN:7:TYR:CD1	10:AN:20:MET:HB2	2.57	0.40
11:AO:101:VAL:C	11:AO:103:ALA:N	2.74	0.40
14:AQ:101:LEU:C	14:AQ:101:LEU:CD1	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:102:ALA:C	14:AQ:104:GLY:H	2.25	0.40
19:AT:80:ILE:CD1	19:AT:80:ILE:O	2.67	0.40
21:AV:143:GLY:CA	21:AV:144:LEU:CB	2.99	0.40
31:BA:1025:U:HO2'	31:BA:1026:G:P	2.42	0.40
31:BA:1126:U:O4	31:BA:1127:G:N2	2.55	0.40
31:BA:1392:G:O2'	31:BA:1393:U:H5'	2.21	0.40
31:BA:1434:A:H61	31:BA:1467:G:H1'	1.85	0.40
31:BA:511:C:O2	31:BA:512:U:C6	2.75	0.40
31:BA:671:G:C2	31:BA:672:U:C2	3.09	0.40
31:BA:692:U:O2'	31:BA:694:A:N7	2.46	0.40
31:BA:737:A:C4	31:BA:738:C:C5	3.09	0.40
31:BA:771:G:C2'	31:BA:772:U:H5'	2.52	0.40
31:BA:81:G:C6	31:BA:88:C:N4	2.90	0.40
52:BD:21:A:H4'	52:BD:22:A:OP1	2.18	0.40
52:BD:58:G:N2	52:BD:75:C:C2	2.90	0.40
52:BD:7:G:C6	52:BD:58:G:C5	3.09	0.40
34:BG:6:GLY:O	34:BG:8:VAL:HG23	2.21	0.40
31:BA:9:G:OP2	35:BH:121:LYS:HE3	2.21	0.40
38:BK:86:ILE:CG2	38:BK:87:SER:H	2.15	0.40
43:BP:36:LYS:HD3	43:BP:36:LYS:HA	1.75	0.40
47:BT:65:ILE:HG21	47:BT:69:LYS:CE	2.49	0.40
49:BV:33:THR:OG1	49:BV:35:SER:N	2.43	0.40
49:BV:9:VAL:HG12	49:BV:9:VAL:O	2.22	0.40
50:BW:86:ARG:O	50:BW:90:GLN:CD	2.60	0.40
31:CA:1000:A:C2'	31:CA:1001:G:H5'	2.52	0.40
31:CA:1012:U:C4	31:CA:1013:G:C6	3.09	0.40
31:CA:1276:G:C6	31:CA:1277:C:N4	2.89	0.40
31:CA:113:G:H1'	31:CA:353:A:O2'	2.20	0.40
31:CA:383:A:H8	31:CA:383:A:O5'	2.05	0.40
31:CA:409:G:H2'	31:CA:410:G:O4'	2.21	0.40
31:CA:455:C:N4	31:CA:477:G:H1	2.20	0.40
31:CA:477:G:H2'	31:CA:478:A:O4'	2.22	0.40
31:CA:516:U:O4	31:CA:533:A:OP1	2.39	0.40
31:CA:865:A:C6	31:CA:866:C:N3	2.89	0.40
31:CA:955:U:C4	31:CA:956:U:C5	3.10	0.40
52:CD:18:G:O2'	52:CD:19:C:OP2	2.35	0.40
32:CE:204:ASN:N	32:CE:204:ASN:OD1	2.47	0.40
32:CE:8:LYS:O	32:CE:9:GLU:HB3	2.22	0.40
34:CG:25:ARG:HB3	34:CG:25:ARG:HH11	1.86	0.40
34:CG:86:LYS:H	34:CG:86:LYS:HG2	1.59	0.40
39:CL:2:GLU:HG2	39:CL:2:GLU:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CO:22:SER:O	42:CO:25:PRO:HD3	2.21	0.40
13:D0:29:LEU:O	13:D0:30:THR:C	2.59	0.40
1:DA:1074:G:C2	1:DA:1075:C:C2	3.10	0.40
1:DA:109:G:H2'	1:DA:110:G:O4'	2.21	0.40
1:DA:1216:G:N3	1:DA:1217:C:C6	2.89	0.40
1:DA:1385:G:O2'	1:DA:1396:U:C6	2.71	0.40
1:DA:1510:A:H2'	1:DA:1511:A:O4'	2.21	0.40
1:DA:1638:C:H2'	1:DA:1639:U:O5'	2.22	0.40
1:DA:1838:C:C2	1:DA:1898:U:C4	3.09	0.40
1:DA:19:C:H2'	1:DA:20:C:C6	2.56	0.40
1:DA:2006:C:H6	1:DA:2006:C:O5'	2.04	0.40
1:DA:2136:C:N4	1:DA:2155:G:C2	2.77	0.40
1:DA:2226:C:C5	1:DA:2227:A:N7	2.90	0.40
1:DA:2537:U:H2'	1:DA:2538:C:H6	1.79	0.40
1:DA:2592:G:H2'	1:DA:2593:U:O4'	2.22	0.40
1:DA:2691:C:H2'	1:DA:2692:C:H6	1.86	0.40
1:DA:270(G):C:H2'	1:DA:270(H):C:C6	2.56	0.40
1:DA:2744:G:N7	1:DA:2755:C:C6	2.90	0.40
1:DA:2846:G:H2'	1:DA:2847:U:O4'	2.22	0.40
1:DA:283:A:H4'	1:DA:284:U:OP2	2.22	0.40
1:DA:381:G:C4	1:DA:394:A:H2	2.34	0.40
1:DA:528:A:C8	1:DA:528:A:H3'	2.57	0.40
1:DA:601:C:O2'	1:DA:605:C:H5"	2.20	0.40
1:DA:601:C:O2'	1:DA:605:C:OP1	2.39	0.40
1:DA:66:C:H2'	1:DA:67:U:O4'	2.21	0.40
1:DA:699:A:H2'	1:DA:700:G:O4'	2.21	0.40
5:DF:178:PRO:C	5:DF:180:GLY:N	2.75	0.40
5:DF:99:TYR:CD2	5:DF:99:TYR:C	2.95	0.40
6:DG:92:VAL:HG13	6:DG:92:VAL:O	2.21	0.40
7:DH:53:GLU:HG3	7:DH:54:ARG:N	2.37	0.40
9:DM:39:ARG:HA	9:DM:40:PRO:HD2	1.82	0.40
10:DN:35:VAL:HG21	10:DN:69:ILE:CD1	2.52	0.40
11:DO:50:ARG:CG	11:DO:50:ARG:HH11	2.34	0.40
15:DR:98:LYS:HD3	15:DR:98:LYS:HA	1.89	0.40
20:DU:63:LYS:HA	20:DU:63:LYS:CE	2.51	0.40
21:DV:23:LYS:HB3	21:DV:38:TYR:CD1	2.57	0.40
1:DA:396:G:C8	23:DZ:13:ILE:HD11	2.56	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BA:85:U:O2'	7:DH:100:GLY:O[3_555]	1.86	0.34

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	AD	270/276 (98%)	208 (77%)	45 (17%)	17 (6%)	1 9
3	DD	270/276 (98%)	226 (84%)	31 (12%)	13 (5%)	2 14
4	AE	203/206 (98%)	138 (68%)	33 (16%)	32 (16%)	0 1
4	DE	203/206 (98%)	128 (63%)	34 (17%)	41 (20%)	0 0
5	AF	200/210 (95%)	153 (76%)	28 (14%)	19 (10%)	0 4
5	DF	206/210 (98%)	133 (65%)	46 (22%)	27 (13%)	0 1
6	AG	179/182 (98%)	127 (71%)	36 (20%)	16 (9%)	1 4
6	DG	179/182 (98%)	128 (72%)	30 (17%)	21 (12%)	0 2
7	AH	168/180 (93%)	111 (66%)	25 (15%)	32 (19%)	0 1
7	DH	168/180 (93%)	92 (55%)	52 (31%)	24 (14%)	0 1
8	AK	144/148 (97%)	75 (52%)	44 (31%)	25 (17%)	0 1
8	DK	144/148 (97%)	98 (68%)	27 (19%)	19 (13%)	0 1
9	AM	136/140 (97%)	96 (71%)	21 (15%)	19 (14%)	0 1
9	DM	136/140 (97%)	98 (72%)	21 (15%)	17 (12%)	0 1
10	AN	120/122 (98%)	101 (84%)	15 (12%)	4 (3%)	4 22
10	DN	120/122 (98%)	97 (81%)	15 (12%)	8 (7%)	1 8
11	AO	148/150 (99%)	91 (62%)	29 (20%)	28 (19%)	0 1
11	DO	148/150 (99%)	83 (56%)	21 (14%)	44 (30%)	0 0
12	AP	139/141 (99%)	93 (67%)	27 (19%)	19 (14%)	0 1
12	DP	139/141 (99%)	88 (63%)	29 (21%)	22 (16%)	0 1
13	A0	116/118 (98%)	86 (74%)	21 (18%)	9 (8%)	1 6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
13	D0	115/118 (98%)	83 (72%)	18 (16%)	14 (12%)	0 1
14	AQ	109/112 (97%)	74 (68%)	26 (24%)	9 (8%)	1 5
14	DQ	109/112 (97%)	60 (55%)	32 (29%)	17 (16%)	0 1
15	AR	135/146 (92%)	101 (75%)	19 (14%)	15 (11%)	0 2
15	DR	135/146 (92%)	101 (75%)	23 (17%)	11 (8%)	1 6
16	A1	115/118 (98%)	82 (71%)	19 (16%)	14 (12%)	0 1
16	D1	115/118 (98%)	73 (64%)	29 (25%)	13 (11%)	0 2
17	A2	99/101 (98%)	81 (82%)	10 (10%)	8 (8%)	1 6
17	D2	99/101 (98%)	64 (65%)	19 (19%)	16 (16%)	0 1
18	AS	111/113 (98%)	94 (85%)	13 (12%)	4 (4%)	3 20
18	DS	111/113 (98%)	89 (80%)	13 (12%)	9 (8%)	1 6
19	AT	90/96 (94%)	78 (87%)	8 (9%)	4 (4%)	2 16
19	DT	90/96 (94%)	67 (74%)	15 (17%)	8 (9%)	1 4
20	AU	100/110 (91%)	65 (65%)	18 (18%)	17 (17%)	0 1
20	DU	100/110 (91%)	56 (56%)	18 (18%)	26 (26%)	0 0
21	AV	173/206 (84%)	105 (61%)	42 (24%)	26 (15%)	0 1
21	DV	177/206 (86%)	100 (56%)	35 (20%)	42 (24%)	0 0
22	A3	74/85 (87%)	58 (78%)	11 (15%)	5 (7%)	1 8
22	D3	75/85 (88%)	54 (72%)	15 (20%)	6 (8%)	1 6
23	AZ	95/98 (97%)	75 (79%)	14 (15%)	6 (6%)	1 9
23	DZ	95/98 (97%)	72 (76%)	12 (13%)	11 (12%)	0 2
24	AW	64/72 (89%)	55 (86%)	3 (5%)	6 (9%)	0 4
24	DW	64/72 (89%)	46 (72%)	11 (17%)	7 (11%)	0 2
25	AX	57/60 (95%)	47 (82%)	8 (14%)	2 (4%)	3 21
25	DX	57/60 (95%)	44 (77%)	9 (16%)	4 (7%)	1 7
26	A4	64/71 (90%)	33 (52%)	14 (22%)	17 (27%)	0 0
26	D4	61/71 (86%)	23 (38%)	12 (20%)	26 (43%)	0 0
27	A5	57/60 (95%)	39 (68%)	10 (18%)	8 (14%)	0 1
27	D5	57/60 (95%)	44 (77%)	7 (12%)	6 (10%)	0 3
28	A6	43/54 (80%)	21 (49%)	13 (30%)	9 (21%)	0 0
28	D6	43/54 (80%)	23 (54%)	9 (21%)	11 (26%)	0 0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
29	A7	43/49 (88%)	41 (95%)	0	2 (5%)	2 14
29	D7	43/49 (88%)	38 (88%)	3 (7%)	2 (5%)	2 14
30	A8	58/65 (89%)	39 (67%)	11 (19%)	8 (14%)	0 1
30	D8	58/65 (89%)	40 (69%)	8 (14%)	10 (17%)	0 1
32	BE	235/256 (92%)	155 (66%)	44 (19%)	36 (15%)	0 1
32	CE	235/256 (92%)	152 (65%)	49 (21%)	34 (14%)	0 1
33	BF	203/239 (85%)	137 (68%)	47 (23%)	19 (9%)	0 4
33	CF	204/239 (85%)	124 (61%)	55 (27%)	25 (12%)	0 1
34	BG	206/208 (99%)	152 (74%)	34 (16%)	20 (10%)	0 3
34	CG	206/208 (99%)	152 (74%)	31 (15%)	23 (11%)	0 2
35	BH	149/162 (92%)	115 (77%)	26 (17%)	8 (5%)	2 12
35	CH	149/162 (92%)	115 (77%)	25 (17%)	9 (6%)	1 10
36	BI	99/101 (98%)	71 (72%)	23 (23%)	5 (5%)	2 13
36	CI	99/101 (98%)	85 (86%)	12 (12%)	2 (2%)	7 32
37	BJ	153/156 (98%)	111 (72%)	32 (21%)	10 (6%)	1 9
37	CJ	153/156 (98%)	118 (77%)	22 (14%)	13 (8%)	1 5
38	BK	136/138 (99%)	105 (77%)	24 (18%)	7 (5%)	2 13
38	CK	136/138 (99%)	100 (74%)	24 (18%)	12 (9%)	1 5
39	BL	125/128 (98%)	89 (71%)	25 (20%)	11 (9%)	1 5
39	CL	125/128 (98%)	80 (64%)	29 (23%)	16 (13%)	0 1
40	BM	97/105 (92%)	76 (78%)	20 (21%)	1 (1%)	15 46
40	CM	97/105 (92%)	73 (75%)	19 (20%)	5 (5%)	2 13
41	BN	117/129 (91%)	85 (73%)	24 (20%)	8 (7%)	1 8
41	CN	117/129 (91%)	93 (80%)	19 (16%)	5 (4%)	2 16
42	BO	123/132 (93%)	93 (76%)	18 (15%)	12 (10%)	0 3
42	CO	123/132 (93%)	79 (64%)	27 (22%)	17 (14%)	0 1
43	BP	114/126 (90%)	69 (60%)	27 (24%)	18 (16%)	0 1
43	CP	115/126 (91%)	71 (62%)	24 (21%)	20 (17%)	0 1
44	BQ	56/61 (92%)	38 (68%)	5 (9%)	13 (23%)	0 0
44	CQ	56/61 (92%)	32 (57%)	13 (23%)	11 (20%)	0 0
45	BR	86/89 (97%)	62 (72%)	19 (22%)	5 (6%)	1 11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
45	CR	86/89 (97%)	72 (84%)	11 (13%)	3 (4%)	3 21
46	BS	82/88 (93%)	57 (70%)	15 (18%)	10 (12%)	0 1
46	CS	82/88 (93%)	55 (67%)	21 (26%)	6 (7%)	1 7
47	BT	98/105 (93%)	74 (76%)	17 (17%)	7 (7%)	1 7
47	CT	98/105 (93%)	83 (85%)	9 (9%)	6 (6%)	1 10
48	BU	70/88 (80%)	53 (76%)	11 (16%)	6 (9%)	1 5
48	CU	70/88 (80%)	58 (83%)	10 (14%)	2 (3%)	4 24
49	BV	76/93 (82%)	56 (74%)	13 (17%)	7 (9%)	1 4
49	CV	76/93 (82%)	49 (64%)	18 (24%)	9 (12%)	0 2
50	BW	97/106 (92%)	65 (67%)	21 (22%)	11 (11%)	0 2
50	CW	97/106 (92%)	70 (72%)	13 (13%)	14 (14%)	0 1
51	BX	23/27 (85%)	15 (65%)	5 (22%)	3 (13%)	0 1
51	CX	23/27 (85%)	15 (65%)	6 (26%)	2 (9%)	1 5
All	All	11319/12052 (94%)	7969 (70%)	2044 (18%)	1306 (12%)	0 2

All (1306) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AD	3	VAL
3	AD	28	GLU
3	AD	29	PRO
3	AD	33	LEU
3	AD	37	LEU
3	AD	122	ASP
3	AD	237	GLU
4	AE	2	LYS
4	AE	21	VAL
4	AE	54	GLN
4	AE	60	ASN
4	AE	68	ALA
4	AE	69	LYS
4	AE	72	VAL
4	AE	78	LEU
4	AE	88	GLY
4	AE	118	LYS
4	AE	131	ALA
5	AF	48	THR

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Mol	Chain	Res	Type
5	AF	73	ALA
5	AF	145	GLU
5	AF	168	ARG
5	AF	197	ASP
5	AF	198	ALA
6	AG	14	GLU
6	AG	30	GLU
6	AG	36	LYS
6	AG	79	ASN
6	AG	96	ARG
7	AH	10	PRO
7	AH	12	PRO
7	AH	13	LYS
7	AH	59	ARG
7	AH	83	TYR
7	AH	84	SER
7	AH	87	LEU
7	AH	98	LEU
7	AH	138	LYS
7	AH	151	ILE
7	AH	153	LYS
7	AH	155	SER
7	AH	169	VAL
8	AK	10	GLU
8	AK	34	GLY
8	AK	36	ALA
8	AK	57	ARG
8	AK	71	ILE
8	AK	87	LYS
8	AK	97	ILE
8	AK	105	HIS
8	AK	114	LEU
8	AK	134	PRO
8	AK	145	VAL
9	AM	23	LEU
9	AM	56	ASN
9	AM	62	VAL
9	AM	64	GLY
9	AM	76	SER
9	AM	128	HIS
10	AN	97	ARG
11	AO	7	ARG

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Mol	Chain	Res	Type
11	AO	10	PRO
11	AO	16	ARG
11	AO	25	SER
11	AO	27	HIS
11	AO	36	LYS
11	AO	42	SER
11	AO	47	ASP
11	AO	59	LEU
11	AO	67	MET
11	AO	106	LEU
11	AO	141	ALA
11	AO	148	LEU
12	AP	2	LEU
12	AP	25	ASP
12	AP	26	TYR
12	AP	60	ARG
12	AP	78	PRO
12	AP	89	ASN
12	AP	139	GLU
13	A0	4	LEU
13	A0	42	LYS
13	A0	86	ARG
14	AQ	4	LEU
14	AQ	21	THR
14	AQ	51	ALA
14	AQ	82	ILE
15	AR	39	ARG
15	AR	106	SER
16	A1	83	LEU
16	A1	91	ASP
16	A1	93	LYS
16	A1	116	ALA
17	A2	45	THR
17	A2	47	VAL
17	A2	49	THR
17	A2	50	PRO
17	A2	78	LYS
18	AS	111	HIS
19	AT	40	LYS
19	AT	68	ARG
20	AU	6	HIS
20	AU	11	ASP

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Mol	Chain	Res	Type
20	AU	40	GLU
20	AU	42	VAL
20	AU	50	ARG
20	AU	57	GLN
20	AU	77	PRO
20	AU	78	ALA
21	AV	6	LYS
21	AV	31	ARG
21	AV	51	ALA
21	AV	63	ASP
21	AV	135	GLU
21	AV	161	VAL
21	AV	165	VAL
21	AV	171	ILE
22	A3	44	ARG
22	A3	55	ARG
22	A3	84	LEU
23	AZ	91	LYS
24	AW	16	LEU
24	AW	43	GLN
24	AW	47	ASN
26	A4	14	ILE
26	A4	18	CYS
26	A4	34	GLU
26	A4	40	HIS
26	A4	41	PRO
26	A4	46	GLN
26	A4	53	GLU
27	A5	3	LYS
27	A5	4	HIS
28	A6	16	CYS
28	A6	17	LYS
28	A6	21	TYR
28	A6	22	ALA
30	A8	18	ALA
30	A8	29	LYS
30	A8	31	HIS
30	A8	52	LYS
30	A8	57	ARG
32	BE	26	PRO
32	BE	60	ASP
32	BE	96	ARG

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Mol	Chain	Res	Type
32	BE	101	MET
32	BE	150	SER
32	BE	159	PRO
32	BE	195	ASP
32	BE	216	SER
32	BE	221	LEU
32	BE	236	TYR
32	BE	237	ALA
33	BF	4	LYS
33	BF	110	ASN
33	BF	133	ALA
33	BF	134	ILE
34	BG	12	CYS
34	BG	30	LYS
34	BG	89	THR
34	BG	151	LYS
34	BG	155	LEU
34	BG	164	ALA
34	BG	173	TRP
34	BG	200	GLU
35	BH	17	ALA
35	BH	113	ALA
35	BH	140	ARG
35	BH	153	LYS
36	BI	43	LEU
36	BI	62	TRP
37	BJ	5	ARG
37	BJ	7	ALA
37	BJ	58	PRO
38	BK	2	LEU
38	BK	86	ILE
39	BL	44	VAL
39	BL	54	ASP
39	BL	56	LEU
39	BL	111	ARG
39	BL	118	LYS
41	BN	77	MET
41	BN	82	VAL
41	BN	101	SER
42	BO	48	PRO
42	BO	65	GLU
43	BP	12	ASN

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Mol	Chain	Res	Type
43	BP	21	TYR
43	BP	27	LYS
43	BP	31	LYS
43	BP	48	LEU
43	BP	83	ASP
43	BP	88	ARG
43	BP	95	GLY
44	BQ	5	ALA
44	BQ	14	PRO
44	BQ	16	PHE
44	BQ	29	ARG
44	BQ	41	ARG
44	BQ	60	SER
46	BS	40	ASP
46	BS	76	GLN
47	BT	49	GLU
47	BT	68	ARG
48	BU	22	VAL
48	BU	54	ARG
49	BV	67	VAL
50	BW	48	LYS
50	BW	49	ALA
50	BW	52	ALA
50	BW	53	LEU
50	BW	99	LEU
50	BW	100	ILE
51	BX	3	LYS
32	CE	6	THR
32	CE	7	VAL
32	CE	20	GLU
32	CE	63	MET
32	CE	73	THR
32	CE	83	MET
32	CE	84	GLU
32	CE	101	MET
32	CE	154	LEU
32	CE	191	ASP
32	CE	216	SER
32	CE	232	PRO
32	CE	237	ALA
33	CF	47	LEU
33	CF	127	ARG

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Mol	Chain	Res	Type
34	CG	9	CYS
34	CG	26	CYS
34	CG	28	SER
34	CG	149	ALA
34	CG	150	GLU
34	CG	154	ASN
34	CG	178	VAL
34	CG	179	GLU
35	CH	63	ARG
35	CH	73	ASN
35	CH	140	ARG
37	CJ	33	ASP
38	CK	2	LEU
38	CK	91	ARG
39	CL	44	VAL
39	CL	54	ASP
39	CL	95	LYS
39	CL	105	ASP
39	CL	108	VAL
39	CL	109	VAL
39	CL	111	ARG
39	CL	118	LYS
40	CM	57	LYS
41	CN	100	ALA
41	CN	101	SER
42	CO	18	VAL
42	CO	19	ARG
42	CO	26	ALA
42	CO	42	THR
42	CO	47	LYS
42	CO	61	THR
42	CO	91	LYS
42	CO	96	VAL
43	CP	4	ILE
43	CP	5	ALA
43	CP	7	VAL
43	CP	12	ASN
43	CP	29	ARG
43	CP	95	GLY
43	CP	106	ASN
43	CP	117	VAL
44	CQ	15	LYS

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Mol	Chain	Res	Type
44	CQ	19	ARG
44	CQ	23	ARG
44	CQ	30	ALA
47	CT	67	LYS
48	CU	23	LYS
49	CV	9	VAL
49	CV	11	VAL
50	CW	47	GLY
50	CW	49	ALA
50	CW	71	THR
50	CW	72	LEU
50	CW	95	ALA
50	CW	100	ILE
50	CW	102	GLY
51	CX	3	LYS
3	DD	26	LYS
3	DD	33	LEU
3	DD	237	GLU
3	DD	268	ARG
4	DE	2	LYS
4	DE	25	VAL
4	DE	42	ASP
4	DE	49	LEU
4	DE	51	PHE
4	DE	61	ARG
4	DE	74	PRO
4	DE	77	ILE
4	DE	78	LEU
4	DE	81	ILE
4	DE	87	GLU
4	DE	131	ALA
4	DE	200	GLU
4	DE	204	ALA
5	DF	3	GLU
5	DF	17	ARG
5	DF	21	ALA
5	DF	24	LEU
5	DF	25	PRO
5	DF	54	ARG
5	DF	73	ALA
5	DF	89	VAL
5	DF	133	ASN

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Mol	Chain	Res	Type
5	DF	146	ALA
5	DF	168	ARG
5	DF	193	VAL
6	DG	3	LEU
6	DG	35	GLU
6	DG	45	GLU
6	DG	81	LYS
6	DG	84	LYS
7	DH	3	ARG
7	DH	59	ARG
7	DH	81	GLU
7	DH	83	TYR
7	DH	157	TYR
7	DH	167	GLU
7	DH	168	PRO
8	DK	11	ASN
8	DK	59	ALA
8	DK	111	PRO
8	DK	117	GLU
8	DK	119	PRO
8	DK	144	VAL
8	DK	145	VAL
9	DM	36	GLY
9	DM	66	LYS
9	DM	98	VAL
9	DM	128	HIS
10	DN	5	GLN
10	DN	29	ASN
10	DN	48	PRO
11	DO	6	LEU
11	DO	10	PRO
11	DO	12	ALA
11	DO	16	ARG
11	DO	19	VAL
11	DO	34	GLY
11	DO	35	HIS
11	DO	38	GLN
11	DO	47	ASP
11	DO	49	ARG
11	DO	56	SER
11	DO	57	THR
11	DO	58	THR

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Mol	Chain	Res	Type
11	DO	64	LYS
11	DO	65	ARG
11	DO	98	GLU
11	DO	105	LEU
11	DO	106	LEU
11	DO	111	ARG
11	DO	147	LEU
12	DP	25	ASP
12	DP	55	VAL
12	DP	60	ARG
12	DP	79	LEU
12	DP	89	ASN
12	DP	110	THR
12	DP	117	ALA
12	DP	136	ALA
13	D0	42	LYS
13	D0	56	LYS
13	D0	88	ARG
14	DQ	4	LEU
14	DQ	42	ASP
14	DQ	57	LYS
14	DQ	61	ASN
14	DQ	87	PHE
14	DQ	88	ASP
14	DQ	89	ARG
14	DQ	110	LEU
14	DQ	111	GLU
15	DR	9	LEU
15	DR	86	ILE
15	DR	107	ASP
15	DR	135	ALA
16	D1	91	ASP
16	D1	92	ARG
16	D1	117	GLN
17	D2	24	LYS
17	D2	44	LYS
17	D2	49	THR
17	D2	72	VAL
17	D2	78	LYS
18	DS	11	ARG
18	DS	63	ASP
19	DT	41	ASN

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Mol	Chain	Res	Type
19	DT	68	ARG
20	DU	3	VAL
20	DU	29	GLU
20	DU	47	LYS
20	DU	57	GLN
20	DU	63	LYS
20	DU	77	PRO
20	DU	78	ALA
20	DU	94	LYS
20	DU	102	CYS
21	DV	6	LYS
21	DV	31	ARG
21	DV	51	ALA
21	DV	53	ILE
21	DV	60	GLU
21	DV	65	GLN
21	DV	81	ARG
21	DV	93	ASP
21	DV	105	VAL
21	DV	119	GLU
21	DV	148	ASP
21	DV	158	PRO
21	DV	159	PRO
21	DV	169	GLU
21	DV	175	VAL
22	D3	33	ALA
22	D3	44	ARG
23	DZ	87	PRO
23	DZ	88	LYS
23	DZ	93	GLU
24	DW	16	LEU
24	DW	47	ASN
24	DW	48	HIS
24	DW	67	LYS
25	DX	32	GLN
25	DX	38	GLU
26	D4	5	ILE
26	D4	20	ASN
26	D4	21	VAL
26	D4	29	PRO
26	D4	31	ILE
26	D4	33	VAL

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Mol	Chain	Res	Type
26	D4	36	CYS
26	D4	37	SER
26	D4	40	HIS
26	D4	48	ARG
26	D4	52	THR
26	D4	57	GLU
27	D5	4	HIS
27	D5	5	PRO
27	D5	57	VAL
28	D6	15	GLU
28	D6	17	LYS
28	D6	18	ARG
28	D6	24	GLU
28	D6	35	GLU
29	D7	18	PHE
30	D8	31	HIS
30	D8	33	ASN
30	D8	34	TRP
3	AD	26	LYS
3	AD	224	ALA
3	AD	241	PRO
3	AD	271	ILE
4	AE	71	GLY
4	AE	82	ARG
4	AE	90	THR
4	AE	129	HIS
5	AF	24	LEU
5	AF	25	PRO
5	AF	43	LYS
5	AF	47	GLY
5	AF	68	LYS
5	AF	129	PHE
5	AF	136	THR
6	AG	5	VAL
6	AG	24	GLY
6	AG	26	GLN
6	AG	116	ASP
7	AH	3	ARG
7	AH	5	GLY
7	AH	21	PRO
7	AH	81	GLU
7	AH	92	ILE

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Mol	Chain	Res	Type
7	AH	152	ARG
7	AH	159	GLU
7	AH	167	GLU
7	AH	168	PRO
8	AK	9	LEU
8	AK	65	ALA
8	AK	96	ASP
8	AK	103	ARG
8	AK	131	LYS
9	AM	8	GLN
9	AM	58	ASP
11	AO	29	LYS
11	AO	38	GLN
11	AO	45	LEU
11	AO	66	GLY
11	AO	93	GLY
11	AO	98	GLU
11	AO	102	ARG
12	AP	7	MET
12	AP	27	VAL
12	AP	55	VAL
12	AP	66	ILE
12	AP	80	GLU
12	AP	88	GLY
12	AP	134	ARG
13	A0	32	GLY
13	A0	45	ARG
13	A0	107	ASP
14	AQ	10	ARG
14	AQ	74	ALA
14	AQ	90	GLY
14	AQ	111	GLU
15	AR	57	PHE
15	AR	58	ASN
16	A1	90	VAL
16	A1	114	LYS
17	A2	4	ILE
17	A2	48	GLY
19	AT	4	ALA
19	AT	41	ASN
20	AU	19	LYS
20	AU	53	PRO

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Mol	Chain	Res	Type
20	AU	58	GLY
20	AU	98	VAL
21	AV	22	GLY
21	AV	52	SER
21	AV	53	ILE
21	AV	60	GLU
21	AV	61	LEU
21	AV	81	ARG
21	AV	109	ALA
21	AV	134	PRO
21	AV	158	PRO
21	AV	160	GLY
21	AV	168	GLU
23	AZ	79	GLY
23	AZ	84	GLY
23	AZ	88	LYS
24	AW	15	LYS
24	AW	48	HIS
26	A4	9	LEU
26	A4	30	GLU
26	A4	42	PHE
26	A4	43	TYR
28	A6	18	ARG
28	A6	33	LYS
28	A6	46	HIS
30	A8	35	GLN
32	BE	5	ILE
32	BE	84	GLU
32	BE	131	PRO
32	BE	155	LEU
32	BE	165	VAL
32	BE	178	ARG
32	BE	194	PRO
32	BE	239	VAL
33	BF	9	GLY
33	BF	13	GLY
33	BF	20	SER
33	BF	45	LYS
33	BF	145	GLY
33	BF	162	GLN
33	BF	179	ARG
34	BG	23	GLY

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Mol	Chain	Res	Type
34	BG	26	CYS
34	BG	105	VAL
37	BJ	6	ARG
37	BJ	59	LEU
37	BJ	121	ALA
38	BK	49	GLU
38	BK	87	SER
39	BL	99	LEU
41	BN	87	THR
41	BN	103	LEU
42	BO	16	GLU
42	BO	62	SER
42	BO	91	LYS
42	BO	121	GLY
43	BP	6	GLY
43	BP	8	GLU
43	BP	50	GLU
43	BP	52	GLU
44	BQ	15	LYS
44	BQ	23	ARG
44	BQ	30	ALA
45	BR	79	ARG
45	BR	86	GLY
46	BS	43	LYS
46	BS	48	TRP
46	BS	83	GLU
47	BT	53	LEU
47	BT	79	SER
48	BU	87	ARG
49	BV	78	ARG
50	BW	96	GLY
32	CE	8	LYS
32	CE	39	ILE
32	CE	74	LYS
32	CE	75	LYS
32	CE	96	ARG
32	CE	190	THR
32	CE	226	ARG
33	CF	9	GLY
33	CF	12	LEU
33	CF	51	GLY
33	CF	61	ALA

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Mol	Chain	Res	Type
33	CF	74	GLY
33	CF	75	VAL
33	CF	82	GLU
33	CF	96	GLY
33	CF	101	LEU
33	CF	118	GLN
33	CF	128	PHE
33	CF	135	LYS
34	CG	12	CYS
34	CG	27	TYR
34	CG	30	LYS
34	CG	35	ARG
34	CG	42	GLN
34	CG	151	LYS
34	CG	153	ARG
34	CG	171	GLY
35	CH	59	GLY
37	CJ	59	LEU
37	CJ	82	GLY
37	CJ	131	LYS
37	CJ	147	ALA
37	CJ	148	ASN
38	CK	7	ALA
38	CK	37	ARG
38	CK	103	VAL
39	CL	117	HIS
39	CL	120	ARG
40	CM	36	GLY
40	CM	59	SER
41	CN	127	LYS
42	CO	63	GLY
42	CO	65	GLU
43	CP	21	TYR
43	CP	46	LYS
43	CP	116	THR
44	CQ	14	PRO
44	CQ	16	PHE
44	CQ	24	CYS
44	CQ	25	VAL
44	CQ	26	ARG
44	CQ	28	GLY
45	CR	86	GLY

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Mol	Chain	Res	Type
47	CT	68	ARG
50	CW	10	LEU
51	CX	25	LYS
3	DD	35	LYS
3	DD	58	HIS
4	DE	45	THR
4	DE	57	LYS
4	DE	59	VAL
4	DE	64	LYS
4	DE	67	PHE
4	DE	71	GLY
4	DE	88	GLY
4	DE	117	MET
4	DE	129	HIS
4	DE	130	GLY
4	DE	155	LYS
5	DF	22	ALA
5	DF	27	GLU
5	DF	61	GLY
5	DF	84	VAL
5	DF	103	LYS
5	DF	116	ASP
5	DF	166	ALA
6	DG	5	VAL
6	DG	6	ALA
6	DG	7	LEU
6	DG	14	GLU
6	DG	30	GLU
6	DG	96	ARG
6	DG	97	ASP
6	DG	124	SER
7	DH	92	ILE
7	DH	110	SER
7	DH	118	PRO
7	DH	126	PRO
7	DH	138	LYS
7	DH	169	VAL
8	DK	58	LEU
8	DK	78	THR
8	DK	102	SER
8	DK	143	SER
9	DM	88	GLU

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Mol	Chain	Res	Type
9	DM	92	ALA
9	DM	127	ASP
9	DM	133	GLN
9	DM	136	GLU
11	DO	11	GLY
11	DO	23	PRO
11	DO	66	GLY
11	DO	67	MET
11	DO	85	LEU
11	DO	107	LYS
11	DO	108	LYS
11	DO	120	ALA
12	DP	7	MET
12	DP	13	GLN
12	DP	19	GLY
12	DP	27	VAL
12	DP	88	GLY
12	DP	130	LYS
12	DP	134	ARG
13	D0	3	HIS
13	D0	78	LYS
13	D0	82	GLU
13	D0	93	GLY
14	DQ	13	ARG
14	DQ	19	LYS
14	DQ	67	ARG
14	DQ	103	GLU
15	DR	2	ASN
15	DR	13	ARG
15	DR	105	LEU
15	DR	117	ASP
15	DR	131	ALA
16	D1	9	VAL
16	D1	20	LEU
16	D1	65	ILE
16	D1	75	ASN
16	D1	98	LEU
17	D2	8	GLY
17	D2	73	SER
17	D2	79	VAL
17	D2	99	ILE
18	DS	65	LEU

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Mol	Chain	Res	Type
19	DT	15	GLU
19	DT	40	LYS
19	DT	45	THR
20	DU	17	SER
20	DU	40	GLU
20	DU	61	ILE
20	DU	69	ALA
20	DU	85	VAL
20	DU	96	ILE
21	DV	85	HIS
21	DV	108	PRO
21	DV	113	ALA
21	DV	114	GLY
21	DV	160	GLY
21	DV	161	VAL
21	DV	165	VAL
22	D3	55	ARG
23	DZ	26	ARG
23	DZ	28	GLY
23	DZ	36	GLY
23	DZ	79	GLY
23	DZ	84	GLY
24	DW	41	ILE
24	DW	68	ARG
25	DX	13	ILE
25	DX	30	ARG
26	D4	9	LEU
26	D4	25	TYR
26	D4	26	SER
26	D4	50	VAL
27	D5	21	SER
28	D6	49	HIS
30	D8	7	HIS
30	D8	35	GLN
4	AE	18	ASP
4	AE	56	PRO
4	AE	62	PRO
4	AE	86	PRO
4	AE	128	SER
4	AE	133	LYS
4	AE	144	ARG
4	AE	174	ASP

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Mol	Chain	Res	Type
5	AF	134	GLY
6	AG	61	ALA
6	AG	74	LYS
7	AH	27	LYS
7	AH	33	LEU
7	AH	85	LYS
7	AH	137	ASP
8	AK	11	ASN
8	AK	101	LEU
8	AK	102	SER
8	AK	118	LYS
9	AM	6	PRO
9	AM	19	GLU
9	AM	42	TRP
9	AM	47	ALA
9	AM	104	LYS
9	AM	127	ASP
10	AN	5	GLN
10	AN	91	LEU
11	AO	12	ALA
11	AO	43	GLY
12	AP	6	ARG
13	A0	56	LYS
13	A0	61	HIS
15	AR	3	ARG
15	AR	12	SER
15	AR	101	PHE
15	AR	108	ARG
15	AR	136	GLN
16	A1	79	PHE
16	A1	112	ARG
17	A2	36	PRO
18	AS	65	LEU
21	AV	110	GLY
21	AV	121	HIS
21	AV	152	ALA
21	AV	173	ALA
22	A3	61	ALA
22	A3	83	PRO
23	AZ	40	ARG
26	A4	24	THR
27	A5	42	PRO

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Mol	Chain	Res	Type
27	A5	43	HIS
27	A5	49	CYS
28	A6	15	GLU
29	A7	2	LYS
30	A8	36	LYS
32	BE	6	THR
32	BE	83	MET
32	BE	117	GLU
32	BE	220	ASP
33	BF	12	LEU
33	BF	29	TYR
33	BF	33	LEU
33	BF	61	ALA
33	BF	161	GLU
34	BG	28	SER
34	BG	32	ALA
34	BG	172	PRO
35	BH	21	ALA
35	BH	70	PRO
35	BH	112	LEU
36	BI	16	GLN
37	BJ	138	LYS
37	BJ	148	ASN
38	BK	77	GLU
39	BL	25	LYS
39	BL	34	ASN
39	BL	96	LEU
41	BN	91	ARG
42	BO	106	ASP
43	BP	7	VAL
43	BP	67	GLU
44	BQ	9	LYS
44	BQ	12	ARG
44	BQ	36	PHE
44	BQ	48	ALA
45	BR	87	ILE
46	BS	49	LEU
46	BS	58	TYR
47	BT	67	LYS
49	BV	41	VAL
50	BW	102	GLY
51	BX	9	ARG

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Mol	Chain	Res	Type
32	CE	32	ILE
32	CE	45	GLN
32	CE	80	ILE
32	CE	125	PRO
32	CE	128	GLU
32	CE	159	PRO
32	CE	217	ARG
33	CF	8	ILE
33	CF	46	GLU
33	CF	117	ALA
33	CF	134	ILE
34	CG	25	ARG
34	CG	73	ARG
35	CH	37	ARG
36	CI	40	VAL
36	CI	42	GLU
37	CJ	116	ALA
38	CK	20	TYR
38	CK	100	ILE
39	CL	40	LEU
39	CL	78	LYS
40	CM	18	ALA
42	CO	105	TYR
43	CP	31	LYS
43	CP	94	ARG
43	CP	104	ARG
45	CR	10	LYS
46	CS	7	ALA
46	CS	11	SER
46	CS	52	ASP
48	CU	87	ARG
49	CV	63	THR
49	CV	72	GLY
50	CW	31	SER
50	CW	74	LYS
3	DD	3	VAL
3	DD	271	ILE
4	DE	9	VAL
4	DE	27	LEU
4	DE	39	PRO
4	DE	55	ASN
4	DE	82	ARG

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Mol	Chain	Res	Type
4	DE	119	ARG
4	DE	132	HIS
4	DE	203	LYS
5	DF	69	HIS
5	DF	70	THR
6	DG	47	LYS
7	DH	5	GLY
7	DH	130	ARG
7	DH	145	ALA
7	DH	160	LYS
8	DK	30	LEU
8	DK	73	GLU
8	DK	113	ARG
8	DK	115	ALA
9	DM	23	LEU
9	DM	58	ASP
10	DN	4	PRO
10	DN	12	ASP
10	DN	89	ASN
11	DO	29	LYS
11	DO	102	ARG
11	DO	141	ALA
12	DP	59	ARG
12	DP	114	ALA
13	D0	30	THR
13	D0	45	ARG
13	D0	60	LEU
14	DQ	55	ALA
14	DQ	93	LYS
16	D1	93	LYS
16	D1	99	ALA
16	D1	104	GLN
17	D2	71	LEU
18	DS	18	ARG
18	DS	41	LYS
18	DS	56	ALA
20	DU	99	CYS
21	DV	62	PRO
21	DV	104	PHE
21	DV	116	VAL
21	DV	130	PRO
21	DV	141	VAL

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Mol	Chain	Res	Type
21	DV	162	GLU
21	DV	171	ILE
26	D4	3	GLU
26	D4	32	TYR
26	D4	42	PHE
27	D5	49	CYS
28	D6	16	CYS
28	D6	44	ARG
28	D6	45	LYS
30	D8	32	LEU
3	AD	123	ALA
4	AE	22	PRO
4	AE	33	VAL
4	AE	55	ASN
5	AF	152	GLU
6	AG	84	LYS
6	AG	97	ASP
7	AH	86	GLU
7	AH	127	GLU
8	AK	117	GLU
9	AM	22	THR
11	AO	35	HIS
11	AO	62	LEU
11	AO	65	ARG
11	AO	95	VAL
11	AO	139	LYS
13	A0	29	LEU
15	AR	2	ASN
15	AR	36	GLU
15	AR	37	GLY
16	A1	89	GLU
18	AS	49	LYS
20	AU	56	PRO
20	AU	96	ILE
21	AV	13	GLU
21	AV	141	VAL
21	AV	156	LYS
23	AZ	92	LYS
25	AX	40	THR
25	AX	41	PRO
27	A5	36	CYS
32	BE	54	THR

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Mol	Chain	Res	Type
32	BE	153	ARG
32	BE	232	PRO
33	BF	157	ILE
33	BF	181	ASN
34	BG	75	PHE
34	BG	208	SER
38	BK	107	LEU
39	BL	119	ALA
41	BN	104	GLN
42	BO	19	ARG
42	BO	64	TYR
42	BO	115	LYS
43	BP	4	ILE
43	BP	87	TYR
45	BR	23	GLY
46	BS	46	PRO
48	BU	41	LYS
48	BU	59	SER
49	BV	43	GLU
50	BW	12	ALA
50	BW	95	ALA
51	BX	7	ARG
34	CG	17	VAL
35	CH	112	LEU
37	CJ	8	GLU
38	CK	6	ILE
38	CK	48	TYR
38	CK	97	VAL
39	CL	55	ALA
42	CO	25	PRO
42	CO	31	PRO
42	CO	79	GLU
43	CP	82	MET
43	CP	85	GLY
46	CS	72	ARG
46	CS	83	GLU
47	CT	49	GLU
47	CT	99	SER
50	CW	73	HIS
50	CW	105	SER
3	DD	45	ASN
3	DD	134	ARG

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Mol	Chain	Res	Type
4	DE	62	PRO
4	DE	86	PRO
4	DE	89	ASP
4	DE	90	THR
5	DF	176	LEU
6	DG	64	THR
6	DG	82	LEU
6	DG	117	PHE
7	DH	37	VAL
7	DH	85	LYS
8	DK	42	SER
9	DM	42	TRP
9	DM	56	ASN
11	DO	70	GLN
11	DO	104	GLY
11	DO	133	SER
11	DO	136	GLU
11	DO	137	LYS
11	DO	148	LEU
14	DQ	107	GLU
17	D2	37	VAL
17	D2	38	LEU
18	DS	48	ALA
19	DT	19	ALA
20	DU	50	ARG
20	DU	90	LEU
21	DV	30	ASN
21	DV	59	LEU
21	DV	63	ASP
21	DV	156	LYS
22	D3	18	ALA
23	DZ	75	GLU
23	DZ	92	LYS
24	DW	17	SER
26	D4	10	VAL
26	D4	23	GLU
26	D4	56	VAL
28	D6	19	ARG
30	D8	13	ARG
30	D8	38	GLY
30	D8	53	PRO
3	AD	35	LYS

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Mol	Chain	Res	Type
3	AD	64	ILE
3	AD	239	ARG
4	AE	52	LEU
5	AF	23	ASP
5	AF	66	PRO
5	AF	130	ALA
6	AG	81	LYS
6	AG	146	TYR
7	AH	80	SER
8	AK	7	GLU
8	AK	13	GLY
9	AM	9	VAL
9	AM	18	ALA
9	AM	63	THR
12	AP	90	VAL
14	AQ	57	LYS
15	AR	125	ARG
18	AS	93	ALA
20	AU	3	VAL
20	AU	5	MET
20	AU	69	ALA
26	A4	25	TYR
26	A4	28	LYS
26	A4	59	PHE
27	A5	47	PRO
32	BE	15	VAL
32	BE	59	GLU
32	BE	76	GLN
32	BE	204	ASN
32	BE	217	ARG
32	BE	224	GLN
32	BE	234	PRO
34	BG	150	GLU
34	BG	156	GLU
36	BI	40	VAL
36	BI	42	GLU
37	BJ	140	ASP
39	BL	29	ASN
42	BO	123	LYS
43	BP	5	ALA
49	BV	9	VAL
32	CE	36	ARG

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Mol	Chain	Res	Type
32	CE	44	LEU
32	CE	46	LYS
32	CE	130	ARG
32	CE	204	ASN
33	CF	15	THR
33	CF	16	ARG
33	CF	64	VAL
33	CF	142	MET
34	CG	152	SER
34	CG	160	GLN
37	CJ	29	LYS
37	CJ	32	ARG
37	CJ	119	ARG
37	CJ	121	ALA
38	CK	73	ASP
39	CL	70	LYS
39	CL	107	ARG
41	CN	55	LYS
41	CN	57	THR
42	CO	6	THR
42	CO	45	PRO
43	CP	57	ARG
44	CQ	52	GLN
47	CT	12	SER
47	CT	98	LEU
49	CV	66	MET
50	CW	90	GLN
3	DD	224	ALA
3	DD	240	ALA
4	DE	154	LYS
5	DF	11	VAL
5	DF	62	ARG
5	DF	132	VAL
6	DG	56	ALA
7	DH	8	PRO
7	DH	20	ALA
8	DK	7	GLU
8	DK	100	ALA
8	DK	123	LEU
9	DM	40	PRO
9	DM	111	PRO
10	DN	42	SER

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Mol	Chain	Res	Type
11	DO	8	PRO
11	DO	71	VAL
11	DO	117	GLU
12	DP	51	ARG
12	DP	90	VAL
12	DP	104	PHE
13	D0	53	HIS
13	D0	107	ASP
15	DR	116	ALA
17	D2	89	GLN
18	DS	93	ALA
19	DT	51	VAL
20	DU	52	SER
20	DU	60	PHE
22	D3	64	ASP
26	D4	2	LYS
27	D5	42	PRO
28	D6	52	VAL
29	D7	2	LYS
4	AE	4	ILE
4	AE	17	ASP
4	AE	200	GLU
6	AG	117	PHE
7	AH	7	LEU
7	AH	11	VAL
7	AH	50	VAL
8	AK	113	ARG
8	AK	133	HIS
12	AP	11	LYS
15	AR	112	ARG
15	AR	126	ALA
26	A4	50	VAL
28	A6	49	HIS
32	BE	169	LYS
32	BE	208	ILE
33	BF	53	ALA
35	BH	115	VAL
40	BM	36	GLY
41	BN	127	LYS
45	BR	73	GLU
47	BT	34	LYS
49	BV	8	GLY

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Mol	Chain	Res	Type
49	BV	79	THR
50	BW	97	ALA
33	CF	109	PRO
35	CH	49	PRO
37	CJ	141	VAL
38	CK	123	GLU
40	CM	93	GLY
43	CP	36	LYS
43	CP	84	ILE
45	CR	36	ILE
46	CS	66	PRO
49	CV	30	LEU
49	CV	67	VAL
49	CV	79	THR
4	DE	52	LEU
4	DE	186	GLY
6	DG	118	ARG
7	DH	17	VAL
12	DP	4	PRO
12	DP	77	LYS
15	DR	20	PRO
17	D2	75	PHE
17	D2	100	ARG
20	DU	31	LEU
20	DU	86	ARG
21	DV	128	VAL
21	DV	143	GLY
26	D4	35	VAL
30	D8	41	ILE
12	AP	70	PRO
16	A1	9	VAL
29	A7	17	GLY
34	BG	7	PRO
46	BS	41	PRO
32	CE	233	SER
39	CL	21	PRO
3	DD	127	VAL
7	DH	4	ILE
9	DM	55	VAL
11	DO	20	GLY
11	DO	97	PRO
13	D0	52	ILE

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Mol	Chain	Res	Type
16	D1	90	VAL
17	D2	46	VAL
23	DZ	30	VAL
26	D4	22	ILE
4	AE	61	ARG
9	AM	46	VAL
10	AN	93	PRO
16	A1	88	ILE
24	AW	17	SER
27	A5	34	PRO
34	BG	142	PRO
32	CE	230	VAL
33	CF	130	VAL
34	CG	172	PRO
35	CH	13	ILE
43	CP	38	GLY
50	CW	63	ILE
10	DN	27	GLY
11	DO	62	LEU
18	DS	47	VAL
20	DU	41	GLY
22	D3	47	PRO
26	D4	54	GLY
3	AD	125	ILE
5	AF	57	VAL
16	A1	65	ILE
16	A1	82	GLY
26	A4	35	VAL
30	A8	53	PRO
32	BE	14	GLY
46	BS	63	GLY
48	BU	27	GLY
42	CO	14	GLY
49	CV	45	VAL
5	DF	206	ILE
6	DG	63	ILE
6	DG	109	VAL
16	D1	73	GLY
21	DV	95	PRO
4	AE	50	GLY
12	AP	15	GLY
16	A1	80	ILE

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Mol	Chain	Res	Type
37	BJ	81	GLY
42	BO	74	GLY
33	CF	80	GLY
34	CG	105	VAL
35	CH	96	PRO
4	DE	56	PRO
9	DM	94	HIS
13	D0	39	PRO
20	DU	44	ILE
20	DU	53	PRO
20	DU	55	TYR
21	DV	47	VAL
21	DV	61	LEU
21	DV	157	LEU
11	AO	109	GLY
38	BK	129	VAL
43	BP	45	VAL
47	BT	77	VAL
5	DF	28	ILE
7	DH	7	LEU
11	DO	24	GLY
14	DQ	82	ILE
19	DT	61	GLY
21	DV	37	VAL
21	DV	177	PRO
3	AD	36	PRO
21	DV	176	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	AD	214/218 (98%)	154 (72%)	60 (28%)	0 1
3	DD	214/218 (98%)	164 (77%)	50 (23%)	1 3
4	AE	165/166 (99%)	131 (79%)	34 (21%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	DE	165/166 (99%)	120 (73%)	45 (27%)	0	1
5	AF	161/166 (97%)	126 (78%)	35 (22%)	1	4
5	DF	165/166 (99%)	130 (79%)	35 (21%)	1	4
6	AG	155/156 (99%)	124 (80%)	31 (20%)	1	5
6	DG	155/156 (99%)	128 (83%)	27 (17%)	2	8
7	AH	142/148 (96%)	112 (79%)	30 (21%)	1	4
7	DH	142/148 (96%)	116 (82%)	26 (18%)	1	7
8	AK	122/124 (98%)	97 (80%)	25 (20%)	1	4
8	DK	122/124 (98%)	100 (82%)	22 (18%)	1	7
9	AM	117/119 (98%)	87 (74%)	30 (26%)	0	2
9	DM	117/119 (98%)	82 (70%)	35 (30%)	0	1
10	AN	100/100 (100%)	81 (81%)	19 (19%)	1	6
10	DN	100/100 (100%)	84 (84%)	16 (16%)	2	11
11	AO	116/116 (100%)	81 (70%)	35 (30%)	0	1
11	DO	116/116 (100%)	77 (66%)	39 (34%)	0	1
12	AP	111/111 (100%)	88 (79%)	23 (21%)	1	4
12	DP	111/111 (100%)	79 (71%)	32 (29%)	0	1
13	A0	101/101 (100%)	77 (76%)	24 (24%)	0	2
13	D0	100/101 (99%)	80 (80%)	20 (20%)	1	5
14	AQ	87/88 (99%)	63 (72%)	24 (28%)	0	1
14	DQ	87/88 (99%)	66 (76%)	21 (24%)	0	2
15	AR	120/127 (94%)	97 (81%)	23 (19%)	1	6
15	DR	120/127 (94%)	90 (75%)	30 (25%)	0	2
16	A1	93/94 (99%)	71 (76%)	22 (24%)	1	2
16	D1	93/94 (99%)	77 (83%)	16 (17%)	2	9
17	A2	82/82 (100%)	58 (71%)	24 (29%)	0	1
17	D2	82/82 (100%)	53 (65%)	29 (35%)	0	0
18	AS	92/92 (100%)	69 (75%)	23 (25%)	0	2
18	DS	92/92 (100%)	72 (78%)	20 (22%)	1	4
19	AT	74/78 (95%)	58 (78%)	16 (22%)	1	4
19	DT	74/78 (95%)	56 (76%)	18 (24%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
20	AU	85/91 (93%)	65 (76%)	20 (24%)	1 3
20	DU	85/91 (93%)	57 (67%)	28 (33%)	0 1
21	AV	154/179 (86%)	126 (82%)	28 (18%)	1 7
21	DV	158/179 (88%)	133 (84%)	25 (16%)	2 11
22	A3	61/67 (91%)	48 (79%)	13 (21%)	1 4
22	D3	62/67 (92%)	55 (89%)	7 (11%)	6 22
23	AZ	82/83 (99%)	64 (78%)	18 (22%)	1 3
23	DZ	82/83 (99%)	64 (78%)	18 (22%)	1 3
24	AW	62/67 (92%)	44 (71%)	18 (29%)	0 1
24	DW	62/67 (92%)	48 (77%)	14 (23%)	1 3
25	AX	51/52 (98%)	42 (82%)	9 (18%)	2 8
25	DX	51/52 (98%)	41 (80%)	10 (20%)	1 5
26	A4	59/63 (94%)	49 (83%)	10 (17%)	2 9
26	D4	57/63 (90%)	45 (79%)	12 (21%)	1 4
27	A5	51/52 (98%)	39 (76%)	12 (24%)	1 3
27	D5	51/52 (98%)	43 (84%)	8 (16%)	2 12
28	A6	44/52 (85%)	32 (73%)	12 (27%)	0 1
28	D6	44/52 (85%)	38 (86%)	6 (14%)	3 16
29	A7	38/42 (90%)	32 (84%)	6 (16%)	2 11
29	D7	38/42 (90%)	29 (76%)	9 (24%)	1 2
30	A8	50/55 (91%)	36 (72%)	14 (28%)	0 1
30	D8	50/55 (91%)	35 (70%)	15 (30%)	0 1
32	BE	205/220 (93%)	167 (82%)	38 (18%)	1 7
32	CE	205/220 (93%)	168 (82%)	37 (18%)	1 7
33	BF	159/188 (85%)	127 (80%)	32 (20%)	1 5
33	CF	160/188 (85%)	132 (82%)	28 (18%)	2 8
34	BG	180/180 (100%)	149 (83%)	31 (17%)	2 9
34	CG	180/180 (100%)	143 (79%)	37 (21%)	1 4
35	BH	116/123 (94%)	89 (77%)	27 (23%)	1 3
35	CH	116/123 (94%)	89 (77%)	27 (23%)	1 3
36	BI	90/90 (100%)	80 (89%)	10 (11%)	6 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
36	CI	90/90 (100%)	78 (87%)	12 (13%)	4 17
37	BJ	126/127 (99%)	96 (76%)	30 (24%)	0 2
37	CJ	126/127 (99%)	103 (82%)	23 (18%)	1 7
38	BK	119/119 (100%)	95 (80%)	24 (20%)	1 5
38	CK	119/119 (100%)	101 (85%)	18 (15%)	3 13
39	BL	98/99 (99%)	77 (79%)	21 (21%)	1 4
39	CL	98/99 (99%)	73 (74%)	25 (26%)	0 2
40	BM	89/92 (97%)	73 (82%)	16 (18%)	1 7
40	CM	89/92 (97%)	72 (81%)	17 (19%)	1 6
41	BN	90/99 (91%)	76 (84%)	14 (16%)	2 12
41	CN	90/99 (91%)	79 (88%)	11 (12%)	5 20
42	BO	104/109 (95%)	84 (81%)	20 (19%)	1 6
42	CO	104/109 (95%)	80 (77%)	24 (23%)	1 3
43	BP	94/101 (93%)	77 (82%)	17 (18%)	1 7
43	CP	94/101 (93%)	76 (81%)	18 (19%)	1 6
44	BQ	48/50 (96%)	35 (73%)	13 (27%)	0 1
44	CQ	48/50 (96%)	38 (79%)	10 (21%)	1 4
45	BR	79/80 (99%)	69 (87%)	10 (13%)	4 19
45	CR	79/80 (99%)	65 (82%)	14 (18%)	2 8
46	BS	72/74 (97%)	58 (81%)	14 (19%)	1 5
46	CS	72/74 (97%)	60 (83%)	12 (17%)	2 10
47	BT	95/97 (98%)	78 (82%)	17 (18%)	2 8
47	CT	95/97 (98%)	82 (86%)	13 (14%)	3 16
48	BU	63/77 (82%)	53 (84%)	10 (16%)	2 11
48	CU	63/77 (82%)	53 (84%)	10 (16%)	2 11
49	BV	67/80 (84%)	50 (75%)	17 (25%)	0 2
49	CV	67/80 (84%)	47 (70%)	20 (30%)	0 1
50	BW	76/82 (93%)	64 (84%)	12 (16%)	2 11
50	CW	76/82 (93%)	63 (83%)	13 (17%)	2 9
51	BX	20/22 (91%)	20 (100%)	0	100 100
51	CX	20/22 (91%)	18 (90%)	2 (10%)	7 27

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9565/9996 (96%)	7550 (79%)	2015 (21%)	1 4

All (2015) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AD	3	VAL
3	AD	6	PHE
3	AD	10	THR
3	AD	13	ARG
3	AD	17	THR
3	AD	18	VAL
3	AD	25	THR
3	AD	26	LYS
3	AD	27	THR
3	AD	28	GLU
3	AD	31	LYS
3	AD	35	LYS
3	AD	37	LEU
3	AD	38	LYS
3	AD	43	ARG
3	AD	44	ASN
3	AD	46	GLN
3	AD	52	ARG
3	AD	61	LEU
3	AD	64	ILE
3	AD	65	ILE
3	AD	71	ASP
3	AD	73	VAL
3	AD	91	ARG
3	AD	94	LEU
3	AD	95	LEU
3	AD	103	ARG
3	AD	105	ILE
3	AD	106	ILE
3	AD	112	GLN
3	AD	116	GLN
3	AD	125	ILE
3	AD	136	ILE
3	AD	140	THR
3	AD	141	VAL
3	AD	155	LEU
3	AD	157	ARG

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Mol	Chain	Res	Type
3	AD	162	SER
3	AD	165	ILE
3	AD	166	GLN
3	AD	169	GLU
3	AD	177	LEU
3	AD	192	THR
3	AD	202	LYS
3	AD	208	LYS
3	AD	212	SER
3	AD	213	ARG
3	AD	217	ARG
3	AD	229	VAL
3	AD	230	ASP
3	AD	237	GLU
3	AD	242	ARG
3	AD	257	LEU
3	AD	259	THR
3	AD	260	ARG
3	AD	261	LYS
3	AD	262	ARG
3	AD	266	SER
3	AD	268	ARG
3	AD	271	ILE
4	AE	2	LYS
4	AE	12	THR
4	AE	13	ARG
4	AE	16	ARG
4	AE	25	VAL
4	AE	26	ILE
4	AE	33	VAL
4	AE	41	LYS
4	AE	42	ASP
4	AE	47	VAL
4	AE	57	LYS
4	AE	63	LEU
4	AE	66	HIS
4	AE	67	PHE
4	AE	75	VAL
4	AE	79	ARG
4	AE	91	VAL
4	AE	92	THR
4	AE	101	ARG

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Mol	Chain	Res	Type
4	AE	107	THR
4	AE	111	ARG
4	AE	113	PHE
4	AE	116	VAL
4	AE	119	ARG
4	AE	144	ARG
4	AE	146	THR
4	AE	167	VAL
4	AE	171	GLU
4	AE	181	LEU
4	AE	188	VAL
4	AE	199	ARG
4	AE	200	GLU
4	AE	202	LYS
4	AE	203	LYS
5	AF	8	GLN
5	AF	9	ILE
5	AF	23	ASP
5	AF	33	LEU
5	AF	37	VAL
5	AF	43	LYS
5	AF	45	ARG
5	AF	46	ARG
5	AF	48	THR
5	AF	50	SER
5	AF	57	VAL
5	AF	64	ILE
5	AF	65	TRP
5	AF	67	GLN
5	AF	70	THR
5	AF	72	ARG
5	AF	78	ILE
5	AF	82	ILE
5	AF	88	VAL
5	AF	100	THR
5	AF	101	LEU
5	AF	108	LYS
5	AF	127	GLU
5	AF	136	THR
5	AF	156	LEU
5	AF	158	THR
5	AF	161	GLU

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Mol	Chain	Res	Type
5	AF	162	LEU
5	AF	170	LEU
5	AF	174	VAL
5	AF	181	LEU
5	AF	183	VAL
5	AF	196	LEU
5	AF	204	ASN
5	AF	206	ILE
6	AG	10	LYS
6	AG	20	ILE
6	AG	21	ARG
6	AG	26	GLN
6	AG	28	VAL
6	AG	31	VAL
6	AG	33	ARG
6	AG	34	LEU
6	AG	48	GLU
6	AG	52	ILE
6	AG	67	LYS
6	AG	77	ILE
6	AG	80	PHE
6	AG	82	LEU
6	AG	88	ILE
6	AG	90	LEU
6	AG	93	THR
6	AG	94	LEU
6	AG	101	ILE
6	AG	118	ARG
6	AG	130	ASN
6	AG	139	LEU
6	AG	145	THR
6	AG	146	TYR
6	AG	157	ILE
6	AG	160	VAL
6	AG	162	THR
6	AG	165	THR
6	AG	166	ASP
6	AG	167	GLU
6	AG	176	LEU
7	AH	3	ARG
7	AH	4	ILE
7	AH	7	LEU

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Mol	Chain	Res	Type
7	AH	11	VAL
7	AH	13	LYS
7	AH	18	GLU
7	AH	24	VAL
7	AH	32	GLU
7	AH	33	LEU
7	AH	41	MET
7	AH	50	VAL
7	AH	57	ASP
7	AH	60	ARG
7	AH	83	TYR
7	AH	84	SER
7	AH	88	LEU
7	AH	95	ARG
7	AH	105	LEU
7	AH	107	VAL
7	AH	116	GLU
7	AH	122	THR
7	AH	129	THR
7	AH	131	VAL
7	AH	132	ARG
7	AH	137	ASP
7	AH	139	GLN
7	AH	149	ARG
7	AH	153	LYS
7	AH	158	HIS
7	AH	169	VAL
8	AK	2	LYS
8	AK	6	LEU
8	AK	9	LEU
8	AK	11	ASN
8	AK	20	ASP
8	AK	33	ARG
8	AK	35	LEU
8	AK	37	VAL
8	AK	38	LEU
8	AK	41	GLU
8	AK	44	LEU
8	AK	51	ILE
8	AK	57	ARG
8	AK	67	ARG
8	AK	68	LEU

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Mol	Chain	Res	Type
8	AK	77	LEU
8	AK	85	GLU
8	AK	92	VAL
8	AK	95	LYS
8	AK	110	ASP
8	AK	113	ARG
8	AK	131	LYS
8	AK	135	GLU
8	AK	140	LEU
8	AK	144	VAL
9	AM	1	MET
9	AM	2	LYS
9	AM	5	VAL
9	AM	7	LYS
9	AM	10	GLU
9	AM	22	THR
9	AM	32	THR
9	AM	34	LEU
9	AM	35	ARG
9	AM	39	ARG
9	AM	43	THR
9	AM	46	VAL
9	AM	48	MET
9	AM	55	VAL
9	AM	58	ASP
9	AM	60	ILE
9	AM	61	ARG
9	AM	67	LEU
9	AM	75	TYR
9	AM	87	LEU
9	AM	90	MET
9	AM	96	GLU
9	AM	97	ARG
9	AM	99	LEU
9	AM	103	VAL
9	AM	106	MET
9	AM	120	LEU
9	AM	131	GLN
9	AM	133	GLN
9	AM	137	LYS
10	AN	8	LEU
10	AN	9	GLU

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Mol	Chain	Res	Type
10	AN	22	ILE
10	AN	23	ARG
10	AN	24	VAL
10	AN	31	LYS
10	AN	32	TYR
10	AN	34	THR
10	AN	35	VAL
10	AN	38	VAL
10	AN	39	ILE
10	AN	52	VAL
10	AN	70	LYS
10	AN	88	ASN
10	AN	91	LEU
10	AN	94	ARG
10	AN	109	LYS
10	AN	113	LYS
10	AN	116	SER
11	AO	3	LEU
11	AO	14	LYS
11	AO	15	ARG
11	AO	16	ARG
11	AO	21	ARG
11	AO	30	THR
11	AO	32	THR
11	AO	38	GLN
11	AO	41	ARG
11	AO	45	LEU
11	AO	46	LYS
11	AO	49	ARG
11	AO	50	ARG
11	AO	58	THR
11	AO	59	LEU
11	AO	62	LEU
11	AO	65	ARG
11	AO	67	MET
11	AO	68	GLN
11	AO	75	ILE
11	AO	81	GLN
11	AO	88	LEU
11	AO	90	ARG
11	AO	101	VAL
11	AO	105	LEU

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Mol	Chain	Res	Type
11	AO	106	LEU
11	AO	108	LYS
11	AO	112	LEU
11	AO	121	LYS
11	AO	126	VAL
11	AO	135	LEU
11	AO	138	LEU
11	AO	144	GLU
11	AO	146	VAL
11	AO	147	LEU
12	AP	1	MET
12	AP	2	LEU
12	AP	3	MET
12	AP	10	ARG
12	AP	18	LYS
12	AP	21	THR
12	AP	25	ASP
12	AP	26	TYR
12	AP	45	GLN
12	AP	55	VAL
12	AP	67	ARG
12	AP	76	LYS
12	AP	79	LEU
12	AP	82	ARG
12	AP	83	MET
12	AP	87	LYS
12	AP	90	VAL
12	AP	106	VAL
12	AP	110	THR
12	AP	112	GLU
12	AP	120	ILE
12	AP	133	ARG
12	AP	138	ASP
13	A0	1	MET
13	A0	6	SER
13	A0	9	LYS
13	A0	15	SER
13	A0	27	SER
13	A0	28	LEU
13	A0	29	LEU
13	A0	30	THR
13	A0	36	THR

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Mol	Chain	Res	Type
13	A0	40	LYS
13	A0	44	LEU
13	A0	45	ARG
13	A0	59	ASP
13	A0	72	ASP
13	A0	74	LYS
13	A0	75	LEU
13	A0	91	GLN
13	A0	94	TYR
13	A0	105	ARG
13	A0	107	ASP
13	A0	113	LEU
13	A0	114	VAL
13	A0	117	VAL
13	A0	118	GLU
14	AQ	5	THR
14	AQ	8	GLU
14	AQ	14	VAL
14	AQ	24	LEU
14	AQ	29	PHE
14	AQ	30	ARG
14	AQ	35	ILE
14	AQ	36	TYR
14	AQ	40	ILE
14	AQ	42	ASP
14	AQ	43	GLU
14	AQ	52	SER
14	AQ	54	LEU
14	AQ	58	LEU
14	AQ	73	LEU
14	AQ	78	LEU
14	AQ	80	LEU
14	AQ	83	LYS
14	AQ	89	ARG
14	AQ	97	ARG
14	AQ	98	VAL
14	AQ	101	LEU
14	AQ	106	ARG
14	AQ	111	GLU
15	AR	11	GLU
15	AR	13	ARG
15	AR	15	VAL

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Mol	Chain	Res	Type
15	AR	16	ARG
15	AR	22	PHE
15	AR	27	THR
15	AR	30	VAL
15	AR	38	ASN
15	AR	39	ARG
15	AR	41	ARG
15	AR	49	VAL
15	AR	50	ILE
15	AR	51	ARG
15	AR	74	ARG
15	AR	86	ILE
15	AR	87	ASP
15	AR	88	ILE
15	AR	89	VAL
15	AR	99	LEU
15	AR	105	LEU
15	AR	108	ARG
15	AR	111	ARG
15	AR	128	GLU
16	A1	5	LYS
16	A1	20	LEU
16	A1	27	LEU
16	A1	34	LYS
16	A1	47	TYR
16	A1	56	ASP
16	A1	58	ARG
16	A1	59	ARG
16	A1	60	LEU
16	A1	70	ARG
16	A1	74	LEU
16	A1	76	TYR
16	A1	78	THR
16	A1	79	PHE
16	A1	83	LEU
16	A1	92	ARG
16	A1	101	ARG
16	A1	104	GLN
16	A1	108	GLU
16	A1	109	LEU
16	A1	111	GLU
16	A1	112	ARG

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Mol	Chain	Res	Type
17	A2	1	MET
17	A2	6	LYS
17	A2	15	GLU
17	A2	18	LEU
17	A2	21	ARG
17	A2	24	LYS
17	A2	34	GLU
17	A2	35	LEU
17	A2	40	LEU
17	A2	45	THR
17	A2	47	VAL
17	A2	49	THR
17	A2	52	VAL
17	A2	57	VAL
17	A2	62	LEU
17	A2	64	HIS
17	A2	69	LYS
17	A2	72	VAL
17	A2	73	SER
17	A2	83	ARG
17	A2	88	ARG
17	A2	89	GLN
17	A2	99	ILE
17	A2	100	ARG
18	AS	1	MET
18	AS	11	ARG
18	AS	28	SER
18	AS	39	THR
18	AS	41	LYS
18	AS	51	LEU
18	AS	57	ASN
18	AS	66	GLU
18	AS	67	ASP
18	AS	68	ARG
18	AS	69	LEU
18	AS	70	TYR
18	AS	76	VAL
18	AS	78	GLU
18	AS	83	LYS
18	AS	84	ARG
18	AS	85	VAL
18	AS	88	ARG

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Mol	Chain	Res	Type
18	AS	92	ARG
18	AS	94	ASP
18	AS	96	ILE
18	AS	100	THR
18	AS	107	LEU
19	AT	7	VAL
19	AT	12	VAL
19	AT	23	GLU
19	AT	30	VAL
19	AT	35	THR
19	AT	37	THR
19	AT	41	ASN
19	AT	45	THR
19	AT	49	VAL
19	AT	65	ARG
19	AT	69	TYR
19	AT	76	ARG
19	AT	80	ILE
19	AT	81	VAL
19	AT	83	VAL
19	AT	88	LYS
20	AU	6	HIS
20	AU	14	LEU
20	AU	26	LYS
20	AU	27	VAL
20	AU	33	LYS
20	AU	34	LYS
20	AU	38	ILE
20	AU	44	ILE
20	AU	57	GLN
20	AU	61	ILE
20	AU	64	GLU
20	AU	75	ILE
20	AU	76	CYS
20	AU	79	CYS
20	AU	84	ARG
20	AU	86	ARG
20	AU	90	LEU
20	AU	97	ARG
20	AU	98	VAL
20	AU	102	CYS
21	AV	1	MET

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Mol	Chain	Res	Type
21	AV	5	LEU
21	AV	20	ARG
21	AV	30	ASN
21	AV	39	VAL
21	AV	53	ILE
21	AV	59	LEU
21	AV	61	LEU
21	AV	71	VAL
21	AV	72	ARG
21	AV	76	LEU
21	AV	77	ASP
21	AV	78	LYS
21	AV	82	ARG
21	AV	91	LEU
21	AV	96	VAL
21	AV	117	LEU
21	AV	118	GLN
21	AV	119	GLU
21	AV	122	ARG
21	AV	132	ASN
21	AV	135	GLU
21	AV	144	LEU
21	AV	148	ASP
21	AV	161	VAL
21	AV	163	LEU
21	AV	169	GLU
21	AV	171	ILE
22	A3	11	ARG
22	A3	19	LYS
22	A3	35	ASN
22	A3	36	ILE
22	A3	40	GLN
22	A3	41	ARG
22	A3	43	THR
22	A3	55	ARG
22	A3	59	LEU
22	A3	64	ASP
22	A3	67	VAL
22	A3	72	ARG
22	A3	80	HIS
23	AZ	2	SER
23	AZ	4	VAL

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Mol	Chain	Res	Type
23	AZ	8	SER
23	AZ	26	ARG
23	AZ	37	ILE
23	AZ	41	ARG
23	AZ	46	LEU
23	AZ	56	GLN
23	AZ	59	THR
23	AZ	62	VAL
23	AZ	65	SER
23	AZ	76	ARG
23	AZ	78	LYS
23	AZ	80	LEU
23	AZ	81	LYS
23	AZ	83	GLU
23	AZ	91	LYS
23	AZ	97	LEU
24	AW	5	GLU
24	AW	7	ARG
24	AW	9	GLN
24	AW	16	LEU
24	AW	24	LEU
24	AW	34	GLU
24	AW	35	LEU
24	AW	40	SER
24	AW	41	ILE
24	AW	47	ASN
24	AW	48	HIS
24	AW	50	ILE
24	AW	52	ASP
24	AW	53	LEU
24	AW	61	LEU
24	AW	62	THR
24	AW	64	LEU
24	AW	67	LYS
25	AX	8	LEU
25	AX	9	VAL
25	AX	13	ILE
25	AX	31	LEU
25	AX	32	GLN
25	AX	35	ARG
25	AX	37	LEU
25	AX	38	GLU

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Mol	Chain	Res	Type
25	AX	40	THR
26	A4	15	ILE
26	A4	16	CYS
26	A4	23	GLU
26	A4	27	THR
26	A4	40	HIS
26	A4	42	PHE
26	A4	51	ASP
26	A4	55	ARG
26	A4	61	ARG
26	A4	65	ASP
27	A5	3	LYS
27	A5	4	HIS
27	A5	6	VAL
27	A5	11	THR
27	A5	22	HIS
27	A5	31	VAL
27	A5	36	CYS
27	A5	39	MET
27	A5	40	LYS
27	A5	44	THR
27	A5	48	GLU
27	A5	56	LYS
28	A6	10	LEU
28	A6	12	GLU
28	A6	17	LYS
28	A6	23	THR
28	A6	26	ASN
28	A6	27	LYS
28	A6	33	LYS
28	A6	36	LEU
28	A6	37	ARG
28	A6	39	TYR
28	A6	42	TRP
28	A6	44	ARG
29	A7	1	MET
29	A7	4	THR
29	A7	8	ASN
29	A7	12	ARG
29	A7	23	ARG
29	A7	42	LEU
30	A8	15	LYS

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Mol	Chain	Res	Type
30	A8	29	LYS
30	A8	31	HIS
30	A8	32	LEU
30	A8	33	ASN
30	A8	34	TRP
30	A8	35	GLN
30	A8	41	ILE
30	A8	44	LYS
30	A8	47	LYS
30	A8	52	LYS
30	A8	57	ARG
30	A8	58	ILE
30	A8	61	LEU
32	BE	8	LYS
32	BE	9	GLU
32	BE	15	VAL
32	BE	16	HIS
32	BE	21	ARG
32	BE	22	LYS
32	BE	23	ARG
32	BE	24	TRP
32	BE	32	ILE
32	BE	45	GLN
32	BE	60	ASP
32	BE	69	LEU
32	BE	71	VAL
32	BE	74	LYS
32	BE	75	LYS
32	BE	87	ARG
32	BE	94	ASN
32	BE	96	ARG
32	BE	97	TRP
32	BE	108	ILE
32	BE	111	ARG
32	BE	122	PHE
32	BE	144	ARG
32	BE	145	LEU
32	BE	154	LEU
32	BE	157	ARG
32	BE	158	LEU
32	BE	162	ILE
32	BE	172	ILE

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Mol	Chain	Res	Type
32	BE	178	ARG
32	BE	187	LEU
32	BE	189	ASP
32	BE	191	ASP
32	BE	193	ASP
32	BE	196	LEU
32	BE	200	ILE
32	BE	204	ASN
32	BE	209	ARG
33	BF	3	ASN
33	BF	4	LYS
33	BF	5	ILE
33	BF	6	HIS
33	BF	14	ILE
33	BF	17	ASP
33	BF	21	ARG
33	BF	26	LYS
33	BF	27	LYS
33	BF	29	TYR
33	BF	44	GLU
33	BF	52	LEU
33	BF	62	ASP
33	BF	77	ILE
33	BF	86	VAL
33	BF	94	LEU
33	BF	107	GLN
33	BF	120	VAL
33	BF	128	PHE
33	BF	161	GLU
33	BF	165	THR
33	BF	172	ARG
33	BF	177	THR
33	BF	178	LEU
33	BF	184	TYR
33	BF	188	LEU
33	BF	190	ARG
33	BF	191	THR
33	BF	192	THR
33	BF	196	LEU
33	BF	202	ILE
33	BF	206	GLU
34	BG	3	ARG

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Mol	Chain	Res	Type
34	BG	10	ARG
34	BG	12	CYS
34	BG	17	VAL
34	BG	19	LEU
34	BG	26	CYS
34	BG	33	MET
34	BG	45	GLN
34	BG	49	ARG
34	BG	58	LEU
34	BG	59	ARG
34	BG	66	ARG
34	BG	86	LYS
34	BG	104	VAL
34	BG	108	LEU
34	BG	110	PHE
34	BG	114	ARG
34	BG	119	GLN
34	BG	122	ARG
34	BG	126	ILE
34	BG	127	THR
34	BG	135	LEU
34	BG	138	TYR
34	BG	141	ARG
34	BG	154	ASN
34	BG	158	ILE
34	BG	177	ASP
34	BG	182	LYS
34	BG	187	ARG
34	BG	194	LEU
34	BG	209	ARG
35	BH	5	ASP
35	BH	8	GLU
35	BH	11	ILE
35	BH	13	ILE
35	BH	18	ARG
35	BH	20	GLN
35	BH	26	PHE
35	BH	31	LEU
35	BH	33	VAL
35	BH	40	ARG
35	BH	41	VAL
35	BH	57	LYS

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Mol	Chain	Res	Type
35	BH	63	ARG
35	BH	67	VAL
35	BH	75	THR
35	BH	81	GLU
35	BH	87	SER
35	BH	90	VAL
35	BH	91	LEU
35	BH	101	ILE
35	BH	105	VAL
35	BH	121	LYS
35	BH	125	SER
35	BH	131	ILE
35	BH	147	ASP
35	BH	152	ARG
35	BH	153	LYS
36	BI	17	SER
36	BI	21	LEU
36	BI	23	LYS
36	BI	43	LEU
36	BI	63	TYR
36	BI	64	GLN
36	BI	75	LEU
36	BI	89	MET
36	BI	92	LYS
36	BI	93	SER
37	BJ	6	ARG
37	BJ	8	GLU
37	BJ	10	ARG
37	BJ	12	LEU
37	BJ	22	LEU
37	BJ	36	LYS
37	BJ	37	ASN
37	BJ	38	LEU
37	BJ	43	PHE
37	BJ	45	ASP
37	BJ	47	CYS
37	BJ	48	LYS
37	BJ	54	THR
37	BJ	57	GLU
37	BJ	63	LYS
37	BJ	68	ASN
37	BJ	78	ARG

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Mol	Chain	Res	Type
37	BJ	84	ASN
37	BJ	89	MET
37	BJ	90	GLU
37	BJ	104	LEU
37	BJ	109	ASN
37	BJ	113	GLU
37	BJ	118	VAL
37	BJ	124	LEU
37	BJ	131	LYS
37	BJ	141	VAL
37	BJ	146	GLU
37	BJ	155	ARG
37	BJ	156	TRP
38	BK	10	LEU
38	BK	26	VAL
38	BK	35	ILE
38	BK	41	ARG
38	BK	49	GLU
38	BK	50	ARG
38	BK	60	ARG
38	BK	63	LEU
38	BK	65	TYR
38	BK	67	PRO
38	BK	68	ARG
38	BK	75	ARG
38	BK	77	GLU
38	BK	80	ILE
38	BK	82	HIS
38	BK	84	ARG
38	BK	85	ARG
38	BK	91	ARG
38	BK	95	VAL
38	BK	102	ARG
38	BK	105	ARG
38	BK	120	THR
38	BK	122	ARG
38	BK	127	LEU
39	BL	7	THR
39	BL	9	ARG
39	BL	10	ARG
39	BL	23	ASN
39	BL	41	VAL

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Mol	Chain	Res	Type
39	BL	44	VAL
39	BL	47	LEU
39	BL	64	THR
39	BL	65	VAL
39	BL	70	LYS
39	BL	75	ASP
39	BL	79	LEU
39	BL	93	ARG
39	BL	95	LYS
39	BL	99	LEU
39	BL	108	VAL
39	BL	113	LYS
39	BL	114	TYR
39	BL	121	ARG
39	BL	125	TYR
39	BL	126	SER
40	BM	5	ARG
40	BM	13	HIS
40	BM	16	LEU
40	BM	17	ASP
40	BM	24	VAL
40	BM	42	THR
40	BM	43	ARG
40	BM	48	THR
40	BM	49	VAL
40	BM	60	ARG
40	BM	62	HIS
40	BM	66	ARG
40	BM	80	LYS
40	BM	92	THR
40	BM	96	ILE
40	BM	100	THR
41	BN	29	ILE
41	BN	30	VAL
41	BN	31	THR
41	BN	48	ILE
41	BN	51	LYS
41	BN	81	ASP
41	BN	84	VAL
41	BN	85	ARG
41	BN	92	GLU
41	BN	93	GLN

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Mol	Chain	Res	Type
41	BN	96	ARG
41	BN	105	VAL
41	BN	114	VAL
41	BN	119	CYS
42	BO	7	ILE
42	BO	18	VAL
42	BO	33	ARG
42	BO	36	VAL
42	BO	41	ARG
42	BO	43	VAL
42	BO	46	LYS
42	BO	52	LEU
42	BO	55	VAL
42	BO	57	LYS
42	BO	60	LEU
42	BO	67	THR
42	BO	79	GLU
42	BO	81	SER
42	BO	96	VAL
42	BO	99	HIS
42	BO	102	ARG
42	BO	111	LYS
42	BO	113	ARG
42	BO	117	ARG
43	BP	3	ARG
43	BP	13	LYS
43	BP	20	THR
43	BP	44	ARG
43	BP	48	LEU
43	BP	64	TRP
43	BP	65	LYS
43	BP	66	LEU
43	BP	70	LEU
43	BP	83	ASP
43	BP	86	CYS
43	BP	88	ARG
43	BP	101	GLN
43	BP	105	THR
43	BP	108	ARG
43	BP	110	ARG
43	BP	116	THR
44	BQ	12	ARG

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Mol	Chain	Res	Type
44	BQ	13	THR
44	BQ	18	VAL
44	BQ	23	ARG
44	BQ	24	CYS
44	BQ	27	CYS
44	BQ	29	ARG
44	BQ	32	SER
44	BQ	35	ARG
44	BQ	41	ARG
44	BQ	43	CYS
44	BQ	44	LEU
44	BQ	50	LYS
45	BR	6	GLU
45	BR	26	GLU
45	BR	35	ARG
45	BR	45	VAL
45	BR	47	LYS
45	BR	56	LEU
45	BR	62	GLN
45	BR	67	LEU
45	BR	76	GLU
45	BR	81	LEU
46	BS	2	VAL
46	BS	8	ARG
46	BS	11	SER
46	BS	32	TYR
46	BS	38	TYR
46	BS	43	LYS
46	BS	48	TRP
46	BS	53	VAL
46	BS	58	TYR
46	BS	61	SER
46	BS	62	VAL
46	BS	67	THR
46	BS	68	ASP
46	BS	69	THR
47	BT	9	VAL
47	BT	14	LYS
47	BT	35	VAL
47	BT	37	LYS
47	BT	38	ARG
47	BT	52	LYS

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Mol	Chain	Res	Type
47	BT	53	LEU
47	BT	68	ARG
47	BT	70	ARG
47	BT	74	LEU
47	BT	79	SER
47	BT	86	GLU
47	BT	89	LEU
47	BT	91	ARG
47	BT	92	ARG
47	BT	97	SER
47	BT	101	ARG
48	BU	18	ARG
48	BU	23	LYS
48	BU	26	LEU
48	BU	29	PHE
48	BU	31	LEU
48	BU	53	ARG
48	BU	54	ARG
48	BU	76	LEU
48	BU	86	VAL
48	BU	88	LYS
49	BV	7	LYS
49	BV	10	PHE
49	BV	13	ASP
49	BV	27	GLU
49	BV	29	ARG
49	BV	30	LEU
49	BV	37	ARG
49	BV	43	GLU
49	BV	60	VAL
49	BV	61	TYR
49	BV	62	ILE
49	BV	63	THR
49	BV	65	ASN
49	BV	67	VAL
49	BV	77	THR
49	BV	78	ARG
49	BV	83	HIS
50	BW	10	LEU
50	BW	17	ARG
50	BW	21	LYS
50	BW	24	LEU

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Mol	Chain	Res	Type
50	BW	26	ASN
50	BW	36	LEU
50	BW	53	LEU
50	BW	56	MET
50	BW	62	LEU
50	BW	73	HIS
50	BW	93	GLU
50	BW	104	LEU
32	CE	6	THR
32	CE	17	PHE
32	CE	19	HIS
32	CE	21	ARG
32	CE	23	ARG
32	CE	24	TRP
32	CE	31	TYR
32	CE	39	ILE
32	CE	42	ILE
32	CE	44	LEU
32	CE	51	LEU
32	CE	56	ARG
32	CE	73	THR
32	CE	90	MET
32	CE	92	TYR
32	CE	98	LEU
32	CE	108	ILE
32	CE	111	ARG
32	CE	113	HIS
32	CE	117	GLU
32	CE	121	LEU
32	CE	137	ARG
32	CE	145	LEU
32	CE	147	LYS
32	CE	153	ARG
32	CE	155	LEU
32	CE	170	GLU
32	CE	185	ILE
32	CE	187	LEU
32	CE	191	ASP
32	CE	196	LEU
32	CE	198	ASP
32	CE	201	ILE
32	CE	204	ASN

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Mol	Chain	Res	Type
32	CE	215	LEU
32	CE	224	GLN
32	CE	238	LEU
33	CF	5	ILE
33	CF	16	ARG
33	CF	21	ARG
33	CF	23	TYR
33	CF	29	TYR
33	CF	34	LEU
33	CF	40	ARG
33	CF	43	LEU
33	CF	52	LEU
33	CF	64	VAL
33	CF	76	VAL
33	CF	79	ARG
33	CF	83	ARG
33	CF	89	GLU
33	CF	94	LEU
33	CF	119	ARG
33	CF	131	ARG
33	CF	140	ARG
33	CF	161	GLU
33	CF	165	THR
33	CF	166	GLU
33	CF	167	TRP
33	CF	184	TYR
33	CF	191	THR
33	CF	192	THR
33	CF	195	VAL
33	CF	196	LEU
33	CF	206	GLU
34	CG	4	TYR
34	CG	5	ILE
34	CG	9	CYS
34	CG	14	ARG
34	CG	15	GLU
34	CG	17	VAL
34	CG	19	LEU
34	CG	24	GLU
34	CG	30	LYS
34	CG	36	ARG
34	CG	49	ARG

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Mol	Chain	Res	Type
34	CG	58	LEU
34	CG	59	ARG
34	CG	61	LYS
34	CG	73	ARG
34	CG	76	ARG
34	CG	81	GLU
34	CG	83	SER
34	CG	96	LEU
34	CG	108	LEU
34	CG	121	VAL
34	CG	122	ARG
34	CG	127	THR
34	CG	135	LEU
34	CG	138	TYR
34	CG	139	ARG
34	CG	141	ARG
34	CG	150	GLU
34	CG	151	LYS
34	CG	158	ILE
34	CG	159	ARG
34	CG	176	LEU
34	CG	177	ASP
34	CG	187	ARG
34	CG	191	ARG
34	CG	200	GLU
34	CG	202	LEU
35	CH	13	ILE
35	CH	18	ARG
35	CH	19	MET
35	CH	20	GLN
35	CH	25	ARG
35	CH	26	PHE
35	CH	31	LEU
35	CH	34	VAL
35	CH	41	VAL
35	CH	47	LYS
35	CH	51	VAL
35	CH	56	GLN
35	CH	60	TYR
35	CH	61	TYR
35	CH	65	ASN
35	CH	68	GLU

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Mol	Chain	Res	Type
35	CH	72	GLN
35	CH	75	THR
35	CH	78	HIS
35	CH	82	VAL
35	CH	101	ILE
35	CH	115	VAL
35	CH	116	THR
35	CH	117	ASP
35	CH	127	ASN
35	CH	144	THR
35	CH	155	GLU
36	CI	14	LEU
36	CI	16	GLN
36	CI	25	ILE
36	CI	28	ARG
36	CI	32	ASN
36	CI	38	GLU
36	CI	54	LYS
36	CI	63	TYR
36	CI	65	VAL
36	CI	72	VAL
36	CI	78	GLU
36	CI	98	LEU
37	CJ	3	ARG
37	CJ	27	ILE
37	CJ	29	LYS
37	CJ	32	ARG
37	CJ	43	PHE
37	CJ	54	THR
37	CJ	57	GLU
37	CJ	59	LEU
37	CJ	60	LYS
37	CJ	63	LYS
37	CJ	66	VAL
37	CJ	75	VAL
37	CJ	78	ARG
37	CJ	84	ASN
37	CJ	89	MET
37	CJ	91	VAL
37	CJ	92	SER
37	CJ	114	ARG
37	CJ	124	LEU

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Mol	Chain	Res	Type
37	CJ	131	LYS
37	CJ	137	LYS
37	CJ	149	ARG
37	CJ	155	ARG
38	CK	1	MET
38	CK	25	ASP
38	CK	39	LEU
38	CK	45	ILE
38	CK	54	ASP
38	CK	63	LEU
38	CK	77	GLU
38	CK	82	HIS
38	CK	84	ARG
38	CK	87	SER
38	CK	91	ARG
38	CK	95	VAL
38	CK	102	ARG
38	CK	104	ARG
38	CK	109	ILE
38	CK	114	THR
38	CK	119	LEU
38	CK	120	THR
39	CL	4	TYR
39	CL	10	ARG
39	CL	14	VAL
39	CL	23	ASN
39	CL	27	THR
39	CL	33	PHE
39	CL	34	ASN
39	CL	54	ASP
39	CL	59	PHE
39	CL	64	THR
39	CL	75	ASP
39	CL	78	LYS
39	CL	79	LEU
39	CL	88	TYR
39	CL	95	LYS
39	CL	97	LYS
39	CL	99	LEU
39	CL	104	ARG
39	CL	111	ARG
39	CL	112	LYS

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Mol	Chain	Res	Type
39	CL	113	LYS
39	CL	114	TYR
39	CL	117	HIS
39	CL	125	TYR
39	CL	128	ARG
40	CM	17	ASP
40	CM	21	GLN
40	CM	22	LYS
40	CM	38	ILE
40	CM	40	LEU
40	CM	44	VAL
40	CM	47	PHE
40	CM	48	THR
40	CM	50	ILE
40	CM	62	HIS
40	CM	70	ARG
40	CM	71	LEU
40	CM	79	ARG
40	CM	80	LYS
40	CM	96	ILE
40	CM	98	ILE
40	CM	99	LYS
41	CN	12	ARG
41	CN	18	ARG
41	CN	21	ILE
41	CN	25	TYR
41	CN	26	ASN
41	CN	54	ARG
41	CN	84	VAL
41	CN	87	THR
41	CN	93	GLN
41	CN	105	VAL
41	CN	112	THR
42	CO	6	THR
42	CO	18	VAL
42	CO	23	LYS
42	CO	24	VAL
42	CO	32	PHE
42	CO	33	ARG
42	CO	38	THR
42	CO	41	ARG
42	CO	44	THR

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Mol	Chain	Res	Type
42	CO	46	LYS
42	CO	47	LYS
42	CO	52	LEU
42	CO	54	LYS
42	CO	57	LYS
42	CO	60	LEU
42	CO	64	TYR
42	CO	66	VAL
42	CO	85	ILE
42	CO	92	ASP
42	CO	93	LEU
42	CO	98	TYR
42	CO	104	VAL
42	CO	111	LYS
42	CO	118	SER
43	CP	7	VAL
43	CP	32	GLU
43	CP	44	ARG
43	CP	47	ASP
43	CP	50	GLU
43	CP	64	TRP
43	CP	66	LEU
43	CP	67	GLU
43	CP	69	GLU
43	CP	70	LEU
43	CP	82	MET
43	CP	83	ASP
43	CP	93	ARG
43	CP	101	GLN
43	CP	103	THR
43	CP	104	ARG
43	CP	105	THR
43	CP	108	ARG
44	CQ	6	LEU
44	CQ	7	ILE
44	CQ	12	ARG
44	CQ	15	LYS
44	CQ	16	PHE
44	CQ	18	VAL
44	CQ	23	ARG
44	CQ	25	VAL
44	CQ	40	CYS

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Mol	Chain	Res	Type
44	CQ	44	LEU
45	CR	3	ILE
45	CR	4	THR
45	CR	13	GLN
45	CR	18	PHE
45	CR	26	GLU
45	CR	31	LEU
45	CR	38	ARG
45	CR	39	LEU
45	CR	41	GLU
45	CR	60	VAL
45	CR	66	LEU
45	CR	76	GLU
45	CR	82	ILE
45	CR	88	ARG
46	CS	2	VAL
46	CS	8	ARG
46	CS	16	HIS
46	CS	18	ARG
46	CS	21	VAL
46	CS	25	ARG
46	CS	29	ASP
46	CS	45	THR
46	CS	55	ARG
46	CS	65	GLN
46	CS	67	THR
46	CS	74	LEU
47	CT	10	VAL
47	CT	13	ASP
47	CT	22	LEU
47	CT	49	GLU
47	CT	60	ILE
47	CT	62	SER
47	CT	67	LYS
47	CT	68	ARG
47	CT	72	ARG
47	CT	74	LEU
47	CT	77	VAL
47	CT	79	SER
47	CT	84	LEU
48	CU	26	LEU
48	CU	29	PHE

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Mol	Chain	Res	Type
48	CU	32	ARG
48	CU	36	ASN
48	CU	44	LEU
48	CU	56	THR
48	CU	58	LEU
48	CU	84	LYS
48	CU	86	VAL
48	CU	87	ARG
49	CV	7	LYS
49	CV	9	VAL
49	CV	16	LEU
49	CV	22	LEU
49	CV	23	ASN
49	CV	25	LYS
49	CV	29	ARG
49	CV	32	LYS
49	CV	33	THR
49	CV	37	ARG
49	CV	38	SER
49	CV	49	ILE
49	CV	60	VAL
49	CV	61	TYR
49	CV	63	THR
49	CV	66	MET
49	CV	70	LYS
49	CV	78	ARG
49	CV	81	ARG
49	CV	83	HIS
50	CW	8	ARG
50	CW	9	ASN
50	CW	13	LEU
50	CW	14	LYS
50	CW	26	ASN
50	CW	45	GLN
50	CW	68	LYS
50	CW	74	LYS
50	CW	84	LEU
50	CW	87	LYS
50	CW	91	LEU
50	CW	93	GLU
50	CW	104	LEU
51	CX	15	ARG

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Mol	Chain	Res	Type
51	CX	25	LYS
3	DD	3	VAL
3	DD	10	THR
3	DD	27	THR
3	DD	31	LYS
3	DD	34	VAL
3	DD	35	LYS
3	DD	40	THR
3	DD	44	ASN
3	DD	46	GLN
3	DD	49	ILE
3	DD	61	LEU
3	DD	63	ARG
3	DD	64	ILE
3	DD	65	ILE
3	DD	68	LYS
3	DD	69	ARG
3	DD	71	ASP
3	DD	73	VAL
3	DD	83	GLU
3	DD	89	SER
3	DD	94	LEU
3	DD	98	VAL
3	DD	99	ASP
3	DD	103	ARG
3	DD	105	ILE
3	DD	111	LEU
3	DD	112	GLN
3	DD	116	GLN
3	DD	131	LEU
3	DD	136	ILE
3	DD	138	VAL
3	DD	140	THR
3	DD	147	LEU
3	DD	154	LYS
3	DD	157	ARG
3	DD	166	GLN
3	DD	176	ARG
3	DD	182	LEU
3	DD	192	THR
3	DD	200	ASP
3	DD	204	ILE

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Mol	Chain	Res	Type
3	DD	211	ARG
3	DD	212	SER
3	DD	237	GLU
3	DD	242	ARG
3	DD	244	ARG
3	DD	255	LYS
3	DD	257	LEU
3	DD	268	ARG
3	DD	271	ILE
4	DE	4	ILE
4	DE	7	VAL
4	DE	9	VAL
4	DE	12	THR
4	DE	16	ARG
4	DE	27	LEU
4	DE	33	VAL
4	DE	37	ARG
4	DE	48	GLN
4	DE	54	GLN
4	DE	58	ARG
4	DE	60	ASN
4	DE	63	LEU
4	DE	66	HIS
4	DE	67	PHE
4	DE	75	VAL
4	DE	76	ARG
4	DE	78	LEU
4	DE	79	ARG
4	DE	82	ARG
4	DE	90	THR
4	DE	107	THR
4	DE	113	PHE
4	DE	116	VAL
4	DE	119	ARG
4	DE	134	ILE
4	DE	141	ILE
4	DE	144	ARG
4	DE	146	THR
4	DE	149	ARG
4	DE	154	LYS
4	DE	164	ARG
4	DE	169	ASN

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Mol	Chain	Res	Type
4	DE	170	LEU
4	DE	178	GLU
4	DE	179	GLU
4	DE	181	LEU
4	DE	185	LYS
4	DE	188	VAL
4	DE	192	ASN
4	DE	197	ILE
4	DE	199	ARG
4	DE	200	GLU
4	DE	201	THR
4	DE	203	LYS
5	DF	2	LYS
5	DF	7	TYR
5	DF	11	VAL
5	DF	17	ARG
5	DF	18	ARG
5	DF	20	LEU
5	DF	24	LEU
5	DF	29	ASN
5	DF	38	ARG
5	DF	46	ARG
5	DF	54	ARG
5	DF	62	ARG
5	DF	67	GLN
5	DF	68	LYS
5	DF	69	HIS
5	DF	74	ARG
5	DF	83	PHE
5	DF	88	VAL
5	DF	98	SER
5	DF	99	TYR
5	DF	100	THR
5	DF	107	LYS
5	DF	117	ARG
5	DF	119	ARG
5	DF	125	LEU
5	DF	153	SER
5	DF	158	THR
5	DF	164	ARG
5	DF	183	VAL
5	DF	192	LEU

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Mol	Chain	Res	Type
5	DF	196	LEU
5	DF	197	ASP
5	DF	201	VAL
5	DF	204	ASN
5	DF	205	ARG
6	DG	16	ARG
6	DG	20	ILE
6	DG	28	VAL
6	DG	33	ARG
6	DG	43	LEU
6	DG	45	GLU
6	DG	52	ILE
6	DG	53	LEU
6	DG	58	GLN
6	DG	60	LEU
6	DG	63	ILE
6	DG	64	THR
6	DG	67	LYS
6	DG	74	LYS
6	DG	80	PHE
6	DG	90	LEU
6	DG	91	ARG
6	DG	94	LEU
6	DG	96	ARG
6	DG	126	ASP
6	DG	128	ARG
6	DG	133	LEU
6	DG	137	GLU
6	DG	147	ASP
6	DG	159	VAL
6	DG	162	THR
6	DG	167	GLU
7	DH	2	SER
7	DH	6	ARG
7	DH	7	LEU
7	DH	32	GLU
7	DH	38	SER
7	DH	41	MET
7	DH	42	ARG
7	DH	50	VAL
7	DH	71	LEU
7	DH	72	ILE

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Mol	Chain	Res	Type
7	DH	83	TYR
7	DH	85	LYS
7	DH	86	GLU
7	DH	89	ILE
7	DH	101	ARG
7	DH	103	LEU
7	DH	105	LEU
7	DH	116	GLU
7	DH	123	PHE
7	DH	125	VAL
7	DH	131	VAL
7	DH	139	GLN
7	DH	143	GLN
7	DH	147	ASN
7	DH	158	HIS
7	DH	170	ARG
8	DK	6	LEU
8	DK	9	LEU
8	DK	11	ASN
8	DK	37	VAL
8	DK	52	ARG
8	DK	54	GLN
8	DK	56	LYS
8	DK	60	GLU
8	DK	69	LYS
8	DK	77	LEU
8	DK	78	THR
8	DK	82	ARG
8	DK	93	THR
8	DK	101	LEU
8	DK	109	ILE
8	DK	112	LYS
8	DK	117	GLU
8	DK	122	GLU
8	DK	125	GLU
8	DK	129	THR
8	DK	131	LYS
8	DK	133	HIS
9	DM	1	MET
9	DM	5	VAL
9	DM	12	ARG
9	DM	15	LEU

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Mol	Chain	Res	Type
9	DM	22	THR
9	DM	23	LEU
9	DM	29	LYS
9	DM	32	THR
9	DM	33	LEU
9	DM	34	LEU
9	DM	38	HIS
9	DM	41	ASP
9	DM	43	THR
9	DM	45	ASN
9	DM	48	MET
9	DM	50	ASP
9	DM	54	VAL
9	DM	59	LYS
9	DM	61	ARG
9	DM	67	LEU
9	DM	69	GLN
9	DM	87	LEU
9	DM	93	THR
9	DM	94	HIS
9	DM	96	GLU
9	DM	97	ARG
9	DM	98	VAL
9	DM	99	LEU
9	DM	106	MET
9	DM	127	ASP
9	DM	130	HIS
9	DM	131	GLN
9	DM	134	ARG
9	DM	136	GLU
9	DM	137	LYS
10	DN	5	GLN
10	DN	9	GLU
10	DN	17	ARG
10	DN	24	VAL
10	DN	32	TYR
10	DN	49	ARG
10	DN	52	VAL
10	DN	53	LYS
10	DN	62	VAL
10	DN	82	ASN
10	DN	87	ILE

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Mol	Chain	Res	Type
10	DN	94	ARG
10	DN	108	GLU
10	DN	113	LYS
10	DN	116	SER
10	DN	117	LEU
11	DO	2	LYS
11	DO	3	LEU
11	DO	6	LEU
11	DO	14	LYS
11	DO	15	ARG
11	DO	16	ARG
11	DO	21	ARG
11	DO	30	THR
11	DO	36	LYS
11	DO	41	ARG
11	DO	45	LEU
11	DO	46	LYS
11	DO	61	ARG
11	DO	62	LEU
11	DO	65	ARG
11	DO	68	GLN
11	DO	75	ILE
11	DO	77	ARG
11	DO	83	VAL
11	DO	84	ASN
11	DO	85	LEU
11	DO	86	LYS
11	DO	87	ASP
11	DO	90	ARG
11	DO	96	THR
11	DO	100	LEU
11	DO	102	ARG
11	DO	108	LYS
11	DO	111	ARG
11	DO	112	LEU
11	DO	114	ILE
11	DO	121	LYS
11	DO	125	VAL
11	DO	133	SER
11	DO	138	LEU
11	DO	144	GLU
11	DO	146	VAL

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Mol	Chain	Res	Type
11	DO	147	LEU
11	DO	148	LEU
12	DP	3	MET
12	DP	8	LYS
12	DP	10	ARG
12	DP	18	LYS
12	DP	21	THR
12	DP	25	ASP
12	DP	26	TYR
12	DP	45	GLN
12	DP	56	ARG
12	DP	58	PHE
12	DP	60	ARG
12	DP	63	LYS
12	DP	72	LYS
12	DP	76	LYS
12	DP	79	LEU
12	DP	80	GLU
12	DP	82	ARG
12	DP	83	MET
12	DP	87	LYS
12	DP	90	VAL
12	DP	103	MET
12	DP	105	GLU
12	DP	106	VAL
12	DP	109	VAL
12	DP	110	THR
12	DP	111	GLU
12	DP	112	GLU
12	DP	123	HIS
12	DP	129	THR
12	DP	133	ARG
12	DP	135	ASP
12	DP	141	GLN
13	D0	2	ARG
13	D0	3	HIS
13	D0	6	SER
13	D0	16	HIS
13	D0	23	ASN
13	D0	28	LEU
13	D0	29	LEU
13	D0	36	THR

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Mol	Chain	Res	Type
13	D0	42	LYS
13	D0	48	VAL
13	D0	54	LEU
13	D0	57	ARG
13	D0	67	LEU
13	D0	71	GLN
13	D0	75	LEU
13	D0	81	ASP
13	D0	95	THR
13	D0	105	ARG
13	D0	114	VAL
13	D0	117	VAL
14	DQ	4	LEU
14	DQ	17	ARG
14	DQ	19	LYS
14	DQ	21	THR
14	DQ	25	ARG
14	DQ	29	PHE
14	DQ	36	TYR
14	DQ	39	ILE
14	DQ	42	ASP
14	DQ	50	SER
14	DQ	54	LEU
14	DQ	61	ASN
14	DQ	69	VAL
14	DQ	78	LEU
14	DQ	80	LEU
14	DQ	89	ARG
14	DQ	93	LYS
14	DQ	98	VAL
14	DQ	101	LEU
14	DQ	106	ARG
14	DQ	110	LEU
15	DR	3	ARG
15	DR	7	ILE
15	DR	8	LYS
15	DR	9	LEU
15	DR	15	VAL
15	DR	17	THR
15	DR	19	LEU
15	DR	23	ARG
15	DR	29	ARG

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Mol	Chain	Res	Type
15	DR	30	VAL
15	DR	38	ASN
15	DR	42	ILE
15	DR	48	ILE
15	DR	50	ILE
15	DR	51	ARG
15	DR	57	PHE
15	DR	58	ASN
15	DR	61	PHE
15	DR	62	THR
15	DR	64	ARG
15	DR	88	ILE
15	DR	89	VAL
15	DR	91	ARG
15	DR	93	ARG
15	DR	96	ARG
15	DR	99	LEU
15	DR	110	ILE
15	DR	119	LYS
15	DR	120	ARG
15	DR	136	GLN
16	D1	3	ARG
16	D1	8	VAL
16	D1	25	TRP
16	D1	27	LEU
16	D1	28	ARG
16	D1	56	ASP
16	D1	58	ARG
16	D1	64	ARG
16	D1	74	LEU
16	D1	80	ILE
16	D1	92	ARG
16	D1	95	LEU
16	D1	97	ASP
16	D1	98	LEU
16	D1	101	ARG
16	D1	105	VAL
17	D2	1	MET
17	D2	7	THR
17	D2	10	LYS
17	D2	15	GLU
17	D2	19	LYS

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Mol	Chain	Res	Type
17	D2	24	LYS
17	D2	38	LEU
17	D2	44	LYS
17	D2	45	THR
17	D2	47	VAL
17	D2	49	THR
17	D2	56	SER
17	D2	57	VAL
17	D2	61	VAL
17	D2	66	ARG
17	D2	70	ILE
17	D2	72	VAL
17	D2	73	SER
17	D2	74	LYS
17	D2	76	LYS
17	D2	78	LYS
17	D2	79	VAL
17	D2	81	TYR
17	D2	85	LYS
17	D2	88	ARG
17	D2	89	GLN
17	D2	91	TYR
17	D2	92	THR
17	D2	95	LEU
18	DS	6	ILE
18	DS	11	ARG
18	DS	13	SER
18	DS	15	ARG
18	DS	19	LEU
18	DS	27	LYS
18	DS	34	ASN
18	DS	37	ARG
18	DS	39	THR
18	DS	40	ASN
18	DS	51	LEU
18	DS	59	VAL
18	DS	63	ASP
18	DS	70	TYR
18	DS	76	VAL
18	DS	88	ARG
18	DS	95	ILE
18	DS	96	ILE

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Mol	Chain	Res	Type
18	DS	97	LYS
18	DS	107	LEU
19	DT	8	ILE
19	DT	12	VAL
19	DT	23	GLU
19	DT	28	PHE
19	DT	30	VAL
19	DT	36	LYS
19	DT	37	THR
19	DT	45	THR
19	DT	54	VAL
19	DT	55	ASN
19	DT	60	ARG
19	DT	63	LYS
19	DT	65	ARG
19	DT	66	LEU
19	DT	69	TYR
19	DT	72	LYS
19	DT	76	ARG
19	DT	80	ILE
20	DU	3	VAL
20	DU	4	LYS
20	DU	8	LYS
20	DU	14	LEU
20	DU	19	LYS
20	DU	38	ILE
20	DU	40	GLU
20	DU	43	ASN
20	DU	45	VAL
20	DU	50	ARG
20	DU	55	TYR
20	DU	57	GLN
20	DU	62	GLU
20	DU	63	LYS
20	DU	64	GLU
20	DU	71	LYS
20	DU	75	ILE
20	DU	76	CYS
20	DU	79	CYS
20	DU	81	LYS
20	DU	84	ARG
20	DU	88	LYS

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Mol	Chain	Res	Type
20	DU	91	GLU
20	DU	92	ASN
20	DU	95	LYS
20	DU	96	ILE
20	DU	97	ARG
20	DU	98	VAL
21	DV	5	LEU
21	DV	14	LYS
21	DV	18	LEU
21	DV	24	LEU
21	DV	30	ASN
21	DV	32	HIS
21	DV	38	TYR
21	DV	44	PHE
21	DV	45	ASP
21	DV	50	GLN
21	DV	63	ASP
21	DV	65	GLN
21	DV	71	VAL
21	DV	74	VAL
21	DV	75	ASN
21	DV	84	GLU
21	DV	87	ASP
21	DV	90	VAL
21	DV	94	GLU
21	DV	97	GLU
21	DV	105	VAL
21	DV	119	GLU
21	DV	136	PHE
21	DV	168	GLU
21	DV	175	VAL
22	D3	12	ASN
22	D3	16	SER
22	D3	35	ASN
22	D3	36	ILE
22	D3	43	THR
22	D3	62	LEU
22	D3	74	ARG
23	DZ	3	LYS
23	DZ	4	VAL
23	DZ	6	GLU
23	DZ	13	ILE

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Mol	Chain	Res	Type
23	DZ	17	SER
23	DZ	35	THR
23	DZ	38	SER
23	DZ	40	ARG
23	DZ	46	LEU
23	DZ	56	GLN
23	DZ	61	ARG
23	DZ	76	ARG
23	DZ	78	LYS
23	DZ	80	LEU
23	DZ	82	LEU
23	DZ	83	GLU
23	DZ	90	ILE
23	DZ	91	LYS
24	DW	5	GLU
24	DW	9	GLN
24	DW	14	ARG
24	DW	19	VAL
24	DW	25	VAL
24	DW	26	ARG
24	DW	30	ARG
24	DW	34	GLU
24	DW	35	LEU
24	DW	47	ASN
24	DW	48	HIS
24	DW	55	ARG
24	DW	60	LEU
24	DW	64	LEU
25	DX	6	VAL
25	DX	9	VAL
25	DX	17	LYS
25	DX	18	ASP
25	DX	24	LYS
25	DX	32	GLN
25	DX	33	GLN
25	DX	37	LEU
25	DX	40	THR
25	DX	55	ARG
26	D4	1	MET
26	D4	9	LEU
26	D4	10	VAL
26	D4	18	CYS

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Mol	Chain	Res	Type
26	D4	22	ILE
26	D4	24	THR
26	D4	27	THR
26	D4	32	TYR
26	D4	38	LYS
26	D4	46	GLN
26	D4	60	GLN
26	D4	61	ARG
27	D5	3	LYS
27	D5	16	ARG
27	D5	23	HIS
27	D5	29	THR
27	D5	35	GLU
27	D5	51	TYR
27	D5	52	TYR
27	D5	55	ARG
28	D6	12	GLU
28	D6	14	THR
28	D6	27	LYS
28	D6	37	ARG
28	D6	39	TYR
28	D6	47	THR
29	D7	1	MET
29	D7	4	THR
29	D7	8	ASN
29	D7	10	ARG
29	D7	24	THR
29	D7	33	ARG
29	D7	36	GLN
29	D7	41	ARG
29	D7	43	THR
30	D8	16	ILE
30	D8	22	VAL
30	D8	27	THR
30	D8	29	LYS
30	D8	30	ARG
30	D8	31	HIS
30	D8	34	TRP
30	D8	40	GLU
30	D8	41	ILE
30	D8	48	PHE
30	D8	50	LEU

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Mol	Chain	Res	Type
30	D8	52	LYS
30	D8	58	ILE
30	D8	59	LYS
30	D8	61	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (288) such sidechains are listed below:

Mol	Chain	Res	Type
3	AD	116	GLN
3	AD	143	HIS
3	AD	166	GLN
3	AD	186	HIS
3	AD	198	ASN
4	AE	48	GLN
4	AE	132	HIS
4	AE	135	HIS
4	AE	192	ASN
5	AF	67	GLN
5	AF	169	ASN
6	AG	40	ASN
6	AG	41	GLN
7	AH	139	GLN
7	AH	143	GLN
8	AK	105	HIS
8	AK	139	GLN
9	AM	56	ASN
9	AM	131	GLN
9	AM	133	GLN
10	AN	82	ASN
10	AN	88	ASN
11	AO	9	ASN
11	AO	38	GLN
11	AO	68	GLN
11	AO	81	GLN
11	AO	84	ASN
11	AO	128	HIS
13	A0	3	HIS
13	A0	13	HIS
13	A0	23	ASN
13	A0	24	GLN
13	A0	61	HIS
13	A0	71	GLN

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Mol	Chain	Res	Type
13	A0	91	GLN
14	AQ	68	GLN
14	AQ	84	GLN
15	AR	38	ASN
15	AR	43	GLN
15	AR	58	ASN
15	AR	136	GLN
16	A1	44	ASN
16	A1	49	HIS
16	A1	71	GLN
17	A2	11	GLN
17	A2	89	GLN
18	AS	40	ASN
18	AS	102	HIS
18	AS	111	HIS
19	AT	41	ASN
19	AT	55	ASN
19	AT	87	GLN
20	AU	57	GLN
21	AV	30	ASN
21	AV	54	HIS
21	AV	75	ASN
21	AV	85	HIS
21	AV	132	ASN
21	AV	151	HIS
22	A3	17	GLN
22	A3	35	ASN
22	A3	70	GLN
23	AZ	56	GLN
23	AZ	66	HIS
24	AW	56	GLN
25	AX	19	GLN
25	AX	32	GLN
25	AX	46	ASN
25	AX	52	HIS
26	A4	47	GLN
27	A5	4	HIS
27	A5	22	HIS
27	A5	23	HIS
27	A5	43	HIS
28	A6	26	ASN
28	A6	46	HIS

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Mol	Chain	Res	Type
28	A6	49	HIS
29	A7	8	ASN
30	A8	31	HIS
32	BE	19	HIS
32	BE	40	HIS
32	BE	94	ASN
32	BE	95	GLN
32	BE	204	ASN
33	BF	28	GLN
33	BF	102	ASN
33	BF	136	GLN
33	BF	162	GLN
33	BF	170	GLN
33	BF	176	HIS
33	BF	181	ASN
34	BG	42	GLN
34	BG	119	GLN
34	BG	125	HIS
34	BG	160	GLN
34	BG	201	GLN
35	BH	20	GLN
35	BH	78	HIS
35	BH	127	ASN
36	BI	7	ASN
36	BI	16	GLN
36	BI	18	GLN
36	BI	27	GLN
36	BI	57	GLN
36	BI	64	GLN
37	BJ	37	ASN
37	BJ	86	GLN
37	BJ	148	ASN
39	BL	23	ASN
39	BL	89	ASN
39	BL	117	HIS
39	BL	124	GLN
40	BM	13	HIS
40	BM	56	HIS
41	BN	26	ASN
41	BN	38	ASN
41	BN	93	GLN
41	BN	117	ASN

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Mol	Chain	Res	Type
42	BO	8	ASN
42	BO	9	GLN
42	BO	49	ASN
42	BO	80	HIS
43	BP	62	ASN
43	BP	77	ASN
43	BP	101	GLN
45	BR	28	GLN
45	BR	37	ASN
45	BR	46	HIS
46	BS	76	GLN
46	BS	82	GLN
47	BT	16	GLN
47	BT	94	ASN
49	BV	65	ASN
49	BV	83	HIS
50	BW	26	ASN
50	BW	73	HIS
32	CE	37	ASN
32	CE	40	HIS
32	CE	135	GLN
32	CE	140	HIS
33	CF	3	ASN
33	CF	28	GLN
33	CF	123	GLN
33	CF	162	GLN
33	CF	170	GLN
33	CF	181	ASN
34	CG	43	HIS
34	CG	62	GLN
34	CG	123	HIS
35	CH	20	GLN
35	CH	141	GLN
36	CI	27	GLN
36	CI	32	ASN
36	CI	57	GLN
36	CI	73	ASN
36	CI	94	GLN
36	CI	100	ASN
37	CJ	13	GLN
37	CJ	37	ASN
37	CJ	97	GLN

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Mol	Chain	Res	Type
37	CJ	109	ASN
38	CK	82	HIS
39	CL	3	GLN
39	CL	23	ASN
39	CL	89	ASN
39	CL	117	HIS
39	CL	124	GLN
40	CM	13	HIS
40	CM	56	HIS
40	CM	78	ASN
41	CN	26	ASN
41	CN	93	GLN
41	CN	99	GLN
41	CN	117	ASN
42	CO	8	ASN
42	CO	9	GLN
42	CO	49	ASN
42	CO	75	HIS
42	CO	99	HIS
43	CP	62	ASN
43	CP	77	ASN
43	CP	92	HIS
44	CQ	49	HIS
45	CR	37	ASN
45	CR	62	GLN
46	CS	65	GLN
46	CS	76	GLN
47	CT	16	GLN
49	CV	14	HIS
49	CV	56	GLN
50	CW	9	ASN
50	CW	26	ASN
3	DD	58	HIS
3	DD	96	HIS
3	DD	112	GLN
3	DD	115	GLN
3	DD	116	GLN
3	DD	126	GLN
3	DD	143	HIS
3	DD	166	GLN
3	DD	186	HIS
3	DD	198	ASN

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Mol	Chain	Res	Type
3	DD	253	GLN
4	DE	48	GLN
4	DE	60	ASN
4	DE	66	HIS
4	DE	132	HIS
4	DE	143	ASN
4	DE	192	ASN
5	DF	29	ASN
5	DF	69	HIS
5	DF	169	ASN
5	DF	203	GLN
6	DG	40	ASN
6	DG	41	GLN
6	DG	58	GLN
6	DG	79	ASN
7	DH	74	ASN
8	DK	54	GLN
8	DK	105	HIS
8	DK	133	HIS
9	DM	45	ASN
9	DM	94	HIS
9	DM	101	HIS
9	DM	130	HIS
9	DM	131	GLN
10	DN	89	ASN
11	DO	9	ASN
11	DO	128	HIS
12	DP	12	GLN
12	DP	113	GLN
12	DP	123	HIS
13	D0	3	HIS
13	D0	11	ASN
13	D0	13	HIS
13	D0	16	HIS
13	D0	23	ASN
13	D0	24	GLN
13	D0	61	HIS
13	D0	71	GLN
14	DQ	61	ASN
14	DQ	68	GLN
15	DR	38	ASN
15	DR	136	GLN

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Mol	Chain	Res	Type
16	D1	49	HIS
16	D1	72	HIS
16	D1	75	ASN
16	D1	81	HIS
16	D1	104	GLN
16	D1	117	GLN
17	D2	11	GLN
17	D2	64	HIS
17	D2	87	HIS
17	D2	89	GLN
18	DS	57	ASN
18	DS	61	ASN
18	DS	62	HIS
18	DS	102	HIS
18	DS	111	HIS
19	DT	55	ASN
19	DT	87	GLN
20	DU	6	HIS
20	DU	43	ASN
20	DU	57	GLN
21	DV	34	ASN
21	DV	65	GLN
21	DV	132	ASN
22	D3	50	ASN
23	DZ	66	HIS
24	DW	38	GLN
24	DW	56	GLN
24	DW	65	ASN
25	DX	19	GLN
25	DX	33	GLN
25	DX	46	ASN
25	DX	52	HIS
26	D4	6	HIS
26	D4	40	HIS
26	D4	46	GLN
26	D4	47	GLN
26	D4	60	GLN
27	D5	43	HIS
28	D6	20	ASN
28	D6	32	ASN
28	D6	46	HIS
29	D7	8	ASN

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Mol	Chain	Res	Type
29	D7	36	GLN
30	D8	33	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2911/2912 (99%)	694 (23%)	62 (2%)
1	DA	2905/2912 (99%)	731 (25%)	60 (2%)
2	AB	121/122 (99%)	23 (19%)	0
2	DB	121/122 (99%)	28 (23%)	1 (0%)
31	BA	1501/1506 (99%)	351 (23%)	39 (2%)
31	CA	1501/1506 (99%)	351 (23%)	49 (3%)
52	BB	83/85 (97%)	45 (54%)	5 (6%)
52	BD	83/85 (97%)	38 (45%)	5 (6%)
52	CB	83/85 (97%)	49 (59%)	8 (9%)
52	CD	83/85 (97%)	35 (42%)	6 (7%)
53	BC	76/77 (98%)	17 (22%)	3 (3%)
53	CC	76/77 (98%)	20 (26%)	3 (3%)
54	B1	15/16 (93%)	7 (46%)	2 (13%)
54	C1	15/16 (93%)	8 (53%)	3 (20%)
All	All	9574/9606 (99%)	2397 (25%)	246 (2%)

All (2397) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	U
1	AA	17	G
1	AA	23	G
1	AA	34	C
1	AA	35	G
1	AA	37	C
1	AA	46	C
1	AA	51	G
1	AA	56	A
1	AA	63	U
1	AA	70	G
1	AA	71	A
1	AA	74	A
1	AA	75	G
1	AA	85	G
1	AA	92	G

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Mol	Chain	Res	Type
1	AA	95	G
1	AA	116	C
1	AA	117	G
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	125	G
1	AA	131	G
1	AA	135	G
1	AA	153	C
1	AA	155	C
1	AA	163	U
1	AA	164	U
1	AA	181	A
1	AA	196	A
1	AA	213	A
1	AA	214	G
1	AA	215	G
1	AA	216	A
1	AA	221	A
1	AA	222	A
1	AA	223	A
1	AA	224	G
1	AA	227	A
1	AA	228	A
1	AA	229	A
1	AA	230	U
1	AA	231	C
1	AA	232	G
1	AA	248	G
1	AA	249	C
1	AA	252	G
1	AA	264	C
1	AA	269	U
1	AA	270(C)	C
1	AA	270(K)	C
1	AA	270(L)	U
1	AA	270(M)	U
1	AA	270(N)	G
1	AA	270(P)	C
1	AA	271(C)	U
1	AA	271	G

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Mol	Chain	Res	Type
1	AA	273(E)	U
1	AA	274	G
1	AA	275	G
1	AA	278	A
1	AA	279	C
1	AA	299	A
1	AA	311	A
1	AA	324	A
1	AA	329	G
1	AA	330	A
1	AA	333	G
1	AA	334	C
1	AA	335	C
1	AA	338	G
1	AA	352	G
1	AA	356	G
1	AA	363	G
1	AA	363(E)	U
1	AA	372	G
1	AA	386	G
1	AA	387	U
1	AA	388	G
1	AA	396	G
1	AA	400	G
1	AA	405	U
1	AA	411	G
1	AA	412	A
1	AA	421	U
1	AA	428	A
1	AA	444	C
1	AA	448	U
1	AA	455	C
1	AA	457	A
1	AA	470	A
1	AA	471	A
1	AA	472	A
1	AA	479	A
1	AA	481	G
1	AA	482	A
1	AA	494	G
1	AA	505	A
1	AA	509	C

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Mol	Chain	Res	Type
1	AA	518	G
1	AA	529	A
1	AA	531	C
1	AA	532	A
1	AA	533	G
1	AA	540	G
1	AA	546	C
1	AA	556	G
1	AA	563	G
1	AA	565	C
1	AA	573	G
1	AA	575	A
1	AA	579	G
1	AA	586	A
1	AA	587	C
1	AA	588	U
1	AA	593	G
1	AA	603	A
1	AA	607	U
1	AA	609	A
1	AA	613	U
1	AA	614	U
1	AA	617	G
1	AA	618	G
1	AA	622	G
1	AA	627	A
1	AA	629	G
1	AA	632	A
1	AA	637	A
1	AA	646	A
1	AA	647	G
1	AA	653	A
1	AA	654(A)	A
1	AA	654(G)	C
1	AA	654(I)	C
1	AA	654(K)	C
1	AA	654(M)	C
1	AA	654(N)	G
1	AA	654(V)	A
1	AA	664	C
1	AA	665	C
1	AA	686	G

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Mol	Chain	Res	Type
1	AA	701	G
1	AA	717	G
1	AA	730	C
1	AA	731	C
1	AA	739	G
1	AA	740	U
1	AA	745	G
1	AA	752	A
1	AA	753	C
1	AA	758	C
1	AA	765	G
1	AA	775	G
1	AA	776	G
1	AA	782	A
1	AA	784	A
1	AA	785	G
1	AA	789	A
1	AA	790	C
1	AA	792	G
1	AA	793	A
1	AA	801	G
1	AA	805	G
1	AA	812	C
1	AA	819	A
1	AA	827	U
1	AA	828	U
1	AA	831	G
1	AA	836	G
1	AA	845	G
1	AA	855	G
1	AA	859	G
1	AA	879	G
1	AA	880	G
1	AA	881	G
1	AA	882	G
1	AA	883	G
1	AA	884	C
1	AA	885	C
1	AA	886	C
1	AA	887	A
1	AA	888	C
1	AA	890	A

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Mol	Chain	Res	Type
1	AA	893	C
1	AA	894	C
1	AA	895	U
1	AA	896	A
1	AA	897	C
1	AA	898	C
1	AA	899	A
1	AA	900	A
1	AA	901	A
1	AA	902	C
1	AA	904	C
1	AA	906	G
1	AA	907	U
1	AA	910	A
1	AA	915	C
1	AA	917	A
1	AA	918	A
1	AA	919	G
1	AA	926	A
1	AA	928	G
1	AA	932	G
1	AA	933	A
1	AA	941	A
1	AA	945	A
1	AA	946	G
1	AA	959	A
1	AA	961	C
1	AA	962	G
1	AA	968	G
1	AA	974	G
1	AA	974(A)	C
1	AA	975	G
1	AA	983	A
1	AA	989	G
1	AA	990	A
1	AA	993	G
1	AA	996	A
1	AA	998	C
1	AA	999	U
1	AA	1003	G
1	AA	1005	C
1	AA	1010	A

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Mol	Chain	Res	Type
1	AA	1011	G
1	AA	1012	U
1	AA	1013	C
1	AA	1015	G
1	AA	1016	G
1	AA	1017	G
1	AA	1020	A
1	AA	1022	G
1	AA	1023	U
1	AA	1025	G
1	AA	1026	U
1	AA	1027	A
1	AA	1033	U
1	AA	1044	G
1	AA	1045	A
1	AA	1046	A
1	AA	1047	G
1	AA	1050	A
1	AA	1054	A
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1065	U
1	AA	1067	A
1	AA	1068	G
1	AA	1070	A
1	AA	1071	G
1	AA	1072	C
1	AA	1075	C
1	AA	1077	A
1	AA	1078	U
1	AA	1079	C
1	AA	1081	U
1	AA	1082	U
1	AA	1084	A
1	AA	1085	A
1	AA	1086	A
1	AA	1087	G
1	AA	1088	A
1	AA	1089	G
1	AA	1090	U
1	AA	1092	C

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Mol	Chain	Res	Type
1	AA	1093	G
1	AA	1095	A
1	AA	1096	A
1	AA	1097	U
1	AA	1110	G
1	AA	1112	G
1	AA	1117	G
1	AA	1122	G
1	AA	1130	U
1	AA	1131	G
1	AA	1135	C
1	AA	1136	G
1	AA	1138	G
1	AA	1139	G
1	AA	1142	U
1	AA	1142(A)	A
1	AA	1149	G
1	AA	1151	G
1	AA	1153	C
1	AA	1154	G
1	AA	1155	A
1	AA	1156	A
1	AA	1170	G
1	AA	1175	U
1	AA	1176	G
1	AA	1178	C
1	AA	1179	C
1	AA	1182	A
1	AA	1194	A
1	AA	1195	G
1	AA	1204	A
1	AA	1205	U
1	AA	1210	A
1	AA	1211	U
1	AA	1212	G
1	AA	1218	C
1	AA	1220	A
1	AA	1221	C
1	AA	1228	G
1	AA	1229(A)	G
1	AA	1237	A
1	AA	1241	A

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Mol	Chain	Res	Type
1	AA	1242	A
1	AA	1244	G
1	AA	1250	G
1	AA	1253	A
1	AA	1256	G
1	AA	1265	A
1	AA	1267	U
1	AA	1269	A
1	AA	1271	G
1	AA	1272	A
1	AA	1273	U
1	AA	1275	A
1	AA	1298	C
1	AA	1300	U
1	AA	1301	A
1	AA	1302	A
1	AA	1306	C
1	AA	1312	U
1	AA	1313	U
1	AA	1314	C
1	AA	1329	U
1	AA	1332	G
1	AA	1338	G
1	AA	1343	G
1	AA	1344	G
1	AA	1345	C
1	AA	1349	A
1	AA	1352	U
1	AA	1359	A
1	AA	1360	A
1	AA	1365	A
1	AA	1368	G
1	AA	1370	C
1	AA	1380	G
1	AA	1384	A
1	AA	1385	G
1	AA	1386	C
1	AA	1395	A
1	AA	1412	A
1	AA	1416	G
1	AA	1417	C
1	AA	1421	G

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Mol	Chain	Res	Type
1	AA	1428	C
1	AA	1429	G
1	AA	1444(A)	A
1	AA	1449	A
1	AA	1449(A)	G
1	AA	1455	G
1	AA	1458	C
1	AA	1459	G
1	AA	1460	A
1	AA	1461	G
1	AA	1466	G
1	AA	1467	C
1	AA	1470	G
1	AA	1471	A
1	AA	1483	G
1	AA	1493	C
1	AA	1495	A
1	AA	1497	U
1	AA	1508	A
1	AA	1509	C
1	AA	1510	A
1	AA	1523	U
1	AA	1526	G
1	AA	1534	G
1	AA	1535	U
1	AA	1536	A
1	AA	1537	C
1	AA	1538	G
1	AA	1539	G
1	AA	1543	A
1	AA	1545	A
1	AA	1545(A)	A
1	AA	1546	C
1	AA	1547	C
1	AA	1548	C
1	AA	1554	A
1	AA	1558	A
1	AA	1559	G
1	AA	1560	G
1	AA	1569	A
1	AA	1578	U
1	AA	1579	A

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Mol	Chain	Res	Type
1	AA	1585	C
1	AA	1586	A
1	AA	1587	A
1	AA	1606	G
1	AA	1608	A
1	AA	1609	A
1	AA	1610	A
1	AA	1617	C
1	AA	1618	A
1	AA	1625	C
1	AA	1631	A
1	AA	1632	A
1	AA	1639	U
1	AA	1648	C
1	AA	1651	G
1	AA	1654	A
1	AA	1663	C
1	AA	1666	G
1	AA	1674	G
1	AA	1675	C
1	AA	1678	G
1	AA	1688	U
1	AA	1695	G
1	AA	1699	G
1	AA	1728	G
1	AA	1729	A
1	AA	1731	G
1	AA	1732	A
1	AA	1734	C
1	AA	1756	G
1	AA	1761	C
1	AA	1762	A
1	AA	1763	G
1	AA	1764	G
1	AA	1769	G
1	AA	1773	A
1	AA	1774	C
1	AA	1780	A
1	AA	1782	C
1	AA	1787	A
1	AA	1791	A
1	AA	1798	U

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Mol	Chain	Res	Type
1	AA	1799	G
1	AA	1800	C
1	AA	1801	G
1	AA	1802	A
1	AA	1809	A
1	AA	1814	G
1	AA	1816	G
1	AA	1819	A
1	AA	1829	A
1	AA	1835	G
1	AA	1836	C
1	AA	1847	A
1	AA	1858	G
1	AA	1860	G
1	AA	1869	G
1	AA	1870	C
1	AA	1878	G
1	AA	1882	C
1	AA	1883	G
1	AA	1888	G
1	AA	1894	C
1	AA	1896	G
1	AA	1900	A
1	AA	1901	A
1	AA	1902	C
1	AA	1903	G
1	AA	1906	G
1	AA	1914	C
1	AA	1926	U
1	AA	1929	G
1	AA	1930	G
1	AA	1938	A
1	AA	1955	U
1	AA	1956	U
1	AA	1963	U
1	AA	1964	G
1	AA	1967	C
1	AA	1969	A
1	AA	1970	A
1	AA	1971	A
1	AA	1972	A
1	AA	1982	C

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Mol	Chain	Res	Type
1	AA	1985	G
1	AA	1993	U
1	AA	2020	A
1	AA	2023	G
1	AA	2031	A
1	AA	2032	G
1	AA	2033	A
1	AA	2036	C
1	AA	2043	C
1	AA	2049	G
1	AA	2054	A
1	AA	2055	C
1	AA	2056	G
1	AA	2060	A
1	AA	2061	G
1	AA	2062	A
1	AA	2069	G
1	AA	2070	G
1	AA	2095	C
1	AA	2111	C
1	AA	2112	G
1	AA	2113	U
1	AA	2114	A
1	AA	2115	G
1	AA	2120	G
1	AA	2122	U
1	AA	2126	A
1	AA	2128	C
1	AA	2130	U
1	AA	2132	U
1	AA	2133	G
1	AA	2135	A
1	AA	2136	C
1	AA	2139	C
1	AA	2146	C
1	AA	2147	G
1	AA	2148	G
1	AA	2157	G
1	AA	2158	A
1	AA	2164	C
1	AA	2166	G
1	AA	2167	U

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Mol	Chain	Res	Type
1	AA	2168	G
1	AA	2169	A
1	AA	2171	A
1	AA	2172	U
1	AA	2173	A
1	AA	2181	G
1	AA	2190	G
1	AA	2192	G
1	AA	2194	G
1	AA	2198	A
1	AA	2199	A
1	AA	2205	C
1	AA	2206	C
1	AA	2210	G
1	AA	2211	G
1	AA	2212	A
1	AA	2215	G
1	AA	2224	G
1	AA	2225	A
1	AA	2226	C
1	AA	2238	G
1	AA	2239	G
1	AA	2240	C
1	AA	2242	G
1	AA	2243	U
1	AA	2267	A
1	AA	2269	A
1	AA	2272	U
1	AA	2273	A
1	AA	2275	C
1	AA	2278	A
1	AA	2283	C
1	AA	2287	A
1	AA	2294	C
1	AA	2307	G
1	AA	2308	G
1	AA	2310	A
1	AA	2314	C
1	AA	2319	G
1	AA	2320	A
1	AA	2325	G
1	AA	2327	A

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Mol	Chain	Res	Type
1	AA	2334	G
1	AA	2336	A
1	AA	2341	G
1	AA	2346	A
1	AA	2347	C
1	AA	2350	C
1	AA	2359	C
1	AA	2364	C
1	AA	2372	G
1	AA	2383	G
1	AA	2385	C
1	AA	2388	A
1	AA	2389	G
1	AA	2392	A
1	AA	2393	A
1	AA	2394	C
1	AA	2396	G
1	AA	2402	C
1	AA	2403	C
1	AA	2405	G
1	AA	2406	U
1	AA	2410	G
1	AA	2422	A
1	AA	2424	C
1	AA	2425	A
1	AA	2428	G
1	AA	2429	G
1	AA	2430	A
1	AA	2431	U
1	AA	2435	A
1	AA	2439	A
1	AA	2440	C
1	AA	2441	C
1	AA	2445	G
1	AA	2447	G
1	AA	2448	A
1	AA	2469	A
1	AA	2474	C
1	AA	2476	A
1	AA	2478	A
1	AA	2482	G
1	AA	2486	G

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Mol	Chain	Res	Type
1	AA	2487	G
1	AA	2494	G
1	AA	2499	C
1	AA	2500	U
1	AA	2502	G
1	AA	2504	U
1	AA	2505	G
1	AA	2506	U
1	AA	2507	C
1	AA	2518	A
1	AA	2529	G
1	AA	2543	G
1	AA	2549	G
1	AA	2554	U
1	AA	2566	A
1	AA	2567	G
1	AA	2573	C
1	AA	2574	G
1	AA	2580	U
1	AA	2582	G
1	AA	2601	C
1	AA	2602	A
1	AA	2609	U
1	AA	2610	C
1	AA	2611	U
1	AA	2612	C
1	AA	2613	U
1	AA	2614	A
1	AA	2629	A
1	AA	2630	G
1	AA	2632	A
1	AA	2636	U
1	AA	2646	C
1	AA	2661	G
1	AA	2665	A
1	AA	2673	G
1	AA	2679	A
1	AA	2682	U
1	AA	2683	C
1	AA	2689	U
1	AA	2690	C
1	AA	2691	C

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Mol	Chain	Res	Type
1	AA	2702	U
1	AA	2707	G
1	AA	2712	U
1	AA	2712(A)	A
1	AA	2713	A
1	AA	2714	G
1	AA	2724	C
1	AA	2726	U
1	AA	2733	A
1	AA	2734	A
1	AA	2739	U
1	AA	2748	A
1	AA	2752	C
1	AA	2757	A
1	AA	2758	A
1	AA	2764	A
1	AA	2765	A
1	AA	2766	G
1	AA	2778	A
1	AA	2779	U
1	AA	2781	A
1	AA	2787	C
1	AA	2789	C
1	AA	2791	C
1	AA	2793	G
1	AA	2794	C
1	AA	2795	G
1	AA	2797	U
1	AA	2798	C
1	AA	2799	A
1	AA	2801	A
1	AA	2807	G
1	AA	2808	U
1	AA	2813	A
1	AA	2818	G
1	AA	2820	A
1	AA	2821	A
1	AA	2830	G
1	AA	2833	G
1	AA	2834	G
1	AA	2835	A
1	AA	2847	U

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Mol	Chain	Res	Type
1	AA	2872	G
1	AA	2873	A
1	AA	2879	C
1	AA	2891	G
1	AA	2892	A
1	AA	2894	G
2	AB	1	U
2	AB	5	C
2	AB	7	G
2	AB	12	C
2	AB	13	A
2	AB	15	A
2	AB	19	G
2	AB	25	A
2	AB	33	G
2	AB	40	U
2	AB	41	U
2	AB	56	G
2	AB	58	A
2	AB	65	C
2	AB	66	A
2	AB	72	G
2	AB	73	A
2	AB	74	U
2	AB	89	G
2	AB	108	C
2	AB	109	G
2	AB	116	G
2	AB	119	A
31	BA	7	G
31	BA	8	A
31	BA	9	G
31	BA	30	U
31	BA	31	G
31	BA	32	A
31	BA	39	G
31	BA	47	C
31	BA	48	C
31	BA	49	U
31	BA	50	A
31	BA	51	A
31	BA	61	G

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Mol	Chain	Res	Type
31	BA	65	U
31	BA	66	G
31	BA	75	C
31	BA	76	G
31	BA	78	G
31	BA	80	G
31	BA	81	G
31	BA	82	U
31	BA	84	U
31	BA	85	U
31	BA	86	U
31	BA	87	A
31	BA	89	U
31	BA	90	C
31	BA	91	C
31	BA	95	G
31	BA	101	A
31	BA	115	G
31	BA	116	A
31	BA	119	A
31	BA	120	A
31	BA	121	C
31	BA	131	C
31	BA	144	G
31	BA	157	G
31	BA	161	A
31	BA	163	C
31	BA	171	A
31	BA	172	A
31	BA	173	U
31	BA	174	C
31	BA	180	U
31	BA	182	U
31	BA	183	G
31	BA	189	U
31	BA	190	G
31	BA	191(C)	G
31	BA	195	A
31	BA	197	A
31	BA	201	C
31	BA	208	U
31	BA	209	U

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Mol	Chain	Res	Type
31	BA	210	U
31	BA	216	G
31	BA	217	C
31	BA	220	G
31	BA	222	U
31	BA	231	G
31	BA	245	C
31	BA	247	G
31	BA	251	G
31	BA	257	G
31	BA	262	A
31	BA	266	G
31	BA	267	C
31	BA	271	C
31	BA	274	A
31	BA	280	C
31	BA	281	G
31	BA	289	G
31	BA	308	C
31	BA	313	A
31	BA	319	G
31	BA	321	A
31	BA	324	G
31	BA	328	C
31	BA	330	C
31	BA	332	G
31	BA	344	A
31	BA	345	C
31	BA	346	G
31	BA	352	C
31	BA	353	A
31	BA	354	G
31	BA	357	G
31	BA	365	U
31	BA	367	U
31	BA	372	C
31	BA	384	G
31	BA	397	A
31	BA	398	C
31	BA	411	A
31	BA	412	A
31	BA	413	G

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Mol	Chain	Res	Type
31	BA	418	C
31	BA	419	C
31	BA	422	C
31	BA	423	G
31	BA	424	G
31	BA	429	U
31	BA	430	A
31	BA	439	A
31	BA	440	A
31	BA	442	C
31	BA	452	A
31	BA	465	A
31	BA	466	C
31	BA	467	G
31	BA	479	C
31	BA	485	G
31	BA	496	A
31	BA	497	U
31	BA	503	C
31	BA	504	C
31	BA	505	G
31	BA	510	A
31	BA	511	C
31	BA	513	C
31	BA	518	C
31	BA	519	C
31	BA	521	G
31	BA	524	G
31	BA	527	G
31	BA	531	U
31	BA	533	A
31	BA	536	C
31	BA	547	A
31	BA	559	A
31	BA	560	U
31	BA	561	U
31	BA	572	A
31	BA	573	A
31	BA	576	G
31	BA	577	G
31	BA	597	G
31	BA	619	U

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Mol	Chain	Res	Type
31	BA	620	C
31	BA	630	G
31	BA	631	G
31	BA	632	A
31	BA	633	G
31	BA	639	G
31	BA	646	U
31	BA	653	A
31	BA	665	A
31	BA	672	U
31	BA	687	A
31	BA	688	G
31	BA	701	C
31	BA	704	A
31	BA	723	U
31	BA	724	G
31	BA	748	C
31	BA	749	C
31	BA	752	G
31	BA	755	G
31	BA	759	A
31	BA	774	G
31	BA	778	G
31	BA	792	A
31	BA	793	U
31	BA	794	A
31	BA	796	C
31	BA	799	G
31	BA	812	C
31	BA	813	U
31	BA	815	A
31	BA	817	C
31	BA	818	G
31	BA	820	U
31	BA	821	G
31	BA	827	U
31	BA	828	A
31	BA	841	U
31	BA	843	U
31	BA	848	C
31	BA	859	A
31	BA	872	A

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Mol	Chain	Res	Type
31	BA	873	A
31	BA	876	G
31	BA	877	C
31	BA	889	A
31	BA	902	G
31	BA	914	A
31	BA	922	G
31	BA	925	G
31	BA	926	G
31	BA	927	G
31	BA	934	C
31	BA	935	A
31	BA	948	C
31	BA	949	A
31	BA	960	U
31	BA	966	G
31	BA	968	A
31	BA	969	A
31	BA	971	G
31	BA	972	C
31	BA	974	A
31	BA	975	A
31	BA	976	G
31	BA	977	A
31	BA	982	U
31	BA	983	A
31	BA	991	U
31	BA	992	U
31	BA	993	G
31	BA	1004	A
31	BA	1006	C
31	BA	1008	C
31	BA	1017	G
31	BA	1021	G
31	BA	1024	G
31	BA	1025	U
31	BA	1026	G
31	BA	1027	C
31	BA	1028	C
31	BA	1029	G
31	BA	1032(A)	G
31	BA	1033	G

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Mol	Chain	Res	Type
31	BA	1034	G
31	BA	1036	G
31	BA	1040	U
31	BA	1042	G
31	BA	1054	C
31	BA	1055	A
31	BA	1056	U
31	BA	1081	G
31	BA	1094	G
31	BA	1095	U
31	BA	1101	A
31	BA	1108	G
31	BA	1124	G
31	BA	1125	U
31	BA	1126	U
31	BA	1127	G
31	BA	1129	C
31	BA	1131	G
31	BA	1133	G
31	BA	1136	U
31	BA	1137	C
31	BA	1138	G
31	BA	1139	G
31	BA	1140	C
31	BA	1146	A
31	BA	1151	A
31	BA	1157	A
31	BA	1158	C
31	BA	1159	U
31	BA	1160	G
31	BA	1171	G
31	BA	1177	G
31	BA	1178	G
31	BA	1179	A
31	BA	1181	G
31	BA	1182	G
31	BA	1183	A
31	BA	1186	G
31	BA	1187	G
31	BA	1188	A
31	BA	1189	C
31	BA	1193	G

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Mol	Chain	Res	Type
31	BA	1195	C
31	BA	1196	U
31	BA	1197	G
31	BA	1200	C
31	BA	1201	A
31	BA	1202	G
31	BA	1211	U
31	BA	1212	U
31	BA	1225	A
31	BA	1226	C
31	BA	1227	A
31	BA	1228	C
31	BA	1236	A
31	BA	1238	A
31	BA	1240	U
31	BA	1241	G
31	BA	1253	G
31	BA	1256	A
31	BA	1257	U
31	BA	1258	G
31	BA	1262	C
31	BA	1270	C
31	BA	1272	G
31	BA	1278	U
31	BA	1279	A
31	BA	1280	A
31	BA	1281	U
31	BA	1282	C
31	BA	1286	A
31	BA	1287	A
31	BA	1290	G
31	BA	1291	G
31	BA	1294	G
31	BA	1299	A
31	BA	1300	G
31	BA	1301	U
31	BA	1302	U
31	BA	1303	C
31	BA	1305	G
31	BA	1319	A
31	BA	1320	C
31	BA	1322	C

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Mol	Chain	Res	Type
31	BA	1323	G
31	BA	1326	C
31	BA	1331	G
31	BA	1332	A
31	BA	1335	C
31	BA	1336	C
31	BA	1337	G
31	BA	1344	C
31	BA	1346	A
31	BA	1347	G
31	BA	1350	A
31	BA	1353	G
31	BA	1362(A)	C
31	BA	1363	A
31	BA	1364	U
31	BA	1365	G
31	BA	1370	G
31	BA	1373	G
31	BA	1393	U
31	BA	1397	C
31	BA	1398	A
31	BA	1399	C
31	BA	1401	G
31	BA	1419	G
31	BA	1439	C
31	BA	1442	G
31	BA	1443	G
31	BA	1446	A
31	BA	1452	C
31	BA	1453	G
31	BA	1487	G
31	BA	1492	A
31	BA	1497	G
31	BA	1499	A
31	BA	1502	A
31	BA	1503	A
31	BA	1504	G
31	BA	1505	G
31	BA	1506	U
31	BA	1517	G
31	BA	1519	A
31	BA	1520	G

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Mol	Chain	Res	Type
31	BA	1528	U
31	BA	1529	G
52	BB	4	G
52	BB	7	G
52	BB	8	U
52	BB	9	U
52	BB	11	C
52	BB	14	A
52	BB	16	C
52	BB	17	G
52	BB	18	G
52	BB	19	C
52	BB	20	C
52	BB	21	A
52	BB	23	A
52	BB	24	G
52	BB	26	G
52	BB	27	A
52	BB	30	A
52	BB	35	G
52	BB	40	U
52	BB	42	U
52	BB	46	G
52	BB	47	U
52	BB	48	C
52	BB	50	U
52	BB	52	G
52	BB	53	A
52	BB	55	U
52	BB	57	C
52	BB	58	G
52	BB	63	U
52	BB	68	A
52	BB	69	U
52	BB	70	C
52	BB	72	U
52	BB	73	U
52	BB	74	C
52	BB	75	C
52	BB	76	C
52	BB	78	C
52	BB	79	A

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Mol	Chain	Res	Type
52	BB	80	C
52	BB	81	C
52	BB	82	A
52	BB	83	C
52	BB	84	C
53	BC	2	G
53	BC	6	G
53	BC	9	G
53	BC	16	C
53	BC	18	C
53	BC	19	G
53	BC	20	G
53	BC	21	U
53	BC	22	A
53	BC	23	G
53	BC	32	G
53	BC	44	A
53	BC	47	G
53	BC	48	U
53	BC	49	C
53	BC	53	G
53	BC	77	A
52	BD	6	G
52	BD	8	U
52	BD	9	U
52	BD	10	C
52	BD	12	C
52	BD	14	A
52	BD	15	G
52	BD	17	G
52	BD	18	G
52	BD	19	C
52	BD	20	C
52	BD	21	A
52	BD	22	A
52	BD	23	A
52	BD	24	G
52	BD	30	A
52	BD	41	C
52	BD	44	C
52	BD	46	G
52	BD	47	U

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Mol	Chain	Res	Type
52	BD	48	C
52	BD	50	U
52	BD	52	G
52	BD	54	C
52	BD	55	U
52	BD	56	U
52	BD	57	C
52	BD	58	G
52	BD	64	U
52	BD	67	A
52	BD	68	A
52	BD	69	U
52	BD	70	C
52	BD	79	A
52	BD	80	C
52	BD	81	C
52	BD	82	A
52	BD	85	A
54	B1	11	U
54	B1	12	A
54	B1	13	A
54	B1	14	A
54	B1	19	U
54	B1	23	A
54	B1	24	A
31	CA	7	G
31	CA	9	G
31	CA	22	G
31	CA	32	A
31	CA	39	G
31	CA	41	G
31	CA	42	G
31	CA	47	C
31	CA	48	C
31	CA	50	A
31	CA	51	A
31	CA	54	C
31	CA	65	U
31	CA	76	G
31	CA	78	G
31	CA	81	G
31	CA	84	U

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Mol	Chain	Res	Type
31	CA	85	U
31	CA	86	U
31	CA	87	A
31	CA	90	C
31	CA	91	C
31	CA	95	G
31	CA	116	A
31	CA	118	U
31	CA	121	C
31	CA	131	C
31	CA	144	G
31	CA	146	G
31	CA	174	C
31	CA	182	U
31	CA	185	A
31	CA	188	U
31	CA	189	U
31	CA	190	G
31	CA	191(D)	U
31	CA	195	A
31	CA	197	A
31	CA	198	G
31	CA	199	G
31	CA	208	U
31	CA	209	U
31	CA	210	U
31	CA	216	G
31	CA	231	G
31	CA	244	U
31	CA	247	G
31	CA	250	A
31	CA	251	G
31	CA	266	G
31	CA	267	C
31	CA	281	G
31	CA	289	G
31	CA	298	A
31	CA	319	G
31	CA	321	A
31	CA	328	C
31	CA	329	A
31	CA	332	G

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Mol	Chain	Res	Type
31	CA	345	C
31	CA	346	G
31	CA	347	G
31	CA	350	G
31	CA	351	G
31	CA	352	C
31	CA	353	A
31	CA	354	G
31	CA	355	C
31	CA	356	A
31	CA	363	A
31	CA	366	C
31	CA	367	U
31	CA	372	C
31	CA	373	A
31	CA	397	A
31	CA	398	C
31	CA	406	G
31	CA	411	A
31	CA	412	A
31	CA	413	G
31	CA	414	A
31	CA	422	C
31	CA	423	G
31	CA	424	G
31	CA	429	U
31	CA	430	A
31	CA	435	C
31	CA	439	A
31	CA	442	C
31	CA	446	G
31	CA	451	A
31	CA	465	A
31	CA	466	C
31	CA	467	G
31	CA	475	G
31	CA	478	A
31	CA	484	G
31	CA	485	G
31	CA	486	U
31	CA	493	G
31	CA	496	A

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Mol	Chain	Res	Type
31	CA	497	U
31	CA	500	G
31	CA	504	C
31	CA	505	G
31	CA	509	A
31	CA	510	A
31	CA	511	C
31	CA	517	G
31	CA	519	C
31	CA	521	G
31	CA	527	G
31	CA	530	G
31	CA	531	U
31	CA	532	A
31	CA	533	A
31	CA	536	C
31	CA	544	G
31	CA	547	A
31	CA	557	G
31	CA	559	A
31	CA	561	U
31	CA	562	C
31	CA	564	C
31	CA	572	A
31	CA	573	A
31	CA	575	G
31	CA	576	G
31	CA	577	G
31	CA	607	A
31	CA	608	A
31	CA	614	A
31	CA	618	C
31	CA	629	G
31	CA	632	A
31	CA	633	G
31	CA	651	C
31	CA	653	A
31	CA	662	G
31	CA	665	A
31	CA	680	C
31	CA	687	A
31	CA	688	G

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Mol	Chain	Res	Type
31	CA	701	C
31	CA	702	A
31	CA	703	G
31	CA	704	A
31	CA	716	A
31	CA	721	G
31	CA	724	G
31	CA	731	G
31	CA	733	A
31	CA	734	G
31	CA	749	C
31	CA	755	G
31	CA	767	A
31	CA	772	U
31	CA	776	G
31	CA	777	A
31	CA	782	A
31	CA	792	A
31	CA	794	A
31	CA	802	A
31	CA	812	C
31	CA	813	U
31	CA	816	A
31	CA	817	C
31	CA	821	G
31	CA	827	U
31	CA	828	A
31	CA	841	U
31	CA	842	C
31	CA	843	U
31	CA	848	C
31	CA	855	G
31	CA	859	A
31	CA	867	G
31	CA	871	U
31	CA	873	A
31	CA	874	G
31	CA	885	G
31	CA	894	G
31	CA	913	A
31	CA	914	A
31	CA	926	G

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Mol	Chain	Res	Type
31	CA	927	G
31	CA	934	C
31	CA	935	A
31	CA	958	A
31	CA	960	U
31	CA	961	U
31	CA	966	G
31	CA	968	A
31	CA	969	A
31	CA	974	A
31	CA	975	A
31	CA	976	G
31	CA	977	A
31	CA	978	A
31	CA	980	C
31	CA	982	U
31	CA	983	A
31	CA	991	U
31	CA	992	U
31	CA	993	G
31	CA	995	C
31	CA	1004	A
31	CA	1006	C
31	CA	1009	G
31	CA	1016	A
31	CA	1020	U
31	CA	1021	G
31	CA	1023	G
31	CA	1024	G
31	CA	1025	U
31	CA	1026	G
31	CA	1027	C
31	CA	1028	C
31	CA	1029	G
31	CA	1030	C
31	CA	1035	A
31	CA	1036	G
31	CA	1037	C
31	CA	1040	U
31	CA	1045	C
31	CA	1050	G
31	CA	1053	G

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Mol	Chain	Res	Type
31	CA	1054	C
31	CA	1055	A
31	CA	1056	U
31	CA	1066	C
31	CA	1067	A
31	CA	1073	U
31	CA	1081	G
31	CA	1082	G
31	CA	1084	G
31	CA	1092	A
31	CA	1094	G
31	CA	1095	U
31	CA	1097	C
31	CA	1101	A
31	CA	1113	C
31	CA	1117	G
31	CA	1124	G
31	CA	1125	U
31	CA	1127	G
31	CA	1128	C
31	CA	1129	C
31	CA	1130	A
31	CA	1136	U
31	CA	1137	C
31	CA	1138	G
31	CA	1139	G
31	CA	1146	A
31	CA	1151	A
31	CA	1154	G
31	CA	1157	A
31	CA	1158	C
31	CA	1159	U
31	CA	1160	G
31	CA	1171	G
31	CA	1177	G
31	CA	1178	G
31	CA	1179	A
31	CA	1181	G
31	CA	1182	G
31	CA	1183	A
31	CA	1184	G
31	CA	1187	G

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Mol	Chain	Res	Type
31	CA	1190	G
31	CA	1191	A
31	CA	1196	U
31	CA	1197	G
31	CA	1198	G
31	CA	1200	C
31	CA	1201	A
31	CA	1202	G
31	CA	1212	U
31	CA	1213	A
31	CA	1214	C
31	CA	1224	G
31	CA	1225	A
31	CA	1227	A
31	CA	1235	U
31	CA	1238	A
31	CA	1240	U
31	CA	1241	G
31	CA	1256	A
31	CA	1257	U
31	CA	1258	G
31	CA	1260	C
31	CA	1269	A
31	CA	1270	C
31	CA	1278	U
31	CA	1279	A
31	CA	1280	A
31	CA	1286	A
31	CA	1287	A
31	CA	1288	A
31	CA	1297	C
31	CA	1298	C
31	CA	1299	A
31	CA	1301	U
31	CA	1305	G
31	CA	1317	C
31	CA	1319	A
31	CA	1320	C
31	CA	1322	C
31	CA	1323	G
31	CA	1331	G
31	CA	1335	C

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Mol	Chain	Res	Type
31	CA	1338	G
31	CA	1340	A
31	CA	1346	A
31	CA	1347	G
31	CA	1353	G
31	CA	1363	A
31	CA	1364	U
31	CA	1368	G
31	CA	1370	G
31	CA	1379	G
31	CA	1386	G
31	CA	1397	C
31	CA	1398	A
31	CA	1400	C
31	CA	1402	C
31	CA	1404	C
31	CA	1405	G
31	CA	1419	G
31	CA	1441	G
31	CA	1442	G
31	CA	1443	G
31	CA	1446	A
31	CA	1447	G
31	CA	1450	U
31	CA	1451	A
31	CA	1452	C
31	CA	1453	G
31	CA	1454	G
31	CA	1492	A
31	CA	1494	G
31	CA	1499	A
31	CA	1502	A
31	CA	1503	A
31	CA	1504	G
31	CA	1506	U
31	CA	1507	A
31	CA	1517	G
31	CA	1518	A
31	CA	1520	G
31	CA	1529	G
52	CB	4	G
52	CB	5	G

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Mol	Chain	Res	Type
52	CB	7	G
52	CB	8	U
52	CB	9	U
52	CB	11	C
52	CB	16	C
52	CB	17	G
52	CB	18	G
52	CB	19	C
52	CB	20	C
52	CB	21	A
52	CB	22	A
52	CB	23	A
52	CB	24	G
52	CB	26	G
52	CB	27	A
52	CB	28	G
52	CB	30	A
52	CB	34	U
52	CB	35	G
52	CB	37	A
52	CB	39	A
52	CB	41	C
52	CB	42	U
52	CB	45	C
52	CB	46	G
52	CB	47	U
52	CB	50	U
52	CB	51	C
52	CB	52	G
52	CB	54	C
52	CB	55	U
52	CB	56	U
52	CB	58	G
52	CB	62	G
52	CB	63	U
52	CB	68	A
52	CB	70	C
52	CB	73	U
52	CB	74	C
52	CB	75	C
52	CB	76	C
52	CB	78	C

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Mol	Chain	Res	Type
52	CB	79	A
52	CB	80	C
52	CB	81	C
52	CB	82	A
52	CB	83	C
53	CC	6	G
53	CC	9	G
53	CC	16	C
53	CC	17	C
53	CC	18	C
53	CC	19	G
53	CC	20	G
53	CC	21	U
53	CC	22	A
53	CC	23	G
53	CC	38	A
53	CC	43	G
53	CC	47	G
53	CC	48	U
53	CC	49	C
53	CC	50	G
53	CC	51	U
53	CC	66	C
53	CC	68	C
53	CC	77	A
52	CD	5	G
52	CD	6	G
52	CD	8	U
52	CD	9	U
52	CD	10	C
52	CD	13	G
52	CD	14	A
52	CD	15	G
52	CD	17	G
52	CD	18	G
52	CD	19	C
52	CD	20	C
52	CD	21	A
52	CD	22	A
52	CD	23	A
52	CD	25	G
52	CD	30	A

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Mol	Chain	Res	Type
52	CD	32	A
52	CD	44	C
52	CD	45	C
52	CD	46	G
52	CD	49	A
52	CD	50	U
52	CD	52	G
52	CD	53	A
52	CD	54	C
52	CD	55	U
52	CD	56	U
52	CD	58	G
52	CD	64	U
52	CD	67	A
52	CD	68	A
52	CD	69	U
52	CD	70	C
52	CD	85	A
54	C1	11	U
54	C1	12	A
54	C1	13	A
54	C1	14	A
54	C1	19	U
54	C1	20	G
54	C1	22	A
54	C1	23	A
1	DA	3	U
1	DA	5	A
1	DA	6	A
1	DA	10	G
1	DA	34	C
1	DA	36	G
1	DA	46	C
1	DA	47	C
1	DA	49	A
1	DA	50	U
1	DA	51	G
1	DA	53	A
1	DA	55	G
1	DA	58	G
1	DA	60	G
1	DA	61	G

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Mol	Chain	Res	Type
1	DA	70	G
1	DA	71	A
1	DA	72	U
1	DA	74	A
1	DA	75	G
1	DA	78	A
1	DA	84	A
1	DA	90	U
1	DA	91	A
1	DA	93	C
1	DA	94	G
1	DA	95	G
1	DA	99	U
1	DA	102	G
1	DA	118	A
1	DA	119	A
1	DA	120	U
1	DA	121	G
1	DA	122	G
1	DA	129	C
1	DA	135	G
1	DA	138	G
1	DA	139	G
1	DA	140	A
1	DA	153	C
1	DA	154	G
1	DA	155	C
1	DA	172	C
1	DA	173	G
1	DA	174	C
1	DA	175	G
1	DA	196	A
1	DA	199	A
1	DA	200	U
1	DA	205	G
1	DA	206	U
1	DA	214	G
1	DA	215	G
1	DA	216	A
1	DA	221	A
1	DA	222	A
1	DA	228	A

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Mol	Chain	Res	Type
1	DA	229	A
1	DA	233	A
1	DA	238	C
1	DA	248	G
1	DA	249	C
1	DA	252	G
1	DA	264	C
1	DA	270(K)	C
1	DA	270(L)	U
1	DA	270(M)	U
1	DA	270(O)	U
1	DA	270(Z)	U
1	DA	271(C)	U
1	DA	271	G
1	DA	273(B)	C
1	DA	273(D)	C
1	DA	274	G
1	DA	275	G
1	DA	276	A
1	DA	278	A
1	DA	279	C
1	DA	283	A
1	DA	287	C
1	DA	289	A
1	DA	298	G
1	DA	303	U
1	DA	311	A
1	DA	312	G
1	DA	324	A
1	DA	329	G
1	DA	330	A
1	DA	331	A
1	DA	342	G
1	DA	352	G
1	DA	354	G
1	DA	356	G
1	DA	357	A
1	DA	362	U
1	DA	363	G
1	DA	363(E)	U
1	DA	363(F)	A
1	DA	364	C

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Mol	Chain	Res	Type
1	DA	372	G
1	DA	386	G
1	DA	395	U
1	DA	396	G
1	DA	405	U
1	DA	406	G
1	DA	411	G
1	DA	414	C
1	DA	427	U
1	DA	428	A
1	DA	443	A
1	DA	444	C
1	DA	448	U
1	DA	454	A
1	DA	455	C
1	DA	457	A
1	DA	470	A
1	DA	471	A
1	DA	481	G
1	DA	482	A
1	DA	488	G
1	DA	489	G
1	DA	494	G
1	DA	505	A
1	DA	508	G
1	DA	509	C
1	DA	512	G
1	DA	525	U
1	DA	528	A
1	DA	530	G
1	DA	531	C
1	DA	532	A
1	DA	533	G
1	DA	547	A
1	DA	549	G
1	DA	556	G
1	DA	562	U
1	DA	563	G
1	DA	573	G
1	DA	575	A
1	DA	593	G
1	DA	603	A

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Mol	Chain	Res	Type
1	DA	607	U
1	DA	609(A)	G
1	DA	613	U
1	DA	614	U
1	DA	615	G
1	DA	617	G
1	DA	618	G
1	DA	619	G
1	DA	621	A
1	DA	622	G
1	DA	627	A
1	DA	634	C
1	DA	637	A
1	DA	644	A
1	DA	645	C
1	DA	646	A
1	DA	649	G
1	DA	651	G
1	DA	652	C
1	DA	654	A
1	DA	654(A)	A
1	DA	654(G)	C
1	DA	654(I)	C
1	DA	654(K)	C
1	DA	654(N)	G
1	DA	654(T)	A
1	DA	664	C
1	DA	669	G
1	DA	670	A
1	DA	686	G
1	DA	717	G
1	DA	720	C
1	DA	722	A
1	DA	730	C
1	DA	739	G
1	DA	740	U
1	DA	745	G
1	DA	746	A
1	DA	748	G
1	DA	749	C
1	DA	752	A
1	DA	753	C

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Mol	Chain	Res	Type
1	DA	762	U
1	DA	776	G
1	DA	779	U
1	DA	782	A
1	DA	784	A
1	DA	785	G
1	DA	789	A
1	DA	790	C
1	DA	791	C
1	DA	792	G
1	DA	793	A
1	DA	797	C
1	DA	801	G
1	DA	805	G
1	DA	808	G
1	DA	812	C
1	DA	819	A
1	DA	827	U
1	DA	832	G
1	DA	846	C
1	DA	852	G
1	DA	856	C
1	DA	859	G
1	DA	870	A
1	DA	871	U
1	DA	878	A
1	DA	880	G
1	DA	882	G
1	DA	885	C
1	DA	886	C
1	DA	887	A
1	DA	888	C
1	DA	889	C
1	DA	890	A
1	DA	894	C
1	DA	896	A
1	DA	897	C
1	DA	898	C
1	DA	899	A
1	DA	900	A
1	DA	901	A
1	DA	902	C

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Mol	Chain	Res	Type
1	DA	903	C
1	DA	904	C
1	DA	910	A
1	DA	915	C
1	DA	916	G
1	DA	917	A
1	DA	926	A
1	DA	932	G
1	DA	933	A
1	DA	934	G
1	DA	935	C
1	DA	941	A
1	DA	945	A
1	DA	946	G
1	DA	958	U
1	DA	959	A
1	DA	961	C
1	DA	972	G
1	DA	974	G
1	DA	976	C
1	DA	980	A
1	DA	983	A
1	DA	987	G
1	DA	989	G
1	DA	990	A
1	DA	991	C
1	DA	996	A
1	DA	998	C
1	DA	1005	C
1	DA	1012	U
1	DA	1013	C
1	DA	1016	G
1	DA	1022	G
1	DA	1023	U
1	DA	1024	G
1	DA	1025	G
1	DA	1026	U
1	DA	1028	A
1	DA	1029	A
1	DA	1031	G
1	DA	1034	G
1	DA	1044	G

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Mol	Chain	Res	Type
1	DA	1045	A
1	DA	1048	A
1	DA	1050	A
1	DA	1051	G
1	DA	1054	A
1	DA	1059	G
1	DA	1060	U
1	DA	1061	U
1	DA	1065	U
1	DA	1067	A
1	DA	1068	G
1	DA	1070	A
1	DA	1071	G
1	DA	1076	C
1	DA	1085	A
1	DA	1086	A
1	DA	1087	G
1	DA	1088	A
1	DA	1089	G
1	DA	1090	U
1	DA	1091	G
1	DA	1095	A
1	DA	1096	A
1	DA	1099	G
1	DA	1111	A
1	DA	1112	G
1	DA	1122	G
1	DA	1128	A
1	DA	1129	A
1	DA	1135	C
1	DA	1136	G
1	DA	1137	G
1	DA	1139	G
1	DA	1141	U
1	DA	1142	U
1	DA	1142(A)	A
1	DA	1143	A
1	DA	1149	G
1	DA	1159	U
1	DA	1168	G
1	DA	1170	G
1	DA	1171	G

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Mol	Chain	Res	Type
1	DA	1173	G
1	DA	1174	A
1	DA	1175	U
1	DA	1176	G
1	DA	1177	A
1	DA	1178	C
1	DA	1203	G
1	DA	1204	A
1	DA	1205	U
1	DA	1211	U
1	DA	1219	G
1	DA	1220	A
1	DA	1234	U
1	DA	1237	A
1	DA	1242	A
1	DA	1244	G
1	DA	1248	G
1	DA	1253	A
1	DA	1254	A
1	DA	1255	U
1	DA	1256	G
1	DA	1271	G
1	DA	1272	A
1	DA	1273	U
1	DA	1298	C
1	DA	1300	U
1	DA	1301	A
1	DA	1302	A
1	DA	1313	U
1	DA	1314	C
1	DA	1319	G
1	DA	1320	C
1	DA	1325	G
1	DA	1329	U
1	DA	1332	G
1	DA	1345	C
1	DA	1349	A
1	DA	1352	U
1	DA	1359	A
1	DA	1360	A
1	DA	1365	A
1	DA	1368	G

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Mol	Chain	Res	Type
1	DA	1370	C
1	DA	1380	G
1	DA	1384	A
1	DA	1385	G
1	DA	1386	C
1	DA	1395	A
1	DA	1398	C
1	DA	1404	C
1	DA	1405	U
1	DA	1407	C
1	DA	1415	U
1	DA	1416	G
1	DA	1417	C
1	DA	1419	A
1	DA	1420	U
1	DA	1421	G
1	DA	1427	A
1	DA	1428	C
1	DA	1435	G
1	DA	1437	C
1	DA	1443	G
1	DA	1444(A)	A
1	DA	1445	C
1	DA	1449	A
1	DA	1449(A)	G
1	DA	1451	C
1	DA	1458	C
1	DA	1460	A
1	DA	1461	G
1	DA	1467	C
1	DA	1471	A
1	DA	1475	G
1	DA	1478	G
1	DA	1482	U
1	DA	1483	G
1	DA	1490	A
1	DA	1492	G
1	DA	1493	C
1	DA	1496	A
1	DA	1508	A
1	DA	1509	C
1	DA	1510	A

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Mol	Chain	Res	Type
1	DA	1515	C
1	DA	1516	U
1	DA	1520	U
1	DA	1528	A
1	DA	1534	G
1	DA	1535	U
1	DA	1539	G
1	DA	1543	A
1	DA	1546	C
1	DA	1554	A
1	DA	1558	A
1	DA	1559	G
1	DA	1569	A
1	DA	1578	U
1	DA	1579	A
1	DA	1586	A
1	DA	1588	C
1	DA	1598	C
1	DA	1606	G
1	DA	1607	C
1	DA	1608	A
1	DA	1609	A
1	DA	1610	A
1	DA	1618	A
1	DA	1625	C
1	DA	1635	G
1	DA	1639	U
1	DA	1640	C
1	DA	1644	C
1	DA	1648	C
1	DA	1651	G
1	DA	1654	A
1	DA	1661	G
1	DA	1674	G
1	DA	1675	C
1	DA	1678	G
1	DA	1693	U
1	DA	1695	G
1	DA	1696	G
1	DA	1700	A
1	DA	1701	A
1	DA	1725	G

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Mol	Chain	Res	Type
1	DA	1726	G
1	DA	1728	G
1	DA	1729	A
1	DA	1731	G
1	DA	1734	C
1	DA	1743	G
1	DA	1756	G
1	DA	1758	G
1	DA	1761	C
1	DA	1762	A
1	DA	1763	G
1	DA	1764	G
1	DA	1773	A
1	DA	1780	A
1	DA	1782	C
1	DA	1791	A
1	DA	1794	U
1	DA	1800	C
1	DA	1801	G
1	DA	1802	A
1	DA	1816	G
1	DA	1820	U
1	DA	1829	A
1	DA	1839	G
1	DA	1847	A
1	DA	1848	A
1	DA	1858	G
1	DA	1860	G
1	DA	1871	A
1	DA	1872	A
1	DA	1878	G
1	DA	1882	C
1	DA	1888	G
1	DA	1889	A
1	DA	1896	G
1	DA	1900	A
1	DA	1902	C
1	DA	1906	G
1	DA	1909	C
1	DA	1913	A
1	DA	1915	U
1	DA	1917	U

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Mol	Chain	Res	Type
1	DA	1918	A
1	DA	1929	G
1	DA	1930	G
1	DA	1936	A
1	DA	1938	A
1	DA	1940	U
1	DA	1949	G
1	DA	1955	U
1	DA	1956	U
1	DA	1961	C
1	DA	1963	U
1	DA	1967	C
1	DA	1970	A
1	DA	1971	A
1	DA	1972	A
1	DA	1991	U
1	DA	1993	U
1	DA	2007	C
1	DA	2023	G
1	DA	2031	A
1	DA	2032	G
1	DA	2033	A
1	DA	2039	C
1	DA	2043	C
1	DA	2051	A
1	DA	2055	C
1	DA	2056	G
1	DA	2059	A
1	DA	2060	A
1	DA	2061	G
1	DA	2062	A
1	DA	2069	G
1	DA	2082	A
1	DA	2093	G
1	DA	2100	G
1	DA	2107	C
1	DA	2108	C
1	DA	2111	C
1	DA	2113	U
1	DA	2114	A
1	DA	2117	A
1	DA	2120	G

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Mol	Chain	Res	Type
1	DA	2126	A
1	DA	2127	G
1	DA	2128	C
1	DA	2130	U
1	DA	2131	G
1	DA	2132	U
1	DA	2133	G
1	DA	2134	A
1	DA	2136	C
1	DA	2144	U
1	DA	2145	C
1	DA	2146	C
1	DA	2147	G
1	DA	2148	G
1	DA	2151	G
1	DA	2159	G
1	DA	2164	C
1	DA	2166	G
1	DA	2171	A
1	DA	2172	U
1	DA	2173	A
1	DA	2174	C
1	DA	2191	G
1	DA	2192	G
1	DA	2196	C
1	DA	2198	A
1	DA	2210	G
1	DA	2211	G
1	DA	2212	A
1	DA	2213	U
1	DA	2215	G
1	DA	2225	A
1	DA	2226	C
1	DA	2238	G
1	DA	2239	G
1	DA	2240	C
1	DA	2249	U
1	DA	2252	G
1	DA	2258	C
1	DA	2272	U
1	DA	2273	A
1	DA	2275	C

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Mol	Chain	Res	Type
1	DA	2276	G
1	DA	2280	G
1	DA	2283	C
1	DA	2287	A
1	DA	2288	A
1	DA	2291	U
1	DA	2297	C
1	DA	2303	G
1	DA	2307	G
1	DA	2308	G
1	DA	2309	A
1	DA	2310	A
1	DA	2311	A
1	DA	2312	U
1	DA	2313	C
1	DA	2319	G
1	DA	2320	A
1	DA	2321	G
1	DA	2324	C
1	DA	2325	G
1	DA	2327	A
1	DA	2333	A
1	DA	2334	G
1	DA	2335	A
1	DA	2343	C
1	DA	2345	G
1	DA	2346	A
1	DA	2347	C
1	DA	2350	C
1	DA	2355	C
1	DA	2383	G
1	DA	2385	C
1	DA	2387	U
1	DA	2388	A
1	DA	2389	G
1	DA	2391	G
1	DA	2392	A
1	DA	2394	C
1	DA	2396	G
1	DA	2397	G
1	DA	2402	C
1	DA	2403	C

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Mol	Chain	Res	Type
1	DA	2406	U
1	DA	2411	A
1	DA	2414	G
1	DA	2422	A
1	DA	2425	A
1	DA	2428	G
1	DA	2429	G
1	DA	2430	A
1	DA	2432	A
1	DA	2434	A
1	DA	2435	A
1	DA	2436	G
1	DA	2439	A
1	DA	2440	C
1	DA	2441	C
1	DA	2446	G
1	DA	2447	G
1	DA	2448	A
1	DA	2449	U
1	DA	2467	C
1	DA	2468	G
1	DA	2469	A
1	DA	2470	G
1	DA	2472	G
1	DA	2473	U
1	DA	2476	A
1	DA	2478	A
1	DA	2482	G
1	DA	2484	G
1	DA	2492	U
1	DA	2495	G
1	DA	2496	C
1	DA	2497	A
1	DA	2498	C
1	DA	2501	C
1	DA	2502	G
1	DA	2504	U
1	DA	2505	G
1	DA	2506	U
1	DA	2518	A
1	DA	2519	U
1	DA	2520	C

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Mol	Chain	Res	Type
1	DA	2523	G
1	DA	2525	G
1	DA	2526	G
1	DA	2529	G
1	DA	2530	A
1	DA	2542	A
1	DA	2543	G
1	DA	2551	C
1	DA	2554	U
1	DA	2555	U
1	DA	2566	A
1	DA	2567	G
1	DA	2569	G
1	DA	2571	C
1	DA	2585	U
1	DA	2592	G
1	DA	2602	A
1	DA	2603	G
1	DA	2604	U
1	DA	2608	G
1	DA	2609	U
1	DA	2611	U
1	DA	2612	C
1	DA	2621	A
1	DA	2630	G
1	DA	2636	U
1	DA	2637	U
1	DA	2646	C
1	DA	2654	A
1	DA	2655	G
1	DA	2665	A
1	DA	2669	G
1	DA	2673	G
1	DA	2675	A
1	DA	2679	A
1	DA	2681	C
1	DA	2683	C
1	DA	2684	U
1	DA	2689	U
1	DA	2690	C
1	DA	2691	C
1	DA	2702	U

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Mol	Chain	Res	Type
1	DA	2703	C
1	DA	2707	G
1	DA	2712(A)	A
1	DA	2713	A
1	DA	2714	G
1	DA	2726	U
1	DA	2733	A
1	DA	2744	G
1	DA	2748	A
1	DA	2750	A
1	DA	2751	G
1	DA	2752	C
1	DA	2757	A
1	DA	2758	A
1	DA	2761	G
1	DA	2762	G
1	DA	2763	G
1	DA	2766	G
1	DA	2777	G
1	DA	2778	A
1	DA	2779	U
1	DA	2780	G
1	DA	2781	A
1	DA	2789	C
1	DA	2791	C
1	DA	2797	U
1	DA	2798	C
1	DA	2801	A
1	DA	2808	U
1	DA	2818	G
1	DA	2820	A
1	DA	2821	A
1	DA	2833	G
1	DA	2834	G
1	DA	2844	G
1	DA	2845	G
1	DA	2860	A
1	DA	2872	G
1	DA	2873	A
1	DA	2893	G
1	DA	2894	G
1	DA	2896	C

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Mol	Chain	Res	Type
1	DA	2897	U
2	DB	0	A
2	DB	8	U
2	DB	13	A
2	DB	15	A
2	DB	16	G
2	DB	24	G
2	DB	25	A
2	DB	30	C
2	DB	31	C
2	DB	32	C
2	DB	40	U
2	DB	41	U
2	DB	42	C
2	DB	43	C
2	DB	45	A
2	DB	52	A
2	DB	53	A
2	DB	56	G
2	DB	73	A
2	DB	75	G
2	DB	81	G
2	DB	82	G
2	DB	88	C
2	DB	89	G
2	DB	89(A)	A
2	DB	99	A
2	DB	105	G
2	DB	109	G

All (246) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	125	G
1	AA	196	A
1	AA	222	A
1	AA	229	A
1	AA	270(M)	U
1	AA	270(O)	U
1	AA	271(B)	G
1	AA	404	C
1	AA	481	G

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Mol	Chain	Res	Type
1	AA	504	U
1	AA	587	C
1	AA	746	A
1	AA	752	A
1	AA	800	A
1	AA	880	G
1	AA	945	A
1	AA	974	G
1	AA	974(A)	C
1	AA	1022	G
1	AA	1026	U
1	AA	1060	U
1	AA	1081	U
1	AA	1085	A
1	AA	1130	U
1	AA	1177	A
1	AA	1178	C
1	AA	1210	A
1	AA	1312	U
1	AA	1379	A
1	AA	1416	G
1	AA	1420	U
1	AA	1427	A
1	AA	1497	U
1	AA	1546	C
1	AA	1558	A
1	AA	1608	A
1	AA	1609	A
1	AA	1653	G
1	AA	1694	C
1	AA	1698	A
1	AA	1799	G
1	AA	1900	A
1	AA	1955	U
1	AA	1980	G
1	AA	1992	G
1	AA	2060	A
1	AA	2110	G
1	AA	2135	A
1	AA	2157	G
1	AA	2167	U
1	AA	2171	A

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Mol	Chain	Res	Type
1	AA	2211	G
1	AA	2346	A
1	AA	2402	C
1	AA	2439	A
1	AA	2481	G
1	AA	2566	A
1	AA	2610	C
1	AA	2613	U
1	AA	2689	U
1	AA	2751	G
1	AA	2756	U
31	BA	31	G
31	BA	49	U
31	BA	50	A
31	BA	79	G
31	BA	115	G
31	BA	119	A
31	BA	173	U
31	BA	181	G
31	BA	210	U
31	BA	266	G
31	BA	353	A
31	BA	412	A
31	BA	429	U
31	BA	484	G
31	BA	495	A
31	BA	509	A
31	BA	530	G
31	BA	560	U
31	BA	687	A
31	BA	703	G
31	BA	748	C
31	BA	812	C
31	BA	820	U
31	BA	871	U
31	BA	913	A
31	BA	992	U
31	BA	1025	U
31	BA	1027	C
31	BA	1126	U
31	BA	1178	G
31	BA	1211	U

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Mol	Chain	Res	Type
31	BA	1256	A
31	BA	1285	A
31	BA	1322	C
31	BA	1331	G
31	BA	1452	C
31	BA	1498	U
31	BA	1502	A
31	BA	1504	G
52	BB	3	U
52	BB	18	G
52	BB	19	C
52	BB	46	G
52	BB	75	C
53	BC	19	G
53	BC	47	G
53	BC	48	U
52	BD	17	G
52	BD	18	G
52	BD	21	A
52	BD	57	C
52	BD	67	A
54	B1	11	U
54	B1	13	A
31	CA	31	G
31	CA	64	G
31	CA	86	U
31	CA	89	U
31	CA	115	G
31	CA	197	A
31	CA	201	C
31	CA	209	U
31	CA	243	A
31	CA	250	A
31	CA	266	G
31	CA	327	A
31	CA	328	C
31	CA	345	C
31	CA	412	A
31	CA	429	U
31	CA	485	G
31	CA	509	A
31	CA	560	U

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Mol	Chain	Res	Type
31	CA	631	G
31	CA	632	A
31	CA	686	U
31	CA	687	A
31	CA	723	U
31	CA	748	C
31	CA	812	C
31	CA	873	A
31	CA	913	A
31	CA	982	U
31	CA	991	U
31	CA	992	U
31	CA	1025	U
31	CA	1049	U
31	CA	1054	C
31	CA	1126	U
31	CA	1128	C
31	CA	1145	C
31	CA	1157	A
31	CA	1177	G
31	CA	1196	U
31	CA	1285	A
31	CA	1297	C
31	CA	1300	G
31	CA	1346	A
31	CA	1442	G
31	CA	1449	C
31	CA	1453	G
31	CA	1498	U
31	CA	1503	A
52	CB	3	U
52	CB	6	G
52	CB	18	G
52	CB	19	C
52	CB	46	G
52	CB	57	C
52	CB	75	C
52	CB	78	C
53	CC	19	G
53	CC	47	G
53	CC	48	U
52	CD	9	U

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Mol	Chain	Res	Type
52	CD	17	G
52	CD	18	G
52	CD	21	A
52	CD	57	C
52	CD	67	A
54	C1	11	U
54	C1	12	A
54	C1	13	A
1	DA	49	A
1	DA	71	A
1	DA	128	C
1	DA	196	A
1	DA	204	A
1	DA	205	G
1	DA	278	A
1	DA	310	A
1	DA	654(S)	G
1	DA	669	G
1	DA	686	G
1	DA	752	A
1	DA	790	C
1	DA	800	A
1	DA	827	U
1	DA	877	U
1	DA	888	C
1	DA	893	C
1	DA	932	G
1	DA	1022	G
1	DA	1085	A
1	DA	1089	G
1	DA	1171	G
1	DA	1210	A
1	DA	1379	A
1	DA	1397	U
1	DA	1416	G
1	DA	1420	U
1	DA	1427	A
1	DA	1460	A
1	DA	1558	A
1	DA	1608	A
1	DA	1653	G
1	DA	1819	A

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Mol	Chain	Res	Type
1	DA	1899	G
1	DA	1955	U
1	DA	1980	G
1	DA	1992	G
1	DA	2135	A
1	DA	2191	G
1	DA	2210	G
1	DA	2211	G
1	DA	2225	A
1	DA	2238	G
1	DA	2275	C
1	DA	2308	G
1	DA	2406	U
1	DA	2439	A
1	DA	2447	G
1	DA	2519	U
1	DA	2602	A
1	DA	2610	C
1	DA	2629	A
1	DA	2689	U
1	DA	2751	G
1	DA	2756	U
1	DA	2776	A
1	DA	2790	A
1	DA	2859	G
1	DA	2893	G
2	DB	88	C

5.4 Non-standard residues in protein, DNA, RNA chains (i)

4 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
52	MIA	BD	38	52	24,31,32	1.88	2 (8%)	26,44,47	2.95	9 (34%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
52	MIA	CB	38	52	24,31,32	2.15	4 (16%)	26,44,47	2.61	7 (26%)
52	MIA	BB	38	52	24,31,32	1.95	2 (8%)	26,44,47	2.13	8 (30%)
52	MIA	CD	38	52	24,31,32	1.87	2 (8%)	26,44,47	2.89	10 (38%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
52	MIA	BD	38	52	-	6/11/33/34	0/3/3/3
52	MIA	CB	38	52	-	2/11/33/34	0/3/3/3
52	MIA	BB	38	52	-	2/11/33/34	0/3/3/3
52	MIA	CD	38	52	-	7/11/33/34	0/3/3/3

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	CB	38	MIA	C6-N6	6.99	1.47	1.34
52	CB	38	MIA	C13-C14	6.59	1.51	1.32
52	BB	38	MIA	C13-C14	6.46	1.50	1.32
52	BB	38	MIA	C6-N6	6.34	1.46	1.34
52	BD	38	MIA	C6-N6	6.29	1.46	1.34
52	CD	38	MIA	C6-N6	6.23	1.46	1.34
52	CD	38	MIA	C13-C14	6.10	1.49	1.32
52	BD	38	MIA	C13-C14	6.04	1.49	1.32
52	CB	38	MIA	C2-S10	2.39	1.77	1.75
52	CB	38	MIA	C6-N1	2.19	1.35	1.32

All (34) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	BD	38	MIA	C11-S10-C2	11.91	111.16	102.27
52	CD	38	MIA	C11-S10-C2	10.71	110.27	102.27
52	CB	38	MIA	C11-S10-C2	10.02	109.75	102.27
52	BB	38	MIA	C11-S10-C2	5.31	106.23	102.27
52	CD	38	MIA	C12-C13-C14	-4.71	117.97	127.14
52	BD	38	MIA	C12-C13-C14	-4.58	118.23	127.14
52	BB	38	MIA	C12-N6-C6	-4.32	116.15	122.55
52	CD	38	MIA	C12-N6-C6	-4.12	116.45	122.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	BB	38	MIA	C12-C13-C14	-3.91	119.53	127.14
52	CB	38	MIA	C2-N3-C4	3.78	120.53	115.32
52	BD	38	MIA	C15-C14-C13	-3.59	112.28	122.65
52	CD	38	MIA	C5-C6-N1	-3.51	117.89	120.81
52	CB	38	MIA	C5-C6-N1	-3.50	117.91	120.81
52	CB	38	MIA	C4-C5-N7	-3.43	105.82	109.40
52	BB	38	MIA	C4-C5-N7	-3.28	105.98	109.40
52	BD	38	MIA	C16-C14-C13	-3.21	113.38	122.65
52	CB	38	MIA	C12-C13-C14	-3.12	121.07	127.14
52	CD	38	MIA	C15-C14-C13	-3.12	113.64	122.65
52	CD	38	MIA	C16-C14-C13	-3.05	113.83	122.65
52	BB	38	MIA	C2-N3-C4	3.03	119.49	115.32
52	BD	38	MIA	C5-C6-N1	-2.95	118.36	120.81
52	BD	38	MIA	C2-N3-C4	2.82	119.21	115.32
52	CB	38	MIA	N3-C2-N1	-2.73	121.97	126.98
52	BB	38	MIA	C5-C6-N1	-2.67	118.59	120.81
52	BB	38	MIA	C15-C14-C13	-2.62	115.07	122.65
52	BD	38	MIA	C12-N6-C6	-2.54	118.79	122.55
52	CD	38	MIA	C2-N3-C4	2.53	118.81	115.32
52	CD	38	MIA	C4-C5-N7	-2.50	106.80	109.40
52	CD	38	MIA	N3-C2-N1	-2.46	122.45	126.98
52	BB	38	MIA	N3-C2-N1	-2.46	122.46	126.98
52	CB	38	MIA	C15-C14-C13	-2.43	115.62	122.65
52	CD	38	MIA	C2-N1-C6	2.28	121.27	117.19
52	BD	38	MIA	N3-C2-N1	-2.15	123.03	126.98
52	BD	38	MIA	C4-C5-N7	-2.13	107.18	109.40

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
52	BD	38	MIA	O4'-C4'-C5'-O5'
52	BD	38	MIA	C3'-C4'-C5'-O5'
52	BD	38	MIA	N1-C2-S10-C11
52	BD	38	MIA	N3-C2-S10-C11
52	BD	38	MIA	C12-C13-C14-C15
52	BD	38	MIA	C12-C13-C14-C16
52	CB	38	MIA	C12-C13-C14-C15
52	CB	38	MIA	C12-C13-C14-C16
52	BB	38	MIA	C12-C13-C14-C15
52	BB	38	MIA	C12-C13-C14-C16
52	CD	38	MIA	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
52	CD	38	MIA	C3'-C4'-C5'-O5'
52	CD	38	MIA	N1-C2-S10-C11
52	CD	38	MIA	N3-C2-S10-C11
52	CD	38	MIA	C12-C13-C14-C15
52	CD	38	MIA	C5-C6-N6-C12
52	CD	38	MIA	N1-C6-N6-C12

There are no ring outliers.

4 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
52	BD	38	MIA	7	0
52	CB	38	MIA	5	0
52	BB	38	MIA	2	0
52	CD	38	MIA	2	0

5.5 Carbohydrates (i)

There are no carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 1619 ligands modelled in this entry, 907 are monoatomic - leaving 712 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	OHX	AO	203	-	0,6,6	0.00	-	-		
56	OHX	CA	1785	-	0,6,6	0.00	-	-		
56	OHX	DA	3453	-	0,6,6	0.00	-	-		
56	OHX	DA	3483	-	0,6,6	0.00	-	-		
56	OHX	CA	1791	-	0,6,6	0.00	-	-		
56	OHX	AA	3433	-	0,6,6	0.00	-	-		
56	OHX	DA	3372	-	0,6,6	0.00	-	-		
56	OHX	A1	204	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3456	-	0,6,6	0.00	-	-		
56	OHX	AA	3395	-	0,6,6	0.00	-	-		
56	OHX	DA	3480	-	0,6,6	0.00	-	-		
56	OHX	AA	3386	-	0,6,6	0.00	-	-		
56	OHX	DA	3420	-	0,6,6	0.00	-	-		
56	OHX	BA	1791	-	0,6,6	0.00	-	-		
56	OHX	AA	3407	-	0,6,6	0.00	-	-		
56	OHX	AA	3387	-	0,6,6	0.00	-	-		
56	OHX	AA	3535	-	0,6,6	0.00	-	-		
56	OHX	CA	1729	-	0,6,6	0.00	-	-		
56	OHX	AA	3416	-	0,6,6	0.00	-	-		
56	OHX	CA	1766	-	0,6,6	0.00	-	-		
56	OHX	AA	3527	-	0,6,6	0.00	-	-		
56	OHX	AA	3349	-	0,6,6	0.00	-	-		
56	OHX	AA	3347	-	0,6,6	0.00	-	-		
56	OHX	AA	3342	-	0,6,6	0.00	-	-		
56	OHX	DA	3160	-	0,6,6	0.00	-	-		
56	OHX	BA	1718	-	0,6,6	0.00	-	-		
56	OHX	DA	3353	-	0,6,6	0.00	-	-		
56	OHX	BA	1795	-	0,6,6	0.00	-	-		
56	OHX	DA	3396	-	0,6,6	0.00	-	-		
56	OHX	AA	3469	-	0,6,6	0.00	-	-		
56	OHX	DA	3388	-	0,6,6	0.00	-	-		
56	OHX	AA	3503	-	0,6,6	0.00	-	-		
56	OHX	DA	3127	-	0,6,6	0.00	-	-		
56	OHX	DB	211	-	0,6,6	0.00	-	-		
56	OHX	AA	3378	-	0,6,6	0.00	-	-		
56	OHX	AA	3466	-	0,6,6	0.00	-	-		
56	OHX	CA	1768	-	0,6,6	0.00	-	-		
56	OHX	AA	3553	-	0,6,6	0.00	-	-		
56	OHX	AA	3411	-	0,6,6	0.00	-	-		
56	OHX	BA	1740	-	0,6,6	0.00	-	-		
56	OHX	DA	3474	-	0,6,6	0.00	-	-		
56	OHX	AA	3487	-	0,6,6	0.00	-	-		
56	OHX	CA	1733	-	0,6,6	0.00	-	-		
56	OHX	CA	1725	-	0,6,6	0.00	-	-		
56	OHX	BA	1742	-	0,6,6	0.00	-	-		
56	OHX	DA	3377	-	0,6,6	0.00	-	-		
56	OHX	D8	101	-	0,6,6	0.00	-	-		
56	OHX	DA	3464	-	0,6,6	0.00	-	-		
56	OHX	AA	3442	-	0,6,6	0.00	-	-		
56	OHX	AA	3367	-	0,6,6	0.00	-	-		
56	OHX	CA	1783	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3366	-	0,6,6	0.00	-	-		
56	OHX	BC	106	-	0,6,6	0.00	-	-		
56	OHX	BA	1774	-	0,6,6	0.00	-	-		
56	OHX	AA	3406	-	0,6,6	0.00	-	-		
56	OHX	DA	3389	-	0,6,6	0.00	-	-		
56	OHX	CA	1781	-	0,6,6	0.00	-	-		
56	OHX	DA	3170	-	0,6,6	0.00	-	-		
56	OHX	DA	3359	-	0,6,6	0.00	-	-		
56	OHX	DA	3477	-	0,6,6	0.00	-	-		
56	OHX	AA	3451	-	0,6,6	0.00	-	-		
56	OHX	AA	3516	-	0,6,6	0.00	-	-		
56	OHX	DA	3365	-	0,6,6	0.00	-	-		
56	OHX	DA	3360	-	0,6,6	0.00	-	-		
56	OHX	BA	1789	-	0,6,6	0.00	-	-		
56	OHX	CA	1796	-	0,6,6	0.00	-	-		
56	OHX	BA	1732	-	0,6,6	0.00	-	-		
56	OHX	DA	3335	-	0,6,6	0.00	-	-		
56	OHX	AA	3476	-	0,6,6	0.00	-	-		
56	OHX	CA	1772	-	0,6,6	0.00	-	-		
56	OHX	CA	1788	-	0,6,6	0.00	-	-		
56	OHX	BA	1726	-	0,6,6	0.00	-	-		
56	OHX	AA	3397	-	0,6,6	0.00	-	-		
56	OHX	CA	1763	-	0,6,6	0.00	-	-		
56	OHX	AB	214	-	0,6,6	0.00	-	-		
56	OHX	CA	1774	-	0,6,6	0.00	-	-		
56	OHX	DA	3459	-	0,6,6	0.00	-	-		
56	OHX	BA	1766	-	0,6,6	0.00	-	-		
56	OHX	DA	3442	-	0,6,6	0.00	-	-		
56	OHX	DA	3421	-	0,6,6	0.00	-	-		
56	OHX	CA	1764	-	0,6,6	0.00	-	-		
56	OHX	DA	3423	-	0,6,6	0.00	-	-		
56	OHX	DA	3168	-	0,6,6	0.00	-	-		
56	OHX	AA	3546	-	0,6,6	0.00	-	-		
56	OHX	DO	201	-	0,6,6	0.00	-	-		
56	OHX	BA	1725	-	0,6,6	0.00	-	-		
56	OHX	BA	1754	-	0,6,6	0.00	-	-		
56	OHX	DA	3212	-	0,6,6	0.00	-	-		
56	OHX	BA	1787	-	0,6,6	0.00	-	-		
56	OHX	CA	1802	-	0,6,6	0.00	-	-		
56	OHX	BD	104	-	0,6,6	0.00	-	-		
56	OHX	AA	3352	-	0,6,6	0.00	-	-		
56	OHX	AA	3439	-	0,6,6	0.00	-	-		
56	OHX	DA	3368	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	BA	1807	-	0,6,6	0.00	-	-		
56	OHX	AA	3486	-	0,6,6	0.00	-	-		
56	OHX	CA	1748	-	0,6,6	0.00	-	-		
56	OHX	AA	3478	-	0,6,6	0.00	-	-		
56	OHX	AA	3332	-	0,6,6	0.00	-	-		
56	OHX	AA	3514	-	0,6,6	0.00	-	-		
56	OHX	DA	3343	-	0,6,6	0.00	-	-		
56	OHX	DA	3418	-	0,6,6	0.00	-	-		
56	OHX	CA	1746	-	0,6,6	0.00	-	-		
56	OHX	DB	219	-	0,6,6	0.00	-	-		
56	OHX	DA	3245	-	0,6,6	0.00	-	-		
56	OHX	AA	3409	-	0,6,6	0.00	-	-		
56	OHX	AA	3555	-	0,6,6	0.00	-	-		
56	OHX	AA	3358	-	0,6,6	0.00	-	-		
56	OHX	DB	217	-	0,6,6	0.00	-	-		
56	OHX	DA	3361	-	0,6,6	0.00	-	-		
56	OHX	AA	3492	-	0,6,6	0.00	-	-		
56	OHX	CA	1745	-	0,6,6	0.00	-	-		
56	OHX	DA	3339	-	0,6,6	0.00	-	-		
56	OHX	AA	3368	-	0,6,6	0.00	-	-		
56	OHX	CA	1794	-	0,6,6	0.00	-	-		
56	OHX	DA	3449	-	0,6,6	0.00	-	-		
56	OHX	AA	3509	-	0,6,6	0.00	-	-		
56	OHX	BA	1775	-	0,6,6	0.00	-	-		
56	OHX	DA	3409	-	0,6,6	0.00	-	-		
56	OHX	AA	3333	-	0,6,6	0.00	-	-		
56	OHX	AA	3548	-	0,6,6	0.00	-	-		
56	OHX	AA	3377	-	0,6,6	0.00	-	-		
56	OHX	AA	3392	-	0,6,6	0.00	-	-		
56	OHX	AB	207	-	0,6,6	0.00	-	-		
56	OHX	BA	1776	-	0,6,6	0.00	-	-		
56	OHX	DA	3258	-	0,6,6	0.00	-	-		
56	OHX	DA	3387	-	0,6,6	0.00	-	-		
56	OHX	DA	3065	-	0,6,6	0.00	-	-		
56	OHX	BA	1765	-	0,6,6	0.00	-	-		
56	OHX	BA	1796	-	0,6,6	0.00	-	-		
56	OHX	BA	1778	-	0,6,6	0.00	-	-		
56	OHX	DA	3466	-	0,6,6	0.00	-	-		
56	OHX	DA	3393	-	0,6,6	0.00	-	-		
56	OHX	AA	3473	-	0,6,6	0.00	-	-		
56	OHX	CA	1797	-	0,6,6	0.00	-	-		
56	OHX	A6	101	-	0,6,6	0.00	-	-		
56	OHX	AA	3398	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3552	-	0,6,6	0.00	-	-		
56	OHX	DA	3374	-	0,6,6	0.00	-	-		
56	OHX	AA	3453	-	0,6,6	0.00	-	-		
56	OHX	DA	3345	-	0,6,6	0.00	-	-		
56	OHX	BA	1785	-	0,6,6	0.00	-	-		
56	OHX	DA	3484	-	0,6,6	0.00	-	-		
56	OHX	AA	3354	-	0,6,6	0.00	-	-		
56	OHX	DA	3369	-	0,6,6	0.00	-	-		
56	OHX	AA	3363	-	0,6,6	0.00	-	-		
56	OHX	DA	3132	-	0,6,6	0.00	-	-		
56	OHX	AA	3506	-	0,6,6	0.00	-	-		
56	OHX	DA	3446	-	0,6,6	0.00	-	-		
56	OHX	CA	1730	-	0,6,6	0.00	-	-		
56	OHX	AA	3348	-	0,6,6	0.00	-	-		
56	OHX	DB	215	-	0,6,6	0.00	-	-		
56	OHX	BA	1769	-	0,6,6	0.00	-	-		
56	OHX	DA	3124	-	0,6,6	0.00	-	-		
56	OHX	AA	3374	-	0,6,6	0.00	-	-		
56	OHX	DA	3347	-	0,6,6	0.00	-	-		
56	OHX	AA	3543	-	0,6,6	0.00	-	-		
56	OHX	AA	3562	-	0,6,6	0.00	-	-		
56	OHX	CA	1738	-	0,6,6	0.00	-	-		
56	OHX	AA	3568	-	0,6,6	0.00	-	-		
56	OHX	DA	3489	-	0,6,6	0.00	-	-		
56	OHX	AA	3410	-	0,6,6	0.00	-	-		
56	OHX	AA	3563	-	0,6,6	0.00	-	-		
56	OHX	BA	1722	-	0,6,6	0.00	-	-		
56	OHX	AA	3522	-	0,6,6	0.00	-	-		
56	OHX	AA	3491	-	0,6,6	0.00	-	-		
56	OHX	DA	3490	-	0,6,6	0.00	-	-		
56	OHX	CA	1736	-	0,6,6	0.00	-	-		
56	OHX	AA	3373	-	0,6,6	0.00	-	-		
56	OHX	AA	3500	-	0,6,6	0.00	-	-		
56	OHX	DA	3136	-	0,6,6	0.00	-	-		
56	OHX	BA	1812	-	0,6,6	0.00	-	-		
56	OHX	AA	3359	-	0,6,6	0.00	-	-		
56	OHX	DA	3215	-	0,6,6	0.00	-	-		
56	OHX	AA	3538	-	0,6,6	0.00	-	-		
56	OHX	CA	1727	-	0,6,6	0.00	-	-		
56	OHX	AA	3393	-	0,6,6	0.00	-	-		
56	OHX	DA	3248	-	0,6,6	0.00	-	-		
56	OHX	DA	3469	-	0,6,6	0.00	-	-		
56	OHX	DA	3395	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3551	-	0,6,6	0.00	-	-		
56	OHX	DA	3481	-	0,6,6	0.00	-	-		
56	OHX	CC	109	-	0,6,6	0.00	-	-		
56	OHX	AA	3432	-	0,6,6	0.00	-	-		
56	OHX	DA	3226	-	0,6,6	0.00	-	-		
56	OHX	CA	1779	-	0,6,6	0.00	-	-		
56	OHX	DB	220	-	0,6,6	0.00	-	-		
56	OHX	DA	3413	-	0,6,6	0.00	-	-		
56	OHX	CA	1809	-	0,6,6	0.00	-	-		
56	OHX	AA	3346	-	0,6,6	0.00	-	-		
56	OHX	DA	3071	-	0,6,6	0.00	-	-		
56	OHX	DA	3109	-	0,6,6	0.00	-	-		
56	OHX	AA	3468	-	0,6,6	0.00	-	-		
56	OHX	DA	3430	-	0,6,6	0.00	-	-		
56	OHX	BA	1728	-	0,6,6	0.00	-	-		
56	OHX	CR	101	-	0,6,6	0.00	-	-		
56	OHX	DA	3176	-	0,6,6	0.00	-	-		
56	OHX	BA	1772	-	0,6,6	0.00	-	-		
56	OHX	DA	3091	-	0,6,6	0.00	-	-		
56	OHX	CA	1811	-	0,6,6	0.00	-	-		
56	OHX	AA	3431	-	0,6,6	0.00	-	-		
56	OHX	AA	3544	-	0,6,6	0.00	-	-		
56	OHX	AA	3541	-	0,6,6	0.00	-	-		
56	OHX	BA	1716	-	0,6,6	0.00	-	-		
56	OHX	DA	3463	-	0,6,6	0.00	-	-		
56	OHX	DA	3375	-	0,6,6	0.00	-	-		
56	OHX	BA	1792	-	0,6,6	0.00	-	-		
56	OHX	DB	214	-	0,6,6	0.00	-	-		
56	OHX	AA	3549	-	0,6,6	0.00	-	-		
56	OHX	DA	3444	-	0,6,6	0.00	-	-		
56	OHX	CK	201	-	0,6,6	0.00	-	-		
56	OHX	DA	3452	-	0,6,6	0.00	-	-		
56	OHX	DA	3439	-	0,6,6	0.00	-	-		
56	OHX	BA	1768	-	0,6,6	0.00	-	-		
56	OHX	AA	3559	-	0,6,6	0.00	-	-		
56	OHX	DA	3443	-	0,6,6	0.00	-	-		
56	OHX	DA	3378	-	0,6,6	0.00	-	-		
56	OHX	BA	1759	-	0,6,6	0.00	-	-		
56	OHX	BA	1813	-	0,6,6	0.00	-	-		
56	OHX	DA	3383	-	0,6,6	0.00	-	-		
56	OHX	AA	3566	-	0,6,6	0.00	-	-		
56	OHX	AA	3422	-	0,6,6	0.00	-	-		
56	OHX	AA	3557	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	BA	1758	-	0,6,6	0.00	-	-		
56	OHX	AA	3369	-	0,6,6	0.00	-	-		
56	OHX	CA	1778	-	0,6,6	0.00	-	-		
56	OHX	AA	3353	-	0,6,6	0.00	-	-		
56	OHX	DB	218	-	0,6,6	0.00	-	-		
56	OHX	DA	3366	-	0,6,6	0.00	-	-		
56	OHX	AA	3531	-	0,6,6	0.00	-	-		
56	OHX	AA	3360	-	0,6,6	0.00	-	-		
56	OHX	CA	1740	-	0,6,6	0.00	-	-		
56	OHX	BA	1784	-	0,6,6	0.00	-	-		
56	OHX	AA	3430	-	0,6,6	0.00	-	-		
56	OHX	AA	3345	-	0,6,6	0.00	-	-		
56	OHX	DA	3174	-	0,6,6	0.00	-	-		
57	PAR	CA	1722	-	45,45,45	0.70	0	64,67,67	1.83	15 (23%)
56	OHX	AA	3330	-	0,6,6	0.00	-	-		
56	OHX	CA	1786	-	0,6,6	0.00	-	-		
56	OHX	DA	3338	-	0,6,6	0.00	-	-		
56	OHX	AA	3460	-	0,6,6	0.00	-	-		
56	OHX	BA	1779	-	0,6,6	0.00	-	-		
56	OHX	CA	1731	-	0,6,6	0.00	-	-		
57	PAR	BA	1715	-	45,45,45	0.73	2 (4%)	64,67,67	1.72	13 (20%)
56	OHX	AA	3528	-	0,6,6	0.00	-	-		
56	OHX	AA	3338	-	0,6,6	0.00	-	-		
56	OHX	AA	3375	-	0,6,6	0.00	-	-		
56	OHX	AA	3536	-	0,6,6	0.00	-	-		
56	OHX	BA	1737	-	0,6,6	0.00	-	-		
56	OHX	AA	3405	-	0,6,6	0.00	-	-		
56	OHX	DA	3340	-	0,6,6	0.00	-	-		
56	OHX	AA	3404	-	0,6,6	0.00	-	-		
56	OHX	AA	3423	-	0,6,6	0.00	-	-		
56	OHX	BA	1764	-	0,6,6	0.00	-	-		
56	OHX	DA	3462	-	0,6,6	0.00	-	-		
56	OHX	AF	303	-	0,6,6	0.00	-	-		
56	OHX	DA	3422	-	0,6,6	0.00	-	-		
56	OHX	CA	1769	-	0,6,6	0.00	-	-		
56	OHX	DA	3414	-	0,6,6	0.00	-	-		
56	OHX	CA	1754	-	0,6,6	0.00	-	-		
56	OHX	AA	3429	-	0,6,6	0.00	-	-		
56	OHX	CB	106	-	0,6,6	0.00	-	-		
56	OHX	BA	1730	-	0,6,6	0.00	-	-		
56	OHX	AA	3507	-	0,6,6	0.00	-	-		
56	OHX	AA	3436	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	DA	3425	-	0,6,6	0.00	-	-		
56	OHX	DA	3118	-	0,6,6	0.00	-	-		
56	OHX	DA	3246	-	0,6,6	0.00	-	-		
56	OHX	DA	3249	-	0,6,6	0.00	-	-		
56	OHX	CA	1793	-	0,6,6	0.00	-	-		
56	OHX	AA	3454	-	0,6,6	0.00	-	-		
56	OHX	BA	1745	-	0,6,6	0.00	-	-		
56	OHX	CA	1803	-	0,6,6	0.00	-	-		
56	OHX	AA	3376	-	0,6,6	0.00	-	-		
56	OHX	AA	3471	-	0,6,6	0.00	-	-		
56	OHX	AA	3520	-	0,6,6	0.00	-	-		
56	OHX	AW	101	-	0,6,6	0.00	-	-		
56	OHX	AA	3329	-	0,6,6	0.00	-	-		
56	OHX	DA	3392	-	0,6,6	0.00	-	-		
56	OHX	AA	3364	-	0,6,6	0.00	-	-		
56	OHX	AA	3477	-	0,6,6	0.00	-	-		
56	OHX	CA	1780	-	0,6,6	0.00	-	-		
56	OHX	AA	3479	-	0,6,6	0.00	-	-		
56	OHX	AA	3513	-	0,6,6	0.00	-	-		
56	OHX	DA	3105	-	0,6,6	0.00	-	-		
56	OHX	DA	3352	-	0,6,6	0.00	-	-		
56	OHX	DA	3434	-	0,6,6	0.00	-	-		
56	OHX	DA	3358	-	0,6,6	0.00	-	-		
56	OHX	CA	1743	-	0,6,6	0.00	-	-		
56	OHX	CA	1777	-	0,6,6	0.00	-	-		
56	OHX	DA	3471	-	0,6,6	0.00	-	-		
56	OHX	CA	1813	-	0,6,6	0.00	-	-		
56	OHX	DA	3451	-	0,6,6	0.00	-	-		
56	OHX	AA	3558	-	0,6,6	0.00	-	-		
56	OHX	BA	1803	-	0,6,6	0.00	-	-		
56	OHX	BA	1723	-	0,6,6	0.00	-	-		
56	OHX	AA	3459	-	0,6,6	0.00	-	-		
56	OHX	AA	3565	-	0,6,6	0.00	-	-		
56	OHX	CA	1790	-	0,6,6	0.00	-	-		
56	OHX	DA	3351	-	0,6,6	0.00	-	-		
56	OHX	BA	1756	-	0,6,6	0.00	-	-		
56	OHX	BA	1798	-	0,6,6	0.00	-	-		
56	OHX	AA	3391	-	0,6,6	0.00	-	-		
56	OHX	AA	3502	-	0,6,6	0.00	-	-		
56	OHX	AA	3462	-	0,6,6	0.00	-	-		
56	OHX	DA	3433	-	0,6,6	0.00	-	-		
56	OHX	BA	1783	-	0,6,6	0.00	-	-		
56	OHX	AA	3351	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	D3	101	-	0,6,6	0.00	-	-		
56	OHX	AA	3427	-	0,6,6	0.00	-	-		
56	OHX	CA	1753	-	0,6,6	0.00	-	-		
56	OHX	DA	3472	-	0,6,6	0.00	-	-		
56	OHX	AB	209	-	0,6,6	0.00	-	-		
56	OHX	A1	203	-	0,6,6	0.00	-	-		
56	OHX	AA	3505	-	0,6,6	0.00	-	-		
56	OHX	CA	1742	-	0,6,6	0.00	-	-		
56	OHX	DA	3243	-	0,6,6	0.00	-	-		
56	OHX	AA	3489	-	0,6,6	0.00	-	-		
56	OHX	DA	3441	-	0,6,6	0.00	-	-		
56	OHX	DF	301	-	0,6,6	0.00	-	-		
56	OHX	AA	3539	-	0,6,6	0.00	-	-		
56	OHX	AB	213	-	0,6,6	0.00	-	-		
56	OHX	AA	3485	-	0,6,6	0.00	-	-		
56	OHX	AA	3380	-	0,6,6	0.00	-	-		
56	OHX	BL	201	-	0,6,6	0.00	-	-		
56	OHX	AA	3449	-	0,6,6	0.00	-	-		
56	OHX	AA	3521	-	0,6,6	0.00	-	-		
56	OHX	DA	3083	-	0,6,6	0.00	-	-		
56	OHX	DA	3103	-	0,6,6	0.00	-	-		
56	OHX	BA	1809	-	0,6,6	0.00	-	-		
56	OHX	AA	3412	-	0,6,6	0.00	-	-		
56	OHX	BA	1727	-	0,6,6	0.00	-	-		
56	OHX	AA	3495	-	0,6,6	0.00	-	-		
56	OHX	AA	3498	-	0,6,6	0.00	-	-		
56	OHX	AA	3554	-	0,6,6	0.00	-	-		
56	OHX	AE	304	-	0,6,6	0.00	-	-		
56	OHX	AA	3480	-	0,6,6	0.00	-	-		
56	OHX	DA	3406	-	0,6,6	0.00	-	-		
56	OHX	DA	3403	-	0,6,6	0.00	-	-		
56	OHX	DA	3381	-	0,6,6	0.00	-	-		
56	OHX	AA	3371	-	0,6,6	0.00	-	-		
56	OHX	DA	3455	-	0,6,6	0.00	-	-		
56	OHX	BA	1747	-	0,6,6	0.00	-	-		
56	OHX	DA	3379	-	0,6,6	0.00	-	-		
56	OHX	AA	3496	-	0,6,6	0.00	-	-		
56	OHX	DA	3337	-	0,6,6	0.00	-	-		
56	OHX	AA	3331	-	0,6,6	0.00	-	-		
56	OHX	AA	3493	-	0,6,6	0.00	-	-		
56	OHX	AA	3470	-	0,6,6	0.00	-	-		
56	OHX	CA	1770	-	0,6,6	0.00	-	-		
56	OHX	DA	3470	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	BA	1770	-	0,6,6	0.00	-	-		
56	OHX	DA	3404	-	0,6,6	0.00	-	-		
56	OHX	DA	3416	-	0,6,6	0.00	-	-		
56	OHX	DA	3062	-	0,6,6	0.00	-	-		
56	OHX	DA	3397	-	0,6,6	0.00	-	-		
56	OHX	AA	3561	-	0,6,6	0.00	-	-		
56	OHX	DA	3402	-	0,6,6	0.00	-	-		
56	OHX	DA	3427	-	0,6,6	0.00	-	-		
56	OHX	DA	3163	-	0,6,6	0.00	-	-		
56	OHX	CA	1812	-	0,6,6	0.00	-	-		
56	OHX	DA	3386	-	0,6,6	0.00	-	-		
56	OHX	AB	208	-	0,6,6	0.00	-	-		
56	OHX	BA	1788	-	0,6,6	0.00	-	-		
56	OHX	AA	3424	-	0,6,6	0.00	-	-		
56	OHX	DA	3460	-	0,6,6	0.00	-	-		
56	OHX	AA	3341	-	0,6,6	0.00	-	-		
56	OHX	DA	3440	-	0,6,6	0.00	-	-		
56	OHX	BA	1731	-	0,6,6	0.00	-	-		
56	OHX	DA	3165	-	0,6,6	0.00	-	-		
56	OHX	AA	3463	-	0,6,6	0.00	-	-		
56	OHX	AB	211	-	0,6,6	0.00	-	-		
56	OHX	AA	3474	-	0,6,6	0.00	-	-		
56	OHX	DA	3485	-	0,6,6	0.00	-	-		
56	OHX	AA	3335	-	0,6,6	0.00	-	-		
56	OHX	AA	3475	-	0,6,6	0.00	-	-		
56	OHX	DA	3257	-	0,6,6	0.00	-	-		
56	OHX	AA	3508	-	0,6,6	0.00	-	-		
56	OHX	BB	115	-	0,6,6	0.00	-	-		
56	OHX	BA	1724	-	0,6,6	0.00	-	-		
56	OHX	AA	3534	-	0,6,6	0.00	-	-		
56	OHX	CA	1732	-	0,6,6	0.00	-	-		
56	OHX	AA	3435	-	0,6,6	0.00	-	-		
56	OHX	BA	1805	-	0,6,6	0.00	-	-		
56	OHX	AA	3518	-	0,6,6	0.00	-	-		
56	OHX	DA	3390	-	0,6,6	0.00	-	-		
56	OHX	BA	1717	-	0,6,6	0.00	-	-		
56	OHX	BA	1750	-	0,6,6	0.00	-	-		
56	OHX	AB	212	-	0,6,6	0.00	-	-		
56	OHX	AB	210	-	0,6,6	0.00	-	-		
56	OHX	DA	3255	-	0,6,6	0.00	-	-		
56	OHX	BA	1761	-	0,6,6	0.00	-	-		
56	OHX	DA	3173	-	0,6,6	0.00	-	-		
56	OHX	AA	3421	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3327	-	0,6,6	0.00	-	-		
56	OHX	AA	3537	-	0,6,6	0.00	-	-		
56	OHX	AA	3545	-	0,6,6	0.00	-	-		
56	OHX	DA	3171	-	0,6,6	0.00	-	-		
56	OHX	AA	3408	-	0,6,6	0.00	-	-		
56	OHX	AA	3526	-	0,6,6	0.00	-	-		
56	OHX	CA	1739	-	0,6,6	0.00	-	-		
56	OHX	BA	1793	-	0,6,6	0.00	-	-		
56	OHX	D1	201	-	0,6,6	0.00	-	-		
56	OHX	CA	1723	-	0,6,6	0.00	-	-		
56	OHX	AA	3547	-	0,6,6	0.00	-	-		
56	OHX	AA	3426	-	0,6,6	0.00	-	-		
56	OHX	DA	3445	-	0,6,6	0.00	-	-		
56	OHX	DA	3064	-	0,6,6	0.00	-	-		
56	OHX	DA	3214	-	0,6,6	0.00	-	-		
56	OHX	AA	3488	-	0,6,6	0.00	-	-		
56	OHX	DA	3391	-	0,6,6	0.00	-	-		
56	OHX	CA	1795	-	0,6,6	0.00	-	-		
56	OHX	AA	3370	-	0,6,6	0.00	-	-		
56	OHX	AA	3510	-	0,6,6	0.00	-	-		
56	OHX	DA	3426	-	0,6,6	0.00	-	-		
56	OHX	DA	3068	-	0,6,6	0.00	-	-		
56	OHX	DA	3380	-	0,6,6	0.00	-	-		
56	OHX	CA	1758	-	0,6,6	0.00	-	-		
56	OHX	DB	209	-	0,6,6	0.00	-	-		
56	OHX	AA	3419	-	0,6,6	0.00	-	-		
56	OHX	AA	3418	-	0,6,6	0.00	-	-		
56	OHX	BA	1748	-	0,6,6	0.00	-	-		
56	OHX	AA	3458	-	0,6,6	0.00	-	-		
56	OHX	BA	1757	-	0,6,6	0.00	-	-		
56	OHX	AA	3556	-	0,6,6	0.00	-	-		
56	OHX	BA	1720	-	0,6,6	0.00	-	-		
56	OHX	DA	3487	-	0,6,6	0.00	-	-		
56	OHX	CA	1807	-	0,6,6	0.00	-	-		
56	OHX	DA	3354	-	0,6,6	0.00	-	-		
56	OHX	BA	1797	-	0,6,6	0.00	-	-		
56	OHX	AA	3340	-	0,6,6	0.00	-	-		
56	OHX	AA	3361	-	0,6,6	0.00	-	-		
56	OHX	CA	1760	-	0,6,6	0.00	-	-		
56	OHX	CA	1765	-	0,6,6	0.00	-	-		
56	OHX	DA	3482	-	0,6,6	0.00	-	-		
56	OHX	BA	1719	-	0,6,6	0.00	-	-		
56	OHX	DA	3407	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	DA	3448	-	0,6,6	0.00	-	-		
56	OHX	AA	3384	-	0,6,6	0.00	-	-		
56	OHX	AA	3389	-	0,6,6	0.00	-	-		
56	OHX	AA	3569	-	0,6,6	0.00	-	-		
56	OHX	BA	1729	-	0,6,6	0.00	-	-		
56	OHX	CA	1787	-	0,6,6	0.00	-	-		
56	OHX	AA	3461	-	0,6,6	0.00	-	-		
56	OHX	DA	3479	-	0,6,6	0.00	-	-		
56	OHX	BA	1777	-	0,6,6	0.00	-	-		
56	OHX	AA	3529	-	0,6,6	0.00	-	-		
56	OHX	DA	3476	-	0,6,6	0.00	-	-		
56	OHX	BA	1767	-	0,6,6	0.00	-	-		
56	OHX	AA	3448	-	0,6,6	0.00	-	-		
56	OHX	DA	3367	-	0,6,6	0.00	-	-		
56	OHX	DA	3370	-	0,6,6	0.00	-	-		
56	OHX	CA	1762	-	0,6,6	0.00	-	-		
56	OHX	CA	1749	-	0,6,6	0.00	-	-		
56	OHX	BA	1810	-	0,6,6	0.00	-	-		
56	OHX	AA	3482	-	0,6,6	0.00	-	-		
56	OHX	CA	1784	-	0,6,6	0.00	-	-		
56	OHX	CA	1752	-	0,6,6	0.00	-	-		
56	OHX	BA	1749	-	0,6,6	0.00	-	-		
56	OHX	DA	3224	-	0,6,6	0.00	-	-		
56	OHX	DA	3438	-	0,6,6	0.00	-	-		
56	OHX	BA	1743	-	0,6,6	0.00	-	-		
56	OHX	DA	3223	-	0,6,6	0.00	-	-		
56	OHX	DA	3384	-	0,6,6	0.00	-	-		
56	OHX	BA	1755	-	0,6,6	0.00	-	-		
56	OHX	CA	1726	-	0,6,6	0.00	-	-		
56	OHX	CB	104	-	0,6,6	0.00	-	-		
56	OHX	AA	3438	-	0,6,6	0.00	-	-		
56	OHX	DB	216	-	0,6,6	0.00	-	-		
56	OHX	AA	3512	-	0,6,6	0.00	-	-		
56	OHX	DA	3363	-	0,6,6	0.00	-	-		
56	OHX	DA	3456	-	0,6,6	0.00	-	-		
56	OHX	AA	3511	-	0,6,6	0.00	-	-		
56	OHX	CA	1741	-	0,6,6	0.00	-	-		
56	OHX	DA	3134	-	0,6,6	0.00	-	-		
56	OHX	AA	3400	-	0,6,6	0.00	-	-		
56	OHX	DA	3415	-	0,6,6	0.00	-	-		
56	OHX	DA	3431	-	0,6,6	0.00	-	-		
56	OHX	AA	3515	-	0,6,6	0.00	-	-		
56	OHX	DA	3357	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	BA	1733	-	0,6,6	0.00	-	-		
56	OHX	DA	3217	-	0,6,6	0.00	-	-		
56	OHX	AA	3425	-	0,6,6	0.00	-	-		
56	OHX	DA	3344	-	0,6,6	0.00	-	-		
56	OHX	AA	3420	-	0,6,6	0.00	-	-		
56	OHX	DA	3450	-	0,6,6	0.00	-	-		
56	OHX	AA	3564	-	0,6,6	0.00	-	-		
56	OHX	AB	219	-	0,6,6	0.00	-	-		
56	OHX	CA	1815	-	0,6,6	0.00	-	-		
56	OHX	BA	1806	-	0,6,6	0.00	-	-		
56	OHX	AA	3390	-	0,6,6	0.00	-	-		
56	OHX	BA	1811	-	0,6,6	0.00	-	-		
56	OHX	CA	1744	-	0,6,6	0.00	-	-		
56	OHX	BC	105	-	0,6,6	0.00	-	-		
56	OHX	AA	3350	-	0,6,6	0.00	-	-		
56	OHX	AB	216	-	0,6,6	0.00	-	-		
56	OHX	AA	3530	-	0,6,6	0.00	-	-		
56	OHX	AA	3445	-	0,6,6	0.00	-	-		
56	OHX	AA	3464	-	0,6,6	0.00	-	-		
56	OHX	DA	3356	-	0,6,6	0.00	-	-		
56	OHX	D5	102	-	0,6,6	0.00	-	-		
56	OHX	AA	3483	-	0,6,6	0.00	-	-		
56	OHX	DA	3475	-	0,6,6	0.00	-	-		
56	OHX	CA	1805	-	0,6,6	0.00	-	-		
56	OHX	DA	3428	-	0,6,6	0.00	-	-		
56	OHX	BA	1771	-	0,6,6	0.00	-	-		
56	OHX	AA	3401	-	0,6,6	0.00	-	-		
56	OHX	DA	3465	-	0,6,6	0.00	-	-		
56	OHX	AA	3381	-	0,6,6	0.00	-	-		
56	OHX	CA	1747	-	0,6,6	0.00	-	-		
56	OHX	DA	3419	-	0,6,6	0.00	-	-		
56	OHX	AA	3365	-	0,6,6	0.00	-	-		
56	OHX	BA	1763	-	0,6,6	0.00	-	-		
56	OHX	AA	3501	-	0,6,6	0.00	-	-		
56	OHX	BA	1752	-	0,6,6	0.00	-	-		
56	OHX	BD	102	-	0,6,6	0.00	-	-		
56	OHX	BA	1738	-	0,6,6	0.00	-	-		
56	OHX	BA	1790	-	0,6,6	0.00	-	-		
56	OHX	DA	3437	-	0,6,6	0.00	-	-		
56	OHX	AA	3450	-	0,6,6	0.00	-	-		
56	OHX	DA	3166	-	0,6,6	0.00	-	-		
56	OHX	DA	3408	-	0,6,6	0.00	-	-		
56	OHX	BD	103	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	CA	1724	-	0,6,6	0.00	-	-		
56	OHX	AA	3413	-	0,6,6	0.00	-	-		
56	OHX	DA	3401	-	0,6,6	0.00	-	-		
56	OHX	DA	3457	-	0,6,6	0.00	-	-		
56	OHX	DA	3364	-	0,6,6	0.00	-	-		
56	OHX	AA	3403	-	0,6,6	0.00	-	-		
56	OHX	DA	3382	-	0,6,6	0.00	-	-		
56	OHX	CA	1761	-	0,6,6	0.00	-	-		
56	OHX	AA	3525	-	0,6,6	0.00	-	-		
56	OHX	AA	3437	-	0,6,6	0.00	-	-		
56	OHX	AA	3446	-	0,6,6	0.00	-	-		
56	OHX	DA	3435	-	0,6,6	0.00	-	-		
56	OHX	DA	3348	-	0,6,6	0.00	-	-		
56	OHX	DA	3172	-	0,6,6	0.00	-	-		
56	OHX	BA	1746	-	0,6,6	0.00	-	-		
56	OHX	CA	1771	-	0,6,6	0.00	-	-		
56	OHX	DB	208	-	0,6,6	0.00	-	-		
56	OHX	BA	1782	-	0,6,6	0.00	-	-		
56	OHX	AA	3326	-	0,6,6	0.00	-	-		
56	OHX	CA	1737	-	0,6,6	0.00	-	-		
56	OHX	CA	1814	-	0,6,6	0.00	-	-		
56	OHX	AA	3523	-	0,6,6	0.00	-	-		
56	OHX	AA	3441	-	0,6,6	0.00	-	-		
56	OHX	AA	3399	-	0,6,6	0.00	-	-		
56	OHX	DA	3398	-	0,6,6	0.00	-	-		
56	OHX	DA	3169	-	0,6,6	0.00	-	-		
56	OHX	DA	3221	-	0,6,6	0.00	-	-		
56	OHX	DA	3410	-	0,6,6	0.00	-	-		
56	OHX	BA	1786	-	0,6,6	0.00	-	-		
56	OHX	AA	3465	-	0,6,6	0.00	-	-		
56	OHX	AA	3388	-	0,6,6	0.00	-	-		
56	OHX	CA	1798	-	0,6,6	0.00	-	-		
56	OHX	CA	1759	-	0,6,6	0.00	-	-		
56	OHX	AA	3550	-	0,6,6	0.00	-	-		
56	OHX	AA	3481	-	0,6,6	0.00	-	-		
56	OHX	DA	3412	-	0,6,6	0.00	-	-		
56	OHX	AA	3533	-	0,6,6	0.00	-	-		
56	OHX	AA	3484	-	0,6,6	0.00	-	-		
56	OHX	DB	210	-	0,6,6	0.00	-	-		
56	OHX	BG	302	-	0,6,6	0.00	-	-		
56	OHX	AA	3490	-	0,6,6	0.00	-	-		
56	OHX	CA	1808	-	0,6,6	0.00	-	-		
56	OHX	AA	3434	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3499	-	0,6,6	0.00	-	-		
56	OHX	BA	1808	-	0,6,6	0.00	-	-		
56	OHX	CA	1751	-	0,6,6	0.00	-	-		
56	OHX	DA	3342	-	0,6,6	0.00	-	-		
56	OHX	CA	1789	-	0,6,6	0.00	-	-		
56	OHX	AA	3494	-	0,6,6	0.00	-	-		
56	OHX	DA	3111	-	0,6,6	0.00	-	-		
56	OHX	AA	3519	-	0,6,6	0.00	-	-		
56	OHX	CC	110	-	0,6,6	0.00	-	-		
56	OHX	BA	1760	-	0,6,6	0.00	-	-		
56	OHX	AA	3379	-	0,6,6	0.00	-	-		
56	OHX	DA	3157	-	0,6,6	0.00	-	-		
56	OHX	DA	3468	-	0,6,6	0.00	-	-		
56	OHX	CA	1810	-	0,6,6	0.00	-	-		
56	OHX	DB	213	-	0,6,6	0.00	-	-		
56	OHX	BA	1741	-	0,6,6	0.00	-	-		
56	OHX	BA	1744	-	0,6,6	0.00	-	-		
56	OHX	CA	1799	-	0,6,6	0.00	-	-		
56	OHX	CA	1792	-	0,6,6	0.00	-	-		
56	OHX	BA	1739	-	0,6,6	0.00	-	-		
56	OHX	CA	1782	-	0,6,6	0.00	-	-		
56	OHX	DA	3447	-	0,6,6	0.00	-	-		
56	OHX	AB	217	-	0,6,6	0.00	-	-		
56	OHX	AA	3504	-	0,6,6	0.00	-	-		
56	OHX	DA	3417	-	0,6,6	0.00	-	-		
56	OHX	AA	3428	-	0,6,6	0.00	-	-		
56	OHX	DA	3087	-	0,6,6	0.00	-	-		
56	OHX	DA	3376	-	0,6,6	0.00	-	-		
56	OHX	AA	3497	-	0,6,6	0.00	-	-		
56	OHX	BA	1773	-	0,6,6	0.00	-	-		
56	OHX	DA	3061	-	0,6,6	0.00	-	-		
56	OHX	CA	1776	-	0,6,6	0.00	-	-		
56	OHX	DA	3486	-	0,6,6	0.00	-	-		
56	OHX	AA	3415	-	0,6,6	0.00	-	-		
56	OHX	AA	3560	-	0,6,6	0.00	-	-		
56	OHX	CV	101	-	0,6,6	0.00	-	-		
56	OHX	DA	3371	-	0,6,6	0.00	-	-		
56	OHX	BA	1734	-	0,6,6	0.00	-	-		
56	OHX	DA	3220	-	0,6,6	0.00	-	-		
56	OHX	DA	3429	-	0,6,6	0.00	-	-		
56	OHX	CD	101	-	0,6,6	0.00	-	-		
56	OHX	AB	218	-	0,6,6	0.00	-	-		
56	OHX	DA	3094	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	DA	3458	-	0,6,6	0.00	-	-		
56	OHX	AA	3517	-	0,6,6	0.00	-	-		
56	OHX	CA	1767	-	0,6,6	0.00	-	-		
56	OHX	DB	212	-	0,6,6	0.00	-	-		
56	OHX	BA	1751	-	0,6,6	0.00	-	-		
56	OHX	DA	3218	-	0,6,6	0.00	-	-		
56	OHX	BB	114	-	0,6,6	0.00	-	-		
56	OHX	DA	3491	-	0,6,6	0.00	-	-		
56	OHX	AA	3402	-	0,6,6	0.00	-	-		
56	OHX	DA	3385	-	0,6,6	0.00	-	-		
56	OHX	DA	3467	-	0,6,6	0.00	-	-		
56	OHX	DA	3362	-	0,6,6	0.00	-	-		
56	OHX	AA	3396	-	0,6,6	0.00	-	-		
56	OHX	AA	3524	-	0,6,6	0.00	-	-		
56	OHX	AA	3447	-	0,6,6	0.00	-	-		
56	OHX	BA	1762	-	0,6,6	0.00	-	-		
56	OHX	DA	3075	-	0,6,6	0.00	-	-		
56	OHX	BA	1814	-	0,6,6	0.00	-	-		
56	OHX	CA	1728	-	0,6,6	0.00	-	-		
56	OHX	AA	3336	-	0,6,6	0.00	-	-		
56	OHX	AA	3417	-	0,6,6	0.00	-	-		
56	OHX	DA	3394	-	0,6,6	0.00	-	-		
56	OHX	AA	3440	-	0,6,6	0.00	-	-		
56	OHX	DA	3411	-	0,6,6	0.00	-	-		
56	OHX	AA	3328	-	0,6,6	0.00	-	-		
56	OHX	AA	3532	-	0,6,6	0.00	-	-		
56	OHX	CA	1800	-	0,6,6	0.00	-	-		
56	OHX	AA	3344	-	0,6,6	0.00	-	-		
56	OHX	A3	102	-	0,6,6	0.00	-	-		
56	OHX	AA	3455	-	0,6,6	0.00	-	-		
56	OHX	DA	3454	-	0,6,6	0.00	-	-		
56	OHX	CA	1756	-	0,6,6	0.00	-	-		
56	OHX	AA	3540	-	0,6,6	0.00	-	-		
56	OHX	CB	105	-	0,6,6	0.00	-	-		
56	OHX	AA	3444	-	0,6,6	0.00	-	-		
56	OHX	CA	1806	-	0,6,6	0.00	-	-		
56	OHX	AA	3383	-	0,6,6	0.00	-	-		
56	OHX	CA	1735	-	0,6,6	0.00	-	-		
56	OHX	CA	1757	-	0,6,6	0.00	-	-		
56	OHX	DA	3432	-	0,6,6	0.00	-	-		
56	OHX	BA	1781	-	0,6,6	0.00	-	-		
56	OHX	BA	1780	-	0,6,6	0.00	-	-		
56	OHX	DA	3355	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	DA	3400	-	0,6,6	0.00	-	-		
56	OHX	AB	215	-	0,6,6	0.00	-	-		
56	OHX	AA	3385	-	0,6,6	0.00	-	-		
56	OHX	BA	1721	-	0,6,6	0.00	-	-		
56	OHX	BA	1804	-	0,6,6	0.00	-	-		
56	OHX	AA	3567	-	0,6,6	0.00	-	-		
56	OHX	DA	3346	-	0,6,6	0.00	-	-		
56	OHX	DA	3082	-	0,6,6	0.00	-	-		
56	OHX	AO	202	-	0,6,6	0.00	-	-		
56	OHX	DA	3084	-	0,6,6	0.00	-	-		
56	OHX	DA	3473	-	0,6,6	0.00	-	-		
56	OHX	DA	3081	-	0,6,6	0.00	-	-		
56	OHX	DA	3461	-	0,6,6	0.00	-	-		
56	OHX	BA	1794	-	0,6,6	0.00	-	-		
56	OHX	BA	1799	-	0,6,6	0.00	-	-		
56	OHX	AA	3467	-	0,6,6	0.00	-	-		
56	OHX	AA	3394	-	0,6,6	0.00	-	-		
56	OHX	DA	3341	-	0,6,6	0.00	-	-		
56	OHX	DA	3488	-	0,6,6	0.00	-	-		
56	OHX	DA	3424	-	0,6,6	0.00	-	-		
56	OHX	DA	3350	-	0,6,6	0.00	-	-		
56	OHX	DA	3162	-	0,6,6	0.00	-	-		
56	OHX	CA	1775	-	0,6,6	0.00	-	-		
56	OHX	BA	1801	-	0,6,6	0.00	-	-		
56	OHX	BA	1736	-	0,6,6	0.00	-	-		
56	OHX	DA	3373	-	0,6,6	0.00	-	-		
56	OHX	CA	1773	-	0,6,6	0.00	-	-		
56	OHX	AA	3362	-	0,6,6	0.00	-	-		
56	OHX	AA	3472	-	0,6,6	0.00	-	-		
56	OHX	AA	3414	-	0,6,6	0.00	-	-		
56	OHX	AA	3452	-	0,6,6	0.00	-	-		
56	OHX	CA	1734	-	0,6,6	0.00	-	-		
56	OHX	BA	1753	-	0,6,6	0.00	-	-		
56	OHX	BA	1802	-	0,6,6	0.00	-	-		
56	OHX	CA	1804	-	0,6,6	0.00	-	-		
56	OHX	CC	108	-	0,6,6	0.00	-	-		
56	OHX	DA	3099	-	0,6,6	0.00	-	-		
56	OHX	DA	3251	-	0,6,6	0.00	-	-		
56	OHX	AA	3457	-	0,6,6	0.00	-	-		
56	OHX	DA	3254	-	0,6,6	0.00	-	-		
56	OHX	CA	1801	-	0,6,6	0.00	-	-		
56	OHX	DA	3436	-	0,6,6	0.00	-	-		
56	OHX	DA	3349	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	OHX	AA	3443	-	0,6,6	0.00	-	-		
56	OHX	BA	1800	-	0,6,6	0.00	-	-		
56	OHX	AA	3542	-	0,6,6	0.00	-	-		
56	OHX	BA	1735	-	0,6,6	0.00	-	-		
56	OHX	DA	3405	-	0,6,6	0.00	-	-		
56	OHX	BC	107	-	0,6,6	0.00	-	-		
56	OHX	DA	3159	-	0,6,6	0.00	-	-		
56	OHX	AA	3382	-	0,6,6	0.00	-	-		
56	OHX	DA	3478	-	0,6,6	0.00	-	-		
56	OHX	DA	3253	-	0,6,6	0.00	-	-		
56	OHX	DA	3336	-	0,6,6	0.00	-	-		
56	OHX	BR	101	-	0,6,6	0.00	-	-		
56	OHX	AA	3355	-	0,6,6	0.00	-	-		
56	OHX	DA	3073	-	0,6,6	0.00	-	-		
56	OHX	DA	3399	-	0,6,6	0.00	-	-		
56	OHX	CA	1755	-	0,6,6	0.00	-	-		
56	OHX	CA	1750	-	0,6,6	0.00	-	-		

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	PAR	CA	1722	-	-	5/18/94/94	0/4/4/4
57	PAR	BA	1715	-	-	6/18/94/94	0/4/4/4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	BA	1715	PAR	C21-N21	-2.29	1.43	1.47
57	BA	1715	PAR	C31-C21	-2.16	1.50	1.53

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	CA	1722	PAR	C11-O51-C51	5.04	123.58	113.69
57	CA	1722	PAR	C13-O52-C52	-4.44	106.98	117.96
57	BA	1715	PAR	C44-C34-C24	4.32	118.49	111.07
57	BA	1715	PAR	C11-O51-C51	4.28	122.08	113.69
57	CA	1722	PAR	C62-C12-N12	-4.23	102.59	110.97
57	CA	1722	PAR	C41-C31-C21	-3.99	104.22	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	BA	1715	PAR	O54-C54-C64	3.97	113.39	106.01
57	CA	1722	PAR	O62-C62-C12	-3.84	102.77	109.81
57	BA	1715	PAR	O34-C34-C24	-3.72	103.53	110.22
57	CA	1722	PAR	C22-C12-C62	3.64	115.53	110.04
57	BA	1715	PAR	O51-C51-C41	3.31	115.71	109.69
57	BA	1715	PAR	C32-C22-C12	-3.27	104.47	111.18
57	CA	1722	PAR	C14-O33-C33	-3.06	110.39	117.96
57	CA	1722	PAR	C44-C34-C24	2.93	116.11	111.07
57	BA	1715	PAR	C31-C21-N21	-2.92	105.08	111.05
57	BA	1715	PAR	C14-O54-C54	2.90	119.38	113.69
57	CA	1722	PAR	O52-C13-C23	2.81	113.78	107.96
57	CA	1722	PAR	C52-C62-C12	2.79	116.45	109.63
57	BA	1715	PAR	O52-C13-O43	-2.68	108.53	111.43
57	CA	1722	PAR	C14-O54-C54	2.67	118.92	113.69
57	CA	1722	PAR	O51-C51-C41	2.63	114.48	109.69
57	CA	1722	PAR	C62-C52-C42	2.56	117.50	111.66
57	BA	1715	PAR	O52-C13-C23	2.54	113.22	107.96
57	CA	1722	PAR	O54-C54-C64	2.35	110.39	106.01
57	BA	1715	PAR	C14-C24-C34	2.34	116.34	110.21
57	BA	1715	PAR	C13-O52-C52	-2.31	112.24	117.96
57	BA	1715	PAR	O54-C54-C44	-2.10	105.89	109.69
57	CA	1722	PAR	O62-C62-C52	2.08	115.47	109.94

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	CA	1722	PAR	O43-C43-C53-O53
57	CA	1722	PAR	C33-C43-C53-O53
57	CA	1722	PAR	C41-C51-C61-O61
57	BA	1715	PAR	C41-C51-C61-O61
57	BA	1715	PAR	O43-C43-C53-O53
57	BA	1715	PAR	C33-C43-C53-O53
57	BA	1715	PAR	O43-C13-O52-C52
57	CA	1722	PAR	O51-C51-C61-O61
57	BA	1715	PAR	O51-C51-C61-O61
57	BA	1715	PAR	C23-C13-O52-C52
57	CA	1722	PAR	C23-C13-O52-C52

There are no ring outliers.

332 monomers are involved in 465 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AO	203	OHX	1	0
56	CA	1785	OHX	3	0
56	DA	3483	OHX	1	0
56	AA	3433	OHX	3	0
56	BA	1791	OHX	3	0
56	AA	3407	OHX	1	0
56	AA	3535	OHX	1	0
56	AA	3416	OHX	3	0
56	CA	1766	OHX	1	0
56	AA	3527	OHX	1	0
56	AA	3347	OHX	1	0
56	AA	3342	OHX	2	0
56	DA	3388	OHX	2	0
56	DA	3127	OHX	1	0
56	AA	3466	OHX	1	0
56	CA	1768	OHX	1	0
56	AA	3553	OHX	1	0
56	AA	3487	OHX	1	0
56	CA	1733	OHX	1	0
56	CA	1725	OHX	2	0
56	DA	3377	OHX	2	0
56	D8	101	OHX	5	0
56	AA	3367	OHX	3	0
56	BC	106	OHX	1	0
56	DA	3389	OHX	3	0
56	AA	3516	OHX	1	0
56	BA	1789	OHX	1	0
56	BA	1732	OHX	1	0
56	CA	1788	OHX	2	0
56	CA	1774	OHX	1	0
56	DA	3459	OHX	1	0
56	BA	1766	OHX	1	0
56	CA	1764	OHX	1	0
56	AA	3546	OHX	1	0
56	DA	3212	OHX	1	0
56	DA	3368	OHX	1	0
56	BA	1807	OHX	1	0
56	AA	3514	OHX	1	0
56	DA	3343	OHX	3	0
56	DA	3418	OHX	1	0
56	CA	1746	OHX	1	0
56	DB	219	OHX	1	0
56	AA	3409	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AA	3555	OHX	1	0
56	AA	3509	OHX	1	0
56	BA	1775	OHX	1	0
56	AA	3333	OHX	1	0
56	AA	3377	OHX	1	0
56	AA	3392	OHX	1	0
56	DA	3258	OHX	1	0
56	BA	1796	OHX	1	0
56	AA	3473	OHX	2	0
56	CA	1797	OHX	2	0
56	A6	101	OHX	1	0
56	DA	3374	OHX	3	0
56	AA	3453	OHX	2	0
56	BA	1785	OHX	5	0
56	DA	3484	OHX	1	0
56	DA	3132	OHX	1	0
56	AA	3506	OHX	1	0
56	CA	1730	OHX	1	0
56	AA	3374	OHX	2	0
56	CA	1738	OHX	2	0
56	AA	3568	OHX	1	0
56	DA	3489	OHX	2	0
56	AA	3373	OHX	1	0
56	BA	1812	OHX	1	0
56	DA	3215	OHX	1	0
56	AA	3538	OHX	2	0
56	CA	1727	OHX	1	0
56	DA	3248	OHX	1	0
56	DA	3395	OHX	1	0
56	AA	3551	OHX	2	0
56	AA	3432	OHX	1	0
56	CA	1779	OHX	3	0
56	DB	220	OHX	1	0
56	CA	1809	OHX	1	0
56	AA	3346	OHX	1	0
56	AA	3468	OHX	1	0
56	DA	3430	OHX	1	0
56	BA	1728	OHX	1	0
56	DA	3176	OHX	1	0
56	BA	1772	OHX	2	0
56	CA	1811	OHX	1	0
56	BA	1716	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	BA	1792	OHX	1	0
56	DA	3444	OHX	2	0
56	CK	201	OHX	1	0
56	DA	3439	OHX	1	0
56	DA	3443	OHX	1	0
56	BA	1813	OHX	2	0
56	AA	3566	OHX	1	0
56	AA	3422	OHX	1	0
56	AA	3557	OHX	2	0
56	CA	1778	OHX	1	0
56	AA	3531	OHX	1	0
56	CA	1740	OHX	1	0
56	BA	1784	OHX	2	0
57	CA	1722	PAR	1	0
56	AA	3330	OHX	5	0
56	CA	1786	OHX	1	0
56	CA	1731	OHX	1	0
57	BA	1715	PAR	3	0
56	AA	3375	OHX	1	0
56	AA	3536	OHX	2	0
56	AA	3405	OHX	1	0
56	DA	3340	OHX	1	0
56	AA	3423	OHX	1	0
56	AF	303	OHX	3	0
56	DA	3422	OHX	1	0
56	CA	1769	OHX	1	0
56	AA	3507	OHX	2	0
56	DA	3118	OHX	1	0
56	DA	3246	OHX	1	0
56	CA	1793	OHX	1	0
56	BA	1745	OHX	2	0
56	CA	1803	OHX	1	0
56	AA	3376	OHX	1	0
56	AA	3329	OHX	1	0
56	AA	3364	OHX	1	0
56	AA	3479	OHX	1	0
56	CA	1777	OHX	1	0
56	DA	3471	OHX	2	0
56	AA	3558	OHX	2	0
56	AA	3565	OHX	1	0
56	CA	1790	OHX	2	0
56	BA	1756	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AA	3391	OHX	2	0
56	AA	3502	OHX	2	0
56	AA	3462	OHX	1	0
56	AA	3351	OHX	1	0
56	D3	101	OHX	1	0
56	CA	1753	OHX	1	0
56	AB	209	OHX	1	0
56	AA	3505	OHX	1	0
56	CA	1742	OHX	1	0
56	DA	3441	OHX	1	0
56	DF	301	OHX	1	0
56	AB	213	OHX	1	0
56	DA	3083	OHX	1	0
56	DA	3103	OHX	3	0
56	AA	3412	OHX	2	0
56	AA	3554	OHX	1	0
56	DA	3406	OHX	1	0
56	DA	3403	OHX	2	0
56	AA	3371	OHX	1	0
56	BA	1747	OHX	1	0
56	DA	3379	OHX	2	0
56	AA	3496	OHX	1	0
56	DA	3337	OHX	1	0
56	AA	3331	OHX	1	0
56	CA	1770	OHX	1	0
56	DA	3470	OHX	2	0
56	BA	1770	OHX	1	0
56	DA	3416	OHX	1	0
56	DA	3062	OHX	1	0
56	AA	3561	OHX	2	0
56	DA	3427	OHX	3	0
56	BA	1788	OHX	1	0
56	AA	3463	OHX	1	0
56	AA	3335	OHX	1	0
56	AA	3475	OHX	1	0
56	DA	3257	OHX	1	0
56	BA	1724	OHX	1	0
56	BA	1805	OHX	1	0
56	DA	3390	OHX	1	0
56	BA	1717	OHX	1	0
56	DA	3255	OHX	1	0
56	BA	1761	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	DA	3173	OHX	2	0
56	AA	3545	OHX	1	0
56	CA	1739	OHX	1	0
56	BA	1793	OHX	2	0
56	CA	1723	OHX	2	0
56	AA	3547	OHX	6	0
56	DA	3445	OHX	1	0
56	DA	3064	OHX	3	0
56	DA	3214	OHX	2	0
56	DA	3391	OHX	1	0
56	AA	3370	OHX	1	0
56	DA	3426	OHX	1	0
56	DA	3068	OHX	1	0
56	CA	1758	OHX	1	0
56	DB	209	OHX	1	0
56	AA	3419	OHX	1	0
56	AA	3418	OHX	1	0
56	AA	3458	OHX	1	0
56	BA	1757	OHX	1	0
56	AA	3556	OHX	1	0
56	BA	1720	OHX	1	0
56	DA	3487	OHX	1	0
56	AA	3361	OHX	1	0
56	CA	1760	OHX	1	0
56	DA	3407	OHX	1	0
56	AA	3384	OHX	1	0
56	AA	3569	OHX	3	0
56	AA	3529	OHX	1	0
56	CA	1762	OHX	7	0
56	CA	1749	OHX	1	0
56	CA	1784	OHX	1	0
56	DA	3438	OHX	1	0
56	DA	3223	OHX	1	0
56	DA	3384	OHX	1	0
56	BA	1755	OHX	1	0
56	CA	1726	OHX	1	0
56	CB	104	OHX	1	0
56	AA	3438	OHX	1	0
56	AA	3512	OHX	1	0
56	CA	1741	OHX	2	0
56	DA	3415	OHX	1	0
56	BA	1733	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	DA	3344	OHX	3	0
56	AB	219	OHX	2	0
56	CA	1815	OHX	1	0
56	BA	1806	OHX	2	0
56	BA	1811	OHX	2	0
56	BC	105	OHX	1	0
56	AA	3350	OHX	1	0
56	AA	3530	OHX	1	0
56	AA	3445	OHX	1	0
56	AA	3464	OHX	1	0
56	D5	102	OHX	1	0
56	CA	1805	OHX	1	0
56	DA	3428	OHX	2	0
56	DA	3465	OHX	1	0
56	DA	3419	OHX	2	0
56	AA	3365	OHX	4	0
56	BA	1763	OHX	1	0
56	BD	102	OHX	1	0
56	BA	1790	OHX	1	0
56	DA	3437	OHX	1	0
56	CA	1724	OHX	1	0
56	DA	3401	OHX	1	0
56	DA	3457	OHX	1	0
56	DA	3364	OHX	1	0
56	DA	3382	OHX	1	0
56	AA	3525	OHX	1	0
56	DA	3348	OHX	1	0
56	DA	3172	OHX	2	0
56	BA	1746	OHX	1	0
56	CA	1771	OHX	1	0
56	CA	1737	OHX	2	0
56	AA	3523	OHX	1	0
56	AA	3441	OHX	1	0
56	AA	3399	OHX	2	0
56	DA	3398	OHX	1	0
56	DA	3169	OHX	1	0
56	DA	3221	OHX	2	0
56	DA	3410	OHX	2	0
56	AA	3388	OHX	2	0
56	CA	1798	OHX	4	0
56	CA	1759	OHX	1	0
56	AA	3550	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AA	3481	OHX	1	0
56	DA	3412	OHX	1	0
56	DB	210	OHX	1	0
56	BG	302	OHX	2	0
56	CA	1751	OHX	1	0
56	AA	3494	OHX	1	0
56	DA	3111	OHX	2	0
56	CC	110	OHX	1	0
56	BA	1760	OHX	1	0
56	DA	3468	OHX	1	0
56	CA	1810	OHX	2	0
56	DB	213	OHX	1	0
56	CA	1792	OHX	2	0
56	CA	1782	OHX	1	0
56	AA	3504	OHX	4	0
56	DA	3087	OHX	1	0
56	DA	3376	OHX	1	0
56	AA	3497	OHX	2	0
56	BA	1773	OHX	2	0
56	DA	3061	OHX	1	0
56	CA	1776	OHX	1	0
56	DA	3486	OHX	1	0
56	AA	3415	OHX	3	0
56	AA	3560	OHX	1	0
56	CV	101	OHX	1	0
56	BA	1734	OHX	1	0
56	CD	101	OHX	1	0
56	AB	218	OHX	1	0
56	DB	212	OHX	1	0
56	DA	3385	OHX	2	0
56	DA	3362	OHX	1	0
56	AA	3524	OHX	1	0
56	AA	3447	OHX	1	0
56	BA	1762	OHX	1	0
56	CA	1728	OHX	1	0
56	AA	3417	OHX	1	0
56	DA	3411	OHX	1	0
56	A3	102	OHX	1	0
56	DA	3454	OHX	1	0
56	CA	1756	OHX	2	0
56	AA	3540	OHX	1	0
56	CB	105	OHX	1	0

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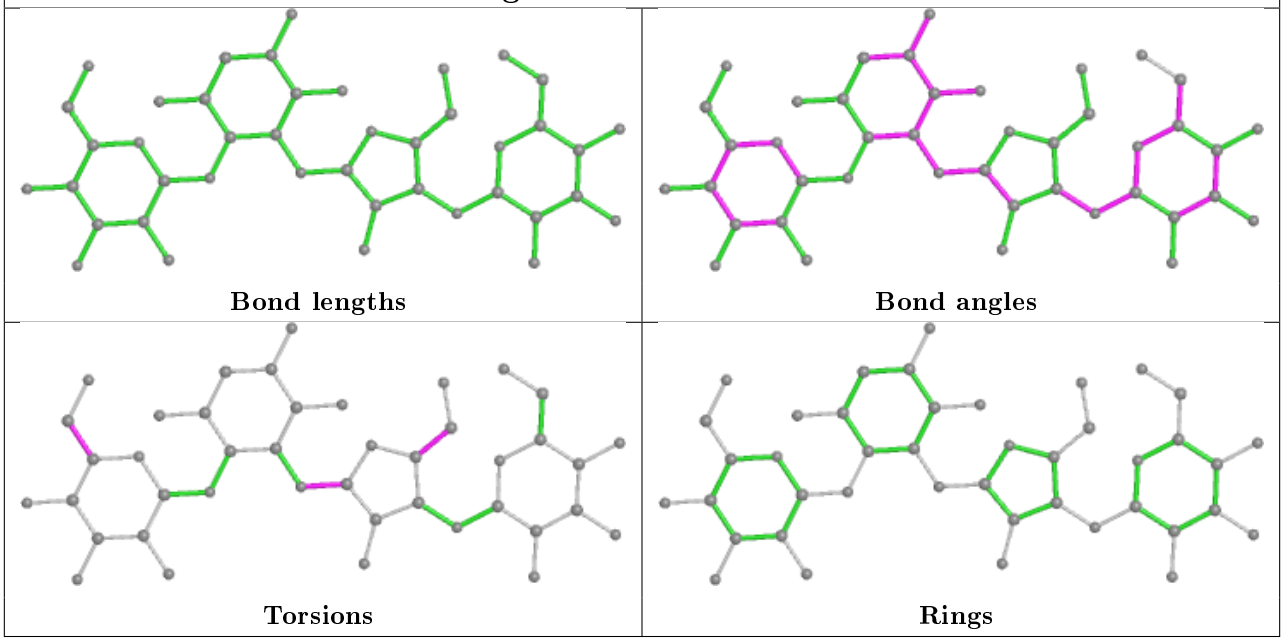
Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	AA	3383	OHX	1	0
56	CA	1735	OHX	1	0
56	CA	1757	OHX	1	0
56	BA	1780	OHX	1	0
56	DA	3400	OHX	2	0
56	AB	215	OHX	1	0
56	BA	1721	OHX	3	0
56	AA	3567	OHX	1	0
56	DA	3346	OHX	1	0
56	AO	202	OHX	1	0
56	DA	3473	OHX	1	0
56	DA	3081	OHX	1	0
56	DA	3461	OHX	1	0
56	BA	1794	OHX	1	0
56	BA	1799	OHX	1	0
56	AA	3467	OHX	1	0
56	DA	3341	OHX	1	0
56	DA	3488	OHX	3	0
56	DA	3162	OHX	1	0
56	CA	1775	OHX	1	0
56	BA	1801	OHX	1	0
56	CA	1773	OHX	1	0
56	AA	3362	OHX	2	0
56	AA	3414	OHX	1	0
56	CA	1734	OHX	2	0
56	BA	1802	OHX	4	0
56	CC	108	OHX	6	0
56	DA	3099	OHX	1	0
56	DA	3251	OHX	1	0
56	BA	1735	OHX	1	0
56	DA	3159	OHX	1	0
56	DA	3478	OHX	2	0
56	DA	3253	OHX	1	0
56	DA	3336	OHX	1	0
56	DA	3399	OHX	1	0
56	CA	1755	OHX	1	0
56	CA	1750	OHX	1	0

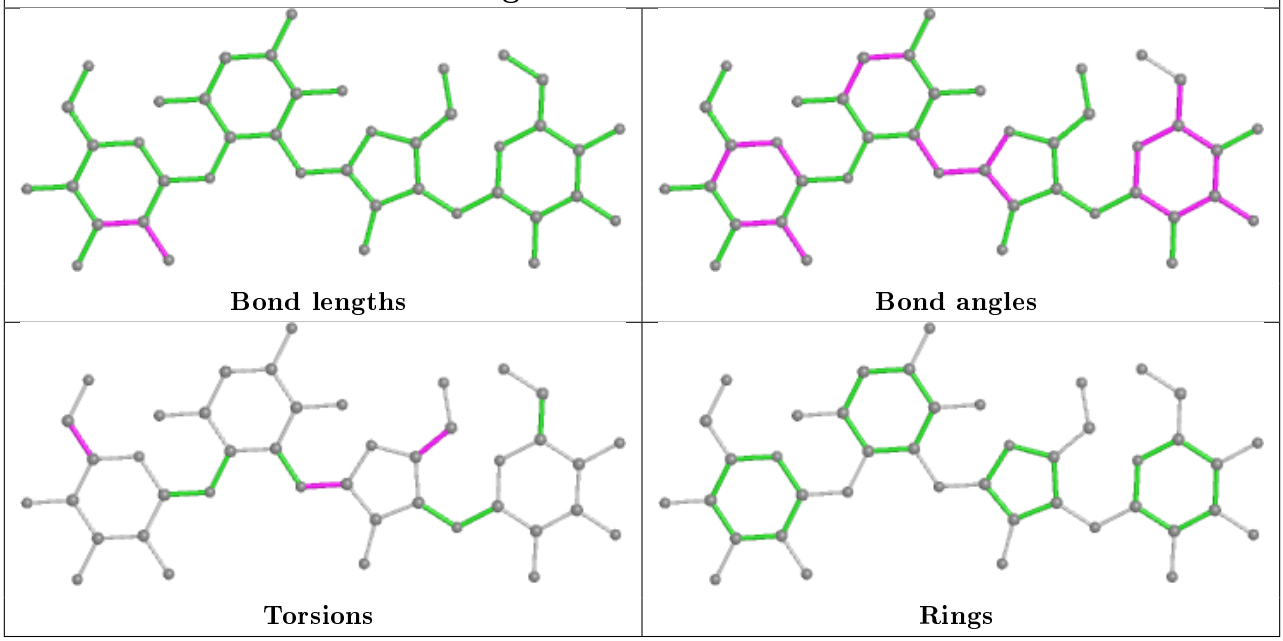
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand PAR CA 1722



Ligand PAR BA 1715



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	2912/2912 (100%)	-0.31	41 (1%) 75 75	44, 79, 216, 250	0
1	DA	2907/2912 (99%)	-0.24	47 (1%) 72 70	56, 94, 236, 252	0
2	AB	122/122 (100%)	-0.46	1 (0%) 86 86	77, 99, 118, 184	0
2	DB	122/122 (100%)	-0.33	1 (0%) 86 86	98, 129, 153, 204	0
3	AD	272/276 (98%)	0.09	2 (0%) 87 88	42, 67, 88, 106	0
3	DD	272/276 (98%)	0.42	11 (4%) 38 36	52, 78, 98, 130	0
4	AE	205/206 (99%)	0.24	10 (4%) 29 27	54, 90, 135, 147	0
4	DE	205/206 (99%)	0.19	9 (4%) 34 33	61, 102, 153, 167	0
5	AF	202/210 (96%)	-0.16	3 (1%) 73 72	49, 84, 121, 136	0
5	DF	208/210 (99%)	0.35	17 (8%) 11 11	63, 108, 164, 189	0
6	AG	181/182 (99%)	0.79	28 (15%) 2 2	90, 112, 143, 155	0
6	DG	181/182 (99%)	0.99	33 (18%) 1 1	122, 146, 169, 175	0
7	AH	170/180 (94%)	0.08	6 (3%) 44 42	89, 116, 133, 162	0
7	DH	170/180 (94%)	0.57	21 (12%) 4 3	162, 204, 226, 236	0
8	AK	146/148 (98%)	0.21	7 (4%) 30 28	79, 134, 153, 155	0
8	DK	146/148 (98%)	0.17	6 (4%) 37 35	88, 135, 157, 163	0
9	AM	138/140 (98%)	0.16	6 (4%) 35 34	68, 92, 129, 141	0
9	DM	138/140 (98%)	0.18	2 (1%) 75 75	83, 117, 146, 159	0
10	AN	122/122 (100%)	0.25	2 (1%) 72 70	61, 79, 96, 107	0
10	DN	122/122 (100%)	0.37	7 (5%) 23 23	75, 97, 114, 124	0
11	AO	150/150 (100%)	-0.06	7 (4%) 31 29	46, 93, 120, 166	0
11	DO	150/150 (100%)	1.11	39 (26%) 0 0	45, 106, 147, 183	0
12	AP	141/141 (100%)	0.36	13 (9%) 9 9	58, 86, 108, 136	0
12	DP	141/141 (100%)	0.87	25 (17%) 1 1	58, 111, 143, 164	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	A0	118/118 (100%)	0.02	1 (0%) 86 86	57, 86, 110, 118	0
13	D0	117/118 (99%)	-0.15	0 100 100	68, 89, 109, 124	0
14	AQ	111/112 (99%)	-0.06	2 (1%) 68 67	67, 97, 120, 133	0
14	DQ	111/112 (99%)	-0.04	3 (2%) 54 52	85, 126, 150, 162	0
15	AR	137/146 (93%)	0.18	3 (2%) 62 60	75, 96, 149, 175	0
15	DR	137/146 (93%)	0.48	11 (8%) 12 11	81, 106, 168, 189	0
16	A1	117/118 (99%)	-0.21	2 (1%) 70 68	58, 81, 110, 142	0
16	D1	117/118 (99%)	0.60	9 (7%) 13 12	71, 109, 145, 167	0
17	A2	101/101 (100%)	0.14	5 (4%) 28 27	51, 104, 126, 143	0
17	D2	101/101 (100%)	1.28	24 (23%) 0 0	65, 134, 147, 155	0
18	AS	113/113 (100%)	0.16	2 (1%) 68 67	61, 77, 108, 161	0
18	DS	113/113 (100%)	0.06	3 (2%) 54 52	66, 82, 116, 162	0
19	AT	92/96 (95%)	-0.02	1 (1%) 80 81	59, 73, 99, 111	0
19	DT	92/96 (95%)	0.15	5 (5%) 25 24	74, 92, 117, 133	0
20	AU	102/110 (92%)	0.36	8 (7%) 13 12	79, 105, 156, 168	0
20	DU	102/110 (92%)	0.76	18 (17%) 1 1	97, 122, 169, 185	0
21	AV	175/206 (84%)	1.95	82 (46%) 0 0	90, 131, 195, 198	0
21	DV	179/206 (86%)	2.70	85 (47%) 0 0	127, 165, 214, 226	0
22	A3	76/85 (89%)	0.04	2 (2%) 56 53	65, 78, 95, 130	0
22	D3	77/85 (90%)	0.14	3 (3%) 39 37	78, 97, 119, 152	0
23	AZ	97/98 (98%)	-0.12	1 (1%) 82 82	59, 79, 131, 161	0
23	DZ	97/98 (98%)	-0.05	2 (2%) 63 62	69, 89, 136, 157	0
24	AW	66/72 (91%)	0.04	1 (1%) 73 72	63, 87, 103, 128	0
24	DW	66/72 (91%)	0.53	2 (3%) 50 49	88, 112, 132, 142	0
25	AX	59/60 (98%)	-0.25	0 100 100	66, 86, 119, 134	0
25	DX	59/60 (98%)	0.97	11 (18%) 1 1	87, 113, 146, 167	0
26	A4	66/71 (92%)	2.25	32 (48%) 0 0	130, 162, 180, 188	0
26	D4	63/71 (88%)	4.06	48 (76%) 0 0	149, 192, 200, 204	0
27	A5	59/60 (98%)	0.59	7 (11%) 4 4	54, 95, 172, 174	0
27	D5	59/60 (98%)	0.43	6 (10%) 6 6	61, 96, 179, 195	0
28	A6	45/54 (83%)	9.35	45 (100%) 0 0	129, 159, 174, 182	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	D6	45/54 (83%)	6.57	39 (86%) 0 0	146, 174, 190, 192	0
29	A7	45/49 (91%)	-0.13	0 100 100	46, 55, 72, 78	0
29	D7	45/49 (91%)	0.06	0 100 100	56, 66, 79, 96	0
30	A8	60/65 (92%)	0.26	3 (5%) 28 27	56, 74, 97, 120	0
30	D8	60/65 (92%)	0.55	5 (8%) 11 11	75, 91, 113, 138	0
31	BA	1502/1506 (99%)	-0.54	4 (0%) 94 94	58, 111, 193, 251	0
31	CA	1502/1506 (99%)	-0.54	3 (0%) 95 96	69, 122, 195, 251	0
32	BE	237/256 (92%)	0.56	29 (12%) 4 3	117, 150, 188, 200	0
32	CE	237/256 (92%)	1.33	65 (27%) 0 0	128, 166, 201, 216	0
33	BF	205/239 (85%)	0.59	24 (11%) 4 4	95, 124, 157, 167	0
33	CF	206/239 (86%)	0.84	32 (15%) 2 2	130, 151, 179, 185	0
34	BG	208/208 (100%)	-0.05	3 (1%) 75 75	95, 119, 141, 152	0
34	CG	208/208 (100%)	0.15	4 (1%) 66 65	94, 114, 136, 151	0
35	BH	151/162 (93%)	0.32	4 (2%) 56 53	81, 109, 130, 166	0
35	CH	151/162 (93%)	0.17	4 (2%) 56 53	106, 124, 148, 171	0
36	BI	101/101 (100%)	1.31	25 (24%) 0 0	86, 111, 127, 152	0
36	CI	101/101 (100%)	0.47	2 (1%) 65 64	83, 108, 131, 149	0
37	BJ	155/156 (99%)	-0.10	8 (5%) 27 25	109, 127, 154, 167	0
37	CJ	155/156 (99%)	-0.08	4 (2%) 56 53	120, 136, 159, 167	0
38	BK	138/138 (100%)	-0.31	1 (0%) 87 88	90, 115, 128, 133	0
38	CK	138/138 (100%)	0.02	2 (1%) 75 75	105, 129, 141, 151	0
39	BL	127/128 (99%)	-0.19	4 (3%) 49 48	98, 148, 166, 173	0
39	CL	127/128 (99%)	-0.36	2 (1%) 72 70	118, 160, 175, 179	0
40	BM	99/105 (94%)	0.46	11 (11%) 5 5	93, 149, 177, 178	0
40	CM	99/105 (94%)	0.26	4 (4%) 38 36	128, 165, 180, 184	0
41	BN	119/129 (92%)	0.68	13 (10%) 5 5	81, 109, 138, 167	0
41	CN	119/129 (92%)	1.67	45 (37%) 0 0	89, 116, 144, 172	0
42	BO	125/132 (94%)	0.33	8 (6%) 19 19	73, 86, 118, 162	0
42	CO	125/132 (94%)	1.02	23 (18%) 1 1	91, 113, 138, 172	0
43	BP	116/126 (92%)	-0.12	3 (2%) 56 53	97, 135, 151, 157	0
43	CP	117/126 (92%)	0.33	11 (9%) 8 9	108, 162, 175, 177	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BQ	58/61 (95%)	-0.24	0 100 100	96, 113, 128, 134	0
44	CQ	58/61 (95%)	0.97	11 (18%) 1 1	132, 145, 162, 167	0
45	BR	88/89 (98%)	0.23	0 100 100	81, 103, 125, 130	0
45	CR	88/89 (98%)	0.09	1 (1%) 80 81	88, 116, 138, 145	0
46	BS	84/88 (95%)	-0.10	0 100 100	105, 122, 147, 180	0
46	CS	84/88 (95%)	-0.06	1 (1%) 79 78	96, 108, 131, 164	0
47	BT	100/105 (95%)	-0.11	2 (2%) 65 64	95, 114, 128, 135	0
47	CT	100/105 (95%)	-0.12	3 (3%) 50 49	96, 117, 138, 149	0
48	BU	72/88 (81%)	1.54	22 (30%) 0 0	94, 111, 147, 169	0
48	CU	72/88 (81%)	1.66	18 (25%) 0 0	98, 120, 160, 178	0
49	BV	78/93 (83%)	0.10	5 (6%) 19 19	113, 135, 155, 159	0
49	CV	78/93 (83%)	0.79	17 (21%) 0 1	146, 170, 187, 192	0
50	BW	99/106 (93%)	-0.61	0 100 100	113, 129, 159, 167	0
50	CW	99/106 (93%)	-0.16	1 (1%) 82 82	100, 122, 157, 170	0
51	BX	25/27 (92%)	-0.55	0 100 100	110, 123, 139, 157	0
51	CX	25/27 (92%)	0.04	2 (8%) 12 11	126, 148, 165, 175	0
52	BB	84/85 (98%)	3.42	59 (70%) 0 0	98, 138, 163, 176	0
52	BD	84/85 (98%)	0.27	7 (8%) 11 11	78, 144, 223, 233	0
52	CB	84/85 (98%)	5.75	72 (85%) 0 0	113, 143, 166, 176	0
52	CD	84/85 (98%)	-0.13	1 (1%) 79 78	86, 144, 222, 230	0
53	BC	77/77 (100%)	-0.27	1 (1%) 77 77	82, 117, 146, 159	0
53	CC	77/77 (100%)	-0.19	1 (1%) 77 77	92, 127, 156, 164	0
54	B1	16/16 (100%)	0.78	3 (18%) 1 1	81, 117, 161, 169	0
54	C1	16/16 (100%)	0.88	2 (12%) 3 3	90, 122, 168, 176	0
All	All	21100/21658 (97%)	0.14	1382 (6%) 18 18	42, 108, 188, 252	0

All (1382) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
28	A6	29	ASN	16.7
52	CB	52	G	16.0
52	CB	16	C	15.1
28	A6	18	ARG	14.8
1	AA	2901	C	14.4

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Mol	Chain	Res	Type	RSRZ
28	A6	30	THR	14.2
28	A6	21	TYR	14.0
28	A6	49	HIS	13.8
28	D6	26	ASN	13.7
52	CB	15	G	13.5
28	A6	31	PRO	13.4
28	A6	13	CYS	13.2
28	D6	25	LYS	13.1
28	A6	22	ALA	12.9
28	A6	42	TRP	12.9
21	DV	149	SER	12.8
52	CB	53	A	12.8
28	D6	13	CYS	12.7
52	CB	18	G	12.4
27	A5	2	ALA	12.0
28	A6	14	THR	11.9
26	D4	55	ARG	11.8
21	DV	142	SER	11.8
28	A6	43	CYS	11.8
52	CB	51	C	11.7
28	D6	12	GLU	11.6
42	BO	129	ALA	11.5
28	A6	47	THR	11.5
52	CB	17	G	11.5
28	A6	45	LYS	11.4
1	DA	654(I)	C	11.3
28	A6	20	ASN	11.2
28	D6	30	THR	11.1
52	CB	46	G	11.0
28	D6	22	ALA	10.9
21	DV	107	THR	10.8
21	DV	147	GLY	10.7
21	DV	146	ILE	10.7
1	AA	1536	A	10.6
52	BB	16	C	10.6
28	A6	48	VAL	10.6
52	CB	47	U	10.6
52	BB	14	A	10.5
26	D4	29	PRO	10.5
52	CB	80	C	10.4
52	CB	49	A	10.3
28	A6	19	ARG	10.3

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Mol	Chain	Res	Type	RSRZ
28	A6	26	ASN	10.3
21	DV	144	LEU	10.3
28	D6	23	THR	10.1
28	D6	28	ARG	10.1
21	DV	111	VAL	10.0
28	A6	34	LEU	10.0
26	A4	40	HIS	9.9
52	CB	79	A	9.9
1	AA	2799	A	9.9
5	DF	1	MET	9.8
1	DA	2901	C	9.8
28	A6	25	LYS	9.8
1	AA	2902	C	9.7
28	A6	51	GLU	9.7
28	A6	52	VAL	9.7
28	A6	46	HIS	9.6
28	D6	29	ASN	9.6
28	D6	21	TYR	9.5
5	DF	208	GLY	9.5
28	A6	23	THR	9.5
28	A6	50	ARG	9.5
28	D6	27	LYS	9.4
26	D4	54	GLY	9.4
28	D6	31	PRO	9.4
11	DO	150	ALA	9.2
28	A6	35	GLU	9.2
1	AA	654(J)	A	9.1
4	DE	205	ALA	9.1
48	CU	88	LYS	9.0
28	A6	40	CYS	8.9
52	CB	50	U	8.9
52	CB	78	C	8.9
52	BB	15	G	8.9
52	BB	85	A	8.9
28	D6	42	TRP	8.9
28	D6	52	VAL	8.8
52	CB	24	G	8.8
21	DV	151	HIS	8.8
52	CB	1	G	8.8
21	DV	121	HIS	8.8
48	BU	88	LYS	8.7
28	D6	50	ARG	8.7

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Mol	Chain	Res	Type	RSRZ
21	DV	179	ASP	8.7
28	A6	15	GLU	8.7
28	D6	51	GLU	8.5
7	DH	99	VAL	8.5
42	CO	128	ALA	8.4
28	A6	24	GLU	8.4
21	DV	117	LEU	8.3
26	D4	56	VAL	8.3
28	D6	16	CYS	8.2
20	DU	49	VAL	8.2
52	CB	66	G	8.2
21	DV	112	ARG	8.1
52	CB	54	C	8.1
21	DV	148	ASP	8.0
26	D4	27	THR	8.0
21	DV	153	SER	8.0
48	CU	87	ARG	7.9
27	D5	58	LEU	7.9
28	A6	16	CYS	7.9
32	BE	228	GLY	7.9
21	DV	171	ILE	7.8
52	CB	13	G	7.8
21	AV	1	MET	7.8
1	AA	2900	A	7.7
52	CB	8	U	7.7
26	D4	31	ILE	7.6
21	DV	138	GLU	7.6
43	CP	4	ILE	7.6
21	DV	172	ALA	7.6
1	AA	2899	G	7.6
52	CB	61	G	7.5
26	D4	8	LYS	7.5
1	DA	2899	G	7.5
1	DA	654(J)	A	7.5
36	BI	101	ALA	7.5
48	CU	17	SER	7.5
26	D4	58	ARG	7.5
9	DM	1	MET	7.4
52	CB	48	C	7.4
28	D6	14	THR	7.3
28	D6	20	ASN	7.3
21	DV	154	ASP	7.3

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Mol	Chain	Res	Type	RSRZ
52	CB	67	A	7.3
6	DG	2	PRO	7.3
11	DO	149	GLU	7.2
1	AA	654(K)	C	7.2
6	DG	152	LEU	7.2
28	D6	9	LEU	7.2
1	DA	2900	A	7.2
28	A6	53	LYS	7.1
1	AA	4	C	7.1
28	A6	28	ARG	7.1
26	D4	9	LEU	7.1
1	DA	2	G	7.1
26	D4	63	TYR	7.1
26	D4	28	LYS	7.1
52	CB	19	C	7.1
17	D2	36	PRO	7.1
26	A4	3	GLU	7.1
28	A6	11	LEU	7.1
21	DV	108	PRO	7.0
28	A6	10	LEU	7.0
12	AP	141	GLN	7.0
35	BH	155	GLU	6.9
6	AG	2	PRO	6.9
32	CE	232	PRO	6.9
24	AW	43	GLN	6.9
28	A6	41	PRO	6.9
28	A6	44	ARG	6.8
52	BB	80	C	6.8
33	CF	53	ALA	6.8
52	CB	12	C	6.8
54	B1	25	A	6.8
32	CE	136	VAL	6.8
21	DV	143	GLY	6.7
33	CF	206	GLU	6.7
28	D6	43	CYS	6.7
7	DH	39	PRO	6.7
52	CB	58	G	6.7
52	BB	82	A	6.6
52	CB	85	A	6.6
21	DV	168	GLU	6.6
26	D4	57	GLU	6.6
42	BO	128	ALA	6.6

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Mol	Chain	Res	Type	RSRZ
21	DV	150	LEU	6.6
20	DU	89	PHE	6.6
52	BB	70	C	6.5
18	DS	113	LYS	6.5
20	DU	50	ARG	6.5
42	CO	32	PHE	6.5
17	D2	91	TYR	6.5
1	DA	654(O)	G	6.5
52	CB	74	C	6.5
52	CB	21	A	6.4
41	BN	12	ARG	6.4
26	D4	32	TYR	6.4
28	A6	12	GLU	6.4
32	CE	231	GLU	6.4
12	DP	141	GLN	6.3
21	AV	106	GLY	6.3
52	CB	10	C	6.3
26	A4	14	ILE	6.3
52	CB	6	G	6.3
52	CB	68	A	6.3
41	BN	129	SER	6.2
28	A6	17	LYS	6.2
21	DV	152	ALA	6.2
52	CB	9	U	6.2
21	DV	141	VAL	6.1
26	D4	25	TYR	6.1
48	CU	86	VAL	6.1
1	DA	654(K)	C	6.1
32	CE	152	PHE	6.1
28	A6	27	LYS	6.1
21	AV	163	LEU	6.1
48	CU	46	GLU	6.1
28	A6	33	LYS	6.1
52	BB	67	A	6.1
16	D1	91	ASP	6.1
52	CB	23	A	6.0
33	BF	101	LEU	6.0
1	AA	277	C	6.0
52	CB	69	U	6.0
52	BB	19	C	6.0
52	BB	4	G	6.0
52	BB	69	U	6.0

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Mol	Chain	Res	Type	RSRZ
32	BE	229	VAL	6.0
28	D6	41	PRO	6.0
52	CB	5	G	6.0
24	DW	43	GLN	6.0
28	A6	9	LEU	5.9
52	CB	55	U	5.9
52	CB	14	A	5.9
26	D4	5	ILE	5.9
21	DV	178	GLU	5.8
33	BF	79	ARG	5.8
27	D5	2	ALA	5.8
52	BB	20	C	5.8
27	D5	59	GLU	5.8
28	D6	40	CYS	5.8
32	CE	163	PHE	5.7
27	D5	60	VAL	5.7
26	A4	5	ILE	5.7
28	D6	49	HIS	5.7
52	BB	78	C	5.7
28	D6	53	LYS	5.7
22	A3	85	ALA	5.7
28	D6	39	TYR	5.7
52	BB	59	A	5.7
21	DV	106	GLY	5.7
52	BB	79	A	5.6
26	D4	24	THR	5.6
52	CB	20	C	5.6
26	D4	30	GLU	5.6
6	DG	142	PRO	5.6
26	D4	10	VAL	5.5
21	DV	173	ALA	5.5
52	BB	47	U	5.5
52	CB	11	C	5.5
41	BN	11	LYS	5.5
42	CO	64	TYR	5.5
52	CB	62	G	5.4
1	AA	3	U	5.4
52	BB	84	C	5.4
32	CE	14	GLY	5.4
52	CB	76	C	5.4
28	D6	46	HIS	5.4
52	CB	25	G	5.4

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Mol	Chain	Res	Type	RSRZ
41	CN	12	ARG	5.3
28	D6	35	GLU	5.3
52	BB	23	A	5.3
52	CB	4	G	5.3
32	CE	165	VAL	5.3
21	AV	70	LEU	5.3
17	A2	101	GLY	5.3
14	AQ	111	GLU	5.3
28	D6	11	LEU	5.3
26	D4	7	PRO	5.2
20	DU	88	LYS	5.2
17	D2	12	TYR	5.2
43	BP	6	GLY	5.2
47	BT	36	ILE	5.2
20	DU	86	ARG	5.2
49	CV	78	ARG	5.2
41	CN	129	SER	5.2
27	A5	59	GLU	5.2
52	CB	27	A	5.2
48	BU	18	ARG	5.2
52	CB	75	C	5.2
33	CF	104	GLN	5.2
48	CU	18	ARG	5.1
26	D4	26	SER	5.1
52	BB	71	C	5.1
52	BB	83	C	5.1
26	D4	52	THR	5.1
21	AV	146	ILE	5.1
21	AV	162	GLU	5.1
26	D4	12	ALA	5.1
48	CU	26	LEU	5.1
1	DA	4	C	5.1
42	CO	129	ALA	5.1
26	D4	40	HIS	5.1
41	CN	82	VAL	5.1
28	D6	32	ASN	5.1
1	AA	2	G	5.0
52	CB	82	A	5.0
21	AV	133	ILE	5.0
52	CB	2	G	5.0
37	BJ	83	ALA	5.0
11	DO	108	LYS	5.0

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Mol	Chain	Res	Type	RSRZ
21	AV	88	PHE	5.0
26	A4	31	ILE	5.0
28	A6	38	LYS	5.0
48	CU	19	LYS	5.0
48	BU	19	LYS	5.0
21	AV	99	TYR	5.0
21	DV	159	PRO	4.9
1	DA	2902	C	4.9
21	AV	173	ALA	4.9
32	CE	240	GLN	4.9
41	CN	37	GLY	4.9
5	DF	2	LYS	4.9
1	AA	1534	G	4.9
52	BB	13	G	4.9
1	AA	2798	C	4.9
21	AV	121	HIS	4.8
1	DA	1	G	4.8
2	AB	1(M)	A	4.8
52	BB	53	A	4.8
32	CE	116	GLU	4.8
6	AG	135	LEU	4.8
27	A5	60	VAL	4.8
28	A6	32	ASN	4.8
52	CB	3	U	4.8
33	CF	103	VAL	4.8
26	A4	28	LYS	4.8
26	D4	50	VAL	4.8
21	DV	55	HIS	4.8
52	CB	60	A	4.8
43	CP	5	ALA	4.8
11	DO	91	PHE	4.8
28	D6	19	ARG	4.8
21	AV	107	THR	4.8
20	AU	50	ARG	4.7
41	CN	19	ALA	4.7
31	CA	85	U	4.7
12	DP	86	GLY	4.7
20	DU	59	GLY	4.7
30	A8	34	TRP	4.7
6	DG	34	LEU	4.7
52	BB	22	A	4.7
48	BU	31	LEU	4.7

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Mol	Chain	Res	Type	RSRZ
48	BU	29	PHE	4.7
6	AG	137	GLU	4.7
52	BB	68	A	4.7
28	A6	39	TYR	4.7
52	CB	73	U	4.7
1	DA	2799	A	4.7
15	DR	2	ASN	4.7
41	CN	91	ARG	4.6
36	BI	57	GLN	4.6
21	AV	98	MET	4.6
4	AE	204	ALA	4.6
1	AA	2801	A	4.6
24	DW	41	ILE	4.6
21	DV	155	LEU	4.6
21	DV	1	MET	4.6
20	DU	53	PRO	4.6
52	BB	77	C	4.6
52	CB	72	U	4.6
41	CN	89	ALA	4.6
21	DV	110	GLY	4.6
52	CB	28	G	4.6
26	D4	62	ARG	4.5
41	CN	108	ILE	4.5
20	DU	90	LEU	4.5
52	BB	55	U	4.5
33	CF	207	VAL	4.5
41	CN	84	VAL	4.5
21	AV	72	ARG	4.5
21	AV	171	ILE	4.5
21	DV	170	THR	4.5
11	DO	92	GLU	4.5
36	BI	38	GLU	4.5
52	CB	59	A	4.5
21	AV	2	GLU	4.5
8	DK	146	ALA	4.5
32	CE	164	VAL	4.5
26	D4	53	GLU	4.5
40	BM	90	LEU	4.5
41	BN	108	ILE	4.4
4	DE	54	GLN	4.4
11	DO	118	GLY	4.4
33	CF	42	LEU	4.4

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Mol	Chain	Res	Type	RSRZ
12	DP	33	GLY	4.4
1	AA	278	A	4.4
1	DA	3	U	4.4
52	BB	17	G	4.4
49	CV	79	THR	4.4
52	BB	52	G	4.4
32	CE	118	LEU	4.4
1	DA	893	C	4.4
15	AR	1	MET	4.4
30	D8	35	GLN	4.4
37	BJ	82	GLY	4.3
52	BB	46	G	4.3
34	CG	179	GLU	4.3
33	BF	78	GLY	4.3
52	BB	18	G	4.3
21	AV	96	VAL	4.3
11	DO	119	GLU	4.3
26	D4	3	GLU	4.3
26	A4	29	PRO	4.3
52	BB	62	G	4.3
41	CN	81	ASP	4.3
11	DO	79	ARG	4.3
1	AA	654(I)	C	4.2
52	BB	81	C	4.2
21	AV	53	ILE	4.2
6	AG	80	PHE	4.2
41	CN	42	TRP	4.2
33	BF	55	VAL	4.2
20	AU	102	CYS	4.2
8	DK	35	LEU	4.2
32	CE	4	GLU	4.2
41	CN	13	GLN	4.2
33	BF	105	GLU	4.2
17	A2	45	THR	4.2
26	A4	32	TYR	4.2
41	CN	109	VAL	4.2
17	A2	36	PRO	4.2
21	DV	169	GLU	4.2
52	CB	56	U	4.2
21	DV	24	LEU	4.2
1	AA	1	G	4.1
6	AG	75	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
11	DO	148	LEU	4.1
36	BI	4	TYR	4.1
33	CF	54	ARG	4.1
21	DV	156	LYS	4.1
6	DG	62	LEU	4.1
28	D6	10	LEU	4.1
48	CU	85	LEU	4.1
32	CE	150	SER	4.1
1	DA	888	C	4.1
27	D5	53	ALA	4.1
41	CN	21	ILE	4.1
52	BB	74	C	4.1
11	DO	106	LEU	4.1
36	BI	46	ARG	4.1
1	DA	654(L)	G	4.1
52	CB	45	C	4.1
20	DU	87	LYS	4.1
52	CB	81	C	4.1
1	DA	877	U	4.0
32	BE	188	ALA	4.0
1	DA	654(M)	C	4.0
1	DA	1177	A	4.0
21	AV	148	ASP	4.0
33	BF	72	LYS	4.0
26	D4	6	HIS	4.0
21	AV	164	ALA	4.0
43	CP	2	ALA	4.0
41	BN	83	ILE	4.0
54	C1	25	A	4.0
32	CE	5	ILE	4.0
41	CN	80	VAL	4.0
52	CB	57	C	4.0
1	DA	887	A	4.0
17	D2	45	THR	4.0
21	AV	86	VAL	4.0
7	DH	38	SER	4.0
27	A5	3	LYS	4.0
41	CN	83	ILE	4.0
41	CN	18	ARG	4.0
21	DV	145	GLU	4.0
52	CB	77	C	4.0
4	AE	205	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
32	CE	70	PHE	3.9
41	CN	107	SER	3.9
36	BI	58	GLY	3.9
44	CQ	39	LEU	3.9
28	A6	36	LEU	3.9
5	DF	12	LEU	3.9
8	AK	143	SER	3.9
30	D8	34	TRP	3.9
28	D6	37	ARG	3.9
26	A4	22	ILE	3.9
21	AV	105	VAL	3.9
28	A6	37	ARG	3.9
6	AG	26	GLN	3.9
1	DA	654(H)	G	3.9
16	D1	90	VAL	3.8
5	DF	11	VAL	3.8
37	BJ	85	TYR	3.8
47	CT	101	ARG	3.8
21	DV	96	VAL	3.8
20	AU	52	SER	3.8
12	AP	136	ALA	3.8
21	DV	54	HIS	3.8
33	BF	56	ASP	3.8
21	DV	51	ALA	3.8
6	AG	88	ILE	3.8
33	CF	57	ILE	3.8
52	CB	83	C	3.8
15	DR	1	MET	3.8
21	DV	176	PRO	3.8
28	D6	38	LYS	3.8
53	CC	1	C	3.8
44	CQ	38	GLY	3.7
17	D2	90	PRO	3.7
1	DA	654(P)	G	3.7
26	D4	44	THR	3.7
52	BB	12	C	3.7
52	BB	48	C	3.7
21	AV	117	LEU	3.7
28	D6	34	LEU	3.7
20	DU	58	GLY	3.7
26	A4	13	ARG	3.7
52	BB	54	C	3.7

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Mol	Chain	Res	Type	RSRZ
12	DP	104	PHE	3.7
6	DG	35	GLU	3.7
6	DG	94	LEU	3.7
6	DG	39	ILE	3.7
48	CU	42	ARG	3.7
17	D2	38	LEU	3.7
32	BE	118	LEU	3.7
4	DE	204	ALA	3.7
17	D2	82	ARG	3.7
52	BB	75	C	3.7
52	BB	60	A	3.7
21	AV	3	TYR	3.7
32	CE	71	VAL	3.7
28	D6	45	LYS	3.7
1	DA	654(F)	C	3.7
9	AM	134	ARG	3.7
21	DV	102	LEU	3.6
26	D4	11	PRO	3.6
12	DP	38	GLU	3.6
27	A5	54	GLY	3.6
20	DU	46	LYS	3.6
20	DU	47	LYS	3.6
48	BU	17	SER	3.6
52	BB	56	U	3.6
6	DG	155	MET	3.6
5	DF	26	ALA	3.6
42	CO	127	GLU	3.6
9	AM	131	GLN	3.6
21	DV	163	LEU	3.6
52	BB	3	U	3.6
25	DX	2	PRO	3.6
1	DA	889	C	3.6
40	CM	47	PHE	3.6
1	DA	876	C	3.6
21	AV	149	SER	3.6
36	BI	64	GLN	3.6
6	DG	28	VAL	3.6
32	CE	201	ILE	3.6
21	DV	70	LEU	3.6
26	A4	34	GLU	3.6
22	D3	85	ALA	3.6
1	AA	276	A	3.6

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Mol	Chain	Res	Type	RSRZ
19	DT	92	LEU	3.6
33	BF	102	ASN	3.6
21	DV	53	ILE	3.6
31	BA	345	C	3.6
36	BI	67	MET	3.5
33	CF	60	ALA	3.5
32	CE	115	LEU	3.5
21	AV	127	LYS	3.5
33	CF	105	GLU	3.5
26	A4	20	ASN	3.5
27	D5	54	GLY	3.5
48	CU	24	ALA	3.5
52	CB	70	C	3.5
40	CM	65	LEU	3.5
49	CV	52	TYR	3.5
33	CF	52	LEU	3.5
20	DU	79	CYS	3.5
11	DO	89	ALA	3.5
1	AA	5	A	3.5
49	BV	61	TYR	3.5
49	CV	44	MET	3.5
52	BB	21	A	3.5
26	A4	26	SER	3.5
26	D4	18	CYS	3.5
26	D4	59	PHE	3.5
1	AA	654(L)	G	3.4
52	BB	73	U	3.4
12	DP	68	ILE	3.4
21	AV	59	LEU	3.4
16	D1	106	PHE	3.4
11	DO	61	ARG	3.4
52	CB	22	A	3.4
52	CB	26	G	3.4
21	AV	79	ARG	3.4
27	A5	51	TYR	3.4
36	BI	47	ARG	3.4
32	CE	135	GLN	3.4
52	CB	7	G	3.4
12	DP	35	VAL	3.4
26	A4	8	LYS	3.4
41	CN	20	TYR	3.4
3	DD	26	LYS	3.4

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Mol	Chain	Res	Type	RSRZ
12	AP	140	ALA	3.4
28	D6	47	THR	3.4
1	AA	2797	U	3.4
12	DP	140	ALA	3.4
20	DU	48	ALA	3.4
21	DV	82	ARG	3.4
32	CE	137	ARG	3.4
52	BB	51	C	3.4
25	DX	26	LEU	3.4
26	A4	25	TYR	3.4
17	D2	14	VAL	3.3
12	AP	86	GLY	3.3
17	D2	93	GLU	3.3
21	AV	52	SER	3.3
35	BH	95	ALA	3.3
30	A8	36	LYS	3.3
43	CP	6	GLY	3.3
48	BU	33	ASP	3.3
52	BB	24	G	3.3
21	AV	54	HIS	3.3
1	AA	2898	U	3.3
32	CE	186	ALA	3.3
52	BD	53	A	3.3
17	D2	40	LEU	3.3
32	CE	86	GLU	3.3
6	DG	146	TYR	3.3
28	D6	36	LEU	3.3
34	BG	181	MET	3.3
12	AP	85	LYS	3.3
12	AP	137	TYR	3.3
32	BE	227	GLY	3.3
52	BB	9	U	3.3
52	CB	84	C	3.3
5	DF	36	VAL	3.3
26	A4	33	VAL	3.3
52	BB	5	G	3.3
52	CB	65	C	3.3
8	AK	146	ALA	3.3
48	BU	42	ARG	3.3
33	CF	39	ILE	3.3
32	BE	96	ARG	3.2
12	DP	37	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
1	DA	2156	G	3.2
42	BO	127	GLU	3.2
6	DG	68	PRO	3.2
51	CX	2	GLY	3.2
36	BI	39	LYS	3.2
41	BN	107	SER	3.2
44	CQ	10	ALA	3.2
6	AG	118	ARG	3.2
32	CE	230	VAL	3.2
6	DG	58	GLN	3.2
32	BE	15	VAL	3.2
26	A4	2	LYS	3.2
11	AO	105	LEU	3.2
33	CF	55	VAL	3.2
32	CE	139	LYS	3.2
52	CB	71	C	3.2
21	AV	170	THR	3.2
26	D4	47	GLN	3.2
6	DG	38	VAL	3.2
21	DV	34	ASN	3.2
42	CO	68	ALA	3.2
20	DU	91	GLU	3.2
26	D4	22	ILE	3.2
36	BI	94	GLN	3.2
41	CN	36	ASP	3.2
4	DE	59	VAL	3.2
6	AG	136	ARG	3.2
11	DO	107	LYS	3.2
32	CE	156	LYS	3.2
1	DA	1067	A	3.2
25	DX	60	GLU	3.2
26	A4	30	GLU	3.2
52	BB	11	C	3.2
6	DG	82	LEU	3.2
11	AO	121	LYS	3.2
26	D4	4	GLY	3.2
12	DP	85	LYS	3.1
26	A4	64	GLY	3.1
32	BE	221	LEU	3.1
26	D4	13	ARG	3.1
26	D4	21	VAL	3.1
43	CP	8	GLU	3.1

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Mol	Chain	Res	Type	RSRZ
21	DV	5	LEU	3.1
21	DV	165	VAL	3.1
21	AV	73	GLN	3.1
44	CQ	52	GLN	3.1
49	CV	68	GLY	3.1
11	DO	110	TYR	3.1
6	DG	133	LEU	3.1
7	DH	100	GLY	3.1
32	CE	68	ILE	3.1
36	BI	62	TRP	3.1
6	AG	141	PHE	3.1
32	CE	122	PHE	3.1
32	CE	200	ILE	3.1
44	CQ	11	LYS	3.1
7	DH	95	ARG	3.1
48	BU	32	ARG	3.1
21	DV	29	TYR	3.1
32	CE	187	LEU	3.1
33	CF	107	GLN	3.1
21	DV	137	ILE	3.1
5	DF	27	GLU	3.1
2	DB	1(M)	A	3.1
6	AG	142	PRO	3.1
49	CV	71	LEU	3.1
21	DV	86	VAL	3.1
38	BK	1	MET	3.1
21	DV	9	TYR	3.1
6	AG	143	GLU	3.1
26	D4	51	ASP	3.1
32	BE	187	LEU	3.1
26	A4	27	THR	3.1
15	DR	94	ALA	3.1
1	AA	654(H)	G	3.1
42	BO	95	GLY	3.1
8	DK	144	VAL	3.1
21	DV	166	SER	3.0
22	D3	9	SER	3.0
26	A4	52	THR	3.0
26	A4	47	GLN	3.0
21	DV	88	PHE	3.0
32	CE	202	PRO	3.0
52	BB	61	G	3.0

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Mol	Chain	Res	Type	RSRZ
7	AH	3	ARG	3.0
41	BN	109	VAL	3.0
17	D2	81	TYR	3.0
11	DO	126	VAL	3.0
33	BF	103	VAL	3.0
33	CF	56	ASP	3.0
1	AA	1096	A	3.0
21	AV	147	GLY	3.0
32	BE	133	LYS	3.0
17	D2	3	ALA	3.0
21	DV	4	ARG	3.0
21	AV	168	GLU	3.0
15	DR	35	LYS	3.0
21	DV	25	PRO	3.0
36	BI	3	ARG	3.0
12	AP	19	GLY	3.0
16	D1	73	GLY	3.0
44	CQ	51	GLY	3.0
3	DD	147	LEU	3.0
32	CE	149	LEU	3.0
48	CU	43	PHE	3.0
10	DN	13	ASN	3.0
32	CE	113	HIS	3.0
7	DH	27	LYS	3.0
43	BP	5	ALA	3.0
6	AG	109	VAL	3.0
7	DH	125	VAL	3.0
21	AV	5	LEU	3.0
49	CV	63	THR	3.0
32	CE	19	HIS	3.0
33	CF	23	TYR	3.0
20	AU	2	ARG	3.0
21	AV	155	LEU	3.0
26	D4	23	GLU	3.0
17	D2	5	VAL	3.0
21	DV	164	ALA	3.0
32	CE	162	ILE	3.0
17	D2	101	GLY	2.9
26	A4	9	LEU	2.9
42	CO	54	LYS	2.9
16	D1	89	GLU	2.9
26	D4	2	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
32	BE	4	GLU	2.9
37	CJ	4	ARG	2.9
42	CO	59	ARG	2.9
21	AV	74	VAL	2.9
21	DV	3	TYR	2.9
48	BU	85	LEU	2.9
7	AH	57	ASP	2.9
21	AV	153	SER	2.9
49	CV	69	HIS	2.9
6	DG	64	THR	2.9
23	DZ	98	LEU	2.9
32	CE	233	SER	2.9
33	BF	76	VAL	2.9
16	D1	55	ARG	2.9
41	CN	87	THR	2.9
49	BV	71	LEU	2.9
11	DO	97	PRO	2.9
5	AF	206	ILE	2.9
7	DH	105	LEU	2.9
21	DV	28	MET	2.9
37	BJ	78	ARG	2.9
41	CN	30	VAL	2.9
25	DX	10	LYS	2.9
41	CN	35	PRO	2.9
40	BM	94	VAL	2.9
11	DO	90	ARG	2.9
21	AV	25	PRO	2.9
52	CB	29	C	2.9
32	CE	195	ASP	2.9
33	CF	102	ASN	2.9
14	DQ	108	GLY	2.9
36	BI	89	MET	2.8
21	DV	52	SER	2.8
33	CF	20	SER	2.8
21	AV	91	LEU	2.8
41	BN	81	ASP	2.8
8	DK	36	ALA	2.8
21	AV	123	ASP	2.8
41	CN	95	ILE	2.8
26	A4	23	GLU	2.8
33	CF	94	LEU	2.8
32	CE	123	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
11	DO	88	LEU	2.8
42	CO	85	ILE	2.8
32	CE	160	ASP	2.8
11	AO	106	LEU	2.8
48	BU	34	TYR	2.8
4	AE	195	LEU	2.8
48	CU	31	LEU	2.8
52	BB	66	G	2.8
21	DV	103	ARG	2.8
40	CM	87	THR	2.8
32	BE	230	VAL	2.8
32	CE	214	ILE	2.8
4	DE	58	ARG	2.8
21	AV	166	SER	2.8
52	BB	76	C	2.8
52	BB	63	U	2.8
43	CP	65	LYS	2.8
48	CU	23	LYS	2.8
1	AA	654(S)	G	2.8
4	DE	69	LYS	2.8
11	DO	144	GLU	2.8
41	CN	31	THR	2.8
41	CN	88	GLY	2.8
1	AA	2140	C	2.8
32	CE	222	ILE	2.7
1	AA	654(N)	G	2.7
52	BB	8	U	2.7
1	DA	890	A	2.7
21	AV	134	PRO	2.7
11	DO	100	LEU	2.7
32	CE	213	LEU	2.7
41	CN	85	ARG	2.7
21	AV	27	VAL	2.7
52	BB	25	G	2.7
8	DK	11	ASN	2.7
21	DV	83	PRO	2.7
21	DV	79	ARG	2.7
41	CN	86	GLY	2.7
32	BE	26	PRO	2.7
41	CN	11	LYS	2.7
4	AE	78	LEU	2.7
20	DU	92	ASN	2.7

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Mol	Chain	Res	Type	RSRZ
5	DF	23	ASP	2.7
11	DO	125	VAL	2.7
54	B1	23	A	2.7
33	BF	172	ARG	2.7
26	A4	4	GLY	2.7
5	DF	22	ALA	2.7
6	DG	160	VAL	2.7
26	A4	10	VAL	2.7
15	DR	93	ARG	2.7
35	CH	155	GLU	2.7
41	CN	50	TYR	2.7
48	BU	20	ALA	2.7
6	AG	103	LEU	2.7
7	DH	128	PRO	2.7
41	CN	39	PRO	2.7
41	CN	43	SER	2.7
42	CO	31	PRO	2.7
43	CP	88	ARG	2.7
18	AS	24	ILE	2.7
40	BM	85	LEU	2.7
1	AA	1066	U	2.7
32	CE	217	ARG	2.7
33	BF	89	GLU	2.7
5	DF	20	LEU	2.7
21	AV	104	PHE	2.7
9	AM	130	HIS	2.7
36	BI	6	VAL	2.7
7	DH	94	TYR	2.7
42	BO	42	THR	2.7
39	CL	127	LYS	2.7
52	BB	1	G	2.7
4	AE	79	ARG	2.7
15	DR	115	ARG	2.7
6	DG	48	GLU	2.7
32	BE	234	PRO	2.7
6	AG	152	LEU	2.7
31	BA	1032	A	2.7
42	CO	28	LYS	2.7
21	DV	167	PRO	2.7
7	DH	96	ALA	2.7
31	CA	86	U	2.6
6	AG	59	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
10	DN	48	PRO	2.6
17	D2	74	LYS	2.6
52	BB	10	C	2.6
52	BD	51	C	2.6
5	DF	14	PRO	2.6
39	BL	4	TYR	2.6
9	DM	37	LYS	2.6
33	CF	51	GLY	2.6
41	CN	71	LYS	2.6
6	DG	151	ALA	2.6
3	DD	183	ARG	2.6
12	AP	38	GLU	2.6
21	DV	57	ILE	2.6
50	CW	106	ALA	2.6
52	BB	64	U	2.6
23	DZ	26	ARG	2.6
4	AE	54	GLN	2.6
21	DV	91	LEU	2.6
37	BJ	154	TYR	2.6
41	CN	28	THR	2.6
1	AA	654(P)	G	2.6
1	DA	1176	G	2.6
7	DH	43	VAL	2.6
6	AG	82	LEU	2.6
16	A1	117	GLN	2.6
33	BF	87	LEU	2.6
42	CO	81	SER	2.6
6	DG	91	ARG	2.6
21	AV	172	ALA	2.6
33	BF	201	TYR	2.6
1	DA	1536	A	2.6
7	DH	21	PRO	2.6
1	DA	2898	U	2.6
48	BU	51	LEU	2.6
6	DG	138	GLN	2.6
3	DD	99	ASP	2.6
41	CN	25	TYR	2.6
4	DE	56	PRO	2.6
12	DP	34	LEU	2.6
25	DX	28	LEU	2.6
36	BI	36	ARG	2.6
42	CO	77	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
25	DX	22	ALA	2.6
21	AV	84	GLU	2.6
21	AV	41	LEU	2.6
42	CO	39	VAL	2.6
15	AR	38	ASN	2.6
21	AV	29	TYR	2.5
26	D4	60	GLN	2.5
21	AV	165	VAL	2.5
6	DG	53	LEU	2.5
21	DV	33	LEU	2.5
48	CU	44	LEU	2.5
32	BE	80	ILE	2.5
32	BE	107	THR	2.5
32	BE	114	ARG	2.5
33	BF	104	GLN	2.5
47	CT	11	VAL	2.5
8	AK	77	LEU	2.5
10	AN	53	LYS	2.5
12	AP	87	LYS	2.5
11	DO	111	ARG	2.5
21	AV	49	ARG	2.5
21	AV	82	ARG	2.5
21	DV	20	ARG	2.5
21	DV	69	THR	2.5
32	CE	97	TRP	2.5
41	BN	13	GLN	2.5
21	DV	27	VAL	2.5
11	DO	105	LEU	2.5
21	DV	36	LYS	2.5
25	DX	17	LYS	2.5
25	DX	15	TYR	2.5
18	AS	113	LYS	2.5
36	CI	39	LYS	2.5
12	DP	1	MET	2.5
21	DV	87	ASP	2.5
28	D6	18	ARG	2.5
7	DH	26	VAL	2.5
11	DO	129	ALA	2.5
21	AV	126	VAL	2.5
26	A4	24	THR	2.5
31	CA	466	C	2.5
42	CO	61	THR	2.5

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Mol	Chain	Res	Type	RSRZ
8	AK	34	GLY	2.5
32	CE	110	GLN	2.5
52	BB	72	U	2.5
33	CF	46	GLU	2.5
44	CQ	8	GLU	2.5
1	DA	654(N)	G	2.5
32	BE	34	ALA	2.5
36	BI	63	TYR	2.5
39	CL	115	GLY	2.5
42	CO	55	VAL	2.5
6	AG	60	LEU	2.5
37	BJ	84	ASN	2.5
31	BA	162	A	2.5
32	CE	69	LEU	2.5
15	DR	50	ILE	2.5
10	AN	52	VAL	2.5
40	BM	34	VAL	2.5
1	DA	1509	C	2.5
20	AU	79	CYS	2.5
17	D2	20	LEU	2.5
27	A5	57	VAL	2.5
21	AV	118	GLN	2.5
6	AG	76	SER	2.5
6	AG	90	LEU	2.5
11	DO	138	LEU	2.5
12	DP	87	LYS	2.5
35	CH	133	TYR	2.5
46	CS	73	LEU	2.5
36	BI	97	PHE	2.5
17	D2	73	SER	2.5
21	AV	11	GLU	2.5
32	CE	108	ILE	2.5
9	AM	13	TRP	2.4
33	CF	204	LEU	2.4
48	CU	21	LYS	2.4
17	D2	4	ILE	2.4
21	DV	72	ARG	2.4
21	AV	100	VAL	2.4
21	DV	116	VAL	2.4
12	DP	89	ASN	2.4
20	AU	99	CYS	2.4
26	D4	49	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
43	CP	80	ARG	2.4
21	AV	68	PRO	2.4
26	D4	46	GLN	2.4
32	CE	216	SER	2.4
11	DO	102	ARG	2.4
30	D8	33	ASN	2.4
1	AA	2141	G	2.4
11	AO	122	PRO	2.4
30	D8	12	LYS	2.4
21	AV	28	MET	2.4
11	DO	146	VAL	2.4
21	AV	128	VAL	2.4
21	AV	97	GLU	2.4
52	BD	20	C	2.4
17	D2	64	HIS	2.4
52	BB	58	G	2.4
11	DO	124	LYS	2.4
7	DH	40	GLU	2.4
17	A2	98	GLU	2.4
21	AV	145	GLU	2.4
21	DV	84	GLU	2.4
11	DO	109	GLY	2.4
17	D2	79	VAL	2.4
41	CN	98	LEU	2.4
36	BI	55	ASP	2.4
44	CQ	58	LYS	2.4
53	BC	1	C	2.4
25	DX	30	ARG	2.4
34	CG	17	VAL	2.4
52	BD	55	U	2.4
6	DG	36	LYS	2.4
23	AZ	53	VAL	2.4
32	BE	78	GLN	2.4
49	CV	66	MET	2.4
21	AV	169	GLU	2.4
36	BI	66	GLU	2.4
7	AH	155	SER	2.4
19	DT	33	LYS	2.4
32	BE	233	SER	2.4
17	A2	63	GLY	2.4
21	AV	160	GLY	2.4
42	CO	36	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
4	DE	76	ARG	2.4
19	DT	91	ALA	2.4
21	AV	135	GLU	2.4
6	AG	63	ILE	2.4
32	BE	214	ILE	2.4
41	BN	98	LEU	2.4
42	CO	57	LYS	2.4
11	DO	1	MET	2.4
21	AV	26	GLY	2.4
32	BE	28	PHE	2.4
35	CH	14	ARG	2.4
52	CB	44	C	2.4
12	DP	64	ILE	2.4
21	AV	85	HIS	2.4
32	CE	223	ILE	2.4
6	DG	37	VAL	2.4
1	DA	2797	U	2.4
7	DH	25	LYS	2.4
16	D1	69	CYS	2.4
42	CO	126	LYS	2.4
45	CR	2	PRO	2.4
36	BI	45	LEU	2.4
3	DD	117	VAL	2.3
21	AV	71	VAL	2.3
48	BU	86	VAL	2.3
54	C1	23	A	2.3
16	A1	118	GLY	2.3
26	D4	33	VAL	2.3
26	D4	45	GLY	2.3
47	CT	100	LYS	2.3
21	DV	97	GLU	2.3
16	D1	88	ILE	2.3
36	BI	90	VAL	2.3
1	AA	2139	C	2.3
1	DA	897	C	2.3
32	CE	52	GLU	2.3
11	AO	150	ALA	2.3
32	CE	130	ARG	2.3
11	DO	93	GLY	2.3
12	DP	100	GLY	2.3
17	D2	76	LYS	2.3
49	CV	67	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
11	DO	57	THR	2.3
6	DG	156	ASP	2.3
25	DX	18	ASP	2.3
19	DT	89	ILE	2.3
52	BD	52	G	2.3
12	AP	27	VAL	2.3
31	BA	85	U	2.3
30	A8	40	GLU	2.3
33	CF	40	ARG	2.3
33	BF	149	ALA	2.3
43	CP	90	LEU	2.3
26	A4	11	PRO	2.3
52	BD	19	C	2.3
3	AD	262	ARG	2.3
21	AV	80	ARG	2.3
32	CE	140	HIS	2.3
32	CE	8	LYS	2.3
33	BF	107	GLN	2.3
18	DS	6	ILE	2.3
48	BU	76	LEU	2.3
7	DH	35	VAL	2.3
26	A4	21	VAL	2.3
5	DF	10	PRO	2.3
33	CF	179	ARG	2.3
1	DA	654(E)	C	2.3
12	DP	98	LYS	2.3
49	BV	28	LYS	2.3
36	CI	64	GLN	2.3
21	AV	141	VAL	2.3
26	A4	12	ALA	2.3
33	BF	75	VAL	2.3
34	BG	110	PHE	2.3
34	CG	35	ARG	2.3
20	AU	53	PRO	2.3
6	AG	155	MET	2.3
7	DH	41	MET	2.3
1	DA	902	C	2.3
1	DA	2139	C	2.3
21	AV	125	LEU	2.3
26	A4	48	ARG	2.3
49	CV	50	ALA	2.3
1	AA	654(O)	G	2.3

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Mol	Chain	Res	Type	RSRZ
7	DH	55	PRO	2.3
40	BM	37	PRO	2.3
21	AV	55	HIS	2.3
32	BE	76	GLN	2.3
42	CO	78	GLN	2.3
3	DD	2	ALA	2.3
14	AQ	2	ALA	2.3
49	BV	78	ARG	2.3
5	DF	207	GLY	2.3
44	CQ	13	THR	2.3
1	AA	1068	G	2.3
1	AA	2795	G	2.3
1	DA	2833	G	2.3
36	BI	98	LEU	2.3
32	CE	80	ILE	2.3
9	AM	51	PHE	2.3
32	BE	31	TYR	2.3
39	BL	17	VAL	2.3
11	DO	94	GLU	2.3
33	BF	80	GLY	2.3
6	DG	139	LEU	2.3
26	D4	41	PRO	2.3
33	CF	69	HIS	2.3
41	CN	92	GLU	2.2
48	BU	78	LEU	2.2
3	DD	146	GLU	2.2
32	CE	157	ARG	2.2
48	BU	74	ARG	2.2
11	DO	87	ASP	2.2
1	AA	895	U	2.2
3	DD	270	ILE	2.2
3	DD	34	VAL	2.2
6	DG	178	PHE	2.2
33	BF	68	VAL	2.2
52	CB	42	U	2.2
40	BM	33	GLN	2.2
41	CN	90	GLY	2.2
3	DD	177	LEU	2.2
21	DV	59	LEU	2.2
32	CE	138	LEU	2.2
21	AV	75	ASN	2.2
49	CV	51	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
1	DA	1068	G	2.2
7	AH	59	ARG	2.2
33	BF	88	ARG	2.2
33	BF	140	ARG	2.2
48	BU	83	GLU	2.2
21	DV	78	LYS	2.2
1	AA	2143	C	2.2
5	DF	28	ILE	2.2
21	AV	87	ASP	2.2
41	BN	84	VAL	2.2
42	BO	43	VAL	2.2
5	AF	207	GLY	2.2
32	CE	31	TYR	2.2
33	CF	19	GLU	2.2
36	BI	71	ARG	2.2
6	AG	41	GLN	2.2
42	CO	111	LYS	2.2
9	AM	15	LEU	2.2
19	AT	92	LEU	2.2
1	DA	2155	G	2.2
40	BM	23	ILE	2.2
49	CV	74	PHE	2.2
48	BU	28	GLU	2.2
17	D2	11	GLN	2.2
19	DT	13	LEU	2.2
32	CE	158	LEU	2.2
6	DG	67	LYS	2.2
7	DH	97	ARG	2.2
41	CN	47	VAL	2.2
43	BP	4	ILE	2.2
10	DN	11	ALA	2.2
21	DV	99	TYR	2.2
6	AG	34	LEU	2.2
10	DN	96	THR	2.2
17	D2	89	GLN	2.2
38	CK	112	LEU	2.2
4	AE	61	ARG	2.2
41	CN	14	VAL	2.2
11	AO	102	ARG	2.2
12	AP	130	LYS	2.2
30	D8	29	LYS	2.2
4	AE	200	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
5	DF	13	SER	2.2
20	AU	71	LYS	2.2
41	CN	55	LYS	2.2
43	CP	13	LYS	2.2
21	DV	139	VAL	2.2
40	BM	38	ILE	2.2
11	DO	62	LEU	2.2
15	AR	106	SER	2.2
6	DG	63	ILE	2.2
41	CN	38	ASN	2.2
3	AD	190	TYR	2.2
11	DO	147	LEU	2.2
32	CE	133	LYS	2.2
1	AA	270(L)	U	2.2
12	DP	99	PRO	2.2
21	AV	159	PRO	2.2
12	DP	102	VAL	2.2
26	D4	1	MET	2.2
12	AP	89	ASN	2.2
48	BU	77	GLY	2.2
39	BL	82	ALA	2.1
48	CU	34	TYR	2.1
48	CU	45	SER	2.1
21	AV	90	VAL	2.1
32	CE	131	PRO	2.1
32	CE	51	LEU	2.1
33	CF	47	LEU	2.1
38	CK	119	LEU	2.1
6	AG	144	ILE	2.1
21	DV	134	PRO	2.1
33	CF	147	LYS	2.1
35	BH	129	ILE	2.1
6	DG	27	ASN	2.1
1	DA	2801	A	2.1
40	BM	28	ARG	2.1
15	DR	67	SER	2.1
35	CH	109	ILE	2.1
22	D3	21	LEU	2.1
48	BU	79	LEU	2.1
11	DO	127	ALA	2.1
21	AV	113	ALA	2.1
18	DS	112	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
21	DV	177	PRO	2.1
54	B1	24	A	2.1
32	BE	33	TYR	2.1
37	CJ	32	ARG	2.1
41	CN	111	ASP	2.1
49	CV	80	TYR	2.1
11	AO	149	GLU	2.1
41	CN	33	THR	2.1
37	BJ	81	GLY	2.1
32	CE	87	ARG	2.1
40	BM	35	SER	2.1
33	CF	186	PHE	2.1
52	BB	7	G	2.1
12	DP	97	VAL	2.1
42	BO	96	VAL	2.1
6	AG	96	ARG	2.1
12	DP	130	LYS	2.1
13	A0	1	MET	2.1
34	BG	176	LEU	2.1
40	CM	45	ARG	2.1
21	AV	101	PRO	2.1
32	BE	202	PRO	2.1
8	AK	144	VAL	2.1
25	DX	6	VAL	2.1
26	D4	14	ILE	2.1
41	CN	114	VAL	2.1
33	BF	110	ASN	2.1
33	BF	150	LYS	2.1
52	BD	50	U	2.1
1	AA	1537	C	2.1
6	AG	62	LEU	2.1
44	CQ	57	ARG	2.1
20	DU	55	TYR	2.1
7	AH	62	LYS	2.1
8	AK	107	VAL	2.1
32	BE	165	VAL	2.1
32	BE	36	ARG	2.1
33	CF	32	LEU	2.1
1	AA	1067	A	2.1
52	CB	40	U	2.1
12	DP	39	PRO	2.1
52	CB	41	C	2.1

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Mol	Chain	Res	Type	RSRZ
5	AF	6	VAL	2.1
17	D2	6	LYS	2.1
32	BE	27	LYS	2.1
36	BI	35	ALA	2.1
21	AV	66	SER	2.1
49	CV	62	ILE	2.1
39	BL	19	LEU	2.1
1	DA	2132	U	2.1
8	AK	113	ARG	2.1
10	DN	49	ARG	2.1
10	DN	51	ALA	2.1
33	CF	109	PRO	2.1
43	CP	7	VAL	2.1
37	CJ	42	ILE	2.1
49	BV	49	ILE	2.1
1	DA	1059	G	2.1
15	DR	114	LEU	2.1
42	CO	103	GLY	2.1
48	BU	30	ASP	2.1
52	CD	52	G	2.1
15	DR	130	ALA	2.1
34	CG	40	PRO	2.1
49	CV	49	ILE	2.1
1	AA	654(Q)	C	2.1
12	AP	1	MET	2.1
26	A4	6	HIS	2.1
49	CV	61	TYR	2.0
1	DA	1535	U	2.0
12	DP	23	GLY	2.0
21	AV	4	ARG	2.0
41	BN	16	SER	2.0
5	DF	3	GLU	2.0
4	DE	55	ASN	2.0
1	DA	2802	G	2.0
21	DV	115	GLY	2.0
6	DG	137	GLU	2.0
10	DN	12	ASP	2.0
7	DH	24	VAL	2.0
11	DO	80	TYR	2.0
21	AV	39	VAL	2.0
6	DG	60	LEU	2.0
21	AV	156	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
32	CE	102	LEU	2.0
42	BO	20	LYS	2.0
42	CO	60	LEU	2.0
16	D1	112	ARG	2.0
20	DU	102	CYS	2.0
21	AV	81	ARG	2.0
35	BH	106	PRO	2.0
12	DP	103	MET	2.0
8	DK	37	VAL	2.0
41	BN	110	ASP	2.0
4	AE	58	ARG	2.0
14	DQ	32	LEU	2.0
32	CE	155	LEU	2.0
33	CF	21	ARG	2.0
37	BJ	79	ARG	2.0
47	BT	101	ARG	2.0
4	AE	51	PHE	2.0
15	DR	22	PHE	2.0
7	AH	103	LEU	2.0
11	DO	112	LEU	2.0
14	DQ	54	LEU	2.0
22	A3	26	TYR	2.0
32	CE	33	TYR	2.0
40	BM	72	VAL	2.0
37	CJ	5	ARG	2.0
44	CQ	28	GLY	2.0
51	CX	13	ILE	2.0
1	DA	2795	G	2.0
32	CE	194	PRO	2.0
3	DD	181	GLU	2.0
6	AG	164	GLU	2.0
21	DV	13	GLU	2.0
12	DP	2	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
52	MIA	CB	38	29/30	0.89	0.38	99,111,127,136	0
52	MIA	BD	38	29/30	0.90	0.24	126,140,181,195	0
52	MIA	CD	38	29/30	0.91	0.23	127,140,183,200	0
52	MIA	BB	38	29/30	0.95	0.19	92,99,110,128	0

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3291	1/1	0.11	0.43	99,99,99,99	0
55	MG	CA	1685	1/1	0.13	0.48	104,104,104,104	0
55	MG	CA	1672	1/1	0.22	0.76	125,125,125,125	0
55	MG	DA	3320	1/1	0.26	0.44	132,132,132,132	0
55	MG	AA	3222	1/1	0.29	0.42	85,85,85,85	0
55	MG	AA	3078	1/1	0.30	0.27	97,97,97,97	0
55	MG	CA	1629	1/1	0.33	0.50	166,166,166,166	0
55	MG	BB	104	1/1	0.37	0.77	100,100,100,100	0
55	MG	CA	1686	1/1	0.39	0.61	110,110,110,110	0
55	MG	BB	108	1/1	0.40	0.27	80,80,80,80	0
55	MG	DA	3053	1/1	0.41	0.43	116,116,116,116	0
55	MG	AA	3343	1/1	0.42	0.27	92,92,92,92	0
55	MG	DA	3307	1/1	0.42	0.49	119,119,119,119	0
55	MG	AA	3306	1/1	0.42	0.40	100,100,100,100	0
55	MG	BA	1639	1/1	0.45	0.20	101,101,101,101	0
55	MG	DA	3049	1/1	0.45	0.36	104,104,104,104	0
55	MG	BB	113	1/1	0.47	0.25	80,80,80,80	0
55	MG	AA	3089	1/1	0.49	0.23	130,130,130,130	0
55	MG	CA	1681	1/1	0.50	0.28	111,111,111,111	0
55	MG	CA	1628	1/1	0.51	0.20	137,137,137,137	0
55	MG	BA	1685	1/1	0.53	0.22	93,93,93,93	0
55	MG	BW	201	1/1	0.55	0.19	92,92,92,92	0
55	MG	BA	1695	1/1	0.55	0.23	132,132,132,132	0
55	MG	DA	3322	1/1	0.56	0.18	152,152,152,152	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1602	1/1	0.56	0.23	66,66,66,66	0
55	MG	DA	3203	1/1	0.58	0.59	69,69,69,69	0
55	MG	BB	106	1/1	0.59	0.56	102,102,102,102	0
55	MG	CA	1692	1/1	0.59	0.22	104,104,104,104	0
55	MG	AA	3084	1/1	0.60	0.27	104,104,104,104	0
55	MG	CA	1683	1/1	0.60	0.39	79,79,79,79	0
55	MG	CA	1665	1/1	0.60	0.28	114,114,114,114	0
55	MG	BA	1657	1/1	0.61	0.33	87,87,87,87	0
55	MG	BA	1706	1/1	0.63	0.34	111,111,111,111	0
55	MG	BA	1625	1/1	0.63	0.32	66,66,66,66	0
55	MG	BA	1670	1/1	0.63	0.30	100,100,100,100	0
55	MG	DA	3252	1/1	0.64	0.61	81,81,81,81	0
55	MG	DA	3330	1/1	0.65	0.68	81,81,81,81	0
55	MG	BS	101	1/1	0.65	0.19	81,81,81,81	0
55	MG	CA	1720	1/1	0.65	0.90	110,110,110,110	0
55	MG	AA	3096	1/1	0.66	0.59	76,76,76,76	0
55	MG	BA	1714	1/1	0.66	0.63	83,83,83,83	0
56	OHX	BD	104	7/7	0.66	0.35	94,101,103,107	3
55	MG	AA	3300	1/1	0.66	0.27	81,81,81,81	0
55	MG	AA	3337	1/1	0.66	0.64	73,73,73,73	0
55	MG	BB	105	1/1	0.67	0.17	94,94,94,94	0
55	MG	DA	3311	1/1	0.67	0.41	63,63,63,63	0
55	MG	CA	1699	1/1	0.67	0.44	86,86,86,86	0
55	MG	BA	1704	1/1	0.67	0.09	127,127,127,127	0
55	MG	DA	3048	1/1	0.67	0.49	93,93,93,93	0
55	MG	CA	1641	1/1	0.68	0.48	85,85,85,85	0
55	MG	DA	3303	1/1	0.68	0.20	97,97,97,97	0
55	MG	A3	101	1/1	0.68	0.43	71,71,71,71	0
55	MG	AA	3305	1/1	0.68	0.56	66,66,66,66	0
55	MG	DB	206	1/1	0.68	0.51	81,81,81,81	0
55	MG	CA	1623	1/1	0.68	0.26	96,96,96,96	0
55	MG	CA	1646	1/1	0.68	0.29	79,79,79,79	0
55	MG	DA	3145	1/1	0.69	1.00	82,82,82,82	0
55	MG	CA	1609	1/1	0.69	0.37	112,112,112,112	0
55	MG	BB	102	1/1	0.69	0.29	92,92,92,92	0
55	MG	DA	3100	1/1	0.70	0.31	87,87,87,87	0
55	MG	BB	111	1/1	0.70	0.34	80,80,80,80	0
55	MG	BA	1630	1/1	0.70	0.24	109,109,109,109	0
55	MG	CA	1719	1/1	0.70	0.35	94,94,94,94	0
55	MG	DA	3181	1/1	0.70	0.31	98,98,98,98	0
55	MG	CA	1708	1/1	0.70	0.11	95,95,95,95	0
55	MG	DA	3327	1/1	0.70	0.25	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1624	1/1	0.71	0.65	79,79,79,79	0
55	MG	AA	3091	1/1	0.71	0.28	85,85,85,85	0
55	MG	CA	1704	1/1	0.71	0.12	135,135,135,135	0
56	OHX	AA	3508	7/7	0.72	0.12	192,206,214,236	1
55	MG	BA	1677	1/1	0.72	0.38	101,101,101,101	0
55	MG	CA	1614	1/1	0.72	0.18	118,118,118,118	0
55	MG	BA	1675	1/1	0.72	0.43	87,87,87,87	0
55	MG	AA	3215	1/1	0.72	0.42	69,69,69,69	0
55	MG	AA	3301	1/1	0.72	0.18	97,97,97,97	0
55	MG	AA	3322	1/1	0.73	0.27	81,81,81,81	0
55	MG	AA	3278	1/1	0.73	0.39	73,73,73,73	0
55	MG	AA	3281	1/1	0.73	0.17	93,93,93,93	0
55	MG	DA	3233	1/1	0.73	0.32	65,65,65,65	0
55	MG	BA	1615	1/1	0.73	0.41	78,78,78,78	0
55	MG	DA	3302	1/1	0.73	0.34	98,98,98,98	0
55	MG	AA	3209	1/1	0.73	0.33	86,86,86,86	0
55	MG	DA	3158	1/1	0.73	0.64	88,88,88,88	0
55	MG	C1	101	1/1	0.73	0.29	102,102,102,102	0
55	MG	BA	1613	1/1	0.73	0.13	116,116,116,116	0
55	MG	CA	1716	1/1	0.73	0.34	79,79,79,79	0
55	MG	AA	3245	1/1	0.73	0.68	70,70,70,70	0
55	MG	CA	1651	1/1	0.74	0.18	73,73,73,73	0
55	MG	AA	3277	1/1	0.74	0.46	94,94,94,94	0
55	MG	BA	1674	1/1	0.74	0.22	67,67,67,67	0
55	MG	CA	1653	1/1	0.74	0.23	75,75,75,75	0
55	MG	DB	201	1/1	0.74	0.12	95,95,95,95	0
55	MG	DA	3259	1/1	0.74	0.34	114,114,114,114	0
55	MG	BA	1703	1/1	0.74	0.22	90,90,90,90	0
55	MG	DA	3201	1/1	0.74	0.46	86,86,86,86	0
55	MG	DA	3112	1/1	0.74	0.55	85,85,85,85	0
55	MG	AA	3269	1/1	0.74	0.36	59,59,59,59	0
55	MG	CA	1718	1/1	0.75	0.28	84,84,84,84	0
55	MG	AA	3323	1/1	0.75	0.26	58,58,58,58	0
55	MG	DA	3328	1/1	0.75	0.21	99,99,99,99	0
55	MG	BA	1621	1/1	0.75	0.27	77,77,77,77	0
55	MG	BA	1683	1/1	0.75	0.33	85,85,85,85	0
56	OHX	CB	105	7/7	0.75	0.33	139,142,156,183	2
56	OHX	AA	3497	7/7	0.75	0.23	105,127,139,145	1
56	OHX	BA	1804	7/7	0.75	0.17	147,154,164,208	1
55	MG	AA	3141	1/1	0.75	0.34	80,80,80,80	0
55	MG	DA	3264	1/1	0.75	0.15	78,78,78,78	0
55	MG	CC	103	1/1	0.76	0.72	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3324	1/1	0.76	0.18	84,84,84,84	0
55	MG	CC	104	1/1	0.76	0.49	89,89,89,89	0
55	MG	DA	3304	1/1	0.76	0.16	89,89,89,89	0
55	MG	DA	3039	1/1	0.77	0.20	102,102,102,102	0
55	MG	BA	1705	1/1	0.77	0.08	109,109,109,109	0
55	MG	BB	110	1/1	0.77	0.27	80,80,80,80	0
55	MG	CA	1617	1/1	0.77	0.13	126,126,126,126	0
55	MG	CA	1662	1/1	0.77	0.40	92,92,92,92	0
55	MG	CA	1668	1/1	0.77	0.43	80,80,80,80	0
55	MG	AA	3154	1/1	0.77	0.23	52,52,52,52	0
55	MG	CB	101	1/1	0.77	0.43	105,105,105,105	0
55	MG	AA	3083	1/1	0.77	0.34	94,94,94,94	0
55	MG	DA	3256	1/1	0.77	0.30	89,89,89,89	0
55	MG	CA	1674	1/1	0.77	0.60	97,97,97,97	0
55	MG	DA	3298	1/1	0.77	0.20	102,102,102,102	0
55	MG	DA	3288	1/1	0.77	0.27	82,82,82,82	0
55	MG	CA	1721	1/1	0.77	0.17	80,80,80,80	0
55	MG	DA	3331	1/1	0.78	0.45	69,69,69,69	0
55	MG	AA	3061	1/1	0.78	0.30	59,59,59,59	0
55	MG	C1	102	1/1	0.78	0.39	104,104,104,104	0
55	MG	DA	3092	1/1	0.78	0.27	74,74,74,74	0
55	MG	CA	1622	1/1	0.78	0.34	89,89,89,89	0
56	OHX	BA	1776	7/7	0.78	0.31	119,138,152,176	2
55	MG	AA	3279	1/1	0.78	0.52	90,90,90,90	0
55	MG	DA	3096	1/1	0.78	0.23	85,85,85,85	0
55	MG	AA	3236	1/1	0.78	0.49	66,66,66,66	0
55	MG	BA	1699	1/1	0.78	0.53	84,84,84,84	0
56	OHX	DB	219	7/7	0.78	0.17	147,161,178,209	1
55	MG	DA	3295	1/1	0.78	0.49	77,77,77,77	0
55	MG	CA	1689	1/1	0.78	0.18	80,80,80,80	0
55	MG	CA	1712	1/1	0.78	0.16	83,83,83,83	0
55	MG	BA	1708	1/1	0.79	0.19	80,80,80,80	0
55	MG	AB	201	1/1	0.79	0.28	85,85,85,85	0
55	MG	AA	3229	1/1	0.79	0.26	65,65,65,65	0
55	MG	AA	3062	1/1	0.79	0.25	97,97,97,97	0
55	MG	AA	3372	1/1	0.79	0.30	80,80,80,80	0
55	MG	BA	1640	1/1	0.79	0.20	71,71,71,71	0
55	MG	DA	3196	1/1	0.79	0.41	54,54,54,54	0
55	MG	AA	3048	1/1	0.79	0.20	91,91,91,91	0
55	MG	AA	3111	1/1	0.79	0.37	69,69,69,69	0
55	MG	CA	1621	1/1	0.79	0.28	110,110,110,110	0
56	OHX	DA	3124	7/7	0.79	0.15	144,164,170,220	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	1804	7/7	0.79	0.27	145,149,162,192	1
55	MG	CA	1624	1/1	0.79	0.11	114,114,114,114	0
55	MG	DA	3287	1/1	0.80	0.22	102,102,102,102	0
56	OHX	AA	3531	7/7	0.80	0.18	225,229,234,256	1
55	MG	AA	3043	1/1	0.80	0.35	75,75,75,75	0
56	OHX	BA	1813	7/7	0.80	0.19	151,161,170,205	1
55	MG	AA	3156	1/1	0.80	0.31	80,80,80,80	0
55	MG	AA	3235	1/1	0.80	0.11	57,57,57,57	0
55	MG	AA	3142	1/1	0.80	0.46	75,75,75,75	0
55	MG	DA	3325	1/1	0.80	0.31	91,91,91,91	0
55	MG	AA	3092	1/1	0.80	0.12	92,92,92,92	0
55	MG	BA	1612	1/1	0.80	0.33	100,100,100,100	0
55	MG	BA	1680	1/1	0.80	0.22	64,64,64,64	0
55	MG	BA	1687	1/1	0.81	0.24	96,96,96,96	0
55	MG	AA	3284	1/1	0.81	0.31	68,68,68,68	0
55	MG	DA	3042	1/1	0.81	0.23	74,74,74,74	0
55	MG	BA	1650	1/1	0.81	0.23	85,85,85,85	0
55	MG	AA	3076	1/1	0.81	0.24	81,81,81,81	0
55	MG	AA	3257	1/1	0.81	0.32	64,64,64,64	0
55	MG	BC	104	1/1	0.81	0.38	88,88,88,88	0
55	MG	BA	1636	1/1	0.81	0.14	111,111,111,111	0
55	MG	AF	302	1/1	0.81	0.20	83,83,83,83	0
55	MG	D7	101	1/1	0.81	0.49	69,69,69,69	0
55	MG	DA	3313	1/1	0.81	0.34	88,88,88,88	0
55	MG	DA	3242	1/1	0.81	0.57	99,99,99,99	0
55	MG	DA	3318	1/1	0.81	0.19	110,110,110,110	0
55	MG	B1	101	1/1	0.81	0.14	96,96,96,96	0
55	MG	AA	3295	1/1	0.81	0.45	89,89,89,89	0
55	MG	DA	3046	1/1	0.81	0.38	78,78,78,78	0
55	MG	BA	1637	1/1	0.81	0.21	99,99,99,99	0
55	MG	AA	3157	1/1	0.81	0.41	86,86,86,86	0
55	MG	AA	3105	1/1	0.81	0.46	65,65,65,65	0
55	MG	CA	1696	1/1	0.81	0.59	74,74,74,74	0
55	MG	AA	3259	1/1	0.81	0.13	60,60,60,60	0
55	MG	BB	103	1/1	0.81	0.21	105,105,105,105	0
55	MG	AA	3308	1/1	0.81	0.40	63,63,63,63	0
56	OHX	CA	1797	7/7	0.82	0.36	129,132,139,171	1
55	MG	DA	3333	1/1	0.82	0.31	84,84,84,84	0
55	MG	BA	1709	1/1	0.82	0.15	68,68,68,68	0
55	MG	DA	3069	1/1	0.82	0.13	63,63,63,63	0
55	MG	CA	1687	1/1	0.82	0.29	104,104,104,104	0
55	MG	DA	3310	1/1	0.82	0.22	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3316	1/1	0.82	0.18	79,79,79,79	0
55	MG	DA	3054	1/1	0.82	0.15	56,56,56,56	0
55	MG	CA	1657	1/1	0.82	0.21	81,81,81,81	0
55	MG	AA	3193	1/1	0.82	0.39	86,86,86,86	0
55	MG	DA	3296	1/1	0.82	0.35	103,103,103,103	0
55	MG	A1	201	1/1	0.82	0.34	62,62,62,62	0
55	MG	AA	3143	1/1	0.82	0.49	87,87,87,87	0
55	MG	CA	1652	1/1	0.82	0.10	69,69,69,69	0
56	OHX	AA	3538	7/7	0.82	0.17	95,101,128,162	1
55	MG	AA	3334	1/1	0.82	0.15	90,90,90,90	0
55	MG	AA	3122	1/1	0.83	0.25	57,57,57,57	0
55	MG	DA	3270	1/1	0.83	0.68	73,73,73,73	0
55	MG	CA	1715	1/1	0.83	0.38	80,80,80,80	0
55	MG	CB	103	1/1	0.83	0.18	80,80,80,80	0
55	MG	CA	1643	1/1	0.83	0.50	68,68,68,68	0
56	OHX	AA	3520	7/7	0.83	0.25	88,95,98,151	2
55	MG	CA	1620	1/1	0.83	0.27	63,63,63,63	0
55	MG	AA	3120	1/1	0.83	0.50	74,74,74,74	0
56	OHX	AA	3507	7/7	0.83	0.48	120,135,161,172	2
55	MG	AA	3173	1/1	0.83	0.45	65,65,65,65	0
55	MG	CA	1703	1/1	0.83	0.48	84,84,84,84	0
55	MG	BA	1689	1/1	0.83	0.13	80,80,80,80	0
55	MG	DA	3284	1/1	0.83	0.24	89,89,89,89	0
55	MG	CA	1710	1/1	0.83	0.16	78,78,78,78	0
55	MG	CA	1677	1/1	0.83	0.44	73,73,73,73	0
55	MG	DA	3117	1/1	0.83	0.29	82,82,82,82	0
55	MG	DA	3332	1/1	0.83	0.18	78,78,78,78	0
55	MG	DA	3237	1/1	0.83	0.31	85,85,85,85	0
55	MG	AA	3138	1/1	0.83	0.21	78,78,78,78	0
55	MG	BA	1653	1/1	0.83	0.29	64,64,64,64	0
55	MG	CB	102	1/1	0.83	0.34	80,80,80,80	0
56	OHX	DA	3251	7/7	0.83	0.26	102,112,141,176	3
55	MG	CA	1676	1/1	0.84	0.34	78,78,78,78	0
55	MG	BA	1628	1/1	0.84	0.30	95,95,95,95	0
55	MG	AA	3290	1/1	0.84	0.35	66,66,66,66	0
55	MG	DA	3324	1/1	0.84	0.53	66,66,66,66	0
56	OHX	CA	1774	7/7	0.84	0.18	137,150,161,190	1
55	MG	DA	3244	1/1	0.84	0.29	82,82,82,82	0
55	MG	DA	3278	1/1	0.84	0.38	84,84,84,84	0
55	MG	BA	1696	1/1	0.84	0.27	94,94,94,94	0
56	OHX	BA	1772	7/7	0.84	0.10	165,176,177,219	1
55	MG	CA	1626	1/1	0.84	0.31	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1693	1/1	0.84	0.15	55,55,55,55	0
55	MG	AA	3217	1/1	0.84	0.20	66,66,66,66	0
55	MG	DA	3199	1/1	0.84	0.56	77,77,77,77	0
55	MG	CA	1667	1/1	0.84	0.43	78,78,78,78	0
55	MG	DA	3319	1/1	0.84	0.48	69,69,69,69	0
55	MG	CA	1605	1/1	0.84	0.26	75,75,75,75	0
55	MG	DA	3202	1/1	0.84	0.45	65,65,65,65	0
55	MG	BA	1635	1/1	0.84	0.06	86,86,86,86	0
55	MG	CC	107	1/1	0.85	0.27	80,80,80,80	0
55	MG	CA	1627	1/1	0.85	0.27	126,126,126,126	0
55	MG	DA	3306	1/1	0.85	0.51	86,86,86,86	0
55	MG	BA	1643	1/1	0.85	0.21	67,67,67,67	0
55	MG	AA	3060	1/1	0.85	0.24	89,89,89,89	0
56	OHX	AA	3546	7/7	0.85	0.19	101,114,120,164	2
55	MG	AA	3181	1/1	0.85	0.50	71,71,71,71	0
55	MG	A7	101	1/1	0.85	0.41	56,56,56,56	0
55	MG	AA	3107	1/1	0.85	0.42	51,51,51,51	0
55	MG	BA	1622	1/1	0.85	0.18	92,92,92,92	0
56	OHX	AA	3506	7/7	0.85	0.14	104,115,126,178	1
56	OHX	CC	108	7/7	0.85	0.16	130,137,148,169	1
55	MG	DB	207	1/1	0.85	0.18	70,70,70,70	0
55	MG	DA	3183	1/1	0.85	0.25	99,99,99,99	0
55	MG	DA	3110	1/1	0.85	0.53	60,60,60,60	0
55	MG	AA	3038	1/1	0.85	0.48	68,68,68,68	0
55	MG	AA	3311	1/1	0.85	0.31	90,90,90,90	0
55	MG	AA	3189	1/1	0.85	0.34	63,63,63,63	0
55	MG	DA	3300	1/1	0.85	0.33	63,63,63,63	0
55	MG	AA	3088	1/1	0.85	0.31	66,66,66,66	0
55	MG	BA	1666	1/1	0.85	0.44	81,81,81,81	0
55	MG	DA	3294	1/1	0.85	0.16	74,74,74,74	0
55	MG	AA	3247	1/1	0.85	0.51	66,66,66,66	0
55	MG	AA	3270	1/1	0.85	0.64	90,90,90,90	0
56	OHX	BA	1788	7/7	0.85	0.23	123,136,147,176	1
56	OHX	AA	3392	7/7	0.85	0.18	81,92,124,181	2
55	MG	AA	3183	1/1	0.85	0.32	59,59,59,59	0
56	OHX	CA	1815	7/7	0.85	0.11	158,163,177,221	1
56	OHX	DA	3488	7/7	0.85	0.23	87,112,131,159	1
55	MG	DA	3027	1/1	0.85	0.14	78,78,78,78	0
55	MG	BA	1664	1/1	0.85	0.29	54,54,54,54	0
55	MG	AA	3052	1/1	0.86	0.29	71,71,71,71	0
55	MG	BA	1644	1/1	0.86	0.35	62,62,62,62	0
55	MG	BA	1711	1/1	0.86	0.31	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	1767	7/7	0.86	0.30	110,139,162,203	1
55	MG	AA	3310	1/1	0.86	0.22	71,71,71,71	0
56	OHX	DB	216	7/7	0.86	0.13	123,138,155,204	1
55	MG	AB	203	1/1	0.86	0.23	58,58,58,58	0
56	OHX	AA	3567	7/7	0.86	0.16	125,135,148,181	2
56	OHX	AA	3455	7/7	0.86	0.15	173,192,201,215	1
55	MG	AA	3282	1/1	0.86	0.10	103,103,103,103	0
55	MG	BA	1608	1/1	0.86	0.13	89,89,89,89	0
56	OHX	AA	3519	7/7	0.86	0.20	103,114,126,154	1
55	MG	DA	3279	1/1	0.86	0.29	68,68,68,68	0
55	MG	DB	205	1/1	0.86	0.18	64,64,64,64	0
55	MG	DA	3289	1/1	0.86	0.17	84,84,84,84	0
55	MG	CA	1671	1/1	0.86	0.28	78,78,78,78	0
55	MG	DA	3180	1/1	0.86	0.43	45,45,45,45	0
55	MG	CA	1618	1/1	0.86	0.09	82,82,82,82	0
56	OHX	DA	3454	7/7	0.86	0.20	136,143,163,191	1
56	OHX	BA	1778	7/7	0.86	0.22	125,131,152,191	1
56	OHX	DA	3474	7/7	0.86	0.21	120,126,143,173	1
56	OHX	DB	220	7/7	0.86	0.20	159,162,171,208	1
55	MG	AA	3289	1/1	0.86	0.47	61,61,61,61	0
55	MG	DA	3200	1/1	0.86	1.13	86,86,86,86	0
55	MG	DA	3090	1/1	0.86	0.34	54,54,54,54	0
55	MG	AA	3161	1/1	0.86	0.24	57,57,57,57	0
56	OHX	DA	3255	7/7	0.86	0.22	93,104,107,143	1
55	MG	AA	3287	1/1	0.86	0.32	66,66,66,66	0
55	MG	AA	3071	1/1	0.86	0.42	84,84,84,84	0
55	MG	BA	1676	1/1	0.86	0.40	78,78,78,78	0
55	MG	DA	3072	1/1	0.87	0.09	93,93,93,93	0
55	MG	AA	3110	1/1	0.87	0.39	76,76,76,76	0
55	MG	AA	3231	1/1	0.87	0.39	57,57,57,57	0
55	MG	AA	3233	1/1	0.87	0.26	82,82,82,82	0
56	OHX	CA	1789	7/7	0.87	0.12	152,164,170,204	1
55	MG	CA	1678	1/1	0.87	0.09	97,97,97,97	0
55	MG	DA	3276	1/1	0.87	0.40	78,78,78,78	0
55	MG	DA	3115	1/1	0.87	0.25	44,44,44,44	0
55	MG	DA	3066	1/1	0.87	0.31	77,77,77,77	0
56	OHX	AA	3548	7/7	0.87	0.15	125,128,143,177	1
56	OHX	DA	3462	7/7	0.87	0.12	154,157,165,208	1
55	MG	DA	3102	1/1	0.87	0.25	76,76,76,76	0
55	MG	AA	3082	1/1	0.87	0.29	57,57,57,57	0
55	MG	DA	3020	1/1	0.87	0.60	60,60,60,60	0
55	MG	CA	1691	1/1	0.87	0.19	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3174	1/1	0.87	0.15	91,91,91,91	0
55	MG	AA	3307	1/1	0.87	0.30	72,72,72,72	0
55	MG	AA	3203	1/1	0.87	0.45	72,72,72,72	0
55	MG	AA	3170	1/1	0.87	0.62	69,69,69,69	0
55	MG	AA	3160	1/1	0.87	0.38	69,69,69,69	0
55	MG	BA	1686	1/1	0.87	0.15	100,100,100,100	0
55	MG	DA	3238	1/1	0.87	0.42	67,67,67,67	0
56	OHX	DB	218	7/7	0.87	0.37	134,141,153,171	1
55	MG	BA	1697	1/1	0.87	0.48	74,74,74,74	0
56	OHX	AA	3511	7/7	0.87	0.14	133,137,167,178	2
55	MG	BA	1645	1/1	0.87	0.15	76,76,76,76	0
55	MG	AA	3182	1/1	0.87	0.46	66,66,66,66	0
55	MG	DA	3281	1/1	0.87	0.23	65,65,65,65	0
55	MG	DA	3055	1/1	0.87	0.41	54,54,54,54	0
55	MG	AA	3211	1/1	0.87	0.18	58,58,58,58	0
56	OHX	DA	3223	7/7	0.87	0.17	126,133,144,169	1
55	MG	AA	3172	1/1	0.87	0.58	71,71,71,71	0
56	OHX	AA	3528	7/7	0.87	0.27	119,125,142,174	1
55	MG	BB	101	1/1	0.87	0.11	95,95,95,95	0
55	MG	BA	1617	1/1	0.88	0.49	60,60,60,60	0
56	OHX	CR	101	7/7	0.88	0.32	143,150,160,179	1
55	MG	AA	3200	1/1	0.88	0.33	82,82,82,82	0
55	MG	AA	3318	1/1	0.88	0.24	75,75,75,75	0
55	MG	DA	3206	1/1	0.88	0.16	52,52,52,52	0
56	OHX	DA	3448	7/7	0.88	0.13	134,147,163,206	1
55	MG	DA	3022	1/1	0.88	0.70	63,63,63,63	0
55	MG	CC	106	1/1	0.88	0.61	75,75,75,75	0
55	MG	BA	1619	1/1	0.88	0.39	64,64,64,64	0
55	MG	AA	3317	1/1	0.88	0.21	55,55,55,55	0
55	MG	DA	3314	1/1	0.88	0.20	70,70,70,70	0
55	MG	AA	3304	1/1	0.88	0.17	55,55,55,55	0
55	MG	AA	3031	1/1	0.88	0.34	40,40,40,40	0
55	MG	BA	1707	1/1	0.88	0.11	63,63,63,63	0
55	MG	AA	3075	1/1	0.88	0.19	78,78,78,78	0
55	MG	BA	1692	1/1	0.88	0.15	73,73,73,73	0
55	MG	CA	1659	1/1	0.88	0.11	116,116,116,116	0
55	MG	AA	3151	1/1	0.88	0.32	46,46,46,46	0
56	OHX	CA	1747	7/7	0.88	0.18	129,134,147,212	1
55	MG	DA	3312	1/1	0.88	0.29	81,81,81,81	0
55	MG	BA	1649	1/1	0.88	0.41	92,92,92,92	0
55	MG	AA	3264	1/1	0.88	0.28	51,51,51,51	0
55	MG	CA	1707	1/1	0.88	0.18	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BF	301	1/1	0.88	0.24	79,79,79,79	0
55	MG	AA	3251	1/1	0.88	0.61	75,75,75,75	0
56	OHX	D8	101	7/7	0.88	0.20	140,149,164,175	1
55	MG	CA	1615	1/1	0.88	0.20	109,109,109,109	0
55	MG	AA	3125	1/1	0.88	0.21	63,63,63,63	0
55	MG	DA	3308	1/1	0.88	0.23	60,60,60,60	0
55	MG	BA	1648	1/1	0.88	0.40	86,86,86,86	0
56	OHX	DA	3473	7/7	0.88	0.10	138,151,163,196	1
55	MG	BA	1671	1/1	0.88	0.51	68,68,68,68	0
56	OHX	AA	3557	7/7	0.88	0.23	89,102,113,146	1
56	OHX	BA	1803	7/7	0.88	0.08	211,214,221,256	1
55	MG	CA	1714	1/1	0.88	0.42	84,84,84,84	0
56	OHX	CB	104	7/7	0.88	0.64	175,181,183,194	1
55	MG	DA	3155	1/1	0.88	0.30	58,58,58,58	0
55	MG	BA	1681	1/1	0.88	0.32	64,64,64,64	0
55	MG	AA	3254	1/1	0.88	0.35	43,43,43,43	0
56	OHX	BB	115	7/7	0.88	0.25	90,109,116,116	3
55	MG	BA	1690	1/1	0.88	0.11	81,81,81,81	0
56	OHX	DB	217	7/7	0.88	0.19	135,139,157,196	1
56	OHX	BA	1766	7/7	0.88	0.19	108,139,151,181	2
55	MG	DA	3045	1/1	0.88	0.15	61,61,61,61	0
55	MG	BC	102	1/1	0.88	0.40	65,65,65,65	0
56	OHX	AA	3529	7/7	0.88	0.21	114,130,134,179	1
56	OHX	DA	3413	7/7	0.88	0.29	103,122,138,176	1
55	MG	DA	3209	1/1	0.88	0.34	64,64,64,64	0
55	MG	AA	3124	1/1	0.88	0.32	88,88,88,88	0
56	OHX	CA	1785	7/7	0.88	0.18	125,126,143,155	1
55	MG	BB	107	1/1	0.89	0.16	80,80,80,80	0
55	MG	CA	1684	1/1	0.89	0.46	82,82,82,82	0
56	OHX	DA	3405	7/7	0.89	0.18	129,133,151,175	1
56	OHX	DA	3218	7/7	0.89	0.26	96,106,121,133	1
55	MG	AA	3072	1/1	0.89	0.36	73,73,73,73	0
56	OHX	AA	3420	7/7	0.89	0.21	112,125,135,178	2
56	OHX	BA	1765	7/7	0.89	0.26	91,107,120,150	3
55	MG	BA	1634	1/1	0.89	0.14	73,73,73,73	0
56	OHX	AB	216	7/7	0.89	0.19	106,124,147,185	1
55	MG	CA	1698	1/1	0.89	0.70	86,86,86,86	0
55	MG	AA	3239	1/1	0.89	0.57	52,52,52,52	0
55	MG	CA	1625	1/1	0.89	0.16	87,87,87,87	0
56	OHX	CA	1808	7/7	0.89	0.26	163,164,177,210	1
56	OHX	AA	3530	7/7	0.89	0.29	117,123,125,163	1
55	MG	DA	3114	1/1	0.89	0.39	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	1778	7/7	0.89	0.09	148,157,164,202	1
55	MG	DA	3035	1/1	0.89	0.28	95,95,95,95	0
56	OHX	DB	214	7/7	0.89	0.13	145,149,169,184	1
56	OHX	AA	3476	7/7	0.89	0.23	88,98,119,157	1
56	OHX	AB	218	7/7	0.89	0.13	138,141,157,181	1
55	MG	DB	204	1/1	0.89	0.25	76,76,76,76	0
55	MG	DA	3031	1/1	0.89	0.18	77,77,77,77	0
56	OHX	DA	3478	7/7	0.89	0.19	106,110,128,170	1
55	MG	CA	1670	1/1	0.89	0.19	95,95,95,95	0
55	MG	CA	1610	1/1	0.89	0.41	87,87,87,87	0
55	MG	CA	1648	1/1	0.89	0.42	70,70,70,70	0
55	MG	DA	3260	1/1	0.89	0.30	68,68,68,68	0
56	OHX	AA	3512	7/7	0.89	0.18	110,115,138,180	2
56	OHX	DA	3385	7/7	0.89	0.16	78,128,134,201	1
55	MG	BA	1609	1/1	0.89	0.29	65,65,65,65	0
55	MG	DA	3116	1/1	0.89	0.28	62,62,62,62	0
55	MG	AA	3087	1/1	0.89	0.24	82,82,82,82	0
55	MG	DA	3286	1/1	0.89	0.11	77,77,77,77	0
55	MG	CA	1660	1/1	0.89	0.31	97,97,97,97	0
56	OHX	DA	3490	7/7	0.89	0.17	103,106,122,159	3
55	MG	BA	1693	1/1	0.89	0.13	68,68,68,68	0
55	MG	DA	3050	1/1	0.89	0.82	74,74,74,74	0
56	OHX	AA	3554	7/7	0.89	0.24	138,143,153,173	1
55	MG	CA	1701	1/1	0.89	0.23	109,109,109,109	0
56	OHX	DA	3468	7/7	0.89	0.17	143,146,150,189	1
55	MG	DA	3067	1/1	0.89	0.15	82,82,82,82	0
55	MG	DA	3023	1/1	0.89	0.55	70,70,70,70	0
56	OHX	AA	3549	7/7	0.89	0.27	96,102,109,128	2
56	OHX	AA	3515	7/7	0.89	0.24	93,97,116,159	2
56	OHX	AA	3480	7/7	0.89	0.24	111,119,135,158	2
56	OHX	AB	215	7/7	0.89	0.18	110,123,130,165	1
56	OHX	AA	3456	7/7	0.89	0.19	111,115,132,161	3
55	MG	DA	3177	1/1	0.89	0.47	61,61,61,61	0
55	MG	AA	3022	1/1	0.89	0.37	28,28,28,28	0
56	OHX	AA	3513	7/7	0.89	0.20	120,125,139,159	2
55	MG	AA	3058	1/1	0.89	0.12	61,61,61,61	0
56	OHX	AA	3551	7/7	0.89	0.24	97,115,123,153	1
55	MG	AA	3266	1/1	0.89	0.43	62,62,62,62	0
55	MG	DA	3057	1/1	0.89	0.32	58,58,58,58	0
56	OHX	CA	1786	7/7	0.89	0.09	163,163,175,198	1
55	MG	DA	3205	1/1	0.89	0.13	106,106,106,106	0
55	MG	CA	1608	1/1	0.89	0.30	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3199	1/1	0.90	0.51	75,75,75,75	0
55	MG	AA	3294	1/1	0.90	0.32	36,36,36,36	0
56	OHX	DA	3447	7/7	0.90	0.12	122,140,155,176	2
55	MG	AA	3325	1/1	0.90	0.42	75,75,75,75	0
55	MG	DA	3030	1/1	0.90	0.20	94,94,94,94	0
55	MG	CA	1647	1/1	0.90	0.46	70,70,70,70	0
56	OHX	AA	3544	7/7	0.90	0.23	118,127,137,169	1
56	OHX	AA	3417	7/7	0.90	0.23	90,102,131,147	3
55	MG	DA	3329	1/1	0.90	0.44	60,60,60,60	0
56	OHX	AB	213	7/7	0.90	0.15	88,108,129,159	3
55	MG	DA	3186	1/1	0.90	0.36	34,34,34,34	0
56	OHX	AA	3451	7/7	0.90	0.19	79,96,106,142	1
56	OHX	DA	3480	7/7	0.90	0.10	125,130,144,190	1
55	MG	DA	3315	1/1	0.90	0.44	78,78,78,78	0
56	OHX	AA	3523	7/7	0.90	0.16	112,123,137,155	1
55	MG	AA	3127	1/1	0.90	0.39	45,45,45,45	0
55	MG	DA	3283	1/1	0.90	0.31	86,86,86,86	0
56	OHX	CA	1811	7/7	0.90	0.18	126,129,137,159	1
55	MG	DA	3037	1/1	0.90	0.43	73,73,73,73	0
55	MG	AA	3099	1/1	0.90	0.34	60,60,60,60	0
55	MG	DA	3140	1/1	0.90	0.42	55,55,55,55	0
55	MG	AA	3176	1/1	0.90	0.43	46,46,46,46	0
55	MG	AA	3028	1/1	0.90	0.39	35,35,35,35	0
55	MG	AA	3165	1/1	0.90	0.68	79,79,79,79	0
56	OHX	AA	3492	7/7	0.90	0.10	139,142,151,196	1
55	MG	BA	1642	1/1	0.90	0.43	69,69,69,69	0
56	OHX	CA	1759	7/7	0.90	0.17	125,133,140,148	1
55	MG	AA	3085	1/1	0.90	0.29	74,74,74,74	0
55	MG	BA	1655	1/1	0.90	0.34	84,84,84,84	0
56	OHX	AA	3505	7/7	0.90	0.15	143,150,161,212	1
55	MG	AA	3240	1/1	0.90	0.50	56,56,56,56	0
56	OHX	AA	3500	7/7	0.90	0.13	118,131,153,193	1
56	OHX	DA	3253	7/7	0.90	0.14	141,144,160,190	1
55	MG	CA	1656	1/1	0.90	0.33	94,94,94,94	0
55	MG	AA	3113	1/1	0.90	0.24	88,88,88,88	0
55	MG	CA	1682	1/1	0.90	0.28	107,107,107,107	0
56	OHX	CA	1783	7/7	0.90	0.20	113,117,137,164	1
56	OHX	AA	3503	7/7	0.90	0.29	99,108,119,150	1
56	OHX	A1	204	7/7	0.90	0.15	107,117,147,182	3
56	OHX	BA	1812	7/7	0.90	0.06	170,174,180,213	1
55	MG	AA	3249	1/1	0.90	0.22	81,81,81,81	0
55	MG	DA	3121	1/1	0.90	0.53	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3226	1/1	0.90	0.52	68,68,68,68	0
55	MG	AA	3148	1/1	0.90	0.29	69,69,69,69	0
55	MG	CA	1705	1/1	0.90	0.48	73,73,73,73	0
56	OHX	BA	1790	7/7	0.90	0.09	163,166,178,211	1
55	MG	DA	3151	1/1	0.90	0.28	62,62,62,62	0
56	OHX	BA	1756	7/7	0.90	0.08	153,171,174,206	1
55	MG	BA	1614	1/1	0.90	0.13	73,73,73,73	0
56	OHX	DA	3111	7/7	0.90	0.19	118,129,134,197	1
55	MG	AA	3274	1/1	0.90	0.12	36,36,36,36	0
55	MG	BB	109	1/1	0.90	0.21	80,80,80,80	0
56	OHX	DA	3489	7/7	0.90	0.13	117,121,134,153	1
56	OHX	AA	3522	7/7	0.90	0.20	74,93,104,150	2
55	MG	BA	1607	1/1	0.90	0.11	102,102,102,102	0
55	MG	AA	3117	1/1	0.90	0.21	90,90,90,90	0
55	MG	AA	3126	1/1	0.90	0.32	54,54,54,54	0
55	MG	BA	1688	1/1	0.90	0.18	79,79,79,79	0
55	MG	DA	3033	1/1	0.90	0.24	82,82,82,82	0
55	MG	BC	101	1/1	0.90	0.35	62,62,62,62	0
56	OHX	AA	3498	7/7	0.90	0.34	120,126,136,160	2
56	OHX	BA	1795	7/7	0.90	0.11	152,159,163,204	1
55	MG	AA	3195	1/1	0.91	0.39	58,58,58,58	0
56	OHX	DA	3362	7/7	0.91	0.22	83,98,103,158	1
56	OHX	BA	1791	7/7	0.91	0.13	122,123,136,173	1
56	OHX	AA	3536	7/7	0.91	0.12	99,110,129,173	2
56	OHX	BA	1780	7/7	0.91	0.22	115,123,136,153	1
55	MG	AA	3171	1/1	0.91	0.34	59,59,59,59	0
56	OHX	CB	106	7/7	0.91	0.20	97,107,117,126	6
55	MG	AA	3285	1/1	0.91	0.37	77,77,77,77	0
56	OHX	CA	1787	7/7	0.91	0.16	117,122,135,155	1
56	OHX	AA	3439	7/7	0.91	0.17	114,122,140,194	1
56	OHX	CA	1775	7/7	0.91	0.10	139,154,159,200	1
56	OHX	AA	3502	7/7	0.91	0.10	128,135,148,184	1
56	OHX	DA	3433	7/7	0.91	0.21	104,114,132,147	1
55	MG	BC	103	1/1	0.91	0.51	70,70,70,70	0
56	OHX	BD	102	7/7	0.91	0.10	170,180,207,224	1
56	OHX	AA	3564	7/7	0.91	0.18	94,114,124,148	1
55	MG	DA	3282	1/1	0.91	0.35	69,69,69,69	0
55	MG	AA	3237	1/1	0.91	0.48	62,62,62,62	0
55	MG	BA	1660	1/1	0.91	0.56	52,52,52,52	0
56	OHX	AA	3482	7/7	0.91	0.19	85,96,105,135	1
55	MG	BA	1710	1/1	0.91	0.33	113,113,113,113	0
55	MG	AA	3090	1/1	0.91	0.39	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1632	1/1	0.91	0.21	73,73,73,73	0
56	OHX	CA	1755	7/7	0.91	0.11	119,128,149,178	1
55	MG	BA	1667	1/1	0.91	0.52	73,73,73,73	0
55	MG	AA	3100	1/1	0.91	0.29	58,58,58,58	0
56	OHX	CA	1753	7/7	0.91	0.26	82,120,146,173	3
55	MG	AA	3155	1/1	0.91	0.11	79,79,79,79	0
56	OHX	AA	3526	7/7	0.91	0.25	87,90,101,128	1
55	MG	BA	1661	1/1	0.91	0.49	61,61,61,61	0
56	OHX	AA	3514	7/7	0.91	0.13	126,137,144,183	1
55	MG	AA	3276	1/1	0.91	0.36	76,76,76,76	0
55	MG	DA	3317	1/1	0.91	0.35	85,85,85,85	0
56	OHX	DA	3127	7/7	0.91	0.27	118,132,150,170	2
55	MG	CC	105	1/1	0.91	0.53	66,66,66,66	0
55	MG	DA	3043	1/1	0.91	0.40	73,73,73,73	0
56	OHX	BR	101	7/7	0.91	0.19	132,137,152,164	1
55	MG	DA	3153	1/1	0.91	0.45	69,69,69,69	0
55	MG	DA	3239	1/1	0.91	0.20	79,79,79,79	0
56	OHX	BA	1797	7/7	0.91	0.13	117,130,138,173	1
55	MG	DA	3088	1/1	0.91	0.31	47,47,47,47	0
56	OHX	DA	3476	7/7	0.91	0.11	126,136,143,174	1
56	OHX	D5	102	7/7	0.91	0.28	114,129,141,158	1
56	OHX	DA	3475	7/7	0.91	0.21	126,139,148,175	1
55	MG	DA	3079	1/1	0.91	0.24	49,49,49,49	0
56	OHX	DA	3467	7/7	0.91	0.12	133,139,156,192	1
55	MG	AA	3293	1/1	0.91	0.24	72,72,72,72	0
56	OHX	AA	3527	7/7	0.91	0.10	147,148,161,187	1
55	MG	DA	3213	1/1	0.91	0.39	57,57,57,57	0
56	OHX	BD	103	7/7	0.91	0.15	108,110,116,155	1
55	MG	BA	1610	1/1	0.91	0.15	75,75,75,75	0
55	MG	AA	3167	1/1	0.91	0.16	51,51,51,51	0
55	MG	DA	3235	1/1	0.91	0.47	66,66,66,66	0
55	MG	CA	1713	1/1	0.91	0.18	114,114,114,114	0
55	MG	CA	1654	1/1	0.91	0.23	89,89,89,89	0
55	MG	BA	1691	1/1	0.91	0.19	87,87,87,87	0
56	OHX	DA	3450	7/7	0.91	0.13	133,139,150,199	1
56	OHX	BA	1786	7/7	0.91	0.20	133,136,154,188	1
55	MG	BA	1654	1/1	0.91	0.35	64,64,64,64	0
56	OHX	BA	1792	7/7	0.91	0.17	118,131,146,181	1
55	MG	BA	1672	1/1	0.91	0.25	82,82,82,82	0
55	MG	AA	3357	1/1	0.91	0.37	69,69,69,69	0
55	MG	DA	3107	1/1	0.91	0.28	42,42,42,42	0
55	MG	AA	3267	1/1	0.91	0.26	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1662	1/1	0.91	0.32	56,56,56,56	0
56	OHX	DA	3472	7/7	0.91	0.10	162,171,176,223	1
55	MG	DA	3210	1/1	0.91	0.75	73,73,73,73	0
55	MG	DA	3113	1/1	0.91	0.20	73,73,73,73	0
55	MG	CA	1630	1/1	0.91	0.43	86,86,86,86	0
56	OHX	CA	1799	7/7	0.91	0.30	142,145,160,170	1
56	OHX	DA	3440	7/7	0.91	0.15	142,144,161,189	1
55	MG	CA	1666	1/1	0.91	0.30	75,75,75,75	0
55	MG	DA	3104	1/1	0.91	0.38	64,64,64,64	0
56	OHX	CA	1773	7/7	0.91	0.12	123,130,144,181	1
56	OHX	CA	1754	7/7	0.91	0.17	116,125,134,168	1
56	OHX	DA	3118	7/7	0.91	0.19	99,101,123,146	3
56	OHX	DA	3479	7/7	0.91	0.14	150,159,164,201	1
56	OHX	DA	3484	7/7	0.91	0.16	109,123,139,168	1
56	OHX	DA	3481	7/7	0.91	0.12	136,140,149,177	1
56	OHX	BA	1799	7/7	0.91	0.09	170,176,182,227	1
56	OHX	AB	214	7/7	0.91	0.14	125,133,135,173	1
56	OHX	DA	3220	7/7	0.91	0.12	141,154,156,201	1
55	MG	AA	3230	1/1	0.91	0.48	72,72,72,72	0
56	OHX	CA	1788	7/7	0.91	0.17	138,144,149,176	1
56	OHX	AA	3454	7/7	0.91	0.16	103,116,132,145	1
56	OHX	DB	212	7/7	0.91	0.11	144,152,161,194	1
56	OHX	DA	3172	7/7	0.91	0.32	95,104,112,142	1
55	MG	DA	3323	1/1	0.91	0.54	100,100,100,100	0
55	MG	AA	3238	1/1	0.91	0.46	47,47,47,47	0
56	OHX	BA	1777	7/7	0.92	0.07	176,178,192,246	1
56	OHX	DA	3455	7/7	0.92	0.08	139,144,150,194	1
56	OHX	BL	201	7/7	0.92	0.09	145,153,159,202	1
56	OHX	D3	101	7/7	0.92	0.14	129,139,156,171	2
56	OHX	AA	3495	7/7	0.92	0.19	106,114,133,188	1
56	OHX	DA	3491	7/7	0.92	0.11	104,107,129,176	1
55	MG	DA	3108	1/1	0.92	0.50	56,56,56,56	0
56	OHX	AA	3485	7/7	0.92	0.18	103,114,131,163	1
56	OHX	BC	106	7/7	0.92	0.14	119,120,134,160	1
56	OHX	CA	1780	7/7	0.92	0.09	138,146,156,182	1
55	MG	AA	3114	1/1	0.92	0.39	62,62,62,62	0
55	MG	CA	1690	1/1	0.92	0.11	93,93,93,93	0
56	OHX	DA	3486	7/7	0.92	0.14	123,132,147,175	1
56	OHX	AA	3539	7/7	0.92	0.10	130,133,143,179	1
55	MG	DA	3025	1/1	0.92	0.17	59,59,59,59	0
55	MG	AA	3055	1/1	0.92	0.30	88,88,88,88	0
55	MG	BA	1627	1/1	0.92	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1712	1/1	0.92	0.05	74,74,74,74	0
56	OHX	BA	1738	7/7	0.92	0.17	112,124,136,189	1
55	MG	AA	3313	1/1	0.92	0.39	82,82,82,82	0
55	MG	BA	1702	1/1	0.92	0.40	84,84,84,84	0
55	MG	DB	203	1/1	0.92	0.11	121,121,121,121	0
56	OHX	DA	3482	7/7	0.92	0.16	128,142,154,190	1
55	MG	AA	3234	1/1	0.92	0.08	68,68,68,68	0
55	MG	DA	3106	1/1	0.92	0.33	80,80,80,80	0
55	MG	AA	3273	1/1	0.92	0.44	60,60,60,60	0
56	OHX	AA	3484	7/7	0.92	0.14	123,137,150,203	1
55	MG	AA	3303	1/1	0.92	0.21	77,77,77,77	0
56	OHX	AA	3555	7/7	0.92	0.19	82,85,105,128	1
55	MG	CA	1688	1/1	0.92	0.17	79,79,79,79	0
56	OHX	DA	3469	7/7	0.92	0.20	116,119,133,163	1
56	OHX	DA	3173	7/7	0.92	0.10	157,163,175,202	1
56	OHX	DA	3415	7/7	0.92	0.16	128,140,160,189	1
55	MG	DA	3028	1/1	0.92	0.45	44,44,44,44	0
56	OHX	CV	101	7/7	0.92	0.09	174,182,196,223	1
56	OHX	BA	1810	7/7	0.92	0.18	138,141,150,186	1
56	OHX	DA	3458	7/7	0.92	0.09	173,175,178,215	1
55	MG	BA	1684	1/1	0.92	0.21	67,67,67,67	0
56	OHX	CA	1809	7/7	0.92	0.07	150,160,169,213	1
56	OHX	DA	3176	7/7	0.92	0.19	162,165,176,192	1
56	OHX	DA	3258	7/7	0.92	0.19	103,111,118,148	1
56	OHX	DA	3442	7/7	0.92	0.15	135,142,161,190	1
56	OHX	DA	3457	7/7	0.92	0.10	149,156,166,200	1
56	OHX	AA	3543	7/7	0.92	0.10	145,150,162,204	1
55	MG	CA	1640	1/1	0.92	0.30	77,77,77,77	0
55	MG	AA	3128	1/1	0.92	0.34	53,53,53,53	0
56	OHX	BA	1750	7/7	0.92	0.16	112,129,139,168	1
55	MG	AA	3162	1/1	0.92	0.23	48,48,48,48	0
56	OHX	BA	1787	7/7	0.92	0.13	124,129,137,172	1
56	OHX	BA	1781	7/7	0.92	0.17	115,133,141,174	1
55	MG	DA	3044	1/1	0.92	0.30	100,100,100,100	0
56	OHX	AA	3501	7/7	0.92	0.12	104,117,124,169	1
56	OHX	DA	3226	7/7	0.92	0.16	120,131,144,175	1
55	MG	AA	3292	1/1	0.92	0.42	62,62,62,62	0
55	MG	DA	3187	1/1	0.92	0.28	55,55,55,55	0
56	OHX	DA	3171	7/7	0.92	0.20	95,116,127,171	1
55	MG	CA	1680	1/1	0.92	0.35	78,78,78,78	0
55	MG	AA	3081	1/1	0.92	0.21	81,81,81,81	0
56	OHX	BA	1807	7/7	0.92	0.15	133,136,150,177	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	1810	7/7	0.92	0.10	113,132,142,167	1
56	OHX	BA	1757	7/7	0.92	0.20	86,113,131,156	4
55	MG	DA	3271	1/1	0.92	0.41	59,59,59,59	0
55	MG	AB	204	1/1	0.92	0.47	80,80,80,80	0
55	MG	BB	112	1/1	0.92	0.13	80,80,80,80	0
55	MG	AA	3309	1/1	0.92	0.41	77,77,77,77	0
56	OHX	AA	3559	7/7	0.92	0.22	123,137,143,179	1
55	MG	AA	3204	1/1	0.92	0.44	45,45,45,45	0
55	MG	AA	3312	1/1	0.92	0.25	71,71,71,71	0
55	MG	DA	3128	1/1	0.92	0.50	75,75,75,75	0
55	MG	DA	3060	1/1	0.92	0.46	77,77,77,77	0
55	MG	DA	3029	1/1	0.92	0.29	70,70,70,70	0
56	OHX	CA	1757	7/7	0.92	0.14	117,123,150,175	1
56	OHX	BA	1779	7/7	0.92	0.14	129,134,141,170	1
56	OHX	DA	3407	7/7	0.92	0.15	124,134,145,191	1
55	MG	BA	1631	1/1	0.92	0.10	85,85,85,85	0
56	OHX	BA	1737	7/7	0.92	0.13	120,131,149,172	1
55	MG	BA	1647	1/1	0.92	0.39	66,66,66,66	0
55	MG	DA	3179	1/1	0.92	0.42	46,46,46,46	0
55	MG	AA	3033	1/1	0.92	0.33	39,39,39,39	0
55	MG	DA	3017	1/1	0.92	0.41	66,66,66,66	0
55	MG	DA	3219	1/1	0.92	0.22	62,62,62,62	0
55	MG	DA	3326	1/1	0.92	0.42	90,90,90,90	0
56	OHX	CD	101	7/7	0.92	0.10	166,174,199,220	1
56	OHX	DA	3105	7/7	0.92	0.16	134,136,144,206	1
55	MG	AA	3169	1/1	0.92	0.54	47,47,47,47	0
55	MG	BA	1701	1/1	0.92	0.41	68,68,68,68	0
55	MG	BA	1605	1/1	0.92	0.12	81,81,81,81	0
56	OHX	AA	3509	7/7	0.92	0.20	91,109,142,150	3
56	OHX	CA	1769	7/7	0.92	0.11	141,144,170,199	1
55	MG	DA	3154	1/1	0.93	0.30	60,60,60,60	0
55	MG	CA	1602	1/1	0.93	0.42	58,58,58,58	0
56	OHX	AA	3473	7/7	0.93	0.21	104,114,132,167	1
55	MG	DA	3240	1/1	0.93	0.40	64,64,64,64	0
55	MG	AA	3194	1/1	0.93	0.42	56,56,56,56	0
56	OHX	AA	3408	7/7	0.93	0.14	107,111,135,163	1
55	MG	BA	1682	1/1	0.93	0.08	68,68,68,68	0
55	MG	BA	1700	1/1	0.93	0.05	119,119,119,119	0
55	MG	AA	3103	1/1	0.93	0.41	50,50,50,50	0
55	MG	AA	3094	1/1	0.93	0.51	48,48,48,48	0
56	OHX	BA	1775	7/7	0.93	0.15	113,130,145,176	1
56	OHX	CA	1802	7/7	0.93	0.10	130,138,148,200	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3195	1/1	0.93	0.16	46,46,46,46	0
55	MG	D0	201	1/1	0.93	0.14	51,51,51,51	0
56	OHX	DA	3091	7/7	0.93	0.15	103,121,134,170	1
55	MG	A1	202	1/1	0.93	0.19	75,75,75,75	0
56	OHX	BA	1725	7/7	0.93	0.15	95,114,126,182	1
56	OHX	AA	3448	7/7	0.93	0.10	141,143,155,200	1
56	OHX	AA	3541	7/7	0.93	0.39	131,134,141,173	1
56	OHX	DA	3463	7/7	0.93	0.20	142,149,156,188	1
55	MG	AA	3073	1/1	0.93	0.32	68,68,68,68	0
56	OHX	AA	3524	7/7	0.93	0.13	115,120,140,187	1
56	OHX	CA	1781	7/7	0.93	0.13	153,161,166,239	1
55	MG	AA	3286	1/1	0.93	0.40	83,83,83,83	0
55	MG	DA	3266	1/1	0.93	0.47	88,88,88,88	0
56	OHX	AB	219	7/7	0.93	0.37	112,116,126,139	1
56	OHX	AA	3552	7/7	0.93	0.18	96,106,128,164	1
55	MG	DA	3272	1/1	0.93	0.10	57,57,57,57	0
56	OHX	AA	3540	7/7	0.93	0.15	104,109,137,150	2
56	OHX	BA	1793	7/7	0.93	0.14	129,132,141,164	1
56	OHX	BA	1743	7/7	0.93	0.23	79,96,129,159	2
55	MG	DA	3334	1/1	0.93	0.34	75,75,75,75	0
56	OHX	AA	3560	7/7	0.93	0.16	132,136,153,192	1
55	MG	BA	1618	1/1	0.93	0.33	71,71,71,71	0
56	OHX	BA	1763	7/7	0.93	0.12	123,136,140,184	1
55	MG	BA	1713	1/1	0.93	0.45	81,81,81,81	0
56	OHX	AA	3449	7/7	0.93	0.15	102,118,124,165	1
56	OHX	BA	1808	7/7	0.93	0.20	121,129,141,156	1
55	MG	AA	3004	1/1	0.93	0.36	32,32,32,32	0
55	MG	AA	3029	1/1	0.93	0.29	59,59,59,59	0
55	MG	AA	3297	1/1	0.93	0.07	80,80,80,80	0
55	MG	CA	1645	1/1	0.93	0.50	58,58,58,58	0
56	OHX	AA	3445	7/7	0.93	0.13	118,124,140,177	1
56	OHX	AA	3478	7/7	0.93	0.16	147,161,167,217	1
55	MG	AA	3086	1/1	0.93	0.32	73,73,73,73	0
56	OHX	DA	3485	7/7	0.93	0.17	131,137,152,172	1
56	OHX	DA	3221	7/7	0.93	0.11	120,130,140,174	1
55	MG	DA	3098	1/1	0.93	0.16	63,63,63,63	0
56	OHX	DA	3452	7/7	0.93	0.17	99,118,125,155	1
56	OHX	DA	3427	7/7	0.93	0.11	134,147,151,184	1
55	MG	DA	3194	1/1	0.93	0.45	48,48,48,48	0
56	OHX	AA	3443	7/7	0.93	0.15	110,114,126,149	2
56	OHX	DA	3159	7/7	0.93	0.19	75,86,105,131	3
56	OHX	AA	3499	7/7	0.93	0.15	107,112,120,152	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1709	1/1	0.93	0.25	76,76,76,76	0
56	OHX	DA	3103	7/7	0.93	0.20	94,102,107,128	2
56	OHX	DA	3434	7/7	0.93	0.13	127,134,154,190	1
55	MG	CA	1673	1/1	0.93	0.33	76,76,76,76	0
56	OHX	DA	3453	7/7	0.93	0.26	145,153,160,191	1
56	OHX	DA	3437	7/7	0.93	0.15	113,120,134,160	1
55	MG	AO	201	1/1	0.93	0.14	66,66,66,66	0
56	OHX	DA	3444	7/7	0.93	0.14	123,132,145,175	1
55	MG	AA	3066	1/1	0.93	0.30	62,62,62,62	0
55	MG	BA	1668	1/1	0.93	0.34	64,64,64,64	0
56	OHX	DA	3438	7/7	0.93	0.13	120,135,146,170	1
55	MG	DA	3189	1/1	0.93	0.62	56,56,56,56	0
55	MG	DA	3032	1/1	0.93	0.11	38,38,38,38	0
56	OHX	BA	1785	7/7	0.93	0.13	117,124,136,144	2
55	MG	AA	3177	1/1	0.93	0.26	46,46,46,46	0
56	OHX	DA	3376	7/7	0.93	0.20	38,106,133,165	3
56	OHX	BA	1769	7/7	0.93	0.09	159,168,172,218	1
56	OHX	CA	1784	7/7	0.93	0.15	127,135,151,190	1
56	OHX	AA	3553	7/7	0.93	0.12	160,165,172,209	1
56	OHX	DB	215	7/7	0.93	0.16	147,149,158,191	1
55	MG	DA	3267	1/1	0.93	0.34	82,82,82,82	0
55	MG	AA	3049	1/1	0.93	0.13	66,66,66,66	0
55	MG	CA	1679	1/1	0.93	0.17	87,87,87,87	0
56	OHX	AA	3367	7/7	0.93	0.25	69,72,90,147	3
55	MG	AA	3079	1/1	0.93	0.38	67,67,67,67	0
55	MG	AA	3118	1/1	0.93	0.23	69,69,69,69	0
55	MG	BA	1611	1/1	0.93	0.37	47,47,47,47	0
55	MG	CA	1694	1/1	0.93	0.37	89,89,89,89	0
55	MG	BA	1663	1/1	0.93	0.74	80,80,80,80	0
55	MG	AA	3135	1/1	0.93	0.35	66,66,66,66	0
56	OHX	AA	3521	7/7	0.93	0.12	103,107,119,167	2
55	MG	CA	1631	1/1	0.93	0.34	74,74,74,74	0
55	MG	BA	1629	1/1	0.93	0.14	79,79,79,79	0
56	OHX	DA	3421	7/7	0.93	0.17	96,112,124,166	1
56	OHX	BA	1742	7/7	0.93	0.11	149,155,172,201	1
55	MG	AA	3319	1/1	0.93	0.09	63,63,63,63	0
56	OHX	BA	1798	7/7	0.93	0.11	135,136,153,212	1
55	MG	AA	3133	1/1	0.93	0.34	45,45,45,45	0
55	MG	DA	3185	1/1	0.93	0.40	49,49,49,49	0
56	OHX	DA	3459	7/7	0.94	0.16	85,104,120,156	1
55	MG	CA	1675	1/1	0.94	0.40	94,94,94,94	0
55	MG	AA	3283	1/1	0.94	0.10	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	DA	3423	7/7	0.94	0.09	127,140,151,201	1
55	MG	DA	3309	1/1	0.94	0.17	68,68,68,68	0
55	MG	CA	1606	1/1	0.94	0.16	70,70,70,70	0
55	MG	AA	3101	1/1	0.94	0.32	47,47,47,47	0
55	MG	DA	3139	1/1	0.94	0.45	54,54,54,54	0
55	MG	AA	3005	1/1	0.94	0.39	48,48,48,48	0
55	MG	AA	3056	1/1	0.94	0.23	55,55,55,55	0
56	OHX	CA	1812	7/7	0.94	0.11	134,141,149,203	1
55	MG	CA	1655	1/1	0.94	0.33	70,70,70,70	0
56	OHX	BA	1754	7/7	0.94	0.08	136,144,152,183	1
55	MG	CA	1661	1/1	0.94	0.52	83,83,83,83	0
56	OHX	DA	3165	7/7	0.94	0.20	123,135,143,168	1
55	MG	DA	3047	1/1	0.94	0.15	79,79,79,79	0
55	MG	AA	3219	1/1	0.94	0.30	65,65,65,65	0
55	MG	AA	3225	1/1	0.94	0.52	52,52,52,52	0
56	OHX	DB	209	7/7	0.94	0.15	130,143,158,186	1
55	MG	AA	3252	1/1	0.94	0.38	52,52,52,52	0
56	OHX	BA	1761	7/7	0.94	0.08	136,147,154,197	1
56	OHX	AO	203	7/7	0.94	0.13	83,92,110,152	1
55	MG	AA	3261	1/1	0.94	0.23	53,53,53,53	0
56	OHX	DA	3477	7/7	0.94	0.07	153,157,164,211	1
56	OHX	DA	3214	7/7	0.94	0.21	82,92,98,133	2
55	MG	BA	1616	1/1	0.94	0.06	101,101,101,101	0
55	MG	DA	3101	1/1	0.94	0.22	59,59,59,59	0
56	OHX	CA	1777	7/7	0.94	0.09	157,162,168,202	1
56	OHX	BA	1748	7/7	0.94	0.14	124,127,141,171	1
55	MG	AA	3268	1/1	0.94	0.16	38,38,38,38	0
56	OHX	DA	3487	7/7	0.94	0.18	106,108,129,150	1
55	MG	DA	3204	1/1	0.94	0.30	58,58,58,58	0
55	MG	CA	1601	1/1	0.94	0.38	75,75,75,75	0
55	MG	BA	1620	1/1	0.94	0.26	73,73,73,73	0
55	MG	AA	3220	1/1	0.94	0.20	38,38,38,38	0
56	OHX	AA	3462	7/7	0.94	0.17	105,108,119,142	2
56	OHX	BA	1783	7/7	0.94	0.10	121,130,148,178	1
55	MG	DB	202	1/1	0.94	0.14	98,98,98,98	0
56	OHX	BA	1782	7/7	0.94	0.11	137,145,154,180	1
56	OHX	BA	1749	7/7	0.94	0.17	112,116,136,168	1
55	MG	AA	3108	1/1	0.94	0.11	54,54,54,54	0
55	MG	DA	3076	1/1	0.94	0.64	54,54,54,54	0
55	MG	AA	3109	1/1	0.94	0.37	38,38,38,38	0
55	MG	DA	3277	1/1	0.94	0.10	89,89,89,89	0
56	OHX	DA	3169	7/7	0.94	0.17	110,124,136,172	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AB	205	1/1	0.94	0.23	68,68,68,68	0
55	MG	CA	1650	1/1	0.94	0.28	66,66,66,66	0
56	OHX	DA	3431	7/7	0.94	0.14	139,144,155,180	1
56	OHX	CA	1798	7/7	0.94	0.17	116,126,129,163	1
56	OHX	A1	203	7/7	0.94	0.16	97,103,123,154	1
56	OHX	BA	1796	7/7	0.94	0.24	119,126,142,152	1
55	MG	DA	3011	1/1	0.94	0.09	84,84,84,84	0
55	MG	AA	3080	1/1	0.94	0.21	63,63,63,63	0
56	OHX	BA	1794	7/7	0.94	0.09	156,163,165,204	1
55	MG	DA	3125	1/1	0.94	0.33	54,54,54,54	0
55	MG	DA	3321	1/1	0.94	0.20	56,56,56,56	0
56	OHX	CA	1792	7/7	0.94	0.11	189,191,192,232	1
56	OHX	CA	1793	7/7	0.94	0.08	142,146,153,194	1
56	OHX	A6	101	7/7	0.94	0.15	112,127,141,158	2
55	MG	AB	202	1/1	0.94	0.18	80,80,80,80	0
56	OHX	DA	3424	7/7	0.94	0.15	124,129,137,157	2
56	OHX	AA	3504	7/7	0.94	0.20	101,103,116,145	2
56	OHX	AA	3569	7/7	0.94	0.13	134,142,144,168	1
55	MG	DA	3077	1/1	0.94	0.56	52,52,52,52	0
55	MG	AA	3131	1/1	0.94	0.55	62,62,62,62	0
56	OHX	DA	3392	7/7	0.94	0.12	115,117,129,183	1
55	MG	BA	1638	1/1	0.94	0.35	104,104,104,104	0
56	OHX	DA	3435	7/7	0.94	0.19	86,99,124,155	1
56	OHX	BA	1747	7/7	0.94	0.20	117,129,140,148	1
56	OHX	CA	1790	7/7	0.94	0.17	99,111,123,147	2
56	OHX	DA	3460	7/7	0.94	0.13	111,124,134,174	1
56	OHX	DA	3394	7/7	0.94	0.12	127,139,150,223	0
56	OHX	DA	3411	7/7	0.94	0.14	104,112,132,163	1
56	OHX	AA	3532	7/7	0.94	0.13	136,144,160,202	1
56	OHX	AA	3425	7/7	0.94	0.10	158,168,177,207	1
55	MG	AA	3159	1/1	0.94	0.43	81,81,81,81	0
56	OHX	DA	3245	7/7	0.94	0.13	95,128,139,165	1
55	MG	AA	3178	1/1	0.94	0.42	76,76,76,76	0
56	OHX	BA	1811	7/7	0.94	0.13	110,118,135,147	1
55	MG	BD	101	1/1	0.94	0.21	103,103,103,103	0
56	OHX	BA	1731	7/7	0.94	0.25	99,107,129,161	1
55	MG	AF	301	1/1	0.94	0.07	74,74,74,74	0
56	OHX	AA	3568	7/7	0.94	0.16	101,109,114,153	1
55	MG	DA	3014	1/1	0.94	0.35	55,55,55,55	0
55	MG	AA	3263	1/1	0.94	0.32	39,39,39,39	0
56	OHX	DA	3461	7/7	0.94	0.08	171,173,180,211	1
56	OHX	DB	213	7/7	0.94	0.16	125,144,157,169	2

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	DA	3465	7/7	0.94	0.15	123,136,143,165	1
55	MG	AA	3104	1/1	0.94	0.28	62,62,62,62	0
55	MG	AA	3210	1/1	0.94	0.55	43,43,43,43	0
56	OHX	DA	3087	7/7	0.94	0.16	102,119,134,177	1
55	MG	AA	3243	1/1	0.94	0.40	62,62,62,62	0
55	MG	AA	3321	1/1	0.94	0.35	41,41,41,41	0
57	PAR	CA	1722	42/42	0.94	0.15	72,88,95,97	0
55	MG	A5	101	1/1	0.94	0.33	43,43,43,43	0
55	MG	AA	3314	1/1	0.94	0.15	63,63,63,63	0
56	OHX	BB	114	7/7	0.94	0.29	176,178,180,206	1
55	MG	AA	3132	1/1	0.94	0.54	48,48,48,48	0
56	OHX	BA	1752	7/7	0.94	0.09	168,174,177,207	1
56	OHX	DA	3432	7/7	0.94	0.10	116,131,140,173	1
55	MG	CA	1706	1/1	0.94	0.60	85,85,85,85	0
55	MG	DA	3250	1/1	0.94	0.37	64,64,64,64	0
56	OHX	CA	1800	7/7	0.94	0.08	165,167,172,220	1
56	OHX	A3	102	7/7	0.94	0.19	106,109,134,147	2
55	MG	DA	3229	1/1	0.94	0.44	45,45,45,45	0
56	OHX	CA	1806	7/7	0.94	0.12	138,150,153,181	1
55	MG	DA	3216	1/1	0.94	0.43	71,71,71,71	0
55	MG	BA	1658	1/1	0.94	0.43	47,47,47,47	0
56	OHX	DA	3470	7/7	0.94	0.17	152,169,191,193	1
55	MG	AA	3059	1/1	0.94	0.32	77,77,77,77	0
55	MG	DA	3016	1/1	0.94	0.59	51,51,51,51	0
55	MG	CA	1619	1/1	0.94	0.21	92,92,92,92	0
55	MG	DA	3265	1/1	0.94	0.18	73,73,73,73	0
56	OHX	CA	1801	7/7	0.94	0.10	137,140,148,200	1
56	OHX	CA	1813	7/7	0.94	0.41	138,144,151,179	1
55	MG	DA	3142	1/1	0.94	0.41	76,76,76,76	0
55	MG	AA	3057	1/1	0.94	0.18	56,56,56,56	0
56	OHX	AA	3472	7/7	0.94	0.26	95,115,124,169	1
56	OHX	AA	3481	7/7	0.94	0.15	88,92,119,127	2
56	OHX	DA	3446	7/7	0.94	0.11	118,121,142,162	1
56	OHX	CA	1751	7/7	0.94	0.19	102,126,129,174	1
55	MG	DA	3228	1/1	0.94	0.44	58,58,58,58	0
55	MG	AA	3356	1/1	0.94	0.58	70,70,70,70	0
56	OHX	DA	3464	7/7	0.94	0.25	117,129,143,171	1
56	OHX	CA	1765	7/7	0.94	0.06	169,177,182,233	1
55	MG	AA	3041	1/1	0.94	0.25	59,59,59,59	0
56	OHX	AA	3494	7/7	0.94	0.12	112,122,130,153	1
56	OHX	BA	1745	7/7	0.95	0.13	119,123,132,169	1
55	MG	DA	3137	1/1	0.95	0.42	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3496	7/7	0.95	0.12	107,119,130,176	1
55	MG	AA	3039	1/1	0.95	0.39	50,50,50,50	0
56	OHX	CA	1770	7/7	0.95	0.09	143,153,167,200	1
56	OHX	AA	3488	7/7	0.95	0.14	155,156,163,203	1
55	MG	DA	3038	1/1	0.95	0.23	77,77,77,77	0
55	MG	CA	1702	1/1	0.95	0.48	59,59,59,59	0
56	OHX	DA	3416	7/7	0.95	0.17	112,112,142,167	1
56	OHX	DA	3456	7/7	0.95	0.10	133,142,150,207	1
56	OHX	AA	3374	7/7	0.95	0.20	32,70,109,140	3
56	OHX	DA	3388	7/7	0.95	0.15	108,118,139,160	1
55	MG	DA	3291	1/1	0.95	0.20	66,66,66,66	0
55	MG	DA	3021	1/1	0.95	0.25	62,62,62,62	0
56	OHX	DA	3217	7/7	0.95	0.10	144,149,153,189	1
56	OHX	DA	3425	7/7	0.95	0.09	125,134,139,188	1
55	MG	AA	3074	1/1	0.95	0.11	90,90,90,90	0
55	MG	DA	3184	1/1	0.95	0.54	37,37,37,37	0
55	MG	CA	1642	1/1	0.95	0.57	69,69,69,69	0
55	MG	AA	3130	1/1	0.95	0.38	43,43,43,43	0
56	OHX	AA	3534	7/7	0.95	0.12	103,124,138,161	2
56	OHX	AW	101	7/7	0.95	0.17	112,118,129,149	1
56	OHX	BC	105	7/7	0.95	0.15	129,141,151,159	1
56	OHX	CA	1749	7/7	0.95	0.13	124,137,161,188	2
55	MG	AA	3224	1/1	0.95	0.24	79,79,79,79	0
56	OHX	AB	210	7/7	0.95	0.10	101,108,128,154	1
56	OHX	AA	3459	7/7	0.95	0.15	91,107,133,162	1
56	OHX	BA	1771	7/7	0.95	0.18	101,104,120,152	2
56	OHX	DA	3391	7/7	0.95	0.11	117,125,144,183	1
56	OHX	DA	3243	7/7	0.95	0.22	74,100,112,145	2
56	OHX	CA	1758	7/7	0.95	0.08	150,162,166,191	1
55	MG	BA	1678	1/1	0.95	0.33	44,44,44,44	0
56	OHX	AB	217	7/7	0.95	0.24	100,108,115,151	1
56	OHX	DA	3428	7/7	0.95	0.15	93,108,120,163	1
55	MG	DA	3247	1/1	0.95	0.33	48,48,48,48	0
56	OHX	CA	1807	7/7	0.95	0.27	109,119,124,150	1
56	OHX	CA	1782	7/7	0.95	0.18	134,137,147,160	1
55	MG	AA	3003	1/1	0.95	0.33	39,39,39,39	0
56	OHX	AA	3433	7/7	0.95	0.15	77,91,106,131	2
55	MG	DA	3122	1/1	0.95	0.37	30,30,30,30	0
56	OHX	BA	1764	7/7	0.95	0.14	147,152,158,209	1
56	OHX	DA	3166	7/7	0.95	0.11	159,166,176,197	1
55	MG	DA	3225	1/1	0.95	0.42	55,55,55,55	0
56	OHX	DA	3248	7/7	0.95	0.14	110,118,139,156	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3149	1/1	0.95	0.36	58,58,58,58	0
55	MG	DA	3299	1/1	0.95	0.29	67,67,67,67	0
55	MG	DA	3006	1/1	0.95	0.25	63,63,63,63	0
55	MG	CA	1603	1/1	0.95	0.29	62,62,62,62	0
56	OHX	DA	3449	7/7	0.95	0.10	147,154,162,185	1
56	OHX	DA	3409	7/7	0.95	0.18	103,117,129,162	1
56	OHX	DA	3398	7/7	0.95	0.13	119,127,142,162	1
56	OHX	CA	1794	7/7	0.95	0.16	102,115,122,149	1
55	MG	DA	3152	1/1	0.95	0.39	57,57,57,57	0
56	OHX	AA	3489	7/7	0.95	0.11	136,140,156,178	1
55	MG	DA	3126	1/1	0.95	0.51	63,63,63,63	0
55	MG	AA	3255	1/1	0.95	0.24	47,47,47,47	0
55	MG	DA	3275	1/1	0.95	0.45	53,53,53,53	0
56	OHX	DB	210	7/7	0.95	0.12	119,127,150,173	2
56	OHX	AA	3371	7/7	0.95	0.18	65,79,88,136	2
56	OHX	AA	3464	7/7	0.95	0.13	105,115,140,175	1
56	OHX	DA	3430	7/7	0.95	0.07	176,181,185,214	1
55	MG	DA	3056	1/1	0.95	0.28	48,48,48,48	0
56	OHX	DA	3224	7/7	0.95	0.23	104,110,126,166	1
55	MG	DA	3097	1/1	0.95	0.40	67,67,67,67	0
55	MG	AA	3116	1/1	0.95	0.24	63,63,63,63	0
56	OHX	DA	3163	7/7	0.95	0.20	124,127,154,166	1
55	MG	DA	3191	1/1	0.95	0.35	66,66,66,66	0
55	MG	AA	3260	1/1	0.95	0.38	53,53,53,53	0
55	MG	BA	1669	1/1	0.95	0.31	68,68,68,68	0
56	OHX	DB	211	7/7	0.95	0.13	105,121,145,156	2
56	OHX	AA	3457	7/7	0.95	0.12	86,94,124,185	1
55	MG	BA	1623	1/1	0.95	0.45	39,39,39,39	0
55	MG	DA	3297	1/1	0.95	0.28	70,70,70,70	0
55	MG	AB	206	1/1	0.95	0.45	77,77,77,77	0
56	OHX	DA	3466	7/7	0.95	0.18	116,124,134,165	2
56	OHX	AA	3516	7/7	0.95	0.18	90,98,116,166	1
55	MG	AA	3034	1/1	0.95	0.31	50,50,50,50	0
55	MG	DA	3129	1/1	0.95	0.37	68,68,68,68	0
56	OHX	AA	3517	7/7	0.95	0.08	125,127,137,177	1
55	MG	BA	1606	1/1	0.95	0.23	70,70,70,70	0
56	OHX	AA	3563	7/7	0.95	0.22	128,136,143,179	1
56	OHX	AB	208	7/7	0.95	0.14	95,117,137,155	2
55	MG	DA	3230	1/1	0.95	0.24	51,51,51,51	0
55	MG	DA	3262	1/1	0.95	0.23	59,59,59,59	0
56	OHX	BA	1802	7/7	0.95	0.09	100,117,125,149	1
55	MG	DA	3156	1/1	0.95	0.19	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AB	209	7/7	0.95	0.14	98,103,137,147	3
55	MG	DA	3063	1/1	0.95	0.55	59,59,59,59	0
56	OHX	DA	3390	7/7	0.95	0.13	117,127,135,170	1
56	OHX	DA	3215	7/7	0.95	0.14	97,115,127,150	3
55	MG	DA	3040	1/1	0.95	0.18	66,66,66,66	0
55	MG	AA	3115	1/1	0.95	0.39	57,57,57,57	0
55	MG	DA	3301	1/1	0.95	0.29	60,60,60,60	0
55	MG	CA	1607	1/1	0.95	0.28	86,86,86,86	0
55	MG	CA	1717	1/1	0.95	0.28	64,64,64,64	0
55	MG	CA	1695	1/1	0.95	0.14	94,94,94,94	0
56	OHX	DA	3174	7/7	0.95	0.16	100,112,120,180	1
56	OHX	BA	1744	7/7	0.95	0.13	134,144,157,183	1
56	OHX	AA	3426	7/7	0.95	0.11	104,117,127,168	3
55	MG	CA	1604	1/1	0.95	0.17	72,72,72,72	0
55	MG	AA	3067	1/1	0.95	0.17	50,50,50,50	0
55	MG	AA	3188	1/1	0.95	0.16	29,29,29,29	0
55	MG	AA	3119	1/1	0.95	0.24	86,86,86,86	0
55	MG	AA	3069	1/1	0.95	0.23	54,54,54,54	0
56	OHX	AA	3394	7/7	0.95	0.14	113,123,125,181	1
55	MG	DA	3305	1/1	0.95	0.20	48,48,48,48	0
56	OHX	AA	3561	7/7	0.95	0.14	86,92,112,144	2
55	MG	AA	3064	1/1	0.95	0.25	52,52,52,52	0
55	MG	AA	3244	1/1	0.95	0.34	41,41,41,41	0
55	MG	AA	3053	1/1	0.95	0.21	77,77,77,77	0
56	OHX	AA	3423	7/7	0.95	0.12	100,115,121,157	1
55	MG	CA	1613	1/1	0.95	0.28	73,73,73,73	0
56	OHX	CA	1795	7/7	0.95	0.12	115,125,132,165	1
56	OHX	DA	3414	7/7	0.95	0.12	126,128,140,174	1
56	OHX	AA	3362	7/7	0.95	0.15	104,116,120,168	1
56	OHX	AA	3436	7/7	0.95	0.21	90,93,119,164	1
55	MG	DA	3149	1/1	0.95	0.23	53,53,53,53	0
55	MG	AA	3198	1/1	0.95	0.28	34,34,34,34	0
55	MG	AA	3320	1/1	0.95	0.20	45,45,45,45	0
56	OHX	AA	3447	7/7	0.95	0.10	110,120,136,163	1
55	MG	DA	3086	1/1	0.95	0.44	51,51,51,51	0
55	MG	AA	3137	1/1	0.95	0.31	74,74,74,74	0
56	OHX	DA	3400	7/7	0.95	0.17	113,116,126,149	1
56	OHX	CK	201	7/7	0.95	0.19	143,148,155,179	1
55	MG	AA	3032	1/1	0.95	0.29	37,37,37,37	0
55	MG	AA	3299	1/1	0.95	0.32	41,41,41,41	0
56	OHX	CA	1761	7/7	0.95	0.09	133,143,154,174	1
56	OHX	AB	211	7/7	0.95	0.11	124,127,142,178	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1700	1/1	0.95	0.31	97,97,97,97	0
56	OHX	CA	1745	7/7	0.95	0.14	117,120,127,165	1
56	OHX	D1	201	7/7	0.95	0.15	110,112,135,162	1
55	MG	BA	1665	1/1	0.95	0.24	53,53,53,53	0
56	OHX	DA	3483	7/7	0.95	0.12	103,116,126,199	1
55	MG	AE	302	1/1	0.95	0.17	74,74,74,74	0
56	OHX	AA	3547	7/7	0.95	0.11	80,87,107,118	1
56	OHX	CA	1731	7/7	0.95	0.19	90,118,129,156	1
55	MG	DA	3178	1/1	0.95	0.65	58,58,58,58	0
55	MG	CA	1644	1/1	0.95	0.35	89,89,89,89	0
56	OHX	AA	3395	7/7	0.95	0.19	100,109,130,162	1
55	MG	AA	3140	1/1	0.95	0.36	70,70,70,70	0
55	MG	CA	1639	1/1	0.95	0.46	69,69,69,69	0
55	MG	DA	3093	1/1	0.95	0.15	46,46,46,46	0
56	OHX	CA	1763	7/7	0.96	0.09	142,143,157,189	1
55	MG	AA	3093	1/1	0.96	0.42	35,35,35,35	0
55	MG	DA	3208	1/1	0.96	0.45	61,61,61,61	0
56	OHX	AA	3474	7/7	0.96	0.12	113,120,132,160	1
56	OHX	AA	3475	7/7	0.96	0.08	132,134,145,192	1
56	OHX	AA	3550	7/7	0.96	0.09	118,128,136,169	1
56	OHX	DA	3168	7/7	0.96	0.17	129,143,154,181	1
55	MG	AA	3023	1/1	0.96	0.30	35,35,35,35	0
55	MG	AA	3298	1/1	0.96	0.26	45,45,45,45	0
56	OHX	AA	3435	7/7	0.96	0.15	83,103,126,156	2
56	OHX	AA	3421	7/7	0.96	0.17	78,84,91,130	1
56	OHX	AB	212	7/7	0.96	0.12	91,105,122,151	3
56	OHX	AA	3405	7/7	0.96	0.12	100,103,111,158	1
56	OHX	AA	3465	7/7	0.96	0.22	82,99,109,148	1
56	OHX	AA	3535	7/7	0.96	0.15	94,101,108,146	1
55	MG	AA	3147	1/1	0.96	0.39	49,49,49,49	0
55	MG	AA	3001	1/1	0.96	0.35	32,32,32,32	0
56	OHX	DA	3445	7/7	0.96	0.10	121,130,142,174	1
56	OHX	CA	1803	7/7	0.96	0.09	137,147,156,198	1
56	OHX	AA	3470	7/7	0.96	0.08	116,126,152,171	1
56	OHX	AA	3416	7/7	0.96	0.18	108,113,125,155	1
56	OHX	CA	1776	7/7	0.96	0.16	112,115,132,151	1
55	MG	CA	1637	1/1	0.96	0.53	69,69,69,69	0
55	MG	AA	3206	1/1	0.96	0.23	37,37,37,37	0
56	OHX	AA	3404	7/7	0.96	0.09	108,112,133,175	1
56	OHX	BA	1773	7/7	0.96	0.11	135,139,146,167	1
55	MG	AA	3065	1/1	0.96	0.25	46,46,46,46	0
56	OHX	DA	3081	7/7	0.96	0.15	99,102,113,145	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3262	1/1	0.96	0.28	62,62,62,62	0
56	OHX	AA	3463	7/7	0.96	0.14	94,102,127,154	1
55	MG	AA	3050	1/1	0.96	0.39	45,45,45,45	0
55	MG	DA	3133	1/1	0.96	0.26	51,51,51,51	0
56	OHX	CA	1772	7/7	0.96	0.09	142,144,153,197	1
55	MG	AA	3011	1/1	0.96	0.27	44,44,44,44	0
56	OHX	CA	1752	7/7	0.96	0.15	139,147,150,191	1
55	MG	DA	3273	1/1	0.96	0.37	41,41,41,41	0
56	OHX	BA	1751	7/7	0.96	0.18	101,112,132,168	2
55	MG	AA	3275	1/1	0.96	0.59	71,71,71,71	0
55	MG	DA	3285	1/1	0.96	0.40	57,57,57,57	0
56	OHX	DA	3372	7/7	0.96	0.20	90,96,108,138	1
56	OHX	AA	3419	7/7	0.96	0.12	102,113,133,143	3
56	OHX	AA	3442	7/7	0.96	0.12	97,106,127,148	1
55	MG	DA	3274	1/1	0.96	0.39	69,69,69,69	0
55	MG	AA	3205	1/1	0.96	0.13	42,42,42,42	0
56	OHX	AA	3440	7/7	0.96	0.11	83,91,111,141	1
55	MG	AA	3102	1/1	0.96	0.37	52,52,52,52	0
56	OHX	DA	3109	7/7	0.96	0.30	99,116,138,153	1
56	OHX	BA	1774	7/7	0.96	0.12	104,121,130,163	1
55	MG	DA	3058	1/1	0.96	0.41	70,70,70,70	0
56	OHX	AA	3537	7/7	0.96	0.10	164,173,184,214	1
56	OHX	CA	1756	7/7	0.96	0.11	99,109,123,147	2
55	MG	CC	102	1/1	0.96	0.86	69,69,69,69	0
55	MG	AA	3228	1/1	0.96	0.37	53,53,53,53	0
56	OHX	CA	1805	7/7	0.96	0.13	128,130,148,187	1
56	OHX	AA	3491	7/7	0.96	0.17	96,99,117,169	1
55	MG	DA	3147	1/1	0.96	0.31	55,55,55,55	0
55	MG	DA	3263	1/1	0.96	0.26	55,55,55,55	0
55	MG	DA	3131	1/1	0.96	0.35	72,72,72,72	0
55	MG	DA	3211	1/1	0.96	0.40	57,57,57,57	0
55	MG	BA	1601	1/1	0.96	0.34	57,57,57,57	0
55	MG	DA	3024	1/1	0.96	0.28	63,63,63,63	0
55	MG	CA	1638	1/1	0.96	0.37	59,59,59,59	0
55	MG	DA	3292	1/1	0.96	0.25	51,51,51,51	0
56	OHX	AA	3510	7/7	0.96	0.13	98,106,123,159	1
56	OHX	DA	3426	7/7	0.96	0.08	118,125,141,168	1
56	OHX	DA	3443	7/7	0.96	0.17	113,124,137,188	1
56	OHX	DA	3365	7/7	0.96	0.12	100,119,136,159	2
56	OHX	DA	3439	7/7	0.96	0.12	127,146,152,174	1
56	OHX	BA	1759	7/7	0.96	0.08	173,177,187,214	1
56	OHX	BA	1732	7/7	0.96	0.11	128,131,145,175	2

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	CA	1771	7/7	0.96	0.12	105,107,134,145	1
55	MG	DA	3241	1/1	0.96	0.17	47,47,47,47	0
55	MG	DA	3120	1/1	0.96	0.32	52,52,52,52	0
56	OHX	AA	3441	7/7	0.96	0.14	113,135,152,175	1
55	MG	DA	3269	1/1	0.96	0.42	52,52,52,52	0
56	OHX	BA	1806	7/7	0.96	0.16	110,117,124,159	1
56	OHX	AA	3542	7/7	0.96	0.17	92,98,124,157	1
55	MG	AA	3145	1/1	0.96	0.33	27,27,27,27	0
55	MG	DE	301	1/1	0.96	0.38	52,52,52,52	0
56	OHX	DA	3410	7/7	0.96	0.13	107,112,124,146	1
55	MG	DA	3135	1/1	0.96	0.35	42,42,42,42	0
55	MG	CA	1658	1/1	0.96	0.34	65,65,65,65	0
55	MG	AA	3296	1/1	0.96	0.40	69,69,69,69	0
55	MG	BA	1651	1/1	0.96	0.49	76,76,76,76	0
56	OHX	CA	1762	7/7	0.96	0.08	148,151,154,182	1
56	OHX	AA	3460	7/7	0.96	0.13	131,133,148,193	1
56	OHX	BA	1809	7/7	0.96	0.09	159,162,164,206	1
55	MG	AA	3047	1/1	0.96	0.28	65,65,65,65	0
56	OHX	DA	3099	7/7	0.96	0.27	104,109,114,163	1
56	OHX	BC	107	7/7	0.96	0.14	126,137,143,151	1
55	MG	AA	3250	1/1	0.96	0.36	55,55,55,55	0
55	MG	AA	3339	1/1	0.96	0.52	58,58,58,58	0
56	OHX	CA	1741	7/7	0.96	0.13	101,122,129,156	2
56	OHX	BA	1800	7/7	0.96	0.08	127,133,145,177	1
55	MG	AA	3016	1/1	0.96	0.38	29,29,29,29	0
55	MG	AA	3045	1/1	0.96	0.19	33,33,33,33	0
56	OHX	DA	3367	7/7	0.96	0.21	100,113,133,149	1
57	PAR	BA	1715	42/42	0.96	0.18	61,73,83,89	0
55	MG	AA	3227	1/1	0.96	0.40	61,61,61,61	0
56	OHX	DA	3399	7/7	0.96	0.22	104,107,123,144	2
56	OHX	AA	3386	7/7	0.96	0.17	75,83,104,131	1
55	MG	AA	3232	1/1	0.96	0.10	62,62,62,62	0
56	OHX	DA	3396	7/7	0.96	0.19	96,99,105,140	1
56	OHX	DA	3094	7/7	0.96	0.18	110,121,124,149	1
56	OHX	AA	3479	7/7	0.96	0.17	94,103,125,176	3
56	OHX	AA	3381	7/7	0.96	0.11	127,136,147,180	1
55	MG	AA	3002	1/1	0.96	0.41	34,34,34,34	0
56	OHX	AA	3565	7/7	0.96	0.12	97,104,114,159	1
55	MG	BA	1673	1/1	0.96	0.42	75,75,75,75	0
56	OHX	AA	3486	7/7	0.96	0.14	95,110,127,153	1
55	MG	AA	3021	1/1	0.96	0.34	35,35,35,35	0
58	ZN	BG	301	1/1	0.96	0.30	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1611	1/1	0.96	0.20	81,81,81,81	0
55	MG	AA	3246	1/1	0.96	0.28	44,44,44,44	0
55	MG	DA	3222	1/1	0.96	0.34	83,83,83,83	0
55	MG	AA	3036	1/1	0.96	0.44	48,48,48,48	0
56	OHX	AA	3558	7/7	0.96	0.15	92,100,110,168	1
56	OHX	DA	3441	7/7	0.96	0.10	114,122,135,176	1
55	MG	CA	1616	1/1	0.96	0.41	100,100,100,100	0
56	OHX	DA	3162	7/7	0.96	0.14	128,132,141,207	0
55	MG	AA	3158	1/1	0.96	0.45	49,49,49,49	0
56	OHX	BA	1758	7/7	0.96	0.07	153,155,160,202	1
55	MG	AA	3196	1/1	0.96	0.34	43,43,43,43	0
56	OHX	AA	3483	7/7	0.96	0.17	106,109,118,158	2
55	MG	DA	3261	1/1	0.96	0.38	53,53,53,53	0
56	OHX	CA	1764	7/7	0.96	0.16	113,122,135,168	1
56	OHX	AA	3545	7/7	0.96	0.12	92,105,127,145	2
56	OHX	AA	3467	7/7	0.96	0.12	72,88,95,139	1
56	OHX	DA	3436	7/7	0.96	0.12	121,133,143,171	1
55	MG	DA	3148	1/1	0.96	0.45	50,50,50,50	0
55	MG	AA	3302	1/1	0.96	0.41	72,72,72,72	0
55	MG	DA	3080	1/1	0.96	0.34	43,43,43,43	0
55	MG	DA	3051	1/1	0.96	0.51	39,39,39,39	0
56	OHX	BA	1753	7/7	0.96	0.13	103,110,125,169	1
56	OHX	AA	3525	7/7	0.96	0.10	118,124,140,179	1
55	MG	CN	201	1/1	0.96	0.12	79,79,79,79	0
55	MG	AA	3144	1/1	0.96	0.34	43,43,43,43	0
55	MG	DA	3005	1/1	0.96	0.28	41,41,41,41	0
55	MG	DA	3009	1/1	0.96	0.31	50,50,50,50	0
56	OHX	DA	3408	7/7	0.96	0.14	122,131,146,182	1
56	OHX	AA	3437	7/7	0.96	0.19	76,82,94,136	1
55	MG	AA	3208	1/1	0.96	0.37	62,62,62,62	0
55	MG	AA	3112	1/1	0.96	0.15	87,87,87,87	0
56	OHX	CA	1814	7/7	0.96	0.06	149,152,161,212	1
55	MG	AA	3095	1/1	0.96	0.40	42,42,42,42	0
56	OHX	AA	3398	7/7	0.96	0.15	90,95,125,158	1
56	OHX	CA	1750	7/7	0.96	0.16	110,113,130,151	1
55	MG	DA	3207	1/1	0.97	0.34	37,37,37,37	0
55	MG	AA	3153	1/1	0.97	0.44	40,40,40,40	0
56	OHX	AA	3562	7/7	0.97	0.14	100,110,119,157	1
55	MG	AA	3123	1/1	0.97	0.18	65,65,65,65	0
55	MG	DA	3182	1/1	0.97	0.26	52,52,52,52	0
56	OHX	DA	3359	7/7	0.97	0.17	99,118,131,143	1
55	MG	DA	3130	1/1	0.97	0.21	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3006	1/1	0.97	0.38	40,40,40,40	0
56	OHX	CA	1738	7/7	0.97	0.10	120,123,126,168	1
55	MG	CA	1663	1/1	0.97	0.14	65,65,65,65	0
56	OHX	CA	1760	7/7	0.97	0.08	145,148,151,188	1
55	MG	DA	3167	1/1	0.97	0.28	61,61,61,61	0
56	OHX	BA	1784	7/7	0.97	0.14	94,101,111,137	1
56	OHX	DA	3170	7/7	0.97	0.15	114,125,135,172	1
56	OHX	CA	1728	7/7	0.97	0.15	104,119,138,150	2
55	MG	DA	3089	1/1	0.97	0.45	54,54,54,54	0
55	MG	AA	3253	1/1	0.97	0.38	49,49,49,49	0
56	OHX	AA	3377	7/7	0.97	0.21	77,87,106,151	2
56	OHX	AA	3365	7/7	0.97	0.12	86,102,111,118	3
55	MG	AA	3214	1/1	0.97	0.38	41,41,41,41	0
56	OHX	CA	1796	7/7	0.97	0.09	150,159,170,195	1
55	MG	DA	3316	1/1	0.97	0.25	51,51,51,51	0
56	OHX	BA	1789	7/7	0.97	0.06	132,137,146,191	1
55	MG	CA	1697	1/1	0.97	0.17	66,66,66,66	0
55	MG	DA	3004	1/1	0.97	0.23	32,32,32,32	0
55	MG	AA	3054	1/1	0.97	0.24	83,83,83,83	0
55	MG	BA	1694	1/1	0.97	0.23	60,60,60,60	0
55	MG	AA	3070	1/1	0.97	0.18	56,56,56,56	0
56	OHX	AA	3566	7/7	0.97	0.12	171,177,185,204	1
55	MG	AA	3221	1/1	0.97	0.29	41,41,41,41	0
55	MG	BA	1679	1/1	0.97	0.42	60,60,60,60	0
55	MG	AA	3012	1/1	0.97	0.29	45,45,45,45	0
55	MG	DA	3188	1/1	0.97	0.35	38,38,38,38	0
55	MG	BA	1646	1/1	0.97	0.31	48,48,48,48	0
55	MG	AA	3068	1/1	0.97	0.16	92,92,92,92	0
56	OHX	BA	1762	7/7	0.97	0.14	121,131,144,180	1
56	OHX	AA	3430	7/7	0.97	0.09	119,125,132,176	1
55	MG	CA	1649	1/1	0.97	0.34	92,92,92,92	0
55	MG	CA	1669	1/1	0.97	0.37	48,48,48,48	0
55	MG	AA	3163	1/1	0.97	0.40	34,34,34,34	0
55	MG	DA	3193	1/1	0.97	0.34	43,43,43,43	0
55	MG	DA	3001	1/1	0.97	0.35	39,39,39,39	0
55	MG	AA	3152	1/1	0.97	0.41	50,50,50,50	0
55	MG	AA	3150	1/1	0.97	0.23	53,53,53,53	0
55	MG	AA	3258	1/1	0.97	0.31	39,39,39,39	0
56	OHX	AA	3438	7/7	0.97	0.10	113,130,139,188	1
56	OHX	BA	1724	7/7	0.97	0.10	114,121,136,156	0
55	MG	AA	3063	1/1	0.97	0.35	45,45,45,45	0
55	MG	DA	3143	1/1	0.97	0.31	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	1641	1/1	0.97	0.32	54,54,54,54	0
55	MG	AA	3280	1/1	0.97	0.40	61,61,61,61	0
56	OHX	DA	3406	7/7	0.97	0.13	88,107,111,147	3
56	OHX	AA	3429	7/7	0.97	0.14	84,97,102,156	1
55	MG	AA	3218	1/1	0.97	0.31	35,35,35,35	0
55	MG	DA	3161	1/1	0.97	0.37	41,41,41,41	0
56	OHX	DA	3379	7/7	0.97	0.13	116,134,147,164	1
55	MG	AA	3248	1/1	0.97	0.30	28,28,28,28	0
55	MG	CA	1634	1/1	0.97	0.60	64,64,64,64	0
55	MG	DA	3141	1/1	0.97	0.29	64,64,64,64	0
56	OHX	BA	1801	7/7	0.97	0.11	129,138,143,174	1
56	OHX	CA	1744	7/7	0.97	0.10	128,134,150,164	1
55	MG	AA	3166	1/1	0.97	0.35	41,41,41,41	0
55	MG	CA	1612	1/1	0.97	0.26	95,95,95,95	0
56	OHX	DA	3471	7/7	0.97	0.10	112,124,129,160	1
55	MG	DA	3190	1/1	0.97	0.62	44,44,44,44	0
55	MG	CA	1664	1/1	0.97	0.17	57,57,57,57	0
56	OHX	CA	1743	7/7	0.97	0.10	101,120,132,162	1
55	MG	DA	3010	1/1	0.97	0.36	47,47,47,47	0
55	MG	AA	3186	1/1	0.97	0.17	57,57,57,57	0
56	OHX	AA	3409	7/7	0.97	0.15	99,110,115,152	1
56	OHX	DA	3451	7/7	0.97	0.11	103,107,114,153	1
56	OHX	BA	1767	7/7	0.97	0.09	151,158,165,212	1
55	MG	AA	3015	1/1	0.97	0.30	44,44,44,44	0
55	MG	AA	3027	1/1	0.97	0.28	35,35,35,35	0
56	OHX	AA	3466	7/7	0.97	0.13	98,120,132,157	1
56	OHX	DA	3355	7/7	0.97	0.13	109,111,119,148	2
55	MG	DA	3280	1/1	0.97	0.46	63,63,63,63	0
55	MG	AA	3216	1/1	0.97	0.48	33,33,33,33	0
56	OHX	DA	3366	7/7	0.97	0.16	87,100,130,154	2
56	OHX	DA	3375	7/7	0.97	0.11	129,138,149,173	1
55	MG	AA	3315	1/1	0.97	0.17	50,50,50,50	0
56	OHX	BA	1760	7/7	0.97	0.13	109,109,121,147	1
55	MG	AA	3213	1/1	0.97	0.22	60,60,60,60	0
55	MG	DA	3070	1/1	0.97	0.19	69,69,69,69	0
56	OHX	AA	3446	7/7	0.97	0.16	148,150,154,190	1
56	OHX	DA	3373	7/7	0.97	0.23	93,104,119,171	1
56	OHX	BA	1741	7/7	0.97	0.13	95,110,126,148	1
55	MG	DA	3008	1/1	0.97	0.22	43,43,43,43	0
56	OHX	CA	1766	7/7	0.97	0.08	116,126,135,171	1
55	MG	BA	1656	1/1	0.97	0.40	73,73,73,73	0
56	OHX	CA	1736	7/7	0.97	0.10	163,166,178,209	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3044	1/1	0.97	0.47	42,42,42,42	0
56	OHX	AA	3388	7/7	0.97	0.12	106,112,125,156	1
56	OHX	CA	1742	7/7	0.97	0.11	153,166,169,174	1
56	OHX	CA	1733	7/7	0.97	0.14	109,120,127,147	1
56	OHX	DA	3257	7/7	0.97	0.19	107,112,124,148	1
56	OHX	DA	3254	7/7	0.97	0.27	126,129,138,165	1
55	MG	AA	3014	1/1	0.97	0.36	33,33,33,33	0
56	OHX	BA	1746	7/7	0.97	0.13	95,103,110,146	1
55	MG	BA	1652	1/1	0.97	0.41	68,68,68,68	0
55	MG	DA	3192	1/1	0.97	0.52	60,60,60,60	0
56	OHX	DA	3412	7/7	0.97	0.12	93,110,113,161	1
56	OHX	DO	201	7/7	0.97	0.15	112,117,125,146	1
56	OHX	DA	3083	7/7	0.97	0.13	104,111,120,146	1
55	MG	DA	3293	1/1	0.97	0.48	88,88,88,88	0
56	OHX	AA	3399	7/7	0.97	0.17	97,111,117,147	1
56	OHX	BG	302	7/7	0.97	0.09	138,141,145,177	1
56	OHX	DA	3403	7/7	0.97	0.13	99,105,122,140	1
56	OHX	DA	3132	7/7	0.97	0.10	185,187,192,225	1
55	MG	D5	101	1/1	0.97	0.25	43,43,43,43	0
56	OHX	AA	3412	7/7	0.97	0.10	119,122,141,174	1
55	MG	AA	3025	1/1	0.97	0.36	37,37,37,37	0
56	OHX	CA	1735	7/7	0.97	0.10	146,153,168,212	0
56	OHX	BA	1755	7/7	0.97	0.09	123,128,136,161	1
55	MG	DA	3012	1/1	0.97	0.31	44,44,44,44	0
56	OHX	DA	3393	7/7	0.97	0.11	133,134,150,191	1
55	MG	AA	3097	1/1	0.97	0.24	50,50,50,50	0
56	OHX	AA	3450	7/7	0.97	0.12	97,112,128,161	2
56	OHX	AO	202	7/7	0.97	0.11	93,104,115,140	1
56	OHX	DA	3404	7/7	0.97	0.12	107,121,131,166	1
55	MG	AA	3136	1/1	0.97	0.20	42,42,42,42	0
55	MG	AA	3077	1/1	0.97	0.42	39,39,39,39	0
56	OHX	DA	3402	7/7	0.97	0.10	122,136,148,204	1
55	MG	DA	3018	1/1	0.97	0.31	47,47,47,47	0
55	MG	AA	3241	1/1	0.97	0.34	52,52,52,52	0
55	MG	AA	3265	1/1	0.97	0.25	62,62,62,62	0
56	OHX	CA	1739	7/7	0.97	0.10	140,150,165,188	1
56	OHX	BA	1736	7/7	0.97	0.12	112,121,128,152	1
56	OHX	DA	3383	7/7	0.97	0.13	110,119,138,151	2
56	OHX	CA	1768	7/7	0.97	0.09	123,135,145,174	1
56	OHX	CA	1734	7/7	0.97	0.10	145,147,151,167	1
55	MG	AA	3026	1/1	0.97	0.30	43,43,43,43	0
56	OHX	AA	3428	7/7	0.97	0.08	114,120,124,169	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	BA	1734	7/7	0.97	0.16	92,99,114,146	1
55	MG	CA	1711	1/1	0.97	0.39	57,57,57,57	0
55	MG	AA	3179	1/1	0.97	0.33	39,39,39,39	0
55	MG	BA	1659	1/1	0.97	0.51	43,43,43,43	0
55	MG	DA	3236	1/1	0.97	0.49	62,62,62,62	0
55	MG	BA	1626	1/1	0.97	0.54	47,47,47,47	0
56	OHX	BA	1805	7/7	0.97	0.19	98,103,107,150	1
55	MG	AA	3271	1/1	0.97	0.45	63,63,63,63	0
55	MG	AA	3146	1/1	0.97	0.38	36,36,36,36	0
55	MG	AA	3098	1/1	0.97	0.31	29,29,29,29	0
55	MG	DA	3041	1/1	0.97	0.36	79,79,79,79	0
56	OHX	AA	3556	7/7	0.97	0.16	82,96,111,154	1
55	MG	AA	3256	1/1	0.97	0.43	52,52,52,52	0
55	MG	BA	1698	1/1	0.98	0.42	54,54,54,54	0
56	OHX	DA	3356	7/7	0.98	0.14	85,97,114,129	2
56	OHX	BA	1727	7/7	0.98	0.12	116,137,148,161	1
56	OHX	AA	3453	7/7	0.98	0.13	72,88,95,134	2
55	MG	A0	201	1/1	0.98	0.15	52,52,52,52	0
56	OHX	BA	1733	7/7	0.98	0.09	98,108,118,146	1
56	OHX	AA	3422	7/7	0.98	0.18	63,104,126,147	2
56	OHX	AA	3370	7/7	0.98	0.17	74,85,99,119	1
55	MG	AA	3288	1/1	0.98	0.31	55,55,55,55	0
56	OHX	AA	3385	7/7	0.98	0.17	73,87,109,139	2
55	MG	AA	3018	1/1	0.98	0.28	49,49,49,49	0
56	OHX	CA	1740	7/7	0.98	0.09	125,134,139,166	1
55	MG	AA	3129	1/1	0.98	0.22	43,43,43,43	0
56	OHX	DA	3068	7/7	0.98	0.12	102,127,131,147	0
56	OHX	BA	1768	7/7	0.98	0.15	87,95,105,130	2
56	OHX	BA	1729	7/7	0.98	0.11	110,115,135,137	1
55	MG	DA	3119	1/1	0.98	0.34	38,38,38,38	0
56	OHX	AA	3361	7/7	0.98	0.12	76,81,111,125	3
55	MG	DA	3197	1/1	0.98	0.28	49,49,49,49	0
56	OHX	DA	3084	7/7	0.98	0.14	132,139,149,176	1
56	OHX	AA	3458	7/7	0.98	0.18	96,103,139,158	1
55	MG	DA	3078	1/1	0.98	0.45	42,42,42,42	0
56	OHX	DA	3387	7/7	0.98	0.09	108,115,125,151	1
55	MG	AA	3223	1/1	0.98	0.30	43,43,43,43	0
56	OHX	AA	3461	7/7	0.98	0.12	102,110,120,148	1
56	OHX	CA	1748	7/7	0.98	0.08	137,145,152,186	1
56	OHX	AA	3369	7/7	0.98	0.11	76,100,116,143	1
56	OHX	BA	1720	7/7	0.98	0.13	95,108,133,161	2
56	OHX	DA	3364	7/7	0.98	0.17	75,93,104,118	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3146	1/1	0.98	0.26	33,33,33,33	0
56	OHX	AA	3360	7/7	0.98	0.14	88,94,111,129	2
55	MG	AA	3017	1/1	0.98	0.39	26,26,26,26	0
56	OHX	BA	1730	7/7	0.98	0.12	106,118,135,150	1
55	MG	AA	3242	1/1	0.98	0.38	43,43,43,43	0
56	OHX	AA	3452	7/7	0.98	0.10	92,103,111,136	1
56	OHX	BA	1728	7/7	0.98	0.08	140,147,157,166	1
55	MG	DA	3175	1/1	0.98	0.44	53,53,53,53	0
56	OHX	AA	3424	7/7	0.98	0.15	84,93,116,147	1
55	MG	AA	3191	1/1	0.98	0.14	39,39,39,39	0
56	OHX	AA	3401	7/7	0.98	0.12	101,105,125,153	1
55	MG	AA	3010	1/1	0.98	0.25	39,39,39,39	0
56	OHX	DA	3363	7/7	0.98	0.12	95,105,122,123	2
55	MG	AA	3201	1/1	0.98	0.43	35,35,35,35	0
55	MG	AA	3139	1/1	0.98	0.24	47,47,47,47	0
56	OHX	CC	110	7/7	0.98	0.16	103,121,132,150	4
55	MG	DA	3026	1/1	0.98	0.28	55,55,55,55	0
55	MG	CA	1635	1/1	0.98	0.34	51,51,51,51	0
56	OHX	DA	3157	7/7	0.98	0.16	76,87,96,121	1
55	MG	DA	3015	1/1	0.98	0.28	56,56,56,56	0
55	MG	DA	3095	1/1	0.98	0.22	58,58,58,58	0
56	OHX	BA	1735	7/7	0.98	0.12	120,129,137,168	1
56	OHX	AA	3378	7/7	0.98	0.14	77,88,108,118	1
56	OHX	AA	3533	7/7	0.98	0.10	79,94,100,134	1
55	MG	DA	3007	1/1	0.98	0.29	43,43,43,43	0
56	OHX	AA	3353	7/7	0.98	0.20	71,99,117,132	1
56	OHX	BA	1723	7/7	0.98	0.17	93,106,124,143	1
56	OHX	DA	3073	7/7	0.98	0.19	89,101,109,132	1
55	MG	DA	3198	1/1	0.98	0.40	44,44,44,44	0
56	OHX	DA	3082	7/7	0.98	0.14	92,102,108,132	1
56	OHX	CA	1732	7/7	0.98	0.13	112,117,126,152	1
56	OHX	AA	3390	7/7	0.98	0.18	48,74,93,125	2
56	OHX	DA	3064	7/7	0.98	0.15	87,100,123,131	3
56	OHX	DA	3354	7/7	0.98	0.15	88,99,121,135	1
56	OHX	DA	3065	7/7	0.98	0.17	55,92,111,137	1
56	OHX	CA	1737	7/7	0.98	0.09	103,118,125,148	1
56	OHX	CA	1729	7/7	0.98	0.15	104,115,126,154	1
56	OHX	AA	3391	7/7	0.98	0.16	69,80,102,109	3
55	MG	DA	3231	1/1	0.98	0.41	50,50,50,50	0
55	MG	DA	3138	1/1	0.98	0.37	43,43,43,43	0
56	OHX	AA	3400	7/7	0.98	0.15	64,77,80,123	1
56	OHX	DA	3420	7/7	0.98	0.10	116,120,125,152	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3468	7/7	0.98	0.09	110,120,137,165	1
55	MG	DA	3034	1/1	0.98	0.15	69,69,69,69	0
55	MG	AA	3007	1/1	0.98	0.40	43,43,43,43	0
56	OHX	DA	3395	7/7	0.98	0.13	102,109,124,139	1
56	OHX	AA	3375	7/7	0.98	0.12	83,101,103,143	1
55	MG	AA	3187	1/1	0.98	0.26	40,40,40,40	0
55	MG	AA	3190	1/1	0.98	0.23	43,43,43,43	0
55	MG	BA	1604	1/1	0.98	0.20	69,69,69,69	0
56	OHX	DA	3369	7/7	0.98	0.15	89,100,105,125	1
56	OHX	AA	3387	7/7	0.98	0.11	110,123,134,164	1
55	MG	DA	3074	1/1	0.98	0.47	40,40,40,40	0
55	MG	AA	3184	1/1	0.98	0.38	35,35,35,35	0
56	OHX	AA	3366	7/7	0.98	0.17	79,94,104,141	1
55	MG	AA	3272	1/1	0.98	0.42	29,29,29,29	0
55	MG	AA	3134	1/1	0.98	0.44	48,48,48,48	0
56	OHX	AA	3354	7/7	0.98	0.14	96,105,128,164	0
56	OHX	DA	3381	7/7	0.98	0.13	111,118,134,167	1
56	OHX	AA	3380	7/7	0.98	0.15	86,90,110,143	1
56	OHX	DA	3397	7/7	0.98	0.09	104,119,125,149	1
56	OHX	DA	3382	7/7	0.98	0.17	67,85,95,136	2
56	OHX	DA	3246	7/7	0.98	0.14	89,97,107,138	1
56	OHX	AA	3469	7/7	0.98	0.09	103,113,128,153	1
55	MG	AA	3037	1/1	0.98	0.29	55,55,55,55	0
55	MG	AA	3197	1/1	0.98	0.25	57,57,57,57	0
56	OHX	AA	3487	7/7	0.98	0.13	73,82,95,140	2
56	OHX	AA	3427	7/7	0.98	0.12	131,132,136,155	1
56	OHX	DA	3422	7/7	0.98	0.14	92,100,111,154	1
56	OHX	AA	3471	7/7	0.98	0.14	80,105,117,155	1
56	OHX	DA	3429	7/7	0.98	0.09	118,130,143,180	1
56	OHX	DA	3389	7/7	0.98	0.12	82,85,99,113	1
56	OHX	AA	3410	7/7	0.98	0.14	91,99,106,125	1
56	OHX	DA	3348	7/7	0.98	0.13	97,115,128,140	1
56	OHX	DA	3377	7/7	0.98	0.16	91,105,111,146	2
55	MG	DA	3234	1/1	0.98	0.32	41,41,41,41	0
56	OHX	AA	3373	7/7	0.98	0.11	84,96,108,141	1
56	OHX	AA	3518	7/7	0.98	0.10	106,114,121,148	1
55	MG	AA	3046	1/1	0.98	0.32	50,50,50,50	0
55	MG	AE	303	1/1	0.98	0.24	36,36,36,36	0
55	MG	CA	1633	1/1	0.98	0.53	46,46,46,46	0
55	MG	CC	101	1/1	0.98	0.47	79,79,79,79	0
56	OHX	AA	3364	7/7	0.98	0.15	72,81,97,125	1
56	OHX	BA	1770	7/7	0.98	0.11	114,115,121,163	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3477	7/7	0.98	0.14	81,92,107,133	2
55	MG	DA	3036	1/1	0.98	0.14	47,47,47,47	0
56	OHX	DA	3384	7/7	0.98	0.13	89,92,105,143	2
56	OHX	AA	3397	7/7	0.98	0.12	96,102,109,143	1
56	OHX	AA	3383	7/7	0.98	0.13	91,96,109,133	1
56	OHX	DA	3358	7/7	0.98	0.11	107,117,135,165	2
56	OHX	AA	3493	7/7	0.98	0.10	102,115,123,140	1
55	MG	DA	3164	1/1	0.98	0.40	63,63,63,63	0
56	OHX	DA	3136	7/7	0.98	0.15	95,108,117,144	1
56	OHX	CA	1746	7/7	0.98	0.09	112,115,128,150	1
55	MG	DA	3085	1/1	0.98	0.41	53,53,53,53	0
56	OHX	AA	3406	7/7	0.98	0.11	93,96,102,133	1
55	MG	AA	3207	1/1	0.98	0.50	44,44,44,44	0
56	OHX	BA	1739	7/7	0.98	0.12	109,119,131,155	1
55	MG	AA	3202	1/1	0.98	0.20	30,30,30,30	0
56	OHX	AA	3414	7/7	0.98	0.15	92,104,120,143	1
55	MG	AA	3009	1/1	0.98	0.24	29,29,29,29	0
56	OHX	DA	3368	7/7	0.98	0.11	86,101,103,132	2
55	MG	DA	3290	1/1	0.98	0.16	37,37,37,37	0
56	OHX	DA	3370	7/7	0.98	0.14	94,102,123,149	1
56	OHX	CC	109	7/7	0.98	0.20	112,114,129,153	3
56	OHX	DA	3418	7/7	0.98	0.11	87,98,117,139	3
56	OHX	AA	3432	7/7	0.98	0.10	129,136,142,160	1
56	OHX	CA	1779	7/7	0.98	0.05	125,132,137,172	1
55	MG	DA	3150	1/1	0.98	0.17	46,46,46,46	0
56	OHX	AA	3431	7/7	0.98	0.13	101,115,120,168	1
56	OHX	DA	3417	7/7	0.98	0.09	145,152,156,188	1
55	MG	AA	3040	1/1	0.98	0.29	59,59,59,59	0
55	MG	DA	3123	1/1	0.98	0.29	38,38,38,38	0
55	MG	DA	3052	1/1	0.98	0.47	42,42,42,42	0
55	MG	CA	1636	1/1	0.98	0.19	82,82,82,82	0
55	MG	AA	3106	1/1	0.98	0.24	72,72,72,72	0
55	MG	BA	1603	1/1	0.98	0.19	40,40,40,40	0
56	OHX	DA	3419	7/7	0.98	0.13	82,93,100,126	2
56	OHX	AA	3346	7/7	0.98	0.17	73,81,101,124	2
55	MG	DA	3232	1/1	0.98	0.62	63,63,63,63	0
55	MG	DA	3144	1/1	0.98	0.56	44,44,44,44	0
55	MG	AA	3019	1/1	0.98	0.30	42,42,42,42	0
56	OHX	DA	3071	7/7	0.98	0.14	107,121,146,184	0
55	MG	DA	3227	1/1	0.98	0.31	44,44,44,44	0
56	OHX	AA	3355	7/7	0.98	0.15	88,95,127,131	3
56	OHX	AA	3351	7/7	0.98	0.14	60,68,78,99	3

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	3164	1/1	0.98	0.30	45,45,45,45	0
56	OHX	DA	3062	7/7	0.98	0.18	70,95,103,114	1
55	MG	DA	3002	1/1	0.99	0.47	46,46,46,46	0
56	OHX	DA	3249	7/7	0.99	0.13	93,103,118,149	1
55	MG	AA	3175	1/1	0.99	0.24	46,46,46,46	0
56	OHX	AA	3332	7/7	0.99	0.16	40,73,95,99	2
56	OHX	DA	3342	7/7	0.99	0.15	79,85,102,102	2
55	MG	AA	3051	1/1	0.99	0.37	69,69,69,69	0
56	OHX	AA	3329	7/7	0.99	0.15	73,97,104,113	0
56	OHX	AA	3342	7/7	0.99	0.13	65,86,103,114	1
56	OHX	DA	3360	7/7	0.99	0.13	72,81,91,113	1
56	OHX	DA	3374	7/7	0.99	0.09	127,131,139,156	1
56	OHX	DA	3386	7/7	0.99	0.11	108,110,132,139	1
56	OHX	DA	3345	7/7	0.99	0.14	89,96,107,130	0
56	OHX	AE	304	7/7	0.99	0.11	73,87,113,116	2
56	OHX	DA	3134	7/7	0.99	0.13	114,120,126,150	1
56	OHX	DA	3343	7/7	0.99	0.15	93,113,122,129	0
56	OHX	AF	303	7/7	0.99	0.21	46,54,72,103	0
56	OHX	DB	208	7/7	0.99	0.10	120,124,144,144	2
56	OHX	BA	1722	7/7	0.99	0.08	114,116,123,159	0
56	OHX	AA	3407	7/7	0.99	0.16	53,82,90,103	2
56	OHX	AA	3348	7/7	0.99	0.15	75,81,98,100	3
56	OHX	BA	1726	7/7	0.99	0.09	134,139,145,195	0
56	OHX	DA	3338	7/7	0.99	0.17	72,79,93,112	0
55	MG	DA	3003	1/1	0.99	0.29	43,43,43,43	0
56	OHX	AA	3359	7/7	0.99	0.12	91,110,118,137	1
56	OHX	AA	3368	7/7	0.99	0.09	104,115,121,140	1
56	OHX	DA	3335	7/7	0.99	0.17	87,96,112,126	0
55	MG	AA	3008	1/1	0.99	0.41	32,32,32,32	0
56	OHX	DA	3351	7/7	0.99	0.13	87,96,108,109	1
56	OHX	BA	1740	7/7	0.99	0.13	107,110,122,131	1
56	OHX	AA	3335	7/7	0.99	0.24	62,76,78,127	0
56	OHX	AA	3490	7/7	0.99	0.11	85,93,105,125	1
56	OHX	CA	1727	7/7	0.99	0.09	114,118,131,143	0
58	ZN	BQ	101	1/1	0.99	0.07	135,135,135,135	0
55	MG	DA	3019	1/1	0.99	0.24	41,41,41,41	0
56	OHX	DA	3350	7/7	0.99	0.14	90,99,110,132	1
56	OHX	DA	3160	7/7	0.99	0.18	79,114,122,124	0
55	MG	AA	3185	1/1	0.99	0.41	35,35,35,35	0
56	OHX	AA	3415	7/7	0.99	0.08	90,93,100,146	1
56	OHX	DA	3357	7/7	0.99	0.12	100,118,130,150	1
56	OHX	AA	3376	7/7	0.99	0.11	96,107,117,142	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1632	1/1	0.99	0.50	56,56,56,56	0
56	OHX	AA	3363	7/7	0.99	0.13	89,101,119,137	1
55	MG	DA	3013	1/1	0.99	0.42	40,40,40,40	0
56	OHX	AA	3341	7/7	0.99	0.19	77,80,88,124	1
56	OHX	CA	1791	7/7	0.99	0.11	100,118,129,154	1
55	MG	AA	3035	1/1	0.99	0.18	38,38,38,38	0
58	ZN	CQ	101	1/1	0.99	0.12	120,120,120,120	0
55	MG	AA	3121	1/1	0.99	0.35	65,65,65,65	0
56	OHX	DA	3340	7/7	0.99	0.14	86,102,124,126	1
56	OHX	AA	3402	7/7	0.99	0.13	73,86,98,123	1
56	OHX	CA	1723	7/7	0.99	0.20	84,100,111,141	0
56	OHX	BA	1717	7/7	0.99	0.17	81,90,105,119	0
56	OHX	AA	3396	7/7	0.99	0.10	93,107,119,142	1
56	OHX	AA	3327	7/7	0.99	0.21	38,70,106,113	0
56	OHX	AA	3403	7/7	0.99	0.18	59,89,94,139	1
56	OHX	DA	3378	7/7	0.99	0.09	153,156,169,185	0
56	OHX	DA	3347	7/7	0.99	0.12	89,99,108,134	0
56	OHX	DA	3075	7/7	0.99	0.16	89,91,114,123	1
56	OHX	AA	3350	7/7	0.99	0.13	95,103,113,148	1
58	ZN	CG	301	1/1	0.99	0.27	116,116,116,116	0
56	OHX	AA	3336	7/7	0.99	0.20	67,91,105,145	0
56	OHX	CA	1730	7/7	0.99	0.12	132,134,143,167	0
56	OHX	AA	3345	7/7	0.99	0.09	87,112,122,135	0
55	MG	AA	3013	1/1	0.99	0.37	27,27,27,27	0
55	MG	AA	3212	1/1	0.99	0.41	33,33,33,33	0
56	OHX	DA	3380	7/7	0.99	0.09	108,123,139,150	1
56	OHX	CA	1726	7/7	0.99	0.15	89,98,100,124	1
55	MG	AE	301	1/1	0.99	0.35	51,51,51,51	0
55	MG	AA	3192	1/1	0.99	0.38	34,34,34,34	0
56	OHX	AA	3344	7/7	0.99	0.12	86,92,112,118	1
56	OHX	AA	3330	7/7	0.99	0.18	81,85,101,147	0
56	OHX	BA	1718	7/7	0.99	0.21	68,82,103,130	2
56	OHX	CA	1724	7/7	0.99	0.12	88,111,121,131	0
56	OHX	DA	3401	7/7	0.99	0.12	108,115,120,150	1
56	OHX	DA	3353	7/7	0.99	0.14	102,117,129,132	1
56	OHX	AA	3418	7/7	0.99	0.17	96,110,119,135	1
55	MG	AA	3180	1/1	0.99	0.47	42,42,42,42	0
56	OHX	AA	3389	7/7	0.99	0.18	80,93,103,143	0
55	MG	AA	3024	1/1	0.99	0.42	45,45,45,45	0
56	OHX	AA	3331	7/7	0.99	0.16	93,94,108,145	0
56	OHX	BA	1721	7/7	0.99	0.10	109,115,141,157	1
56	OHX	DF	301	7/7	0.99	0.12	53,80,83,83	1

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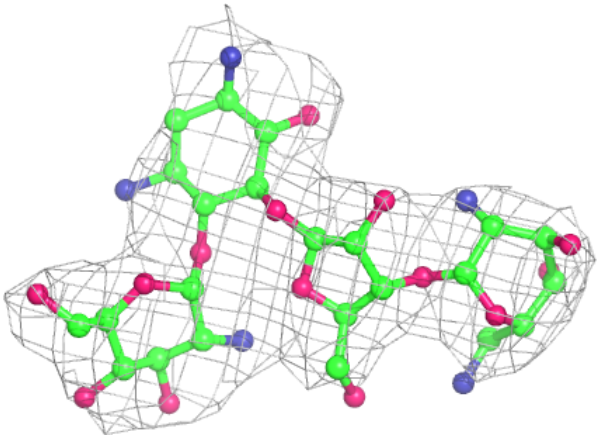
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	OHX	AA	3349	7/7	0.99	0.10	94,104,124,143	0
56	OHX	AA	3347	7/7	0.99	0.15	74,77,98,102	2
56	OHX	DA	3337	7/7	0.99	0.24	74,80,86,97	1
56	OHX	BA	1814	7/7	0.99	0.11	88,100,109,173	0
55	MG	AA	3030	1/1	0.99	0.38	36,36,36,36	0
55	MG	BA	1633	1/1	0.99	0.33	77,77,77,77	0
56	OHX	DA	3371	7/7	0.99	0.11	119,121,131,160	1
56	OHX	AA	3328	7/7	0.99	0.16	67,76,86,89	1
56	OHX	DA	3341	7/7	0.99	0.17	87,105,126,140	0
56	OHX	DA	3212	7/7	0.99	0.15	64,77,91,94	1
56	OHX	AA	3434	7/7	0.99	0.17	98,102,107,132	1
56	OHX	AA	3411	7/7	0.99	0.08	107,117,135,154	0
56	OHX	AA	3393	7/7	0.99	0.15	50,81,89,115	2
56	OHX	CA	1725	7/7	0.99	0.11	108,111,122,123	1
56	OHX	AA	3326	7/7	0.99	0.17	75,76,87,119	0
55	MG	DA	3268	1/1	0.99	0.35	44,44,44,44	0
56	OHX	AA	3444	7/7	0.99	0.14	79,89,101,122	2
56	OHX	BA	1716	7/7	0.99	0.17	73,86,99,116	0
55	MG	AA	3168	1/1	0.99	0.44	36,36,36,36	0
55	MG	DA	3059	1/1	0.99	0.28	40,40,40,40	0
56	OHX	AA	3352	7/7	0.99	0.17	80,86,96,122	1
56	OHX	DA	3344	7/7	0.99	0.16	93,104,111,114	1
56	OHX	AB	207	7/7	0.99	0.10	89,93,105,113	1
56	OHX	AA	3358	7/7	0.99	0.12	79,81,92,113	1
56	OHX	DA	3349	7/7	0.99	0.13	103,105,113,143	0
56	OHX	DA	3352	7/7	0.99	0.10	105,120,129,149	0
56	OHX	BA	1719	7/7	0.99	0.15	85,102,114,124	1
56	OHX	DA	3361	7/7	0.99	0.15	68,94,122,134	3
56	OHX	DA	3339	7/7	0.99	0.14	91,96,120,132	0
55	MG	AA	3042	1/1	0.99	0.30	42,42,42,42	0
56	OHX	AA	3413	7/7	0.99	0.14	94,104,121,143	1
56	OHX	DA	3336	7/7	0.99	0.18	86,95,105,106	0
56	OHX	AA	3384	7/7	0.99	0.11	96,100,107,136	1
56	OHX	AA	3340	7/7	0.99	0.15	84,93,95,126	0
55	MG	AA	3020	1/1	0.99	0.43	42,42,42,42	0
56	OHX	AA	3338	7/7	0.99	0.14	66,87,106,113	2
56	OHX	AA	3333	7/7	0.99	0.14	99,103,122,123	0
56	OHX	DA	3061	7/7	1.00	0.13	81,86,92,106	0
56	OHX	AA	3382	7/7	1.00	0.16	65,73,84,93	0
56	OHX	DA	3346	7/7	1.00	0.11	107,113,126,132	0
56	OHX	AA	3379	7/7	1.00	0.23	20,47,62,138	0

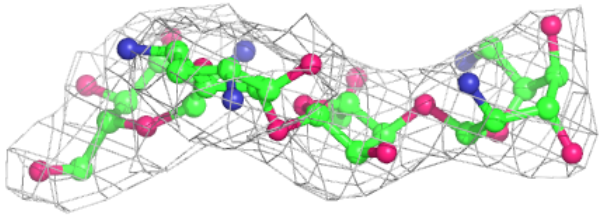
The following is a graphical depiction of the model fit to experimental electron density of all

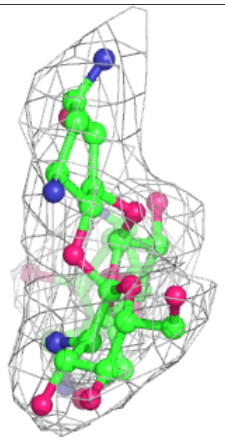
instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around PAR CA 1722:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

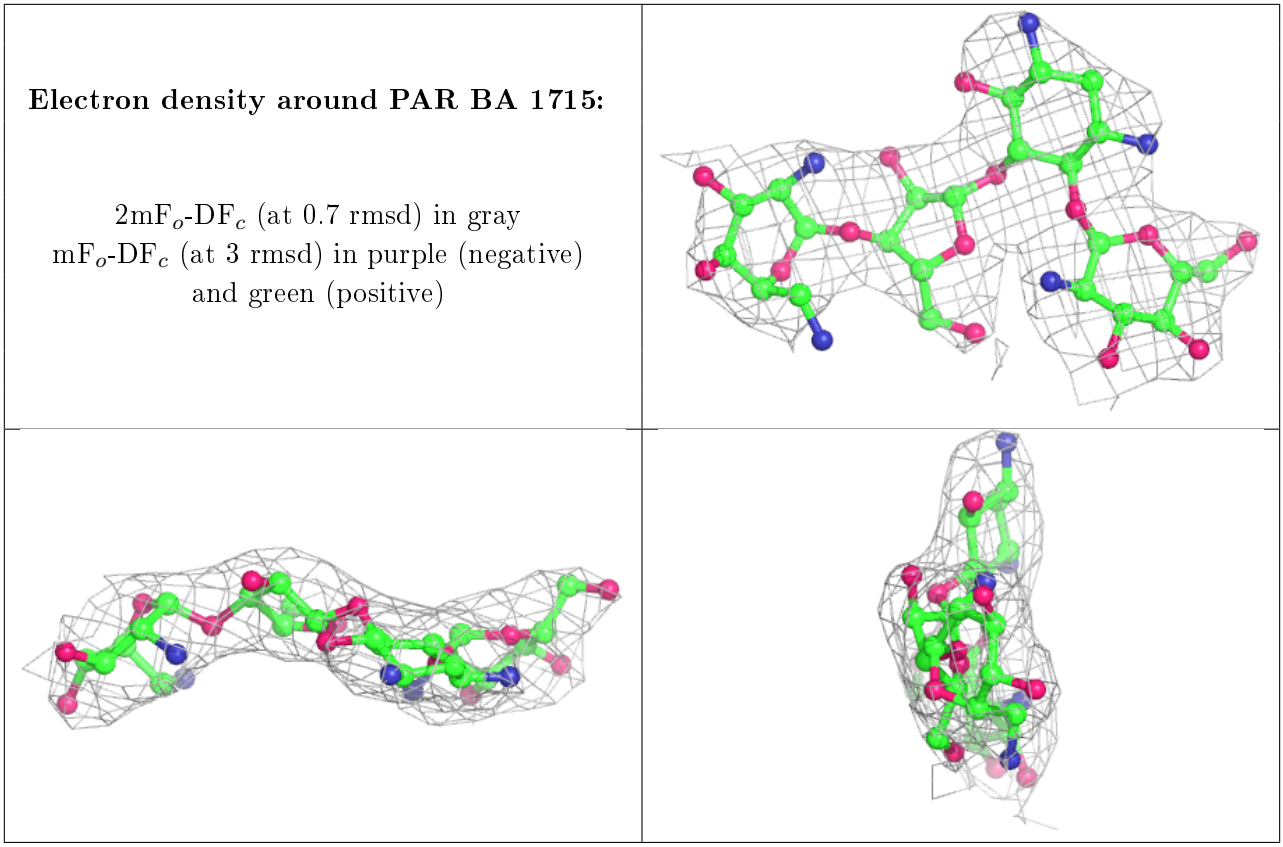






Electron density around PAR BA 1715:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers

There are no such residues in this entry.