Full wwPDB X-ray Structure Validation Report ⓘ

Sep 14, 2023 – 07:12 PM EDT

PDB ID	:	4V97
Title	:	Crystal structure of the bacterial ribosome ram mutation G299A.
Authors	:	Fagan, C.E.; Dunkle, J.A.; Maehigashi, T.; Dunham, C.M.
Deposited on	:	2012-04-06
Resolution	:	3.52 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 types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

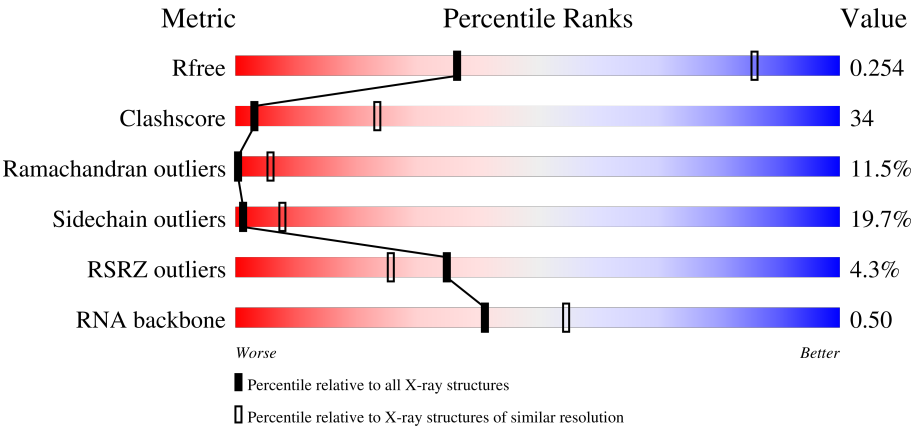
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

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 3.52 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	1161 (3.60-3.44)
Clashscore	141614	1244 (3.60-3.44)
Ramachandran outliers	138981	1206 (3.60-3.44)
Sidechain outliers	138945	1207 (3.60-3.44)
RSRZ outliers	127900	1080 (3.60-3.44)
RNA backbone	3102	1003 (4.02-3.00)

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 of 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	1522	3% 49% 35% 15%
1	CA	1522	4% 49% 33% 16%
2	AB	256	2% 21% 50% 19% 8%
2	CB	256	4% 18% 50% 22% 8%

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Mol	Chain	Length	Quality of chain
3	AC	239	23% 44% 17% 13%
3	CC	239	26% 46% 14% 13%
4	AD	209	27% 53% 17%
4	CD	209	37% 47% 13%
5	AE	162	30% 51% 12% 7%
5	CE	162	25% 45% 22% 7%
6	AF	101	37% 49% 14%
6	CF	101	39% 50% 11%
7	AG	156	36% 46% 17%
7	CG	156	38% 50% 12%
8	AH	138	33% 53% 14%
8	CH	138	30% 50% 17%
9	AI	128	28% 53% 14%
9	CI	128	21% 55% 21%
10	AJ	105	19% 52% 23% 6%
10	CJ	105	19% 50% 21% 6%
11	AK	129	29% 53% 11% 8%
11	CK	129	29% 53% 11% 8%
12	AL	132	23% 47% 24% 5%
12	CL	132	29% 48% 17% 5%
13	AM	126	21% 57% 19%
13	CM	126	25% 52% 21%
14	AN	61	16% 59% 21%
14	CN	61	31% 39% 28%
15	AO	89	38% 48% 12%

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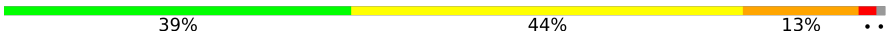
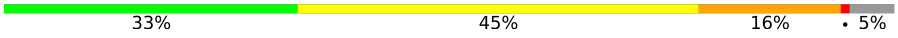
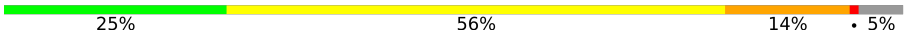
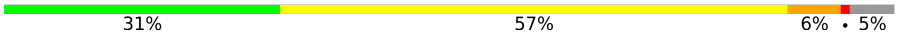
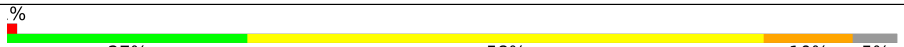
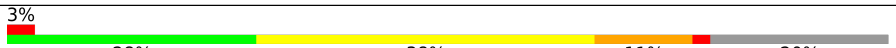
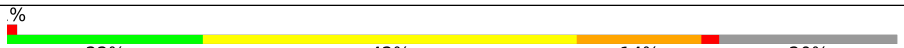
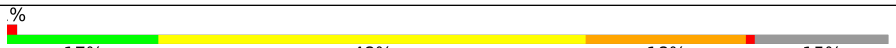
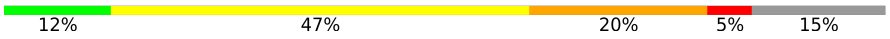
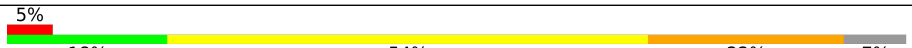
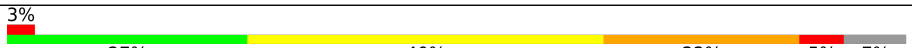
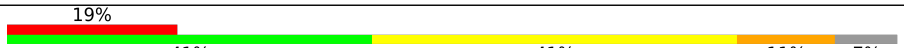
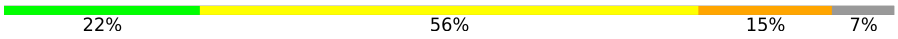
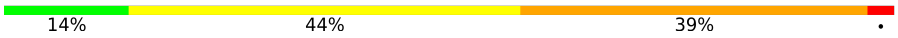
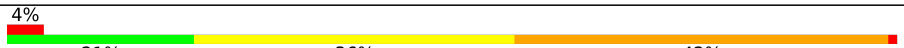
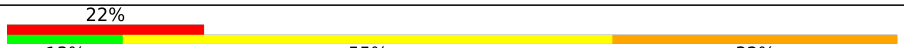
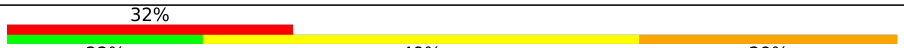
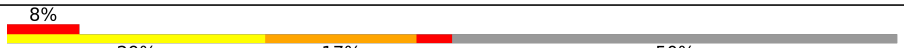
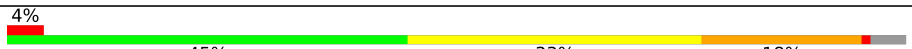
Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	CV	77	
23	AW	76	
23	AY	76	
23	CW	76	
23	CY	76	
24	AX	24	
24	CX	24	
25	BA	2915	
25	DA	2915	
26	BB	122	
26	DB	122	

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Mol	Chain	Length	Quality of chain
27	BC	229	32% 38% 34% 9% 17%
27	DC	229	41% 35% 38% 9% 17%
28	BD	276	27% 49% 19%
28	DD	276	32% 49% 16%
29	BE	206	2% 24% 52% 22%
29	DE	206	2% 28% 50% 19%
30	BF	210	2% 24% 52% 22%
30	DF	210	% 30% 53% 12%
31	BG	182	3% 19% 55% 23%
31	DG	182	2% 23% 58% 16%
32	BH	180	17% 23% 50% 14% 11%
32	DH	180	% 21% 49% 19% 5% 7%
33	BI	148	3% 24% 51% 20%
33	DI	148	% 13% 60% 19% 7%
34	BN	140	% 28% 41% 26%
34	DN	140	29% 51% 19%
35	BO	122	34% 47% 19%
35	DO	122	39% 52% 8%
36	BP	150	3% 15% 49% 32% 5%
36	DP	150	2% 17% 48% 31%
37	BQ	141	2% 35% 47% 15%
37	DQ	141	34% 50% 13%
38	BR	118	30% 40% 28%
38	DR	118	33% 49% 17%
39	BS	112	% 22% 36% 25% 5% 12%

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Mol	Chain	Length	Quality of chain
39	DS	112	2% 21% 57% 18%
40	BT	146	4% 18% 50% 24% 5%
40	DT	146	5% 14% 53% 21% 6% 5%
41	BU	118	% 25% 52% 22%
41	DU	118	% 26% 58% 14%
42	BV	101	27% 42% 28%
42	DV	101	% 25% 54% 19%
43	BW	113	2% 27% 52% 20%
43	DW	113	37% 48% 15%
44	BX	96	40% 38% 19%
44	DX	96	40% 46% 11%
45	BY	110	18% 20% 36% 32% 8%
45	DY	110	3% 20% 41% 27% 5% 7%
46	BZ	206	8% 23% 47% 13% 14%
46	DZ	206	9% 18% 50% 16% 14%
47	B0	85	7% 39% 49% 9%
47	D0	85	8% 39% 52% 7%
48	B1	98	% 28% 52% 14%
48	D1	98	37% 42% 15%
49	B2	72	3% 26% 56% 15%
49	D2	72	26% 56% 14%
50	B3	60	3% 40% 40% 17%
50	D3	60	2% 37% 57% 7%
51	B4	71	23% 15% 56%
51	D4	71	3% 14% 34% 7% 44%

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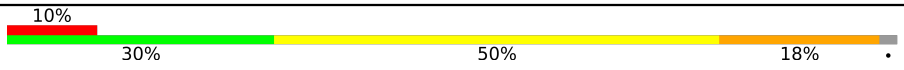
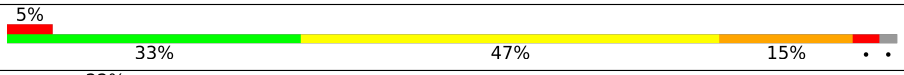
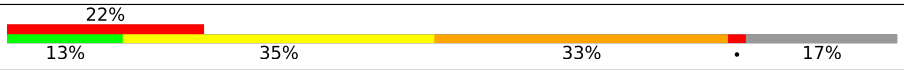
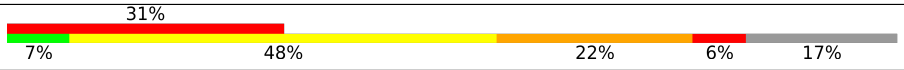
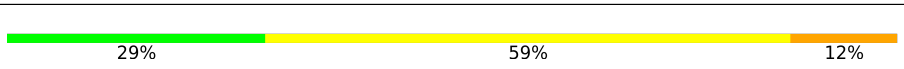
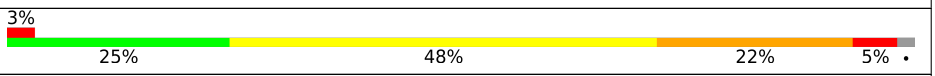
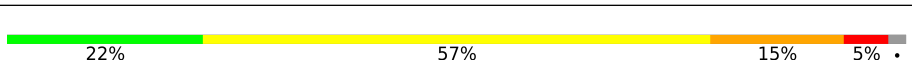
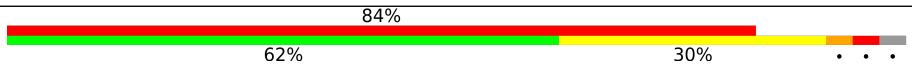
Mol	Chain	Length	Quality of chain
52	B5	60	
52	D5	60	
53	B6	54	
53	D6	54	
54	B7	49	
54	D7	49	
55	B8	65	
55	D8	65	
56	B9	37	
56	D9	37	

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
57	MG	AA	7002	-	-	-	X
57	MG	AA	7027	-	-	-	X
57	MG	AA	7046	-	-	-	X
57	MG	AA	7055	-	-	-	X
57	MG	AA	7069	-	-	-	X
57	MG	AA	7071	-	-	-	X
57	MG	AA	7074	-	-	-	X
57	MG	AA	7076	-	-	-	X
57	MG	AA	7080	-	-	-	X
57	MG	AA	7086	-	-	-	X
57	MG	AA	7097	-	-	-	X
57	MG	BA	3021	-	-	-	X
57	MG	BA	3026	-	-	-	X
57	MG	BA	3028	-	-	-	X
57	MG	BA	3052	-	-	-	X
57	MG	BA	3063	-	-	-	X
57	MG	BA	3074	-	-	-	X
57	MG	BA	3095	-	-	-	X
57	MG	BA	3107	-	-	-	X
57	MG	BA	3110	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3117	-	-	-	X
57	MG	BA	3120	-	-	-	X
57	MG	BA	3126	-	-	-	X
57	MG	BA	3155	-	-	-	X
57	MG	BA	3164	-	-	-	X
57	MG	BA	3173	-	-	-	X
57	MG	BA	3196	-	-	-	X
57	MG	BA	3203	-	-	-	X
57	MG	BA	3216	-	-	-	X
57	MG	BA	3227	-	-	-	X
57	MG	BA	3242	-	-	-	X
57	MG	BA	3245	-	-	-	X
57	MG	BA	3246	-	-	-	X
57	MG	BA	3248	-	-	-	X
57	MG	BA	3262	-	-	-	X
57	MG	BA	3271	-	-	-	X
57	MG	BA	3277	-	-	-	X
57	MG	BA	3278	-	-	-	X
57	MG	BA	3290	-	-	-	X
57	MG	BA	3297	-	-	-	X
57	MG	BA	3306	-	-	-	X
57	MG	BA	3315	-	-	-	X
57	MG	BA	3317	-	-	-	X
57	MG	BA	3318	-	-	-	X
57	MG	BA	3320	-	-	-	X
57	MG	BB	203	-	-	-	X
57	MG	CA	1609	-	-	-	X
57	MG	CA	1610	-	-	-	X
57	MG	CA	1639	-	-	-	X
57	MG	CA	1651	-	-	-	X
57	MG	CA	1674	-	-	-	X
57	MG	CA	1691	-	-	-	X
57	MG	CA	1694	-	-	-	X
57	MG	CA	1704	-	-	-	X
57	MG	CA	1708	-	-	-	X
57	MG	CA	1713	-	-	-	X
57	MG	CA	1714	-	-	-	X
57	MG	CA	1716	-	-	-	X
57	MG	CA	1739	-	-	-	X
57	MG	D1	101	-	-	-	X
57	MG	DA	9329	-	-	-	X
57	MG	DA	9399	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	9429	-	-	-	X
57	MG	DA	9432	-	-	-	X
57	MG	DA	9434	-	-	-	X
57	MG	DA	9440	-	-	-	X
57	MG	DA	9441	-	-	-	X
57	MG	DA	9450	-	-	-	X
57	MG	DA	9458	-	-	-	X
57	MG	DA	9550	-	-	-	X
57	MG	DA	9552	-	-	-	X
57	MG	DA	9559	-	-	-	X
57	MG	DA	9569	-	-	-	X
57	MG	DA	9573	-	-	-	X
57	MG	DA	9595	-	-	-	X
57	MG	DA	9602	-	-	-	X
57	MG	DA	9603	-	-	-	X
57	MG	DA	9615	-	-	-	X
57	MG	DA	9620	-	-	-	X
57	MG	DA	9622	-	-	-	X
57	MG	DA	9643	-	-	-	X
57	MG	DA	9645	-	-	-	X
57	MG	DA	9655	-	-	-	X
57	MG	DA	9665	-	-	-	X
57	MG	DA	9674	-	-	-	X
57	MG	DA	9677	-	-	-	X
57	MG	DA	9685	-	-	-	X
57	MG	DA	9694	-	-	-	X
59	ZN	CN	101	-	-	X	-

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 293977 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 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32328	14390	5992	10443	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32328	14390	5992	10443	1503			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	299	A	G	engineered mutation	GB AP008226.1
CA	299	A	G	engineered mutation	GB AP008226.1

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			
3	CC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	CD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CI	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			
10	CJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			
13	CM	125	Total	C	N	O	S	0	0	0
			997	617	207	171	2			

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	CR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			
19	CS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	CT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	25	Total	C	N	O	0	0	1
			209	128	51	30			
21	CU	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called P-SITE tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	CV	77	Total	C	N	O	P	0	0	0
			1643	732	297	537	77			

- Molecule 23 is a RNA chain called E-SITE TRNA PHE OR A-SITE tRNA Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
23	AY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			
23	CW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
23	CY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			

- Molecule 24 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	12	Total	C	N	O	P	0	0	0
			255	115	46	82	12			
24	CX	10	Total	C	N	O	P	0	0	0
			210	96	39	66	9			

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2810	Total	C	N	O	P	0	0	0
			60527	26937	11326	19455	2809			
25	DA	2824	Total	C	N	O	P	0	0	0
			60827	27071	11381	19552	2823			

- Molecule 26 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
26	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	BC	191	Total	C	N	O	0	0	1
			1142	691	221	230			
27	DC	191	Total	C	N	O	0	0	1
			1142	691	221	230			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			
28	DD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			
29	DE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	DF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L5.

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

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
32	DH	168	Total	C	N	O	S	0	0	0
			1290	820	240	229	1			

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BI	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
33	DI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			
34	DN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

- Molecule 35 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
35	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 36 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
36	DP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
37	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L17.

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

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
39	DS	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			
40	DT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
41	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			
43	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BX	93	Total	C	N	O	0	0	1
			726	471	132	123			
44	DX	93	Total	C	N	O	0	0	1
			726	471	132	123			

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
45	DY	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			
47	D0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			
48	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
49	D2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

- Molecule 50 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
50	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
51	D4	40	Total	C	N	O	S	0	0	1
			298	189	50	54	5			

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
52	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
53	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
54	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
55	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	B9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			
56	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AA	110	Total Mg 110 110	0	0
57	AE	1	Total Mg 1 1	0	0
57	AV	5	Total Mg 5 5	0	0
57	AX	1	Total Mg 1 1	0	0
57	BA	323	Total Mg 323 323	0	0
57	BB	5	Total Mg 5 5	0	0
57	BD	2	Total Mg 2 2	0	0
57	BE	3	Total Mg 3 3	0	0
57	BF	1	Total Mg 1 1	0	0
57	BN	1	Total Mg 1 1	0	0
57	BO	1	Total Mg 1 1	0	0
57	BP	1	Total Mg 1 1	0	0
57	BU	1	Total Mg 1 1	0	0
57	B5	1	Total Mg 1 1	0	0
57	B7	1	Total Mg 1 1	0	0
57	CA	141	Total Mg 141 141	0	0
57	CE	2	Total Mg 2 2	0	0
57	CV	5	Total Mg 5 5	0	0
57	CW	1	Total Mg 1 1	0	0
57	CX	1	Total Mg 1 1	0	0
57	CY	1	Total Mg 1 1	0	0
57	DA	397	Total Mg 397 397	0	0

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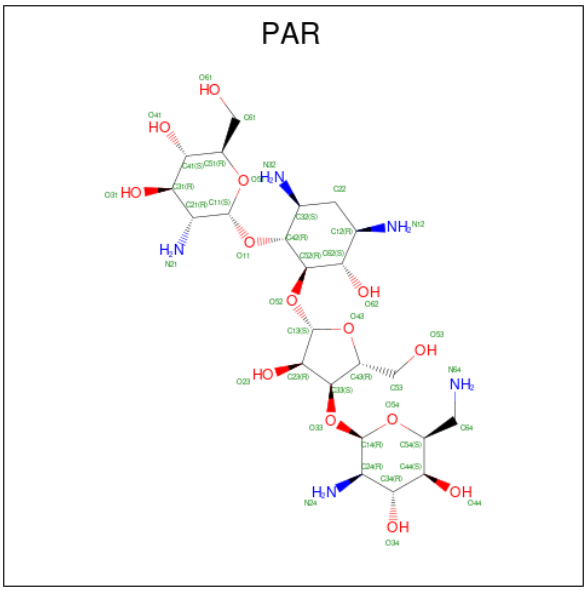
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	DB	5	Total Mg 5 5	0	0
57	DD	3	Total Mg 3 3	0	0
57	DE	2	Total Mg 2 2	0	0
57	DF	1	Total Mg 1 1	0	0
57	DP	3	Total Mg 3 3	0	0
57	DQ	1	Total Mg 1 1	0	0
57	DU	3	Total Mg 3 3	0	0
57	DW	1	Total Mg 1 1	0	0
57	DX	1	Total Mg 1 1	0	0
57	D0	2	Total Mg 2 2	0	0
57	D1	2	Total Mg 2 2	0	0
57	D2	1	Total Mg 1 1	0	0
57	D5	2	Total Mg 2 2	0	0
57	D8	1	Total Mg 1 1	0	0

- Molecule 58 is PAROMOMYCIN (three-letter code: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



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

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

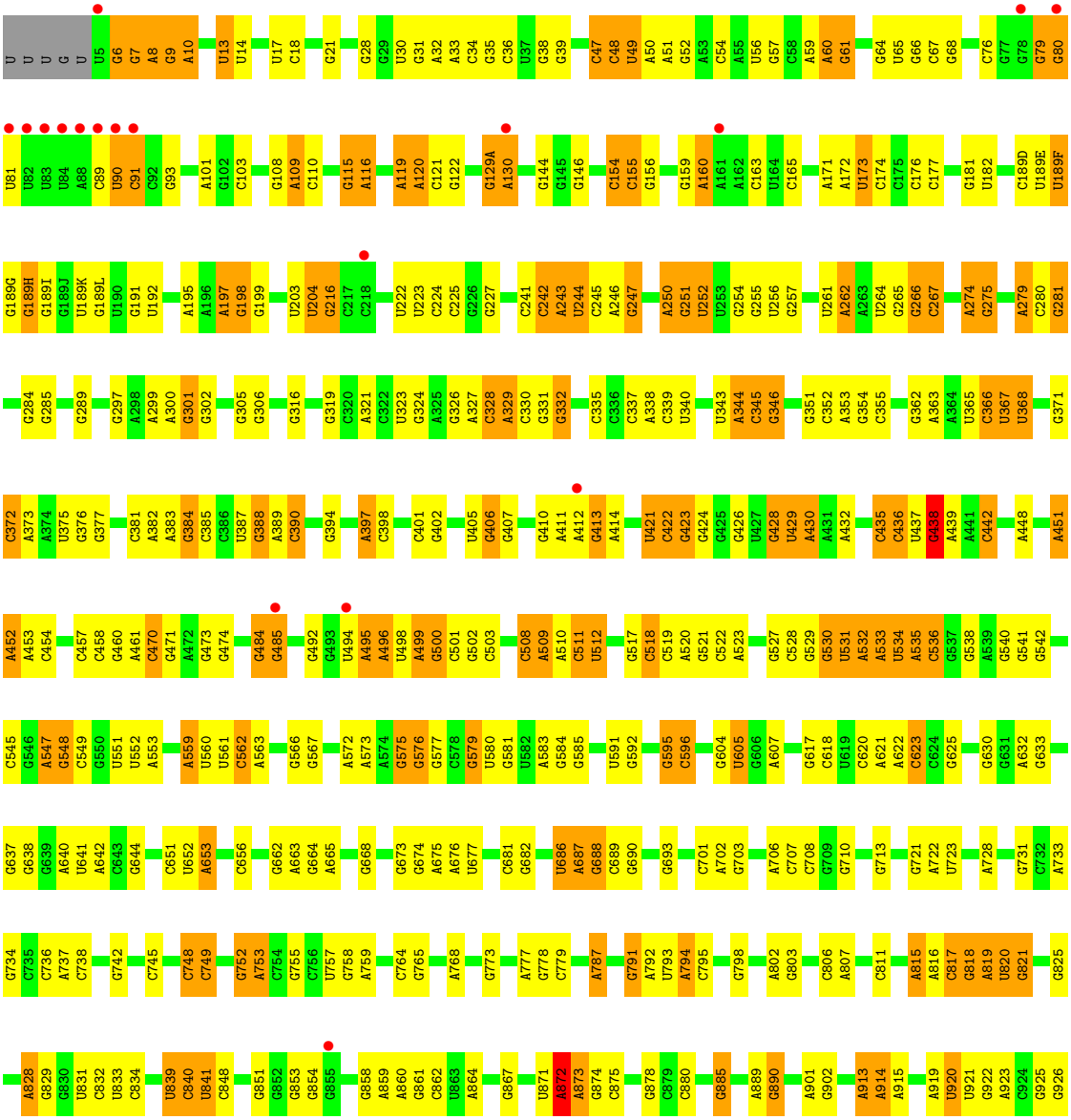
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AD	1	Total Zn 1 1	0	0
59	AN	1	Total Zn 1 1	0	0
59	CD	1	Total Zn 1 1	0	0
59	CN	1	Total Zn 1 1	0	0

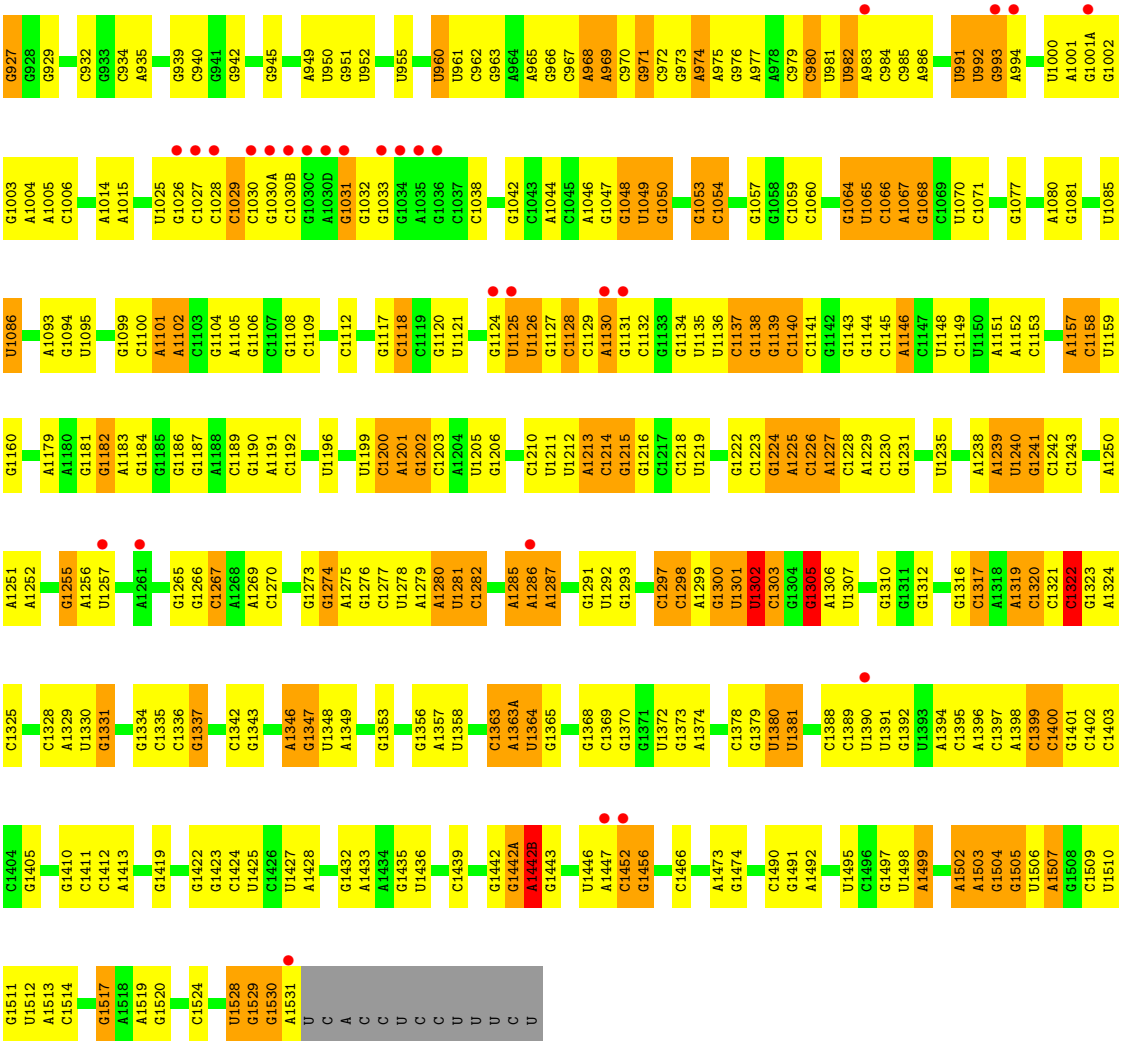
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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: 16S rRNA

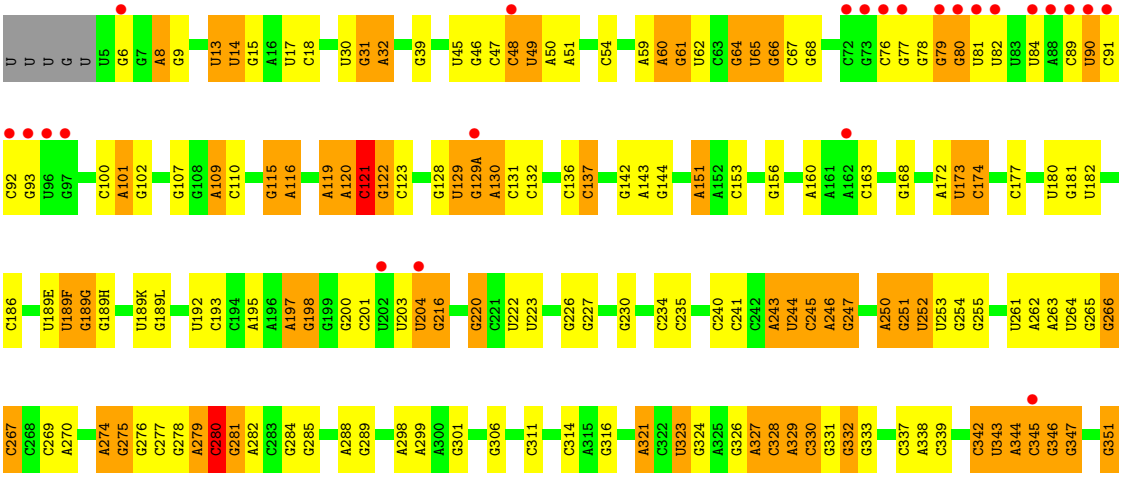
Chain AA: 

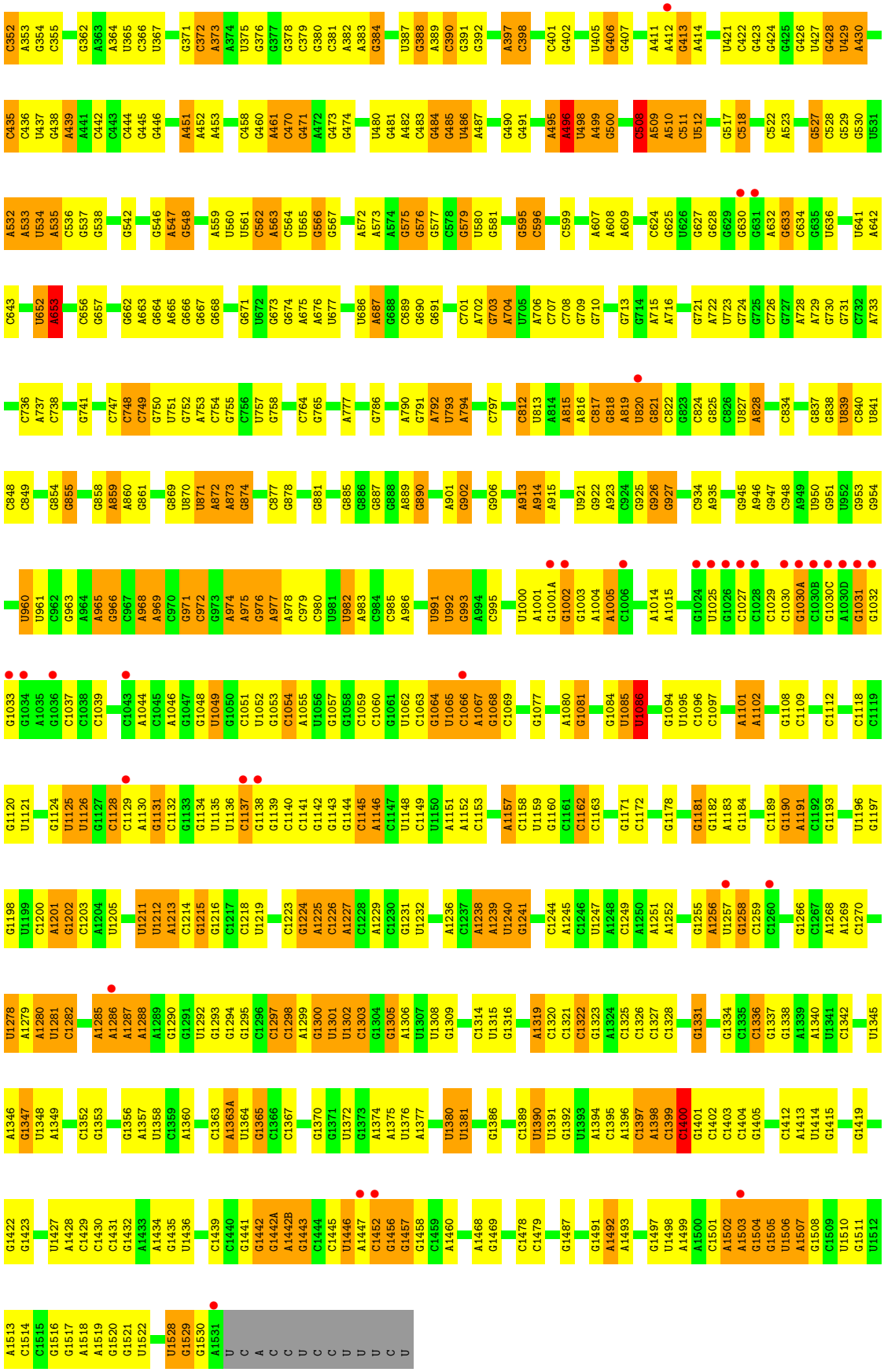




• Molecule 1: 16S rRNA

Chain CA:

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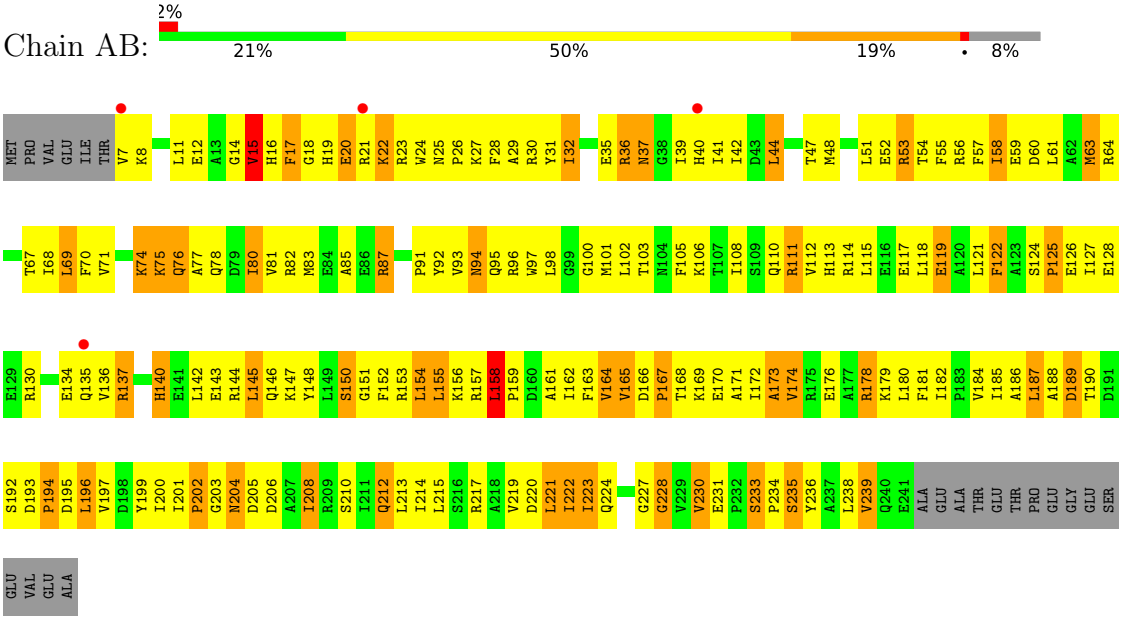
C435 C436 U437 G438 A439 A441 C442 C443 C444 G445 G446 A451 A452 A453 C458 G460 A461 C470 G471 A472 G473 G474 U480 G481 A482 C483 G484 G485 U486 A487 G490 G491 A495 A496 U498 A499 G500 C508 A509 A510 C511 U512 G517 C518 C522 A523 G527 C528 G529 G530 U531
A532 A533 U534 A535 C536 G537 G538 G542 G546 A547 G548 A559 U560 U561 C562 A563 C564 U565 G566 G567 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581 G595 C596 C599 A607 A608 A609 C624 G625 U626 G627 G628 G629 G630 G631 A632 G633 C634 G635 U636 U641 A642
C643 U652 A653 C656 G657 G662 A663 G664 A665 G666 G667 G668 G671 U672 G673 G674 A675 A676 U677 U686 A687 G688 C689 G690 G691 C701 A702 G703 A704 U705 A706 C707 C708 G709 G710 G713 G714 A715 A716 G721 A722 U723 G724 G725 C726 G727 A728 A729 G730 G731 C732 A733
C736 A737 C738 G741 C747 C748 C749 G750 U751 G752 A753 C754 G755 C756 U757 G758 C764 G765 A777 G786 A790 G791 A792 U793 A794 C797 C812 U813 A814 A815 A816 C817 G818 A819 U820 G821 C822 G823 C824 G825 C826 U827 A828 C834 G837 G838 U839 C840 U841
C848 C849 G854 G855 G858 A859 A860 G861 C869 U870 U871 A872 A873 G874 C877 G878 G881 G885 G886 G887 G888 A889 G890 A901 G902 G906 A913 A914 A915 U921 G922 A923 C924 G925 G926 G927 C934 A935 G945 A946 G947 C948 A949 U950 G951 U952 G953 G954
U960 U961 C962 G963 A964 A965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 U991 U992 G993 A994 C995 U1000 A1001 G1001A G1002 G1003 A1004 A1005 C1006 A1014 A1015 G1024 U1025 G1026 C1027 C1028 C1029 C1030 G1030A C1030B G1030C A1030D G1031 G1032
G1033 G1034 A1035 G1036 C1037 C1038 C1039 C1043 A1044 C1045 A1046 G1047 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1069 G1077 A1080 G1081 G1084 U1085 U1086 G1094 U1095 C1096 C1097 A1101 A1102 G1108 C1109 C1112 C1118 C1119
G1120 U1121 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 C1153 A1157 C1158 U1159 G1160 C1161 C1162 C1163 G1171 C1172 G1178 G1181 G1182 A1183 G1184 C1189 G1190 A1191 C1192 G1193 U1196 G1197
G1198 U1199 C1200 A1201 G1202 C1203 A1204 U1205 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 C1223 G1224 A1225 C1226 A1227 C1228 A1229 C1230 G1231 U1232 A1236 C1237 A1238 A1239 U1240 G1241 C1244 A1245 C1246 U1247 A1248 C1249 A1250 A1251 A1252 G1255 A1256 U1257 G1258 C1259 C1260 G1266 C1267 A1268 A1269 C1270
U1278 A1279 A1280 U1281 C1282 A1285 A1286 A1287 A1288 A1289 G1290 G1291 U1292 G1293 G1294 G1295 C1296 C1297 C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 A1306 U1307 U1308 G1309 C1314 U1315 G1316 A1319 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327 C1328 G1331 G1334 C1335 C1336 G1337 G1338 A1339 A1340 U1341 C1342 U1345
A1346 G1347 U1348 A1349 C1352 G1353 G1356 A1357 U1358 C1359 A1360 C1363 A1363A U1364 G1365 C1366 C1367 G1370 G1371 U1372 G1373 A1374 A1375 U1376 A1377 U1380 U1381 G1386 C1389 U1390 U1391 G1392 U1393 A1394 C1395 A1396 C1397 A1398 C1399 C1400 G1401 C1402 C1403 C1404 G1405 C1412 A1413 U1414 G1415 G1419
G1422 G1423 U1427 A1428 C1429 C1430 C1431 G1432 A1433 A1434 G1435 U1436 C1439 C1440 G1441 G1442 G1442A A1442B G1443 C1444 C1445 U1446 A1447 C1452 G1456 G1457 G1458 C1459 A1460 A1468 G1469 C1478 C1479 G1487 G1491 A1492 A1493 G1497 U1498 A1499 A1500 C1501 A1502 A1503 G1504 G1505 U1506 A1507 G1508 C1509 U1510 G1511 U1512
A1513 C1514 C1515 G1516 G1517 A1518 A1519 G1520 G1521 U1522 U1528 G1529 G1530 A1531 U C A C C U C C U U U C U

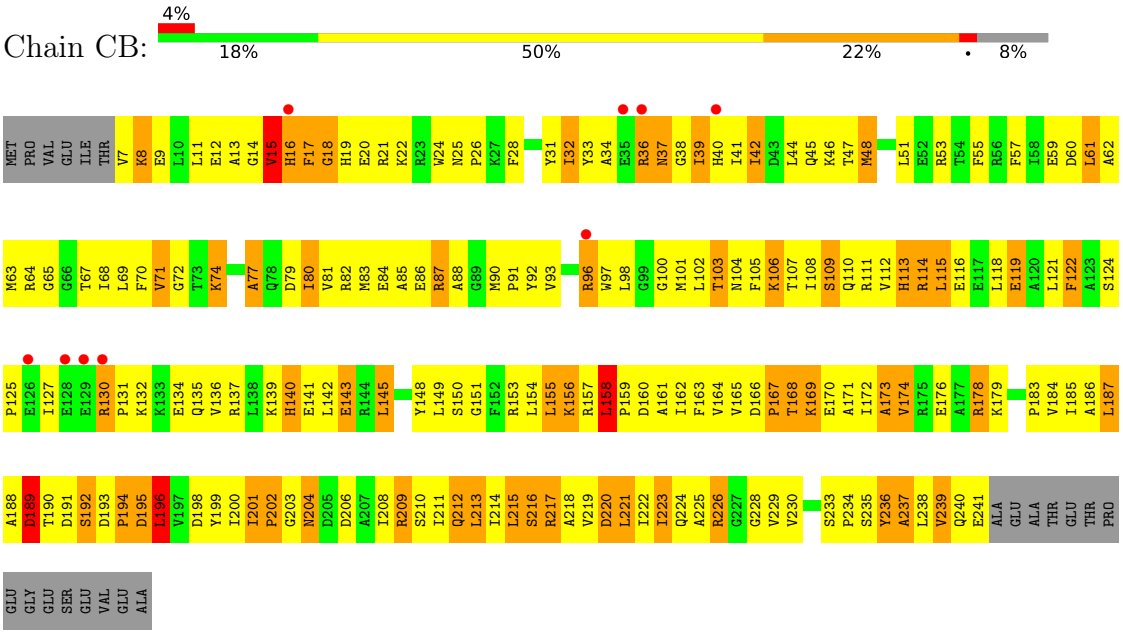
• Molecule 2: 30S ribosomal protein S2

Chain AB:



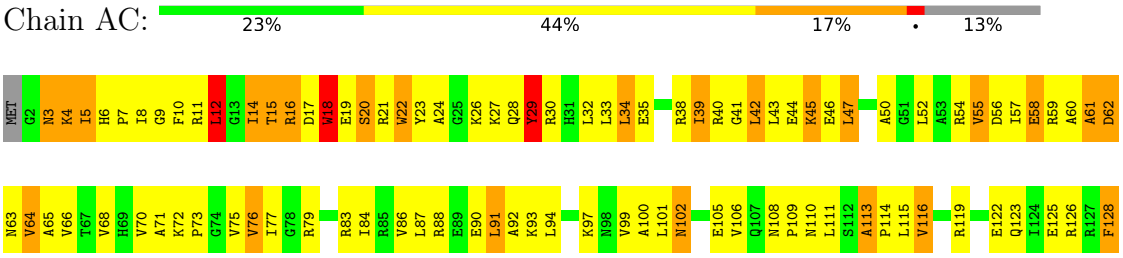
• Molecule 2: 30S ribosomal protein S2

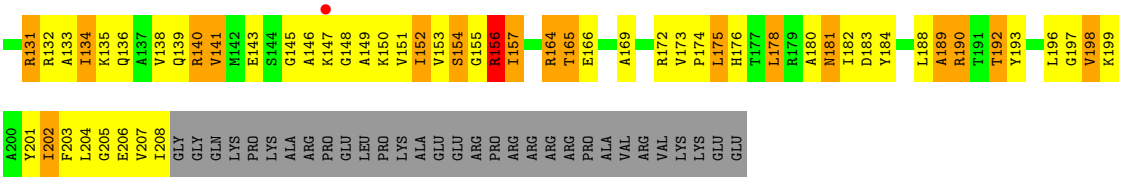
Chain CB:



• Molecule 3: 30S ribosomal protein S3

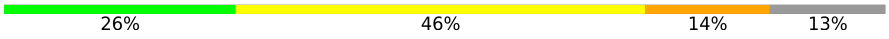
Chain AC:

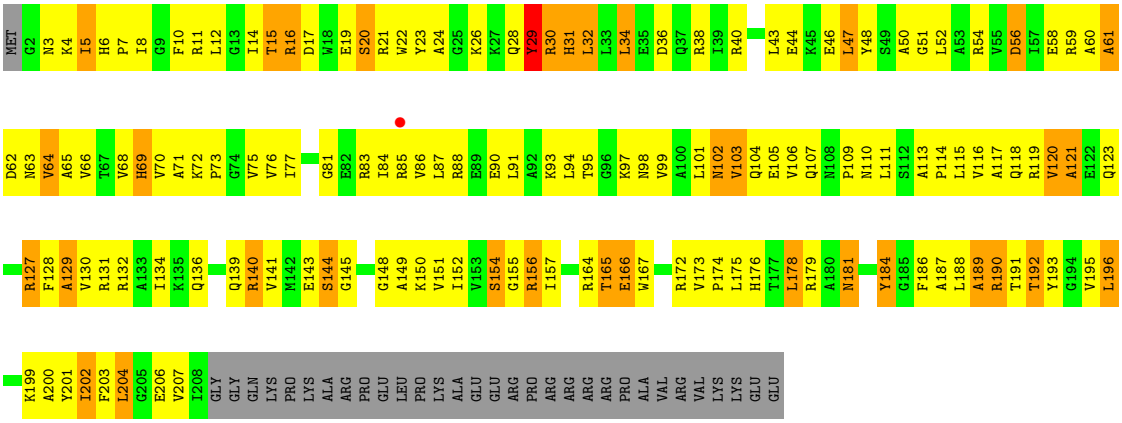




• Molecule 3: 30S ribosomal protein S3

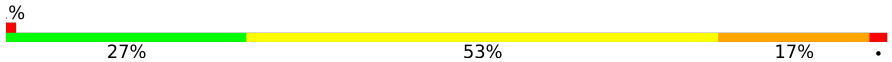
Chain CC:

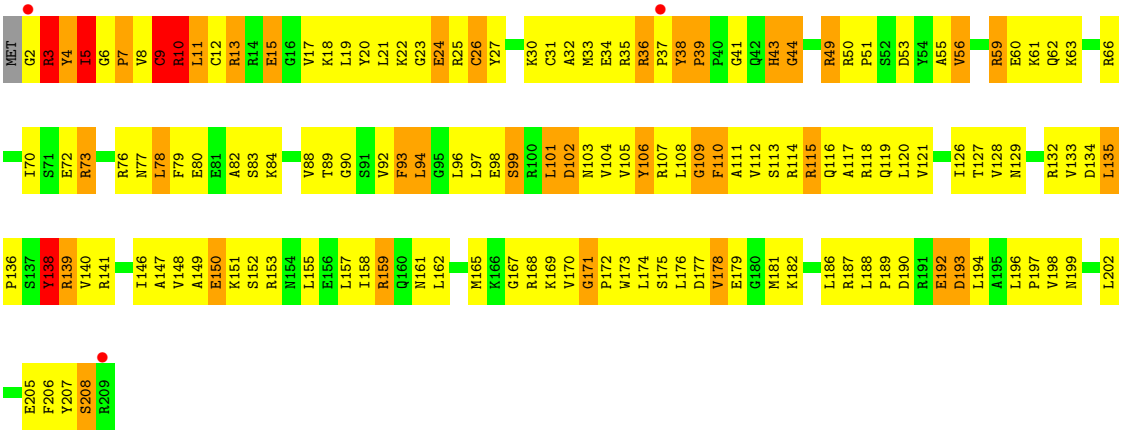




• Molecule 4: 30S ribosomal protein S4

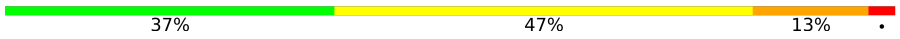
Chain AD:

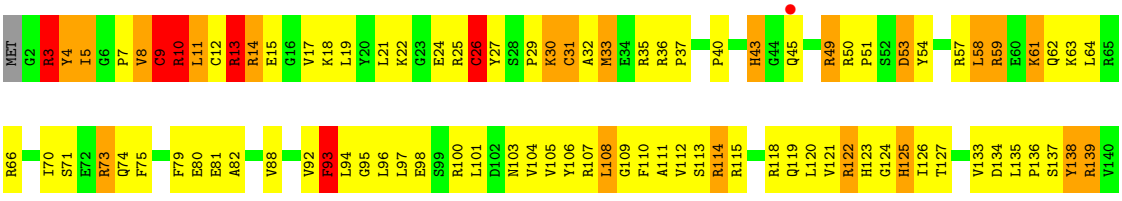


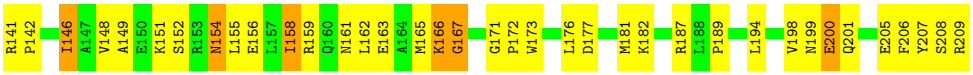


• Molecule 4: 30S ribosomal protein S4

Chain CD:

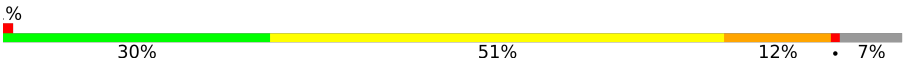


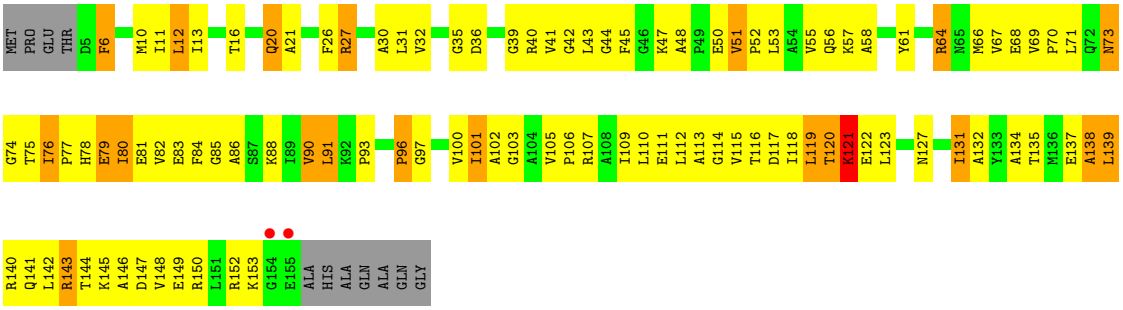




• Molecule 5: 30S ribosomal protein S5

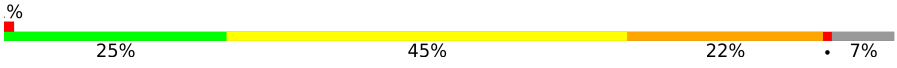
Chain AE:

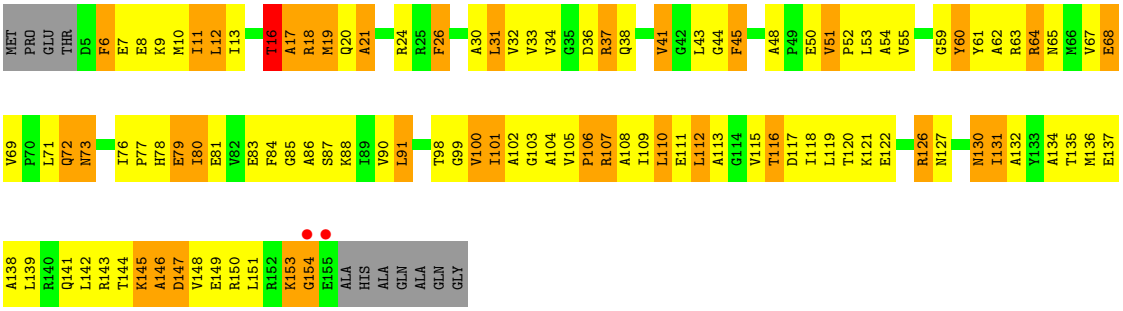




• Molecule 5: 30S ribosomal protein S5

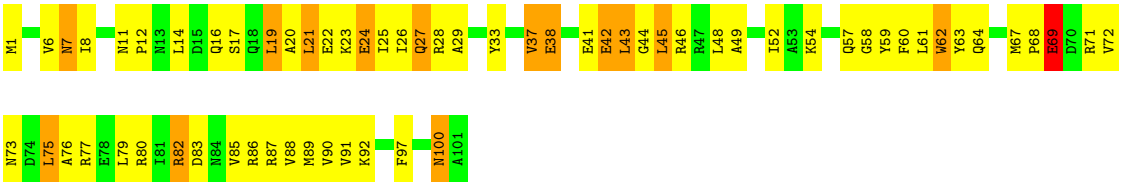
Chain CE:





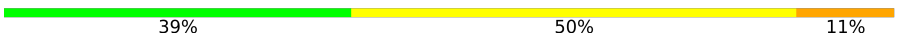
• Molecule 6: 30S ribosomal protein S6

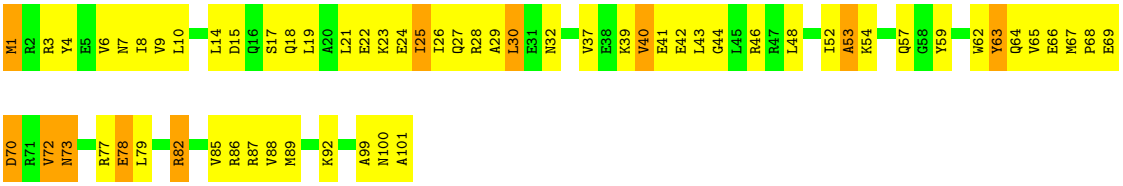
Chain AF:



• Molecule 6: 30S ribosomal protein S6

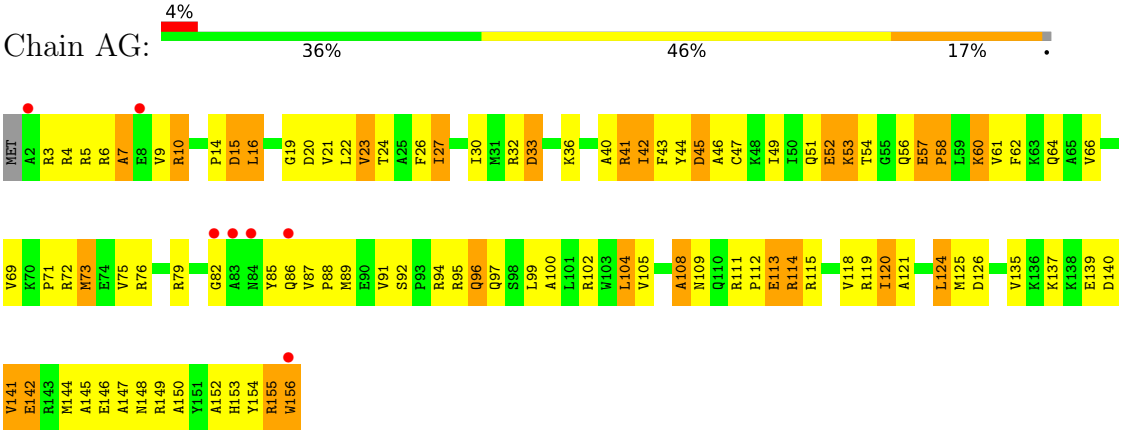
Chain CF:





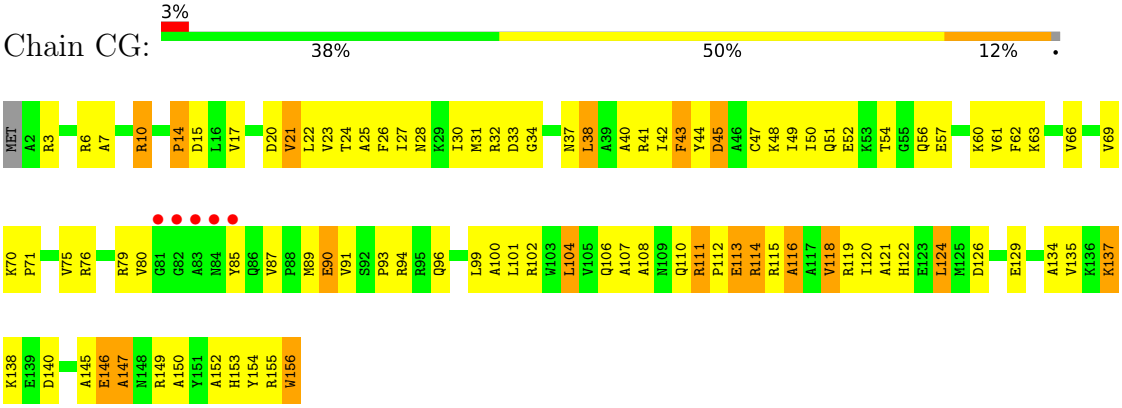
• Molecule 7: 30S ribosomal protein S7

Chain AG:



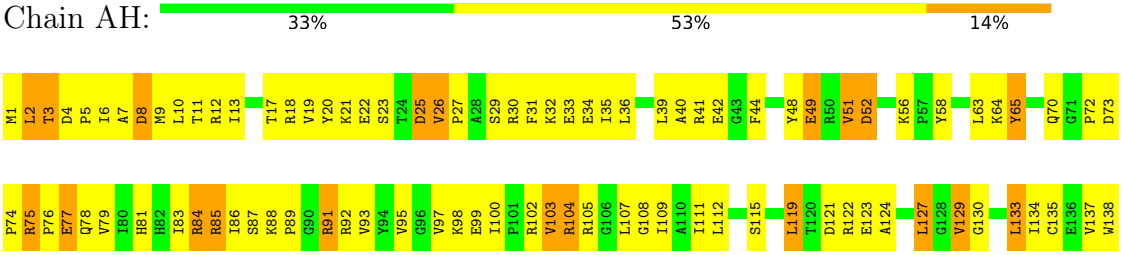
• Molecule 7: 30S ribosomal protein S7

Chain CG:



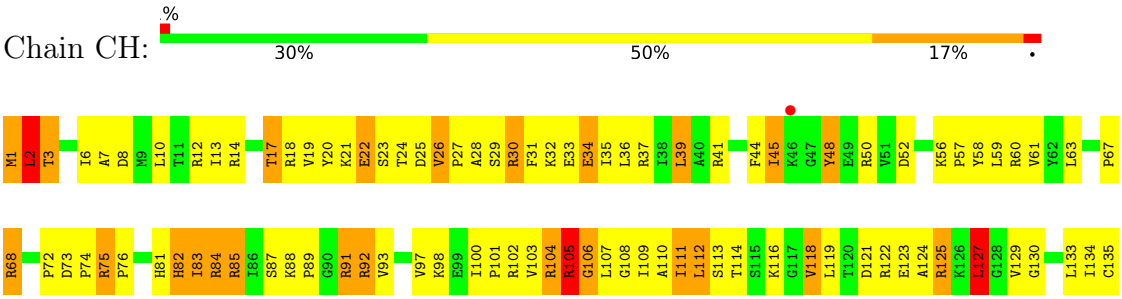
• Molecule 8: 30S ribosomal protein S8

Chain AH:



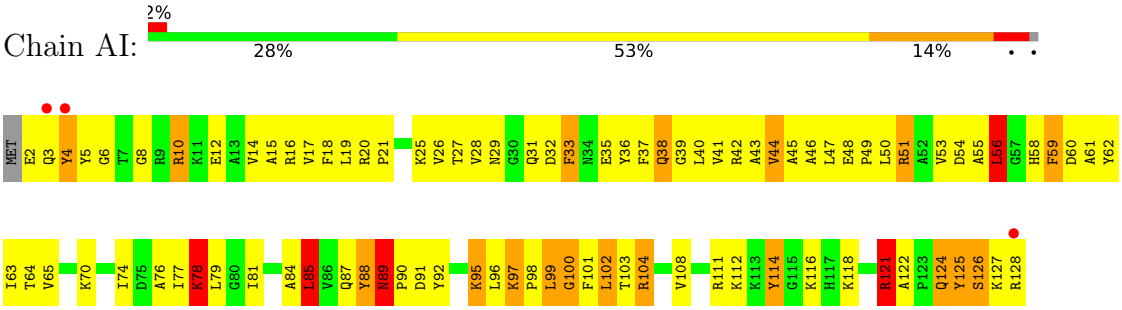
• Molecule 8: 30S ribosomal protein S8

Chain CH:



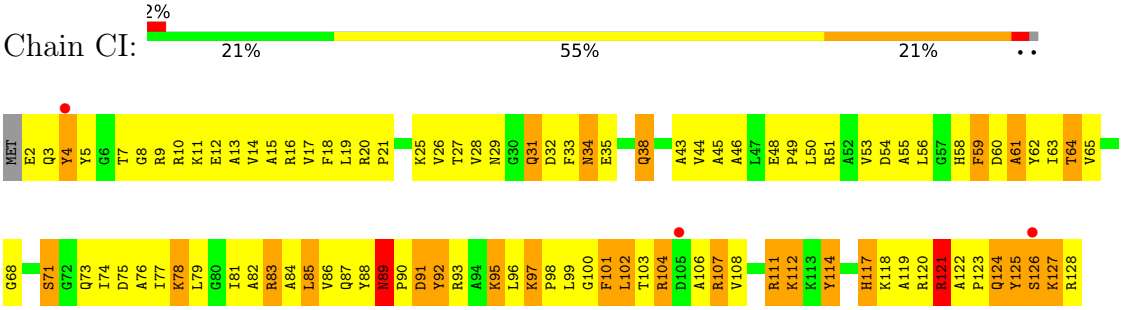
• Molecule 9: 30S ribosomal protein S9

Chain AI:



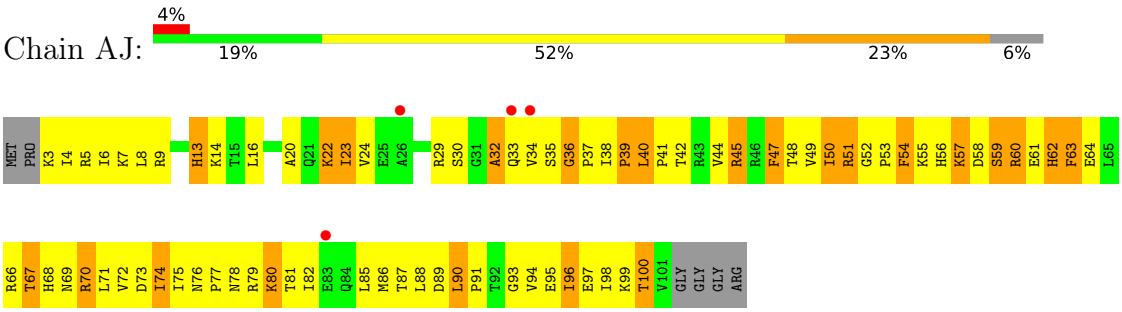
• Molecule 9: 30S ribosomal protein S9

Chain CI:



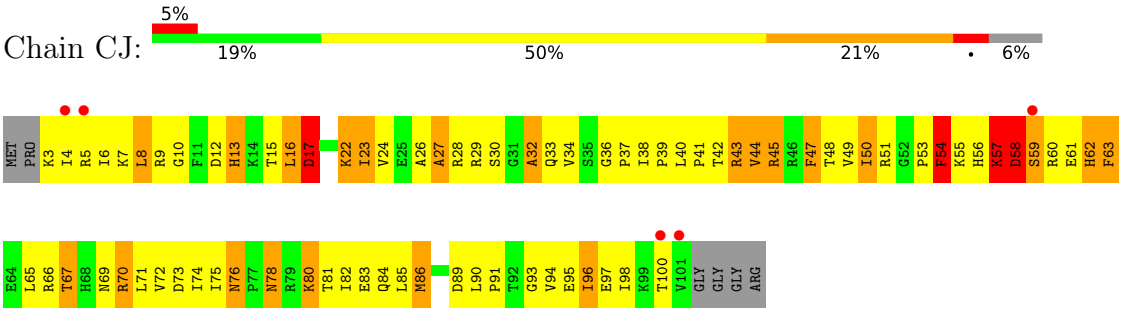
• Molecule 10: 30S ribosomal protein S10

Chain AJ:



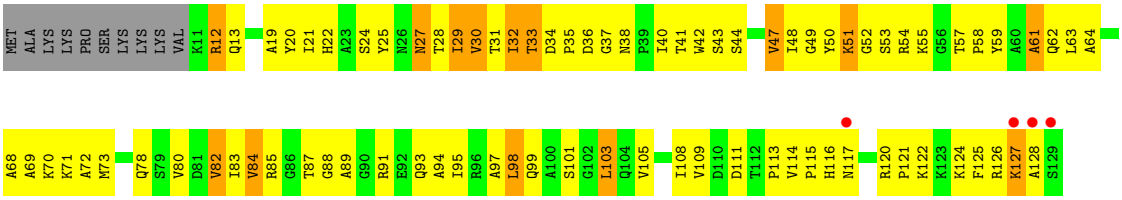
• Molecule 10: 30S ribosomal protein S10

Chain CJ:



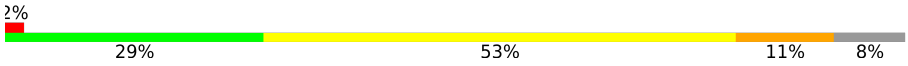
• Molecule 11: 30S ribosomal protein S11

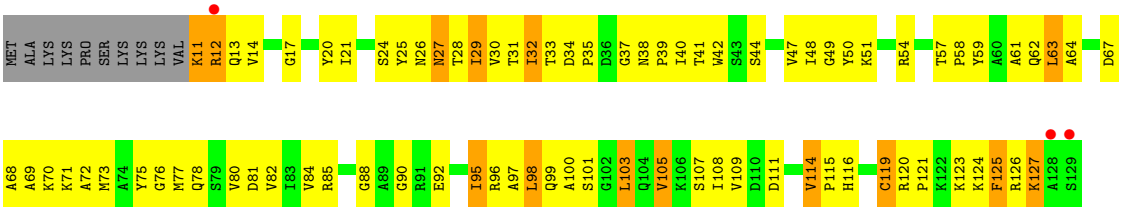
Chain AK:



• Molecule 11: 30S ribosomal protein S11

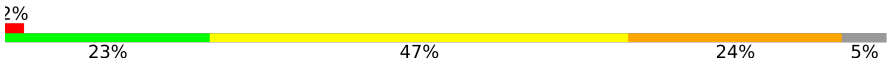
Chain CK:

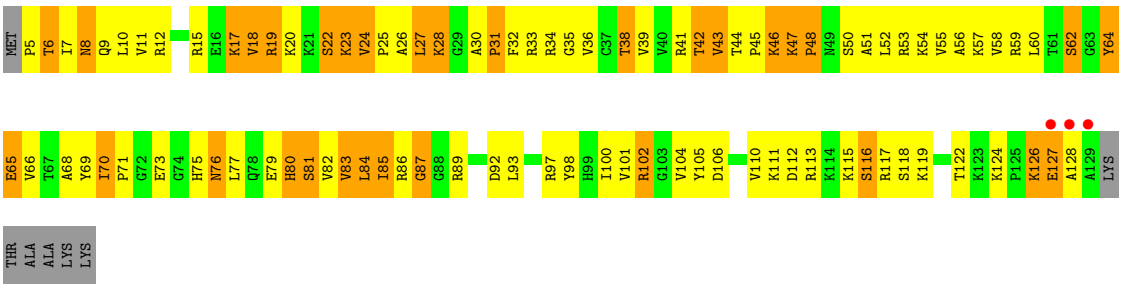




• Molecule 12: 30S ribosomal protein S12

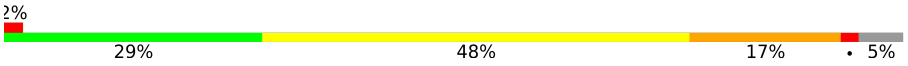
Chain AL:





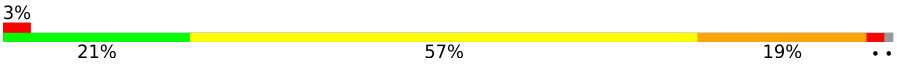
• Molecule 12: 30S ribosomal protein S12

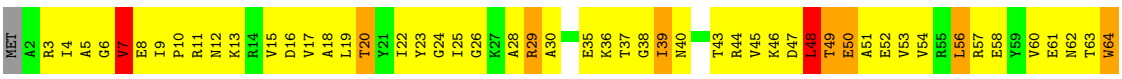
Chain CL:

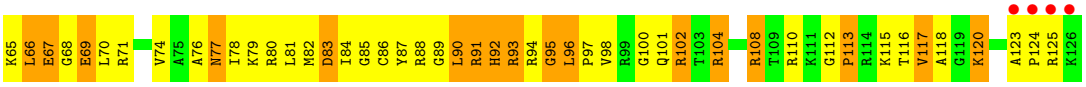


• Molecule 13: 30S ribosomal protein S13

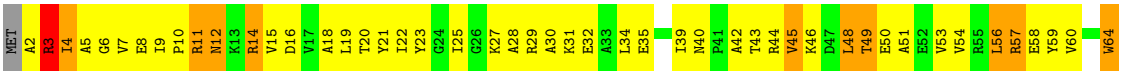
Chain AM:



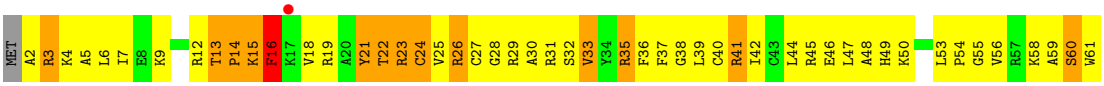




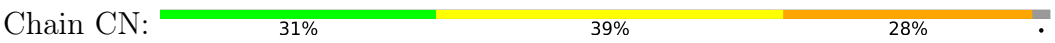
• Molecule 13: 30S ribosomal protein S13

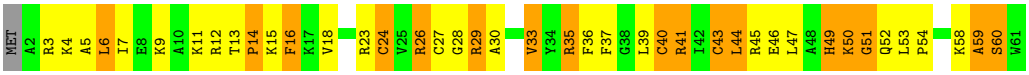


• Molecule 14: 30S ribosomal protein S14 type Z

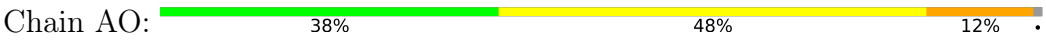


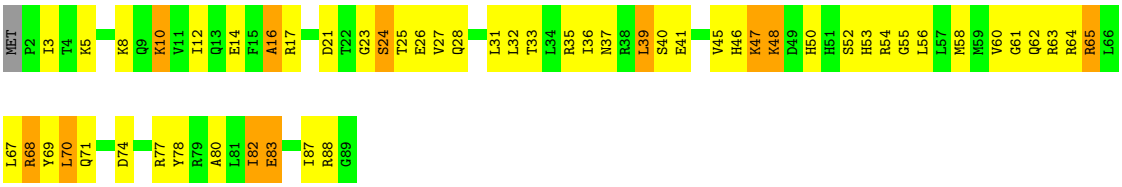
• Molecule 14: 30S ribosomal protein S14 type Z



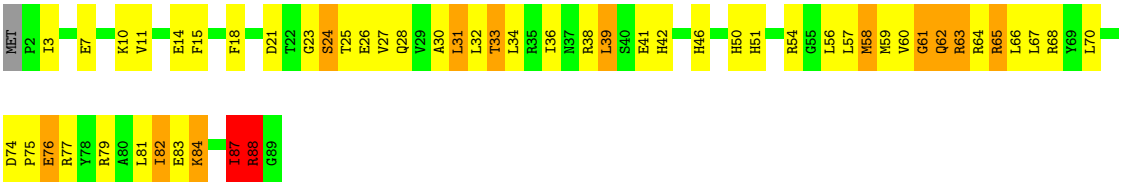


• Molecule 15: 30S ribosomal protein S15



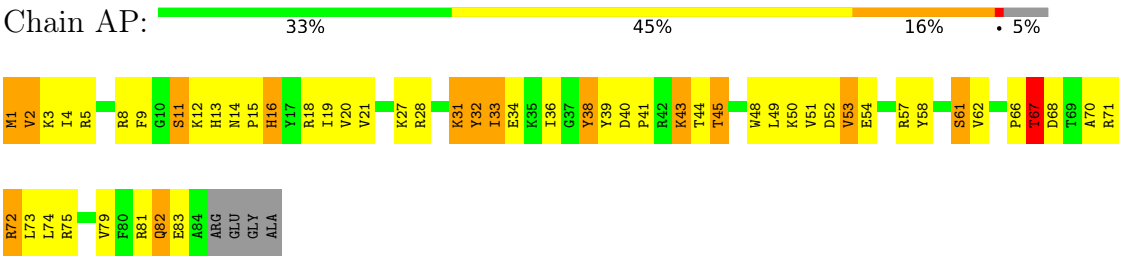


• Molecule 15: 30S ribosomal protein S15



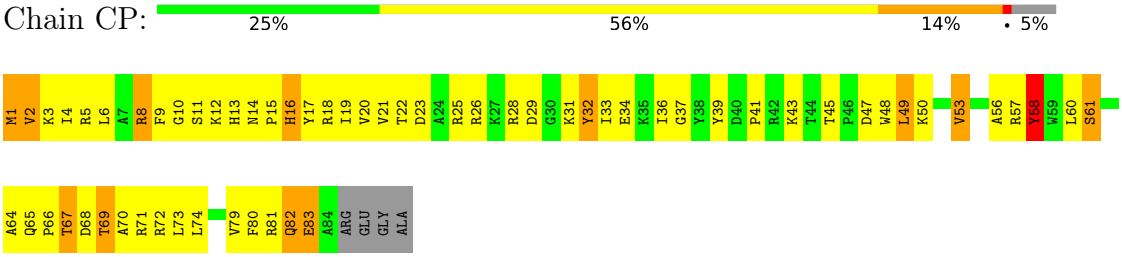
• Molecule 16: 30S ribosomal protein S16

Chain AP:



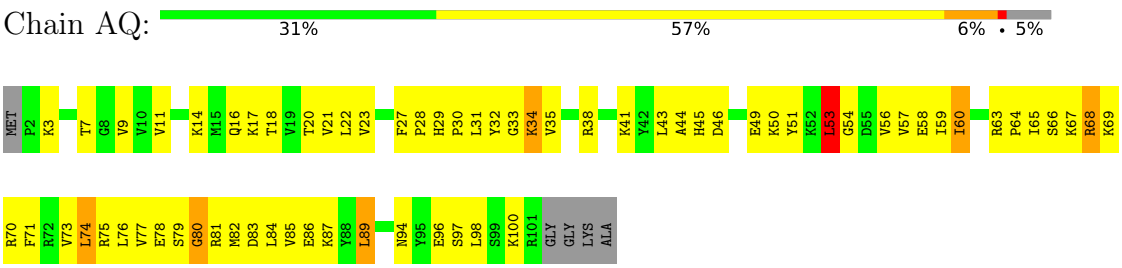
• Molecule 16: 30S ribosomal protein S16

Chain CP:



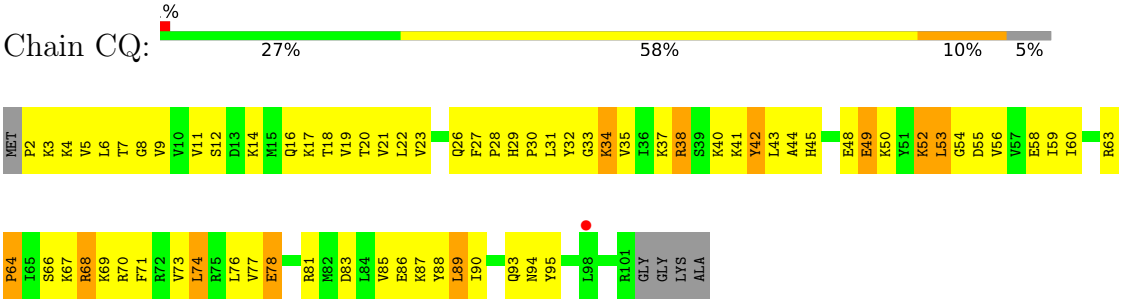
• Molecule 17: 30S ribosomal protein S17

Chain AQ:



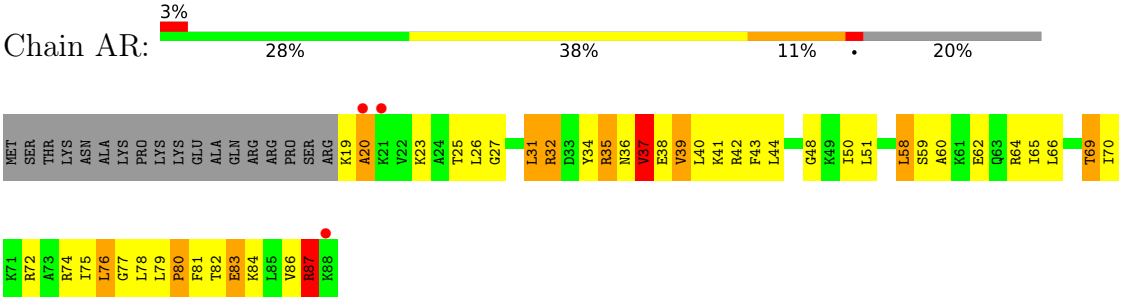
• Molecule 17: 30S ribosomal protein S17

Chain CQ:



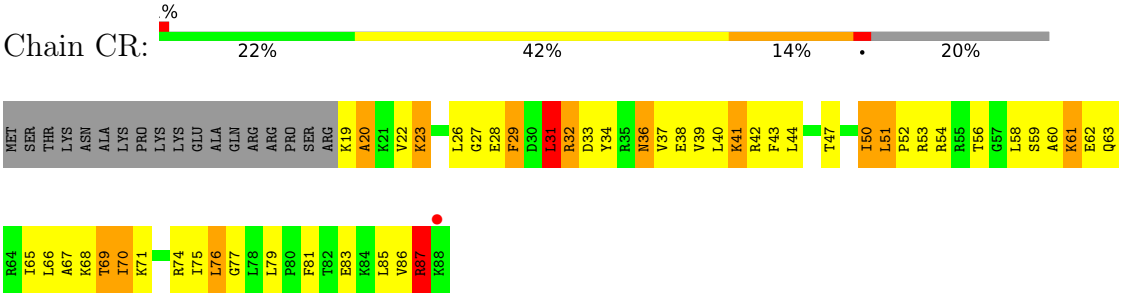
• Molecule 18: 30S ribosomal protein S18

Chain AR:



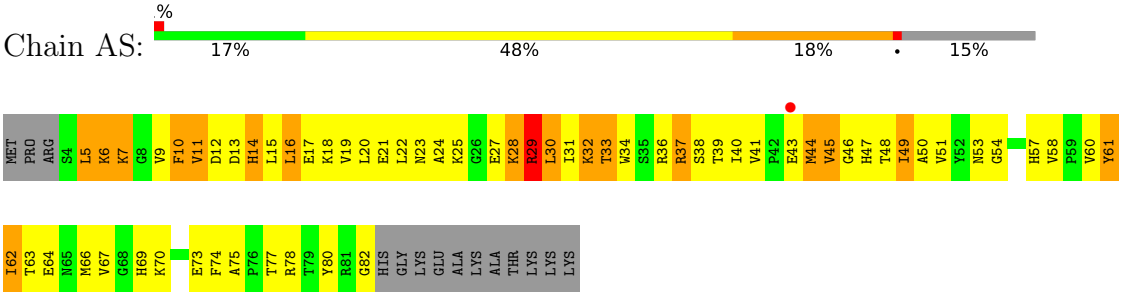
• Molecule 18: 30S ribosomal protein S18

Chain CR:



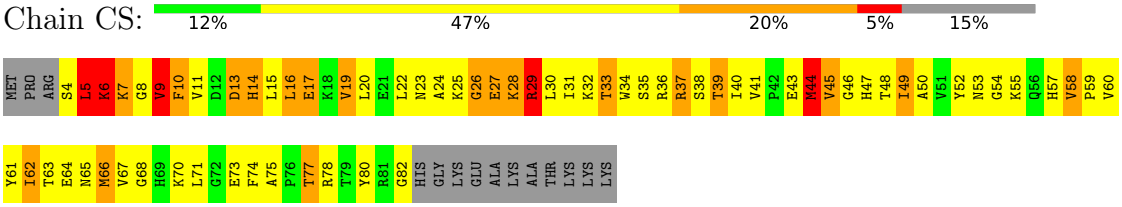
• Molecule 19: 30S ribosomal protein S19

Chain AS:



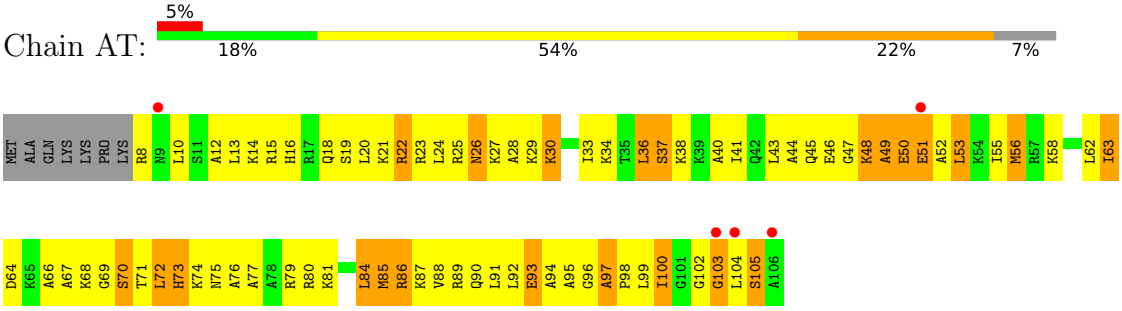
• Molecule 19: 30S ribosomal protein S19

Chain CS:



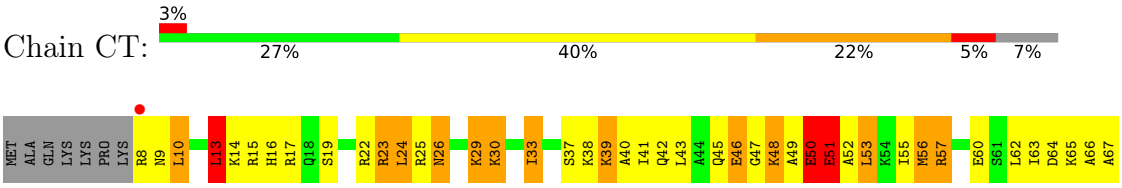
• Molecule 20: 30S ribosomal protein S20

Chain AT:

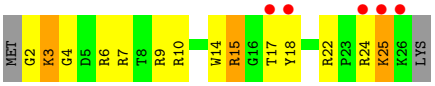


• Molecule 20: 30S ribosomal protein S20

Chain CT:

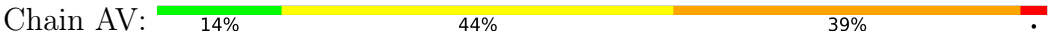


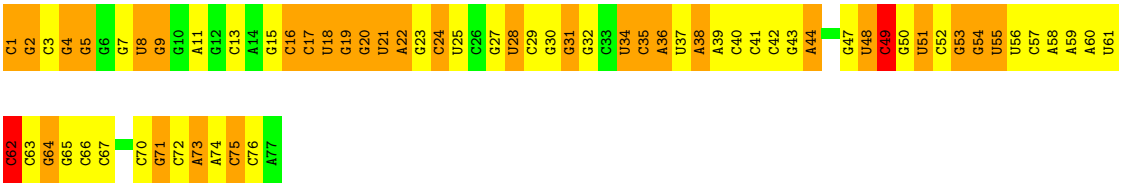
• Molecule 21: 30S ribosomal protein Thx



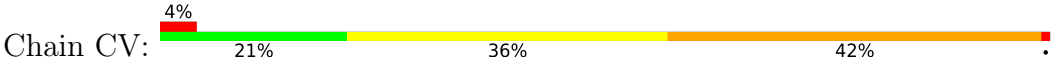
• Molecule 21: 30S ribosomal protein Thx

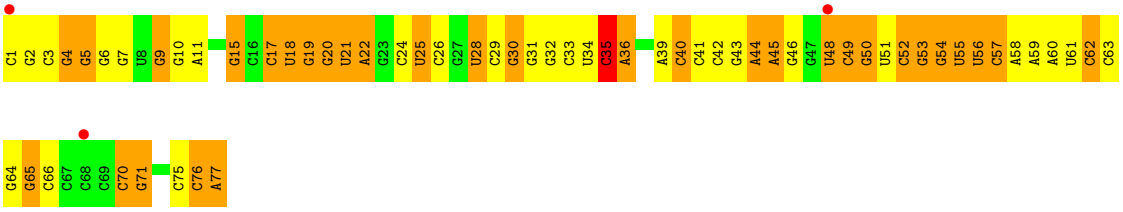
• Molecule 22: P-SITE tRNA fMet



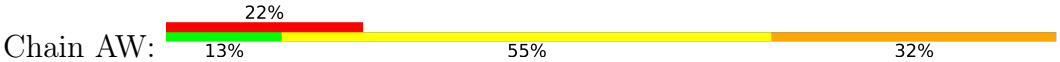


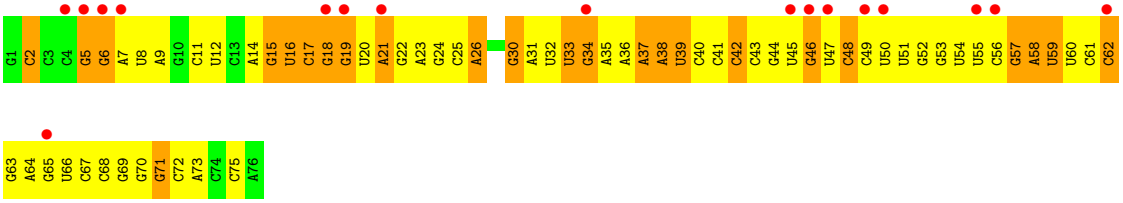
• Molecule 22: P-SITE tRNA fMet





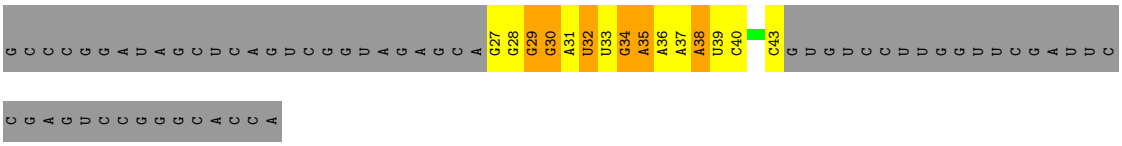
• Molecule 23: E-SITE TRNA PHE OR A-SITE tRNA Phe





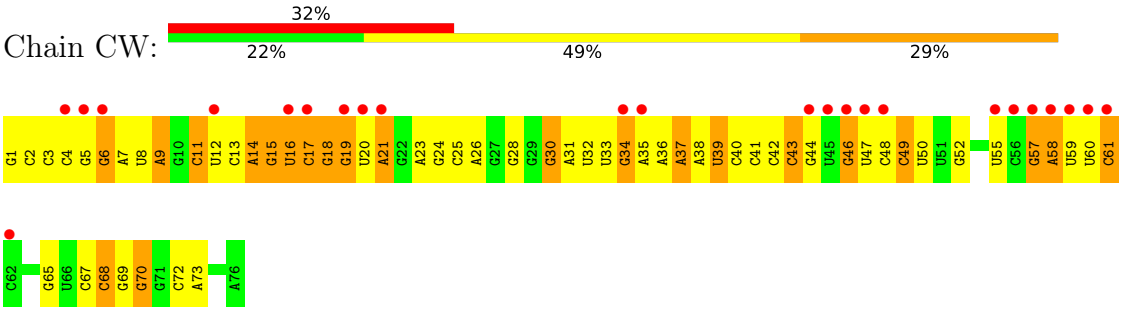
• Molecule 23: E-SITE TRNA PHE OR A-SITE tRNA Phe

Chain AY:



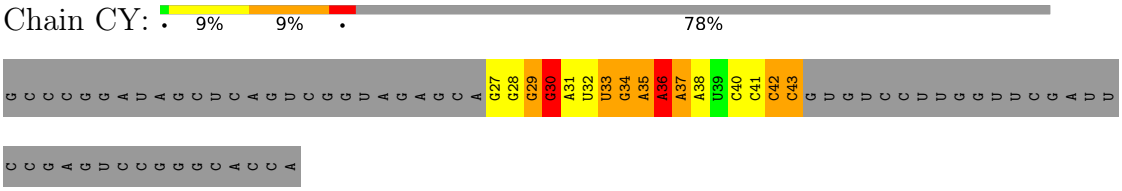
• Molecule 23: E-SITE TRNA PHE OR A-SITE tRNA Phe

Chain CW:



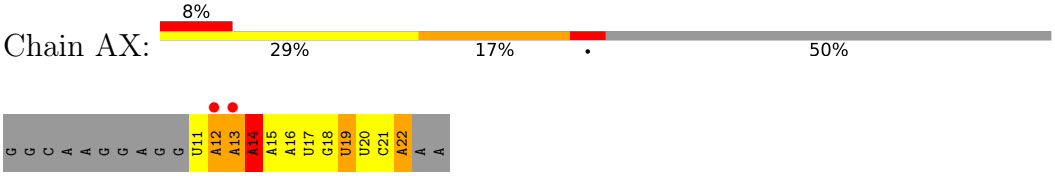
• Molecule 23: E-SITE TRNA PHE OR A-SITE tRNA Phe

Chain CY:



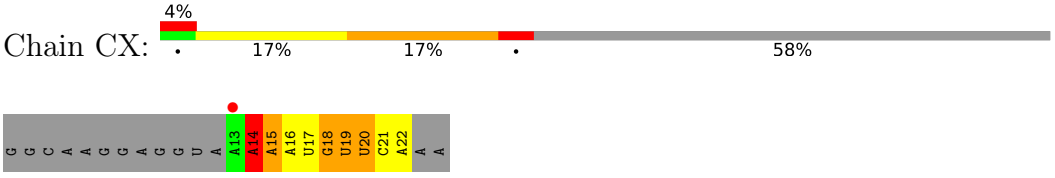
• Molecule 24: mRNA

Chain AX:



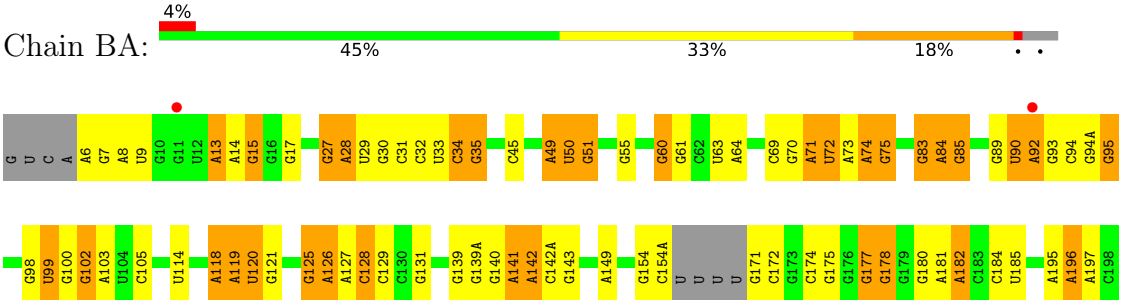
• Molecule 24: mRNA

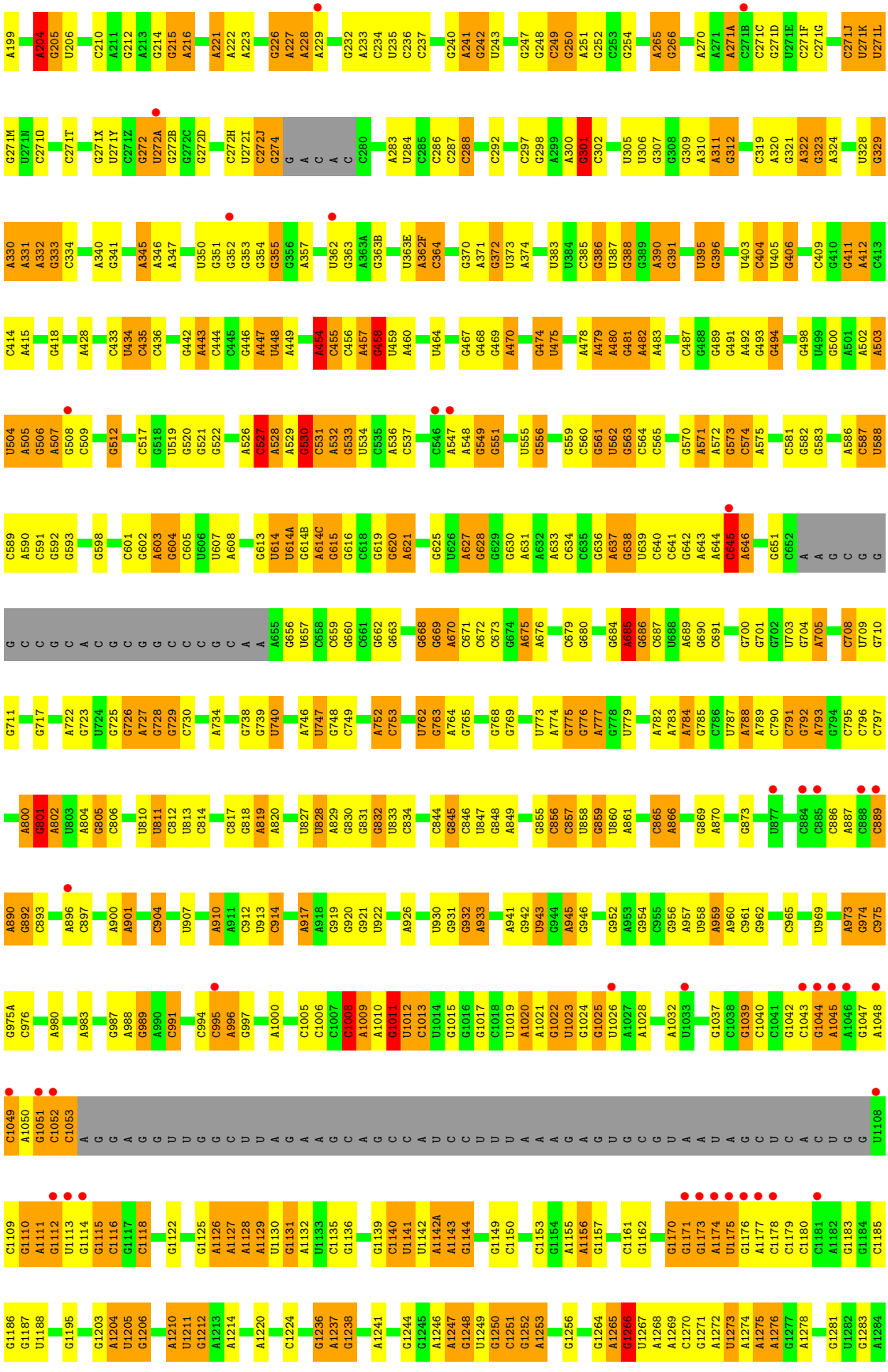
Chain CX:

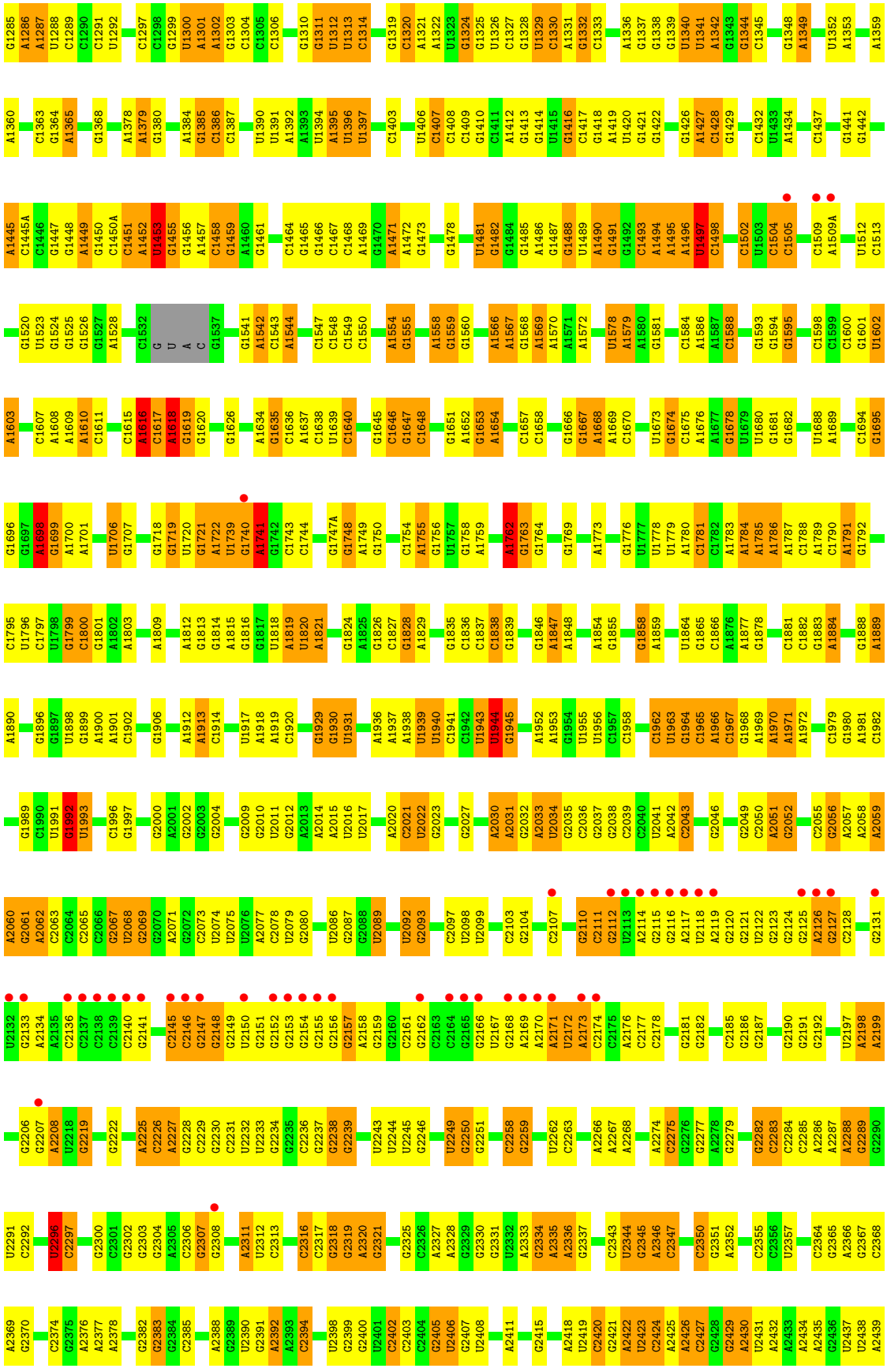


• Molecule 25: 23S rRNA

Chain BA:



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A1360 C1363 G1364 A1365 G1368 A1378 A1379 G1380 A1384 G1385 C1386 C1387 U1390 U1391 A1392 A1393 U1394 A1395 U1396 U1397 C1403 U1406 C1407 C1408 C1409 G1410 C1411 A1412 G1413 G1414 U1415 G1416 C1417 G1418 A1419 U1420 G1421 G1422 G1426 A1427 C1428 G1429 C1432 U1433 A1434 C1437 G1441 G1442
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A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2067 U2068 G2069 G2070 A2071 G2072 C2073 U2074 U2075 U2076 A2077 C2078 U2079 G2080 U2086 G2087 G2088 U2089 U2092 G2093 C2097 U2098 U2099 C2103 G2104 C2107 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 C2121 U2122 G2123 G2124 G2125 A2126 G2127 C2128 G2131
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G2206 G2207 A2208 U2218 G2219 G2222 A2225 C2226 A2227 G2228 C2229 G2230 C2231 U2232 U2233 G2234 G2235 C2236 G2237 G2238 G2239 U2243 U2244 U2245 G2246 U2249 G2250 G2251 C2258 G2259 U2262 C2263 A2266 A2267 A2268 A2274 C2275 G2276 G2277 A2278 G2279 G2282 C2283 C2284 C2285 A2286 A2287 A2288 G2289 G2290
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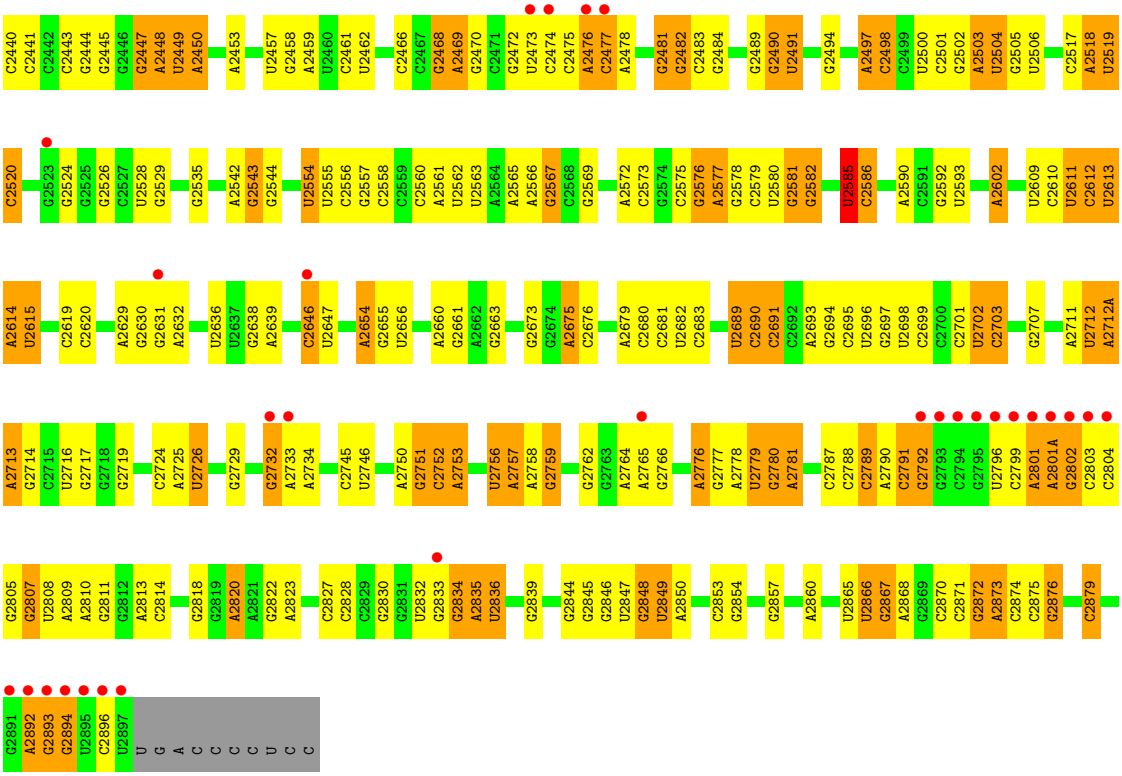
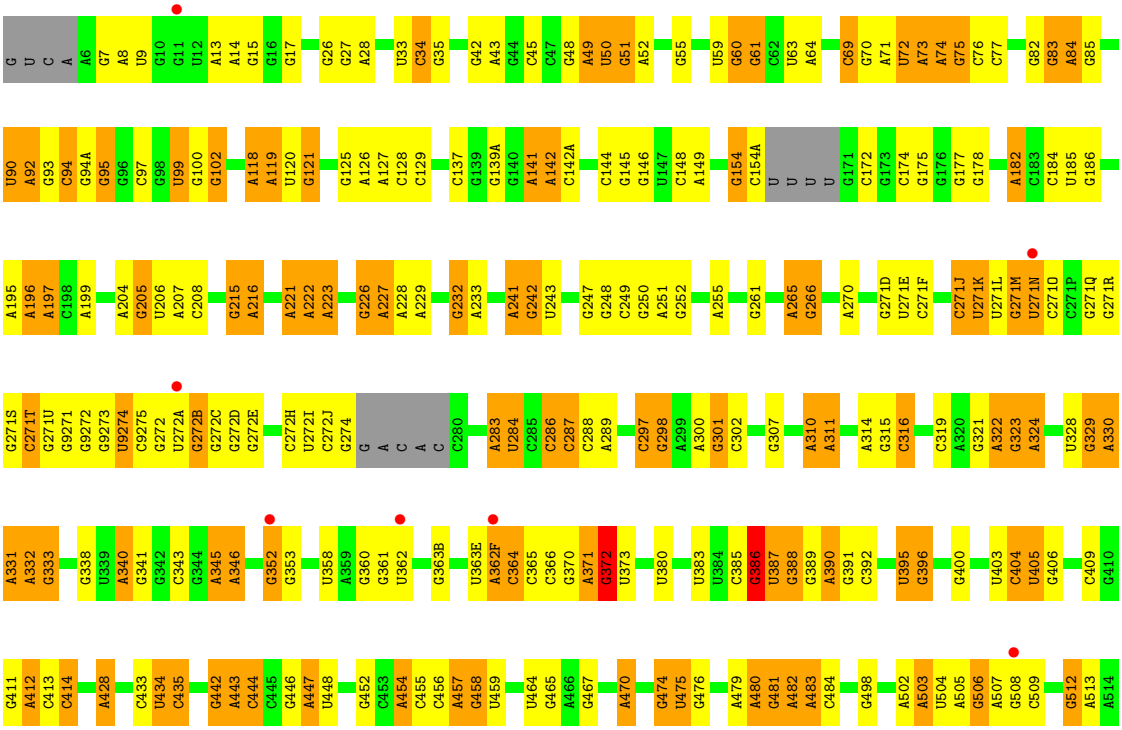
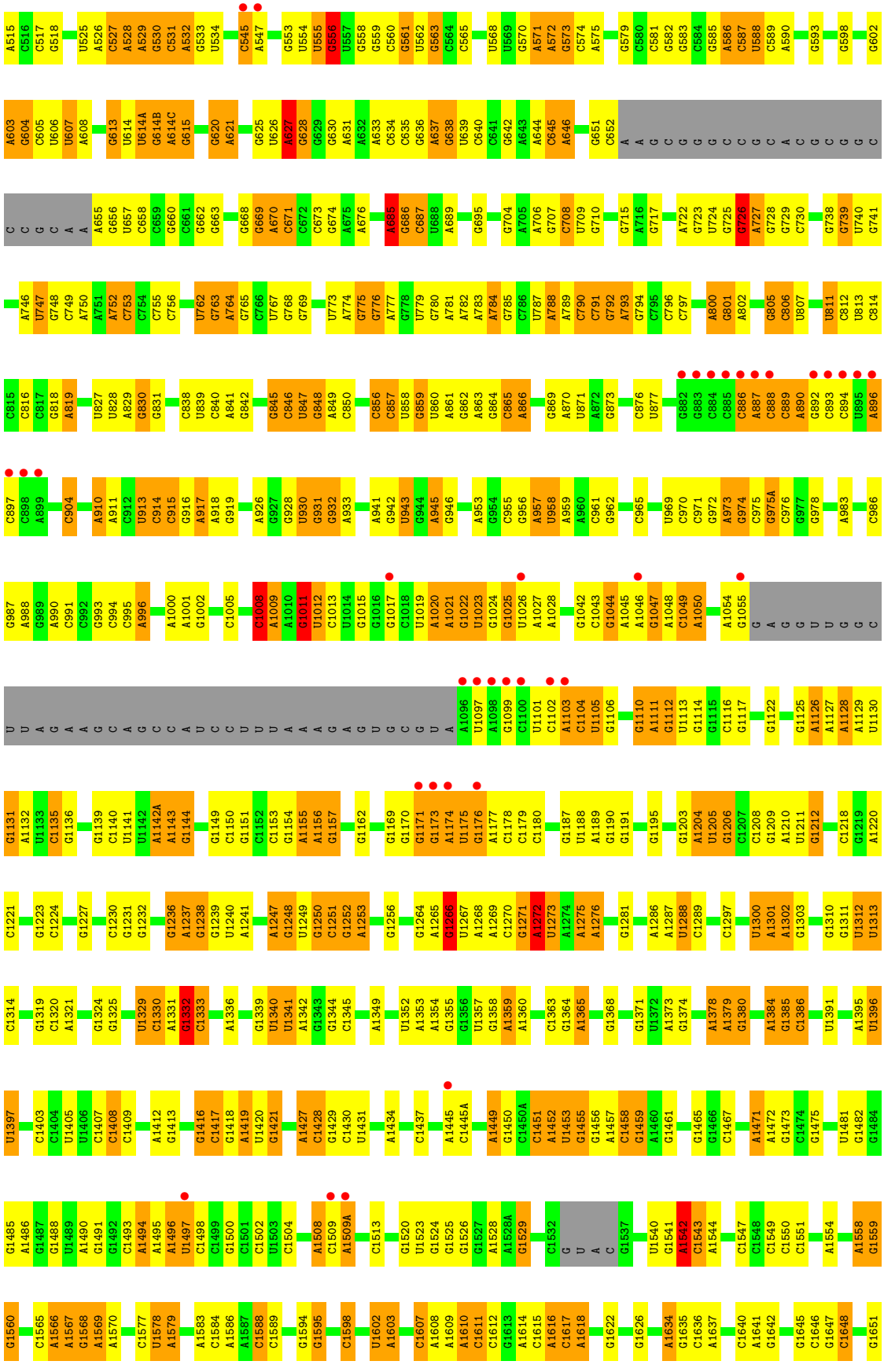
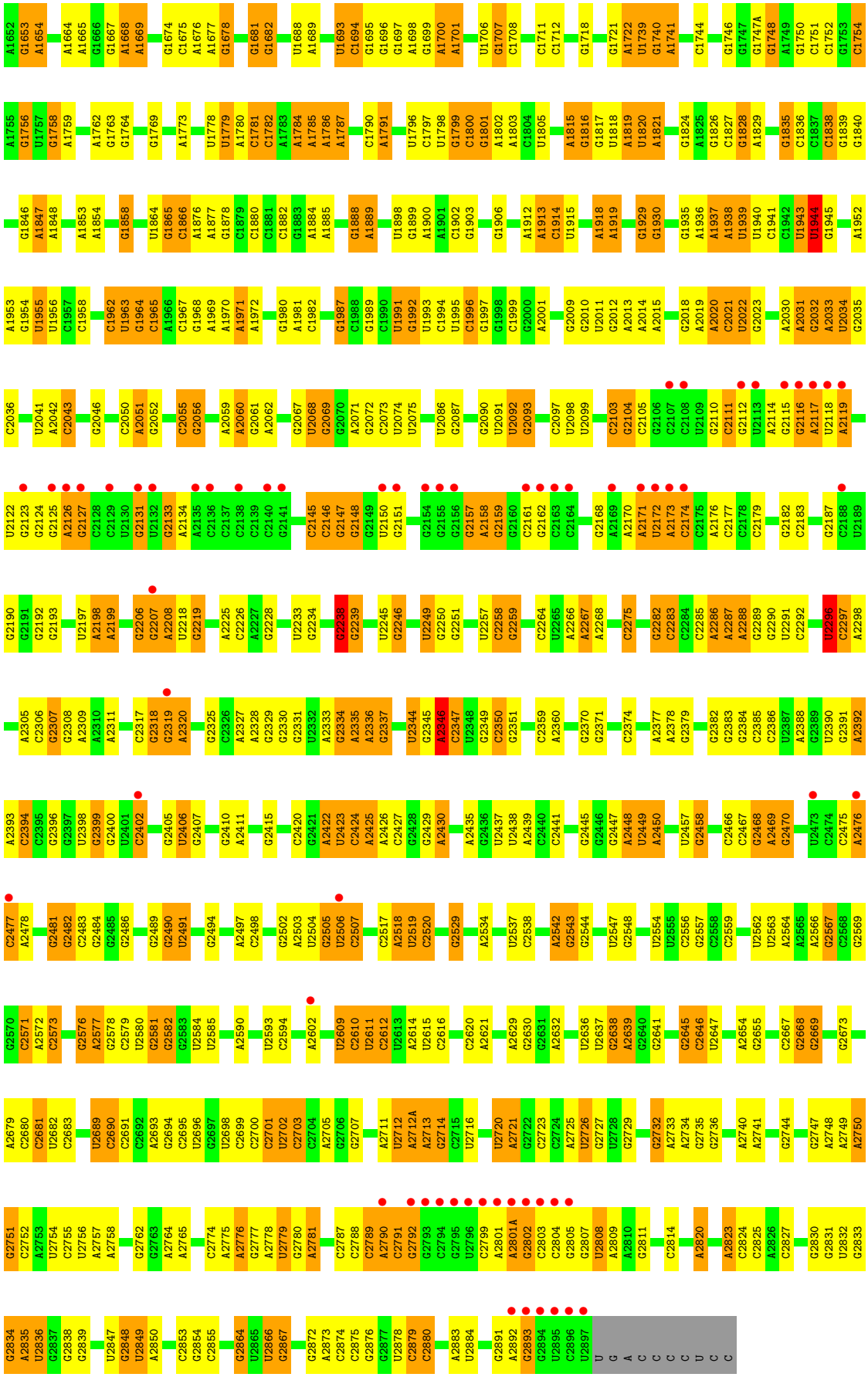


• Molecule 25: 23S rRNA

Chain DA:



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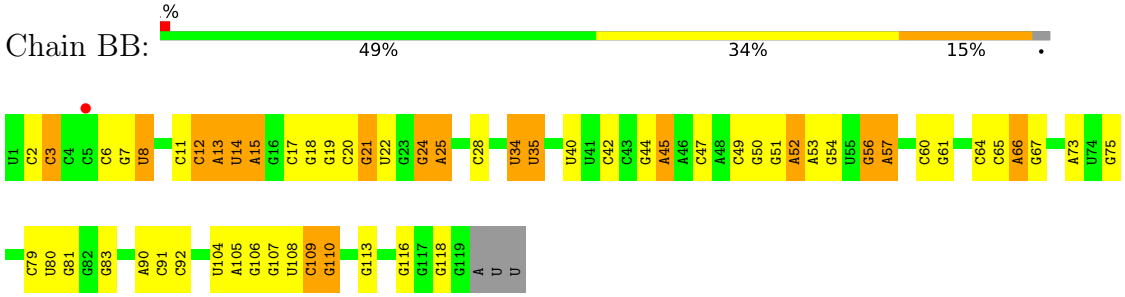
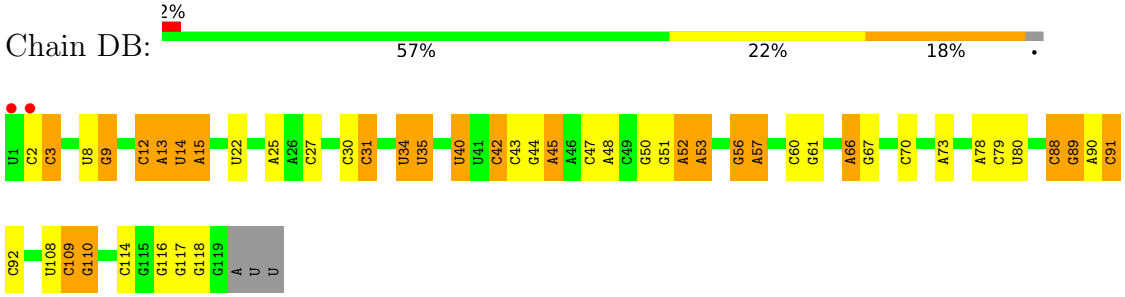
• Molecule 26: 5S rRNA

Chain BB:



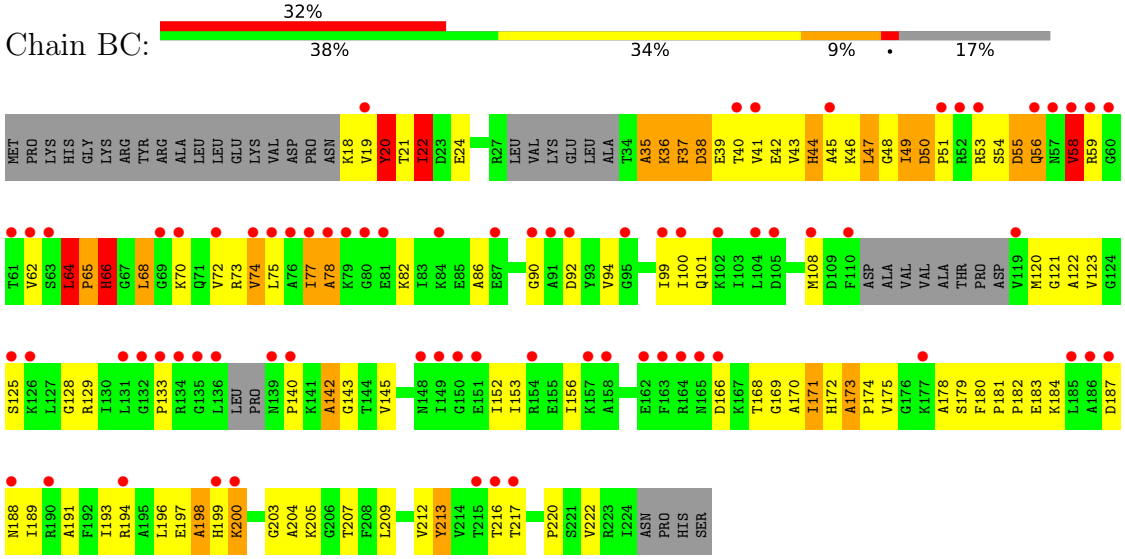
• Molecule 26: 5S rRNA

Chain DB:



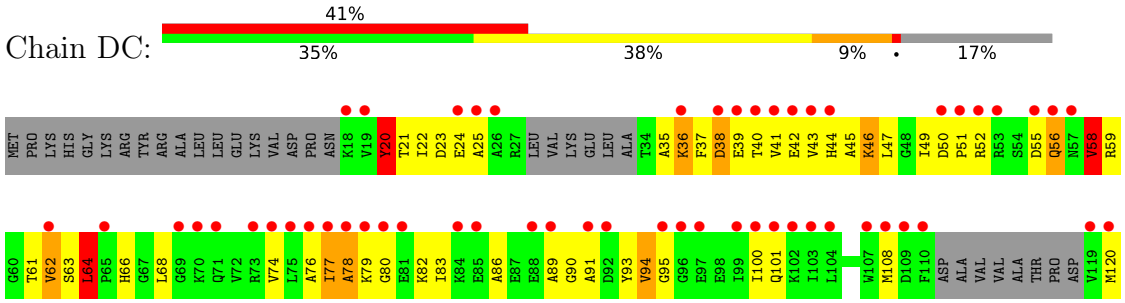
• Molecule 27: 50S RIBOSOMAL PROTEIN L1

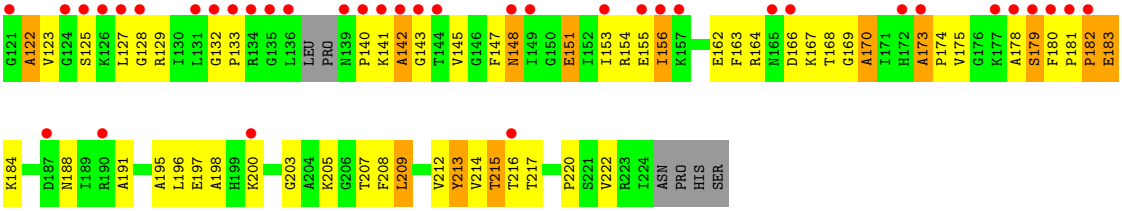
Chain BC:



• Molecule 27: 50S RIBOSOMAL PROTEIN L1

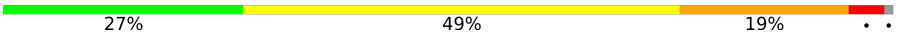
Chain DC:

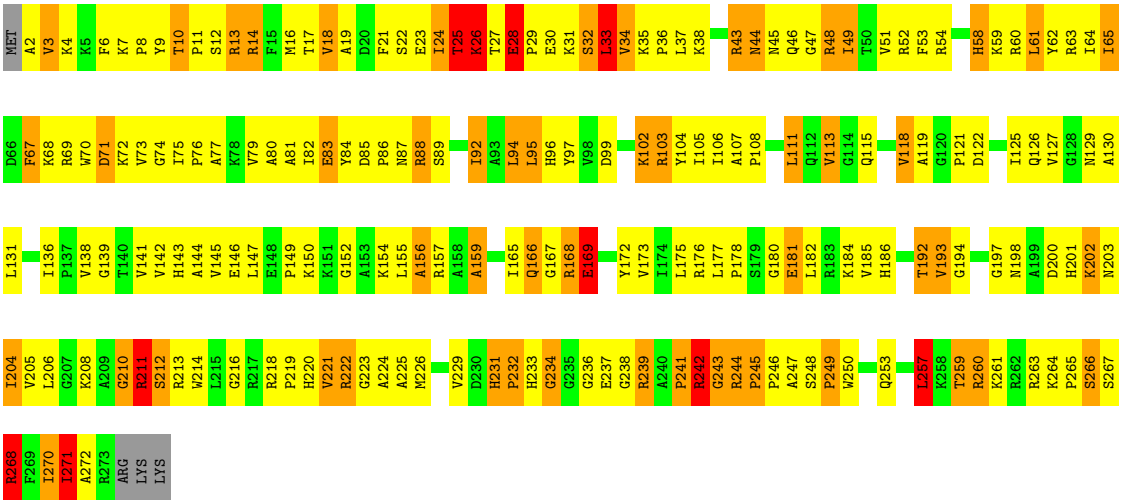




• Molecule 28: 50S RIBOSOMAL PROTEIN L2

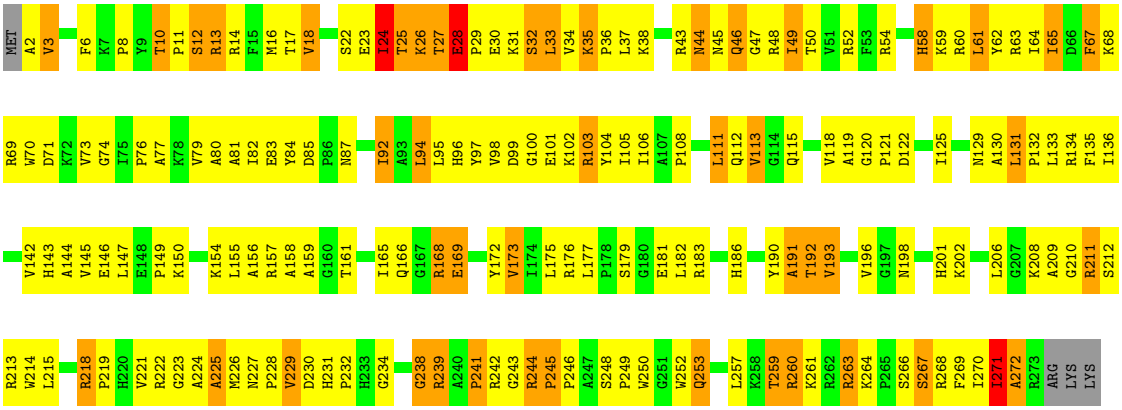
Chain BD:





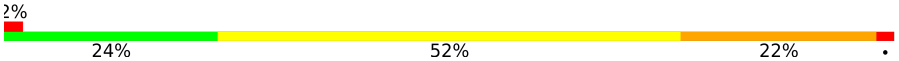
• Molecule 28: 50S RIBOSOMAL PROTEIN L2

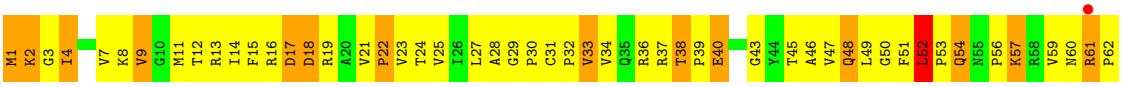
Chain DD:



• Molecule 29: 50S RIBOSOMAL PROTEIN L3

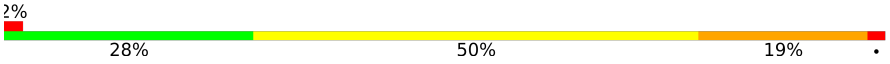
Chain BE:

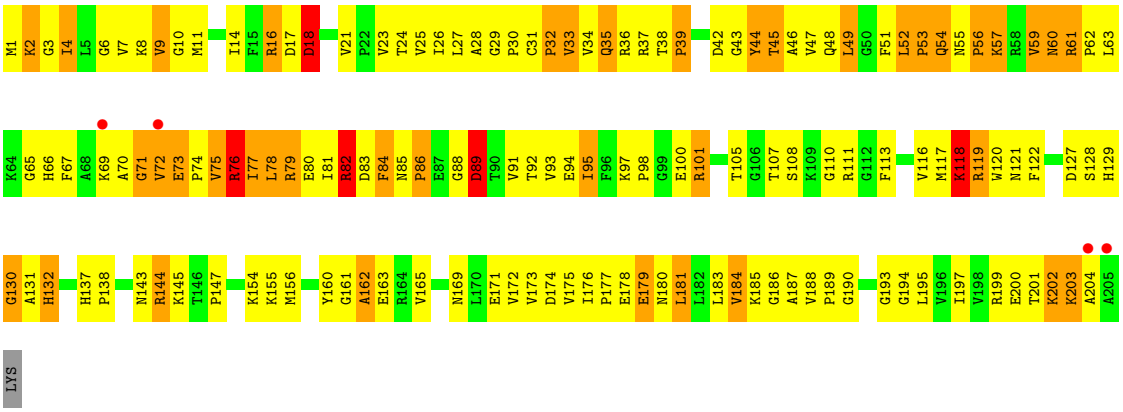




• Molecule 29: 50S RIBOSOMAL PROTEIN L3

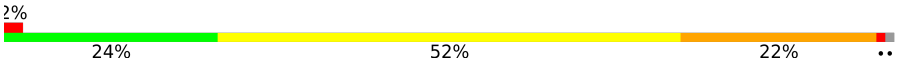
Chain DE:

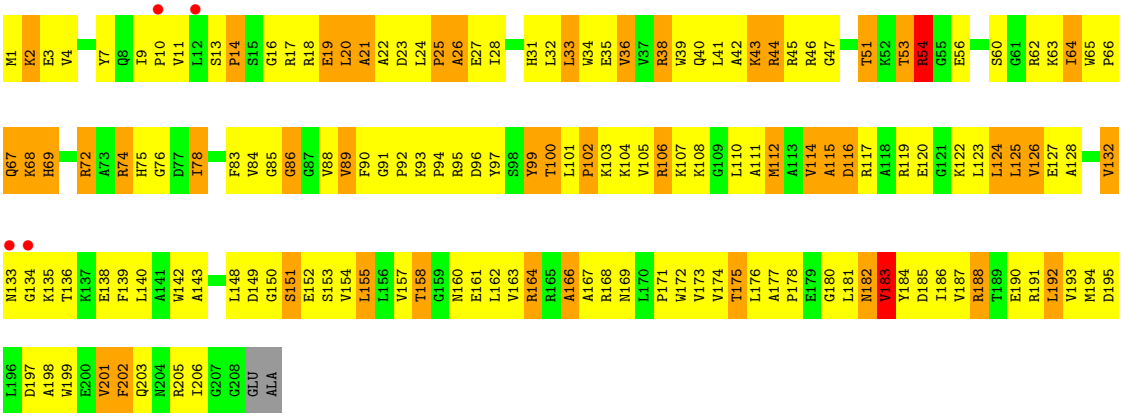




• Molecule 30: 50S RIBOSOMAL PROTEIN L4

Chain BF:

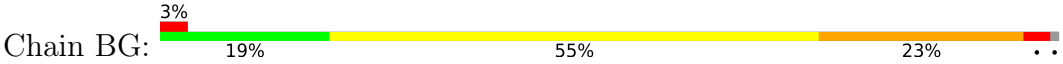


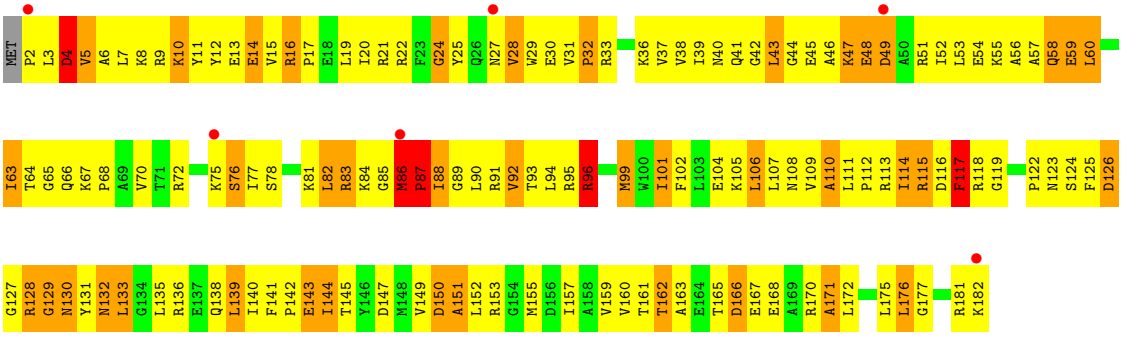


• Molecule 30: 50S RIBOSOMAL PROTEIN L4

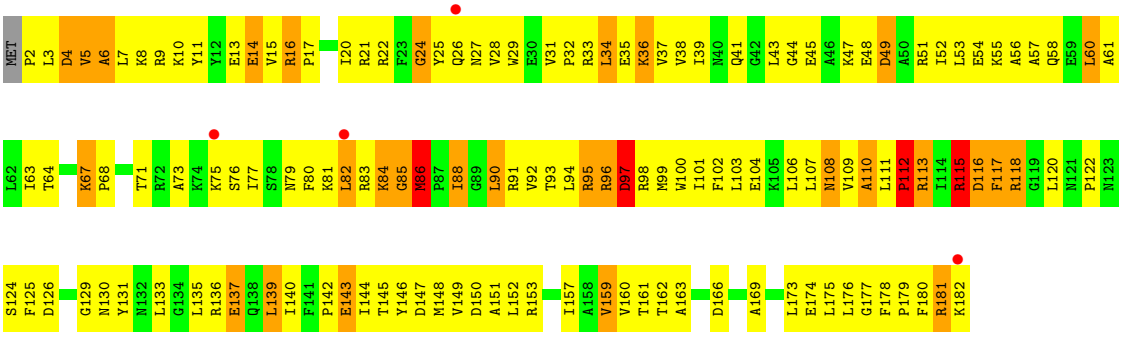
Chain DF:

• Molecule 31: 50S RIBOSOMAL PROTEIN L5

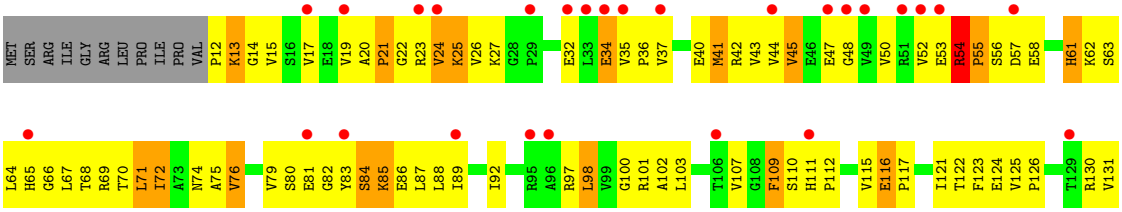


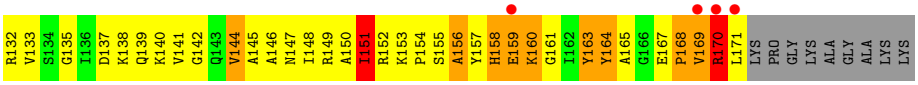


• Molecule 31: 50S RIBOSOMAL PROTEIN L5



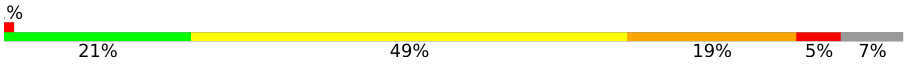
• Molecule 32: 50S RIBOSOMAL PROTEIN L6

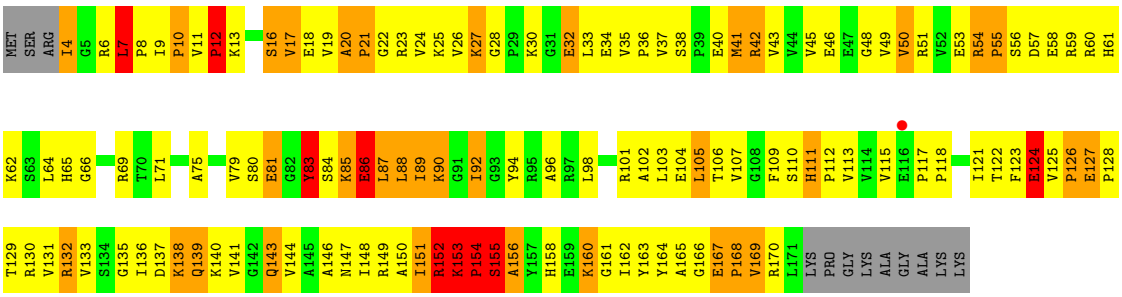




• Molecule 32: 50S RIBOSOMAL PROTEIN L6

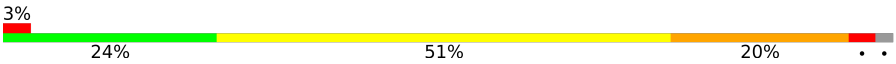
Chain DH:

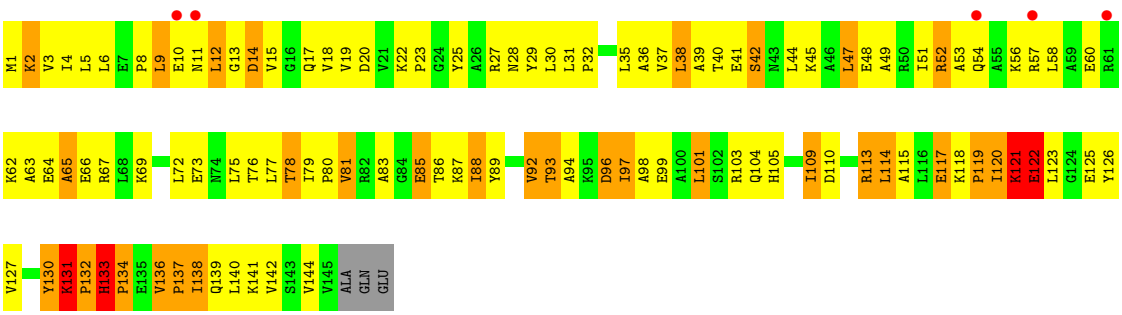




• Molecule 33: 50S RIBOSOMAL PROTEIN L9

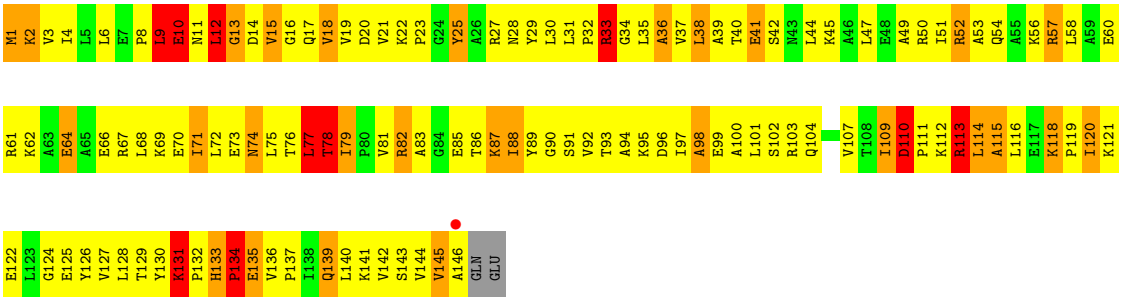
Chain BI:





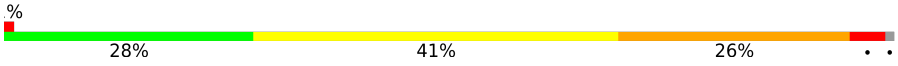
• Molecule 33: 50S RIBOSOMAL PROTEIN L9

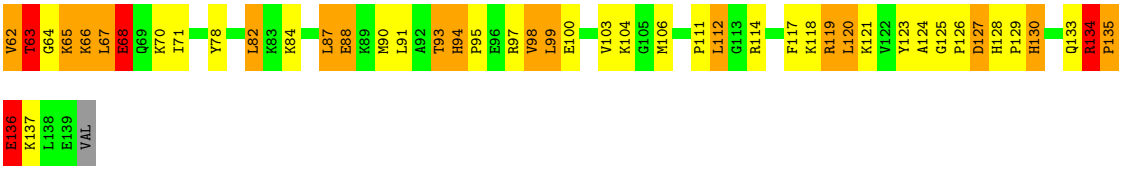
Chain DI:



• Molecule 34: 50S RIBOSOMAL PROTEIN L13

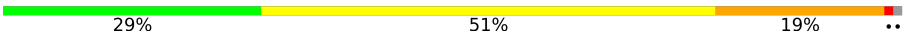
Chain BN:

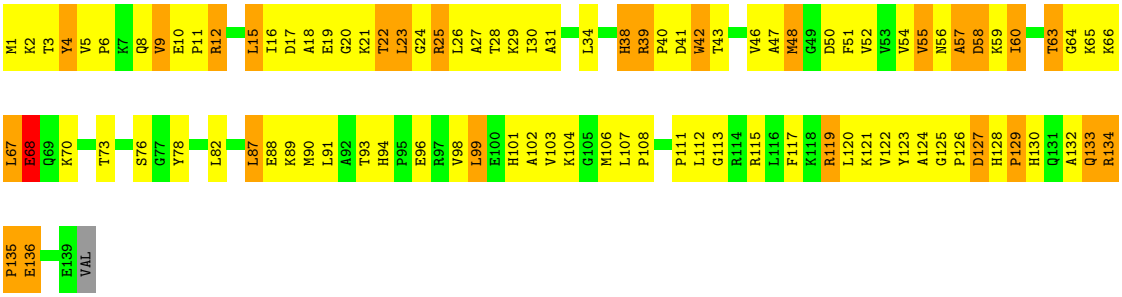




• Molecule 34: 50S RIBOSOMAL PROTEIN L13

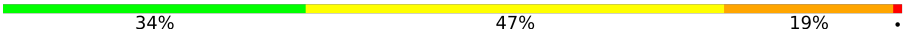
Chain DN:

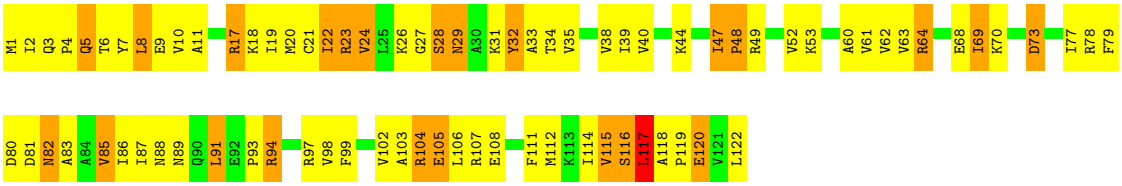




• Molecule 35: 50S RIBOSOMAL PROTEIN L14

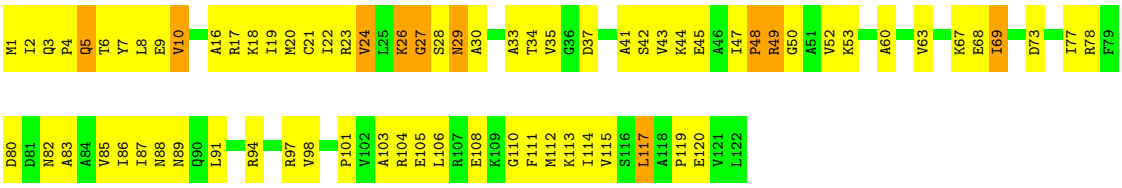
Chain BO:





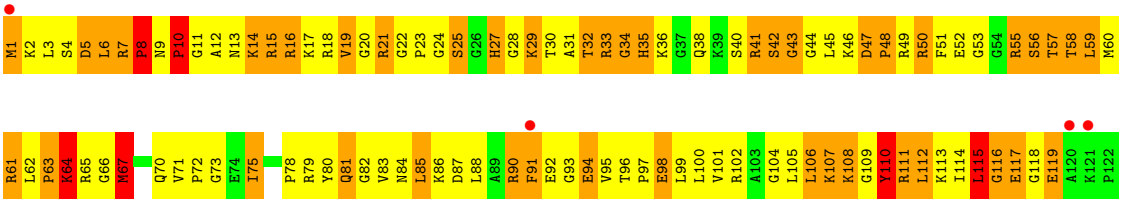
• Molecule 35: 50S RIBOSOMAL PROTEIN L14

Chain DO:



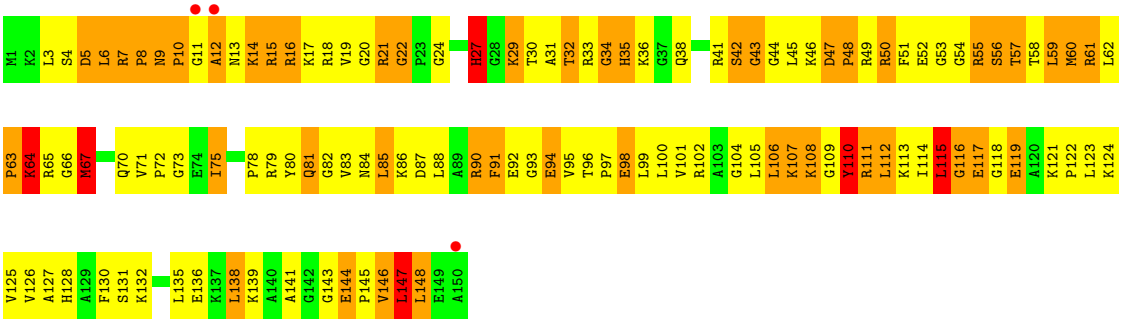
• Molecule 36: 50S RIBOSOMAL PROTEIN L15

Chain BP:



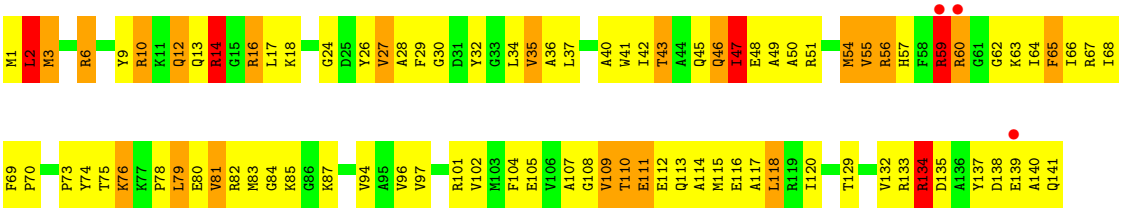
• Molecule 36: 50S RIBOSOMAL PROTEIN L15

Chain DP:



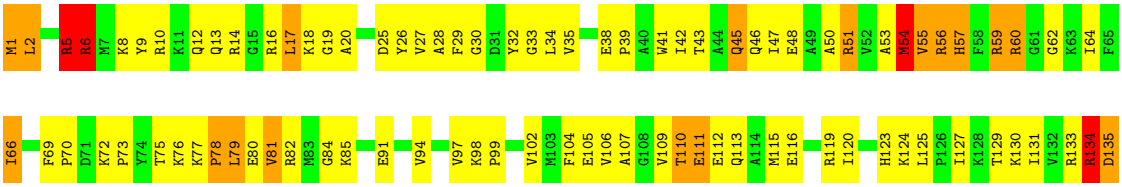
• Molecule 37: 50S RIBOSOMAL PROTEIN L16

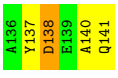
Chain BQ:



• Molecule 37: 50S RIBOSOMAL PROTEIN L16

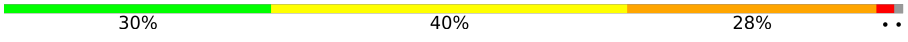
Chain DQ:

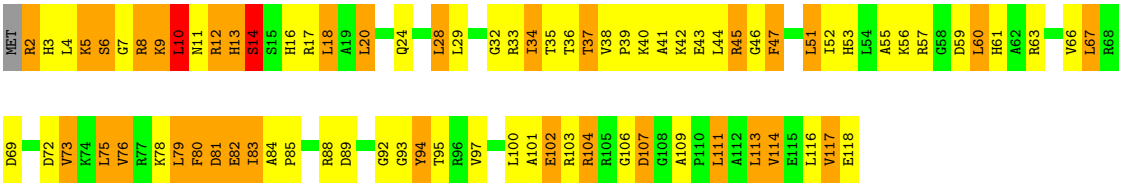




• Molecule 38: 50S RIBOSOMAL PROTEIN L17

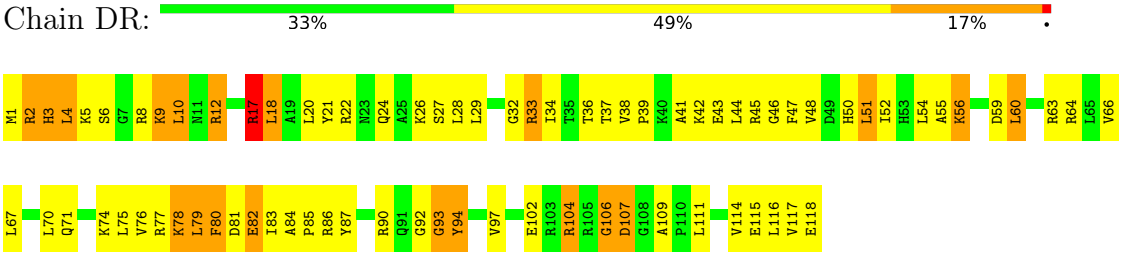
Chain BR:





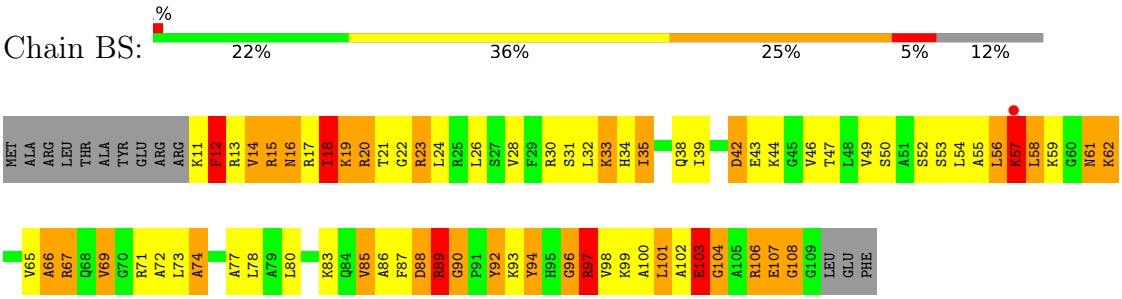
• Molecule 38: 50S RIBOSOMAL PROTEIN L17

Chain DR:



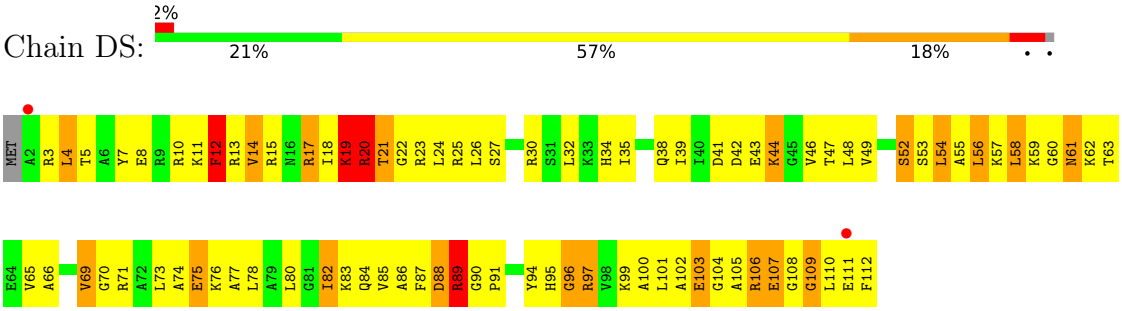
• Molecule 39: 50S RIBOSOMAL PROTEIN L18

Chain BS:



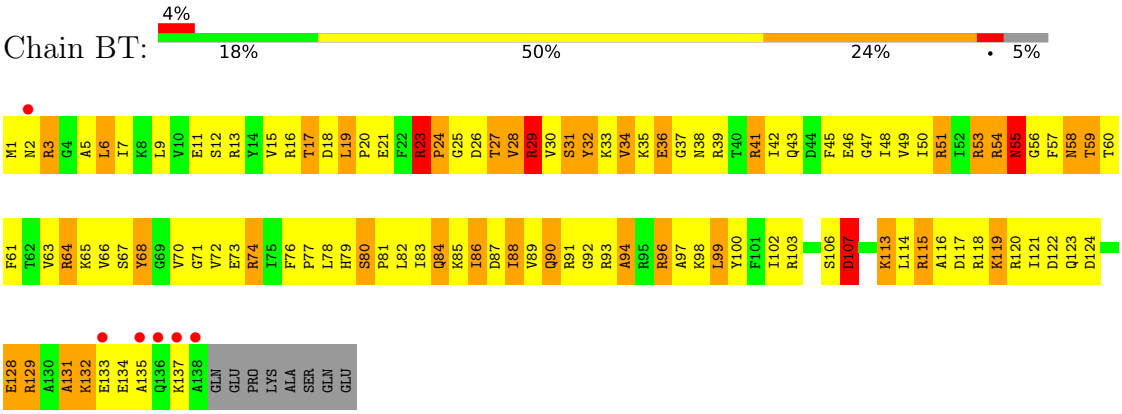
• Molecule 39: 50S RIBOSOMAL PROTEIN L18

Chain DS:



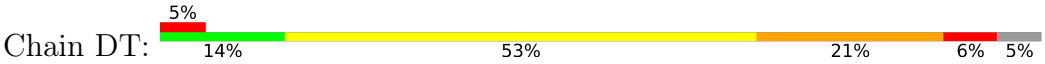
• Molecule 40: 50S RIBOSOMAL PROTEIN L19

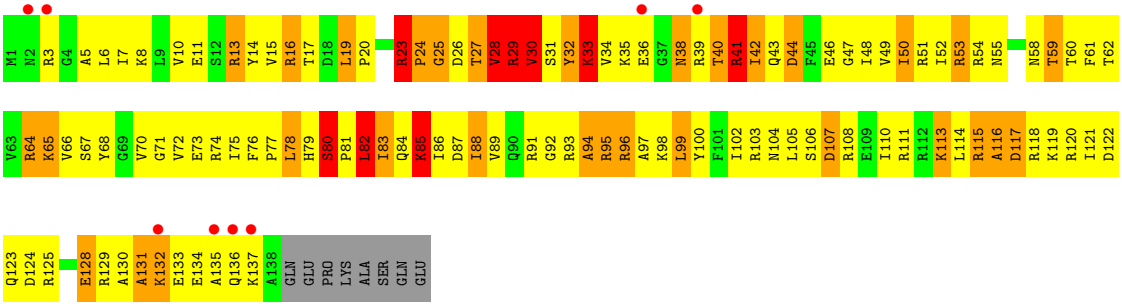
Chain BT:



• Molecule 40: 50S RIBOSOMAL PROTEIN L19

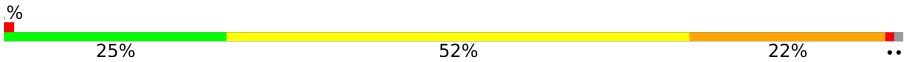
Chain DT:

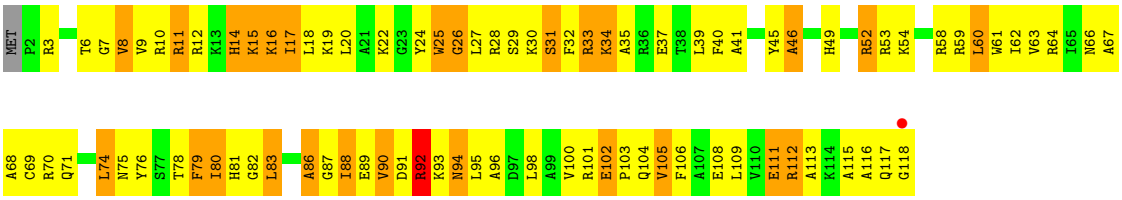




• Molecule 41: 50S RIBOSOMAL PROTEIN L20

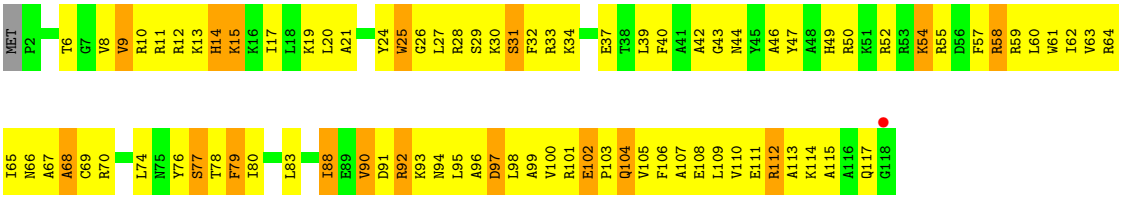
Chain BU:





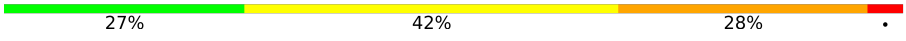
• Molecule 41: 50S RIBOSOMAL PROTEIN L20

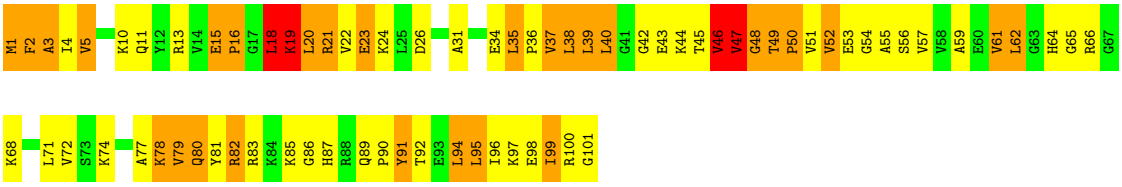
Chain DU:



• Molecule 42: 50S RIBOSOMAL PROTEIN L21

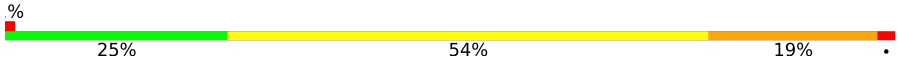
Chain BV:

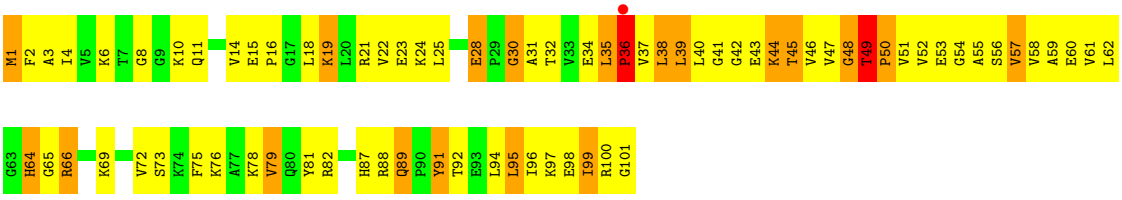




• Molecule 42: 50S RIBOSOMAL PROTEIN L21

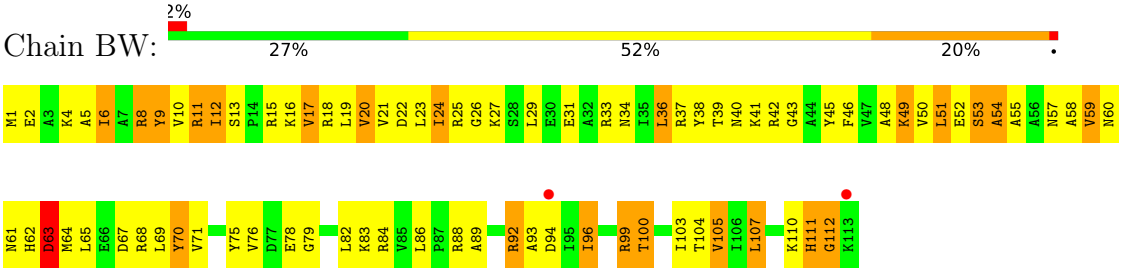
Chain DV:





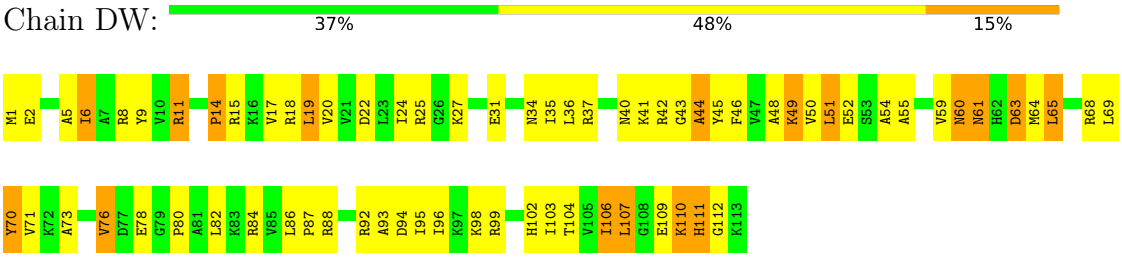
• Molecule 43: 50S RIBOSOMAL PROTEIN L22

Chain BW:



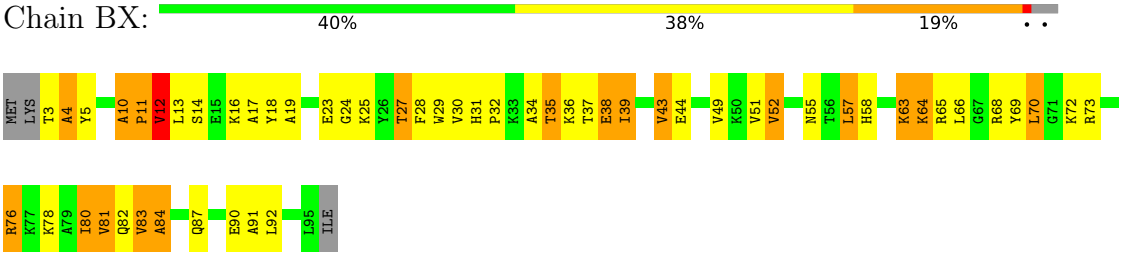
• Molecule 43: 50S RIBOSOMAL PROTEIN L22

Chain DW:



• Molecule 44: 50S RIBOSOMAL PROTEIN L23

Chain BX:

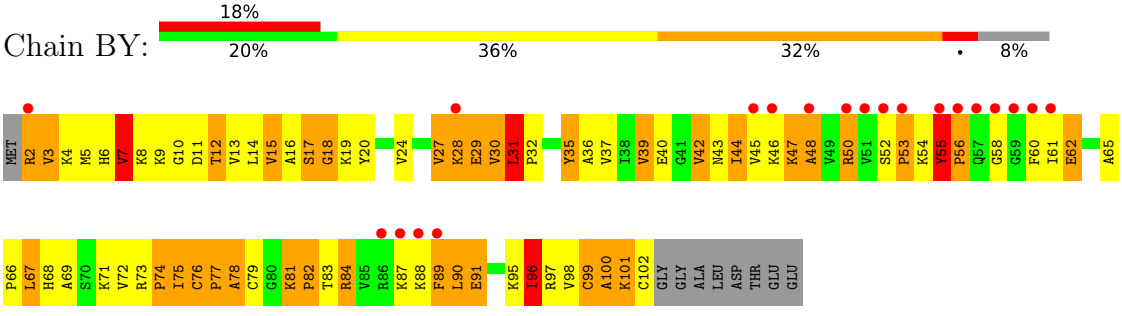


• Molecule 44: 50S RIBOSOMAL PROTEIN L23

Chain DX:

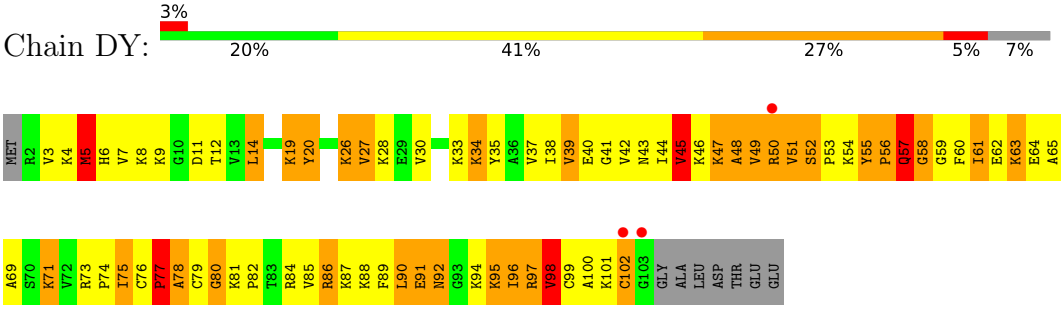
• Molecule 45: 50S RIBOSOMAL PROTEIN L24

Chain BY:



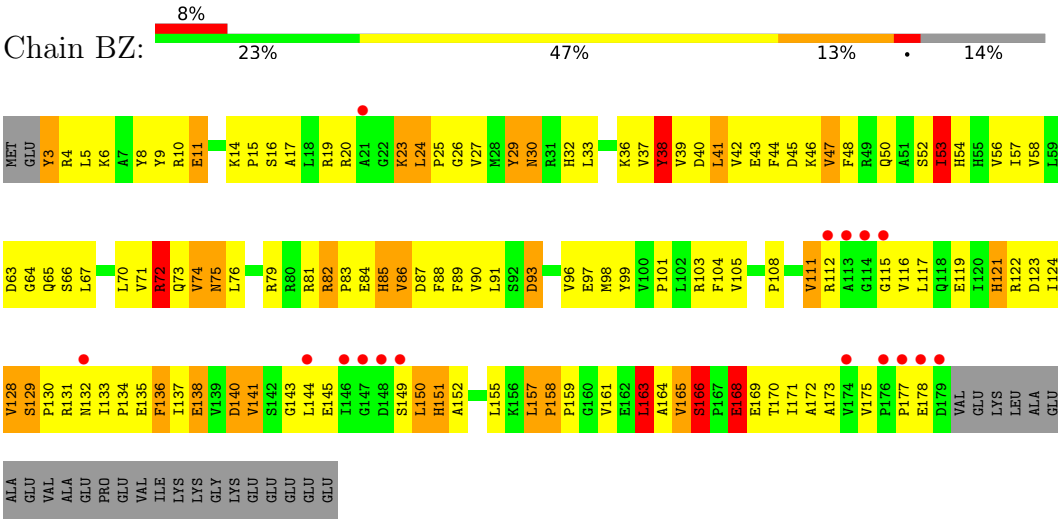
• Molecule 45: 50S RIBOSOMAL PROTEIN L24

Chain DY:



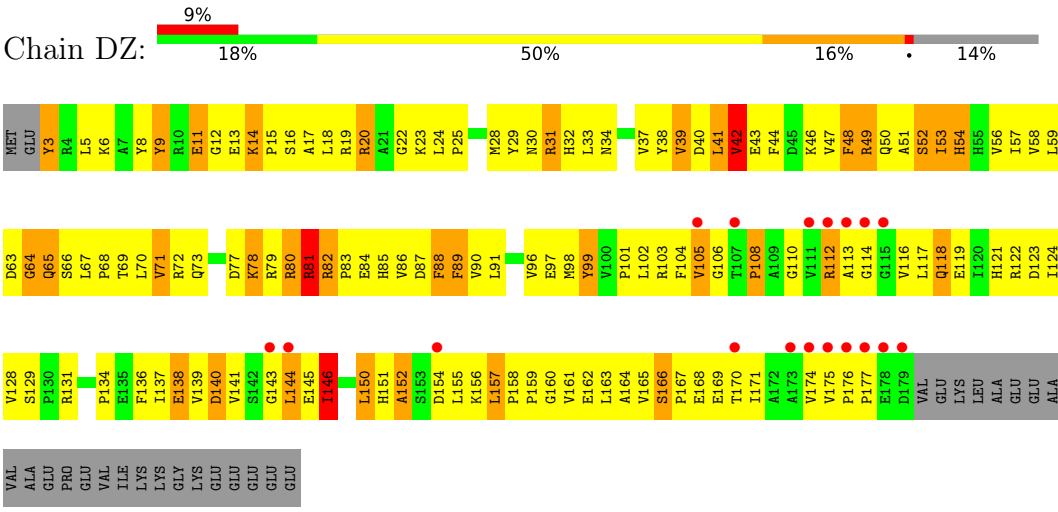
• Molecule 46: 50S RIBOSOMAL PROTEIN L25

Chain BZ:



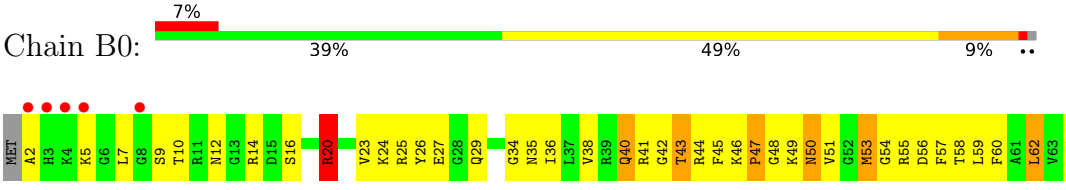
• Molecule 46: 50S RIBOSOMAL PROTEIN L25

Chain DZ:



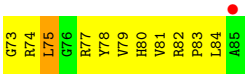
• Molecule 47: 50S RIBOSOMAL PROTEIN L27

Chain B0:



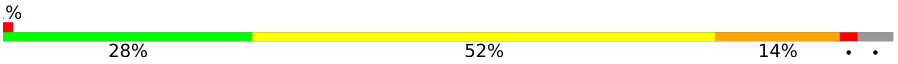
• Molecule 47: 50S RIBOSOMAL PROTEIN L27

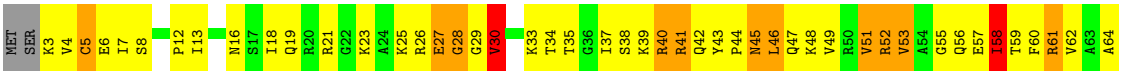
Chain D0:

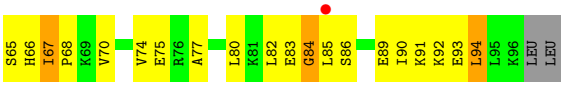


• Molecule 48: 50S RIBOSOMAL PROTEIN L28

Chain B1:

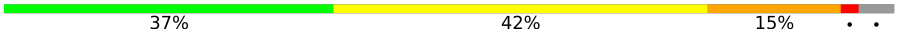


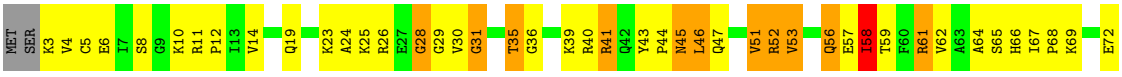




• Molecule 48: 50S RIBOSOMAL PROTEIN L28

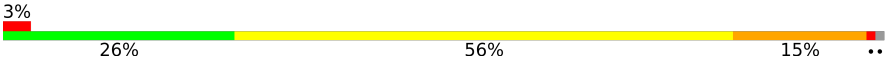
Chain D1:

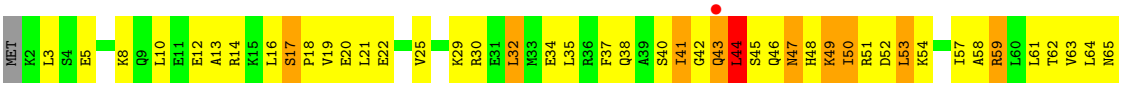




• Molecule 49: 50S RIBOSOMAL PROTEIN L29

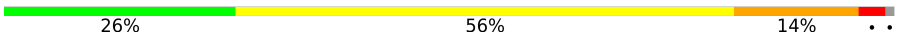
Chain B2:

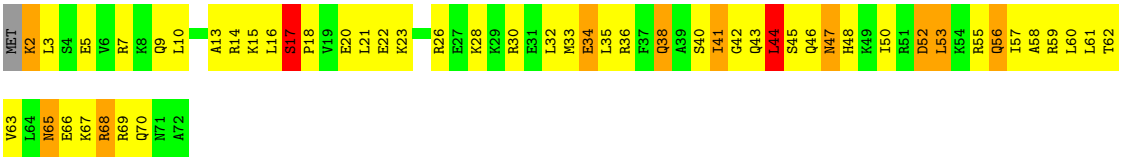




• Molecule 49: 50S RIBOSOMAL PROTEIN L29

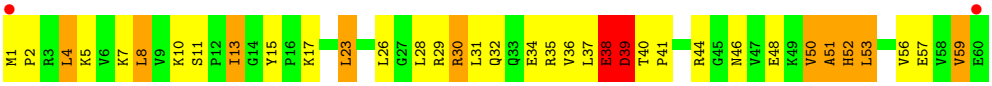
Chain D2:





• Molecule 50: 50S RIBOSOMAL PROTEIN L30

Chain B3:

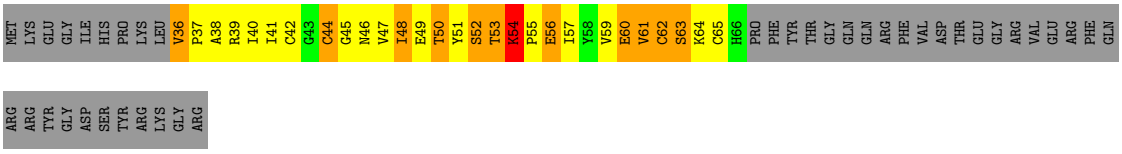


• Molecule 50: 50S RIBOSOMAL PROTEIN L30

Chain D3:

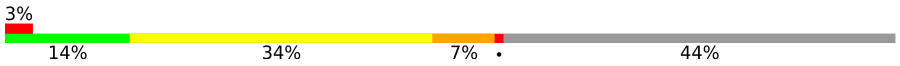
• Molecule 51: 50S RIBOSOMAL PROTEIN L31

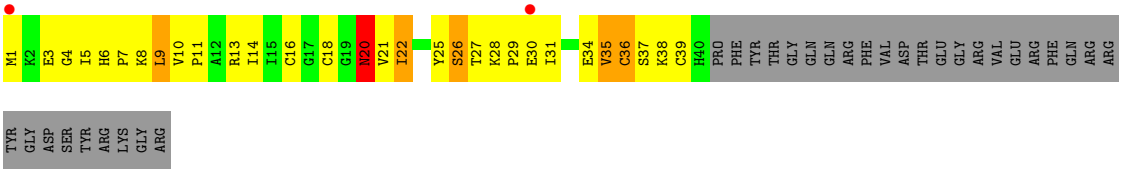
Chain B4:



• Molecule 51: 50S RIBOSOMAL PROTEIN L31

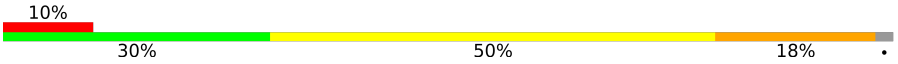
Chain D4:

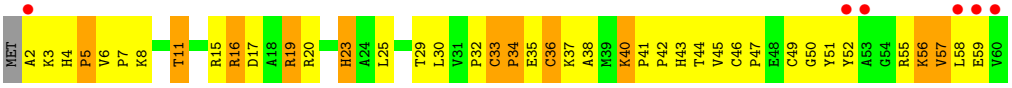




• Molecule 52: 50S RIBOSOMAL PROTEIN L32

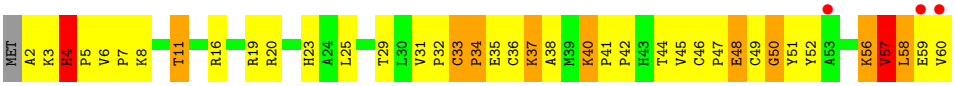
Chain B5:





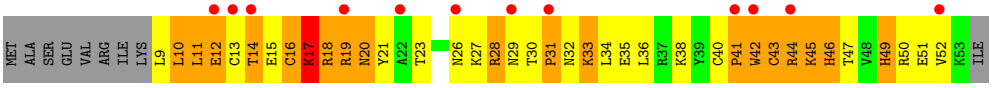
• Molecule 52: 50S RIBOSOMAL PROTEIN L32

Chain D5:



• Molecule 53: 50S RIBOSOMAL PROTEIN L33

Chain B6:

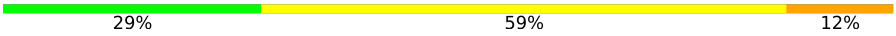


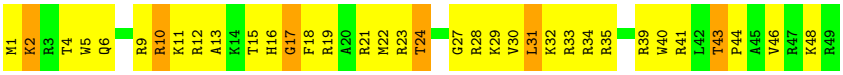
• Molecule 53: 50S RIBOSOMAL PROTEIN L33

Chain D6:

• Molecule 54: 50S RIBOSOMAL PROTEIN L34

Chain B7:



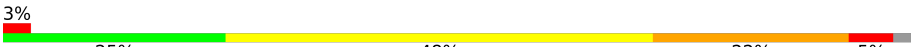


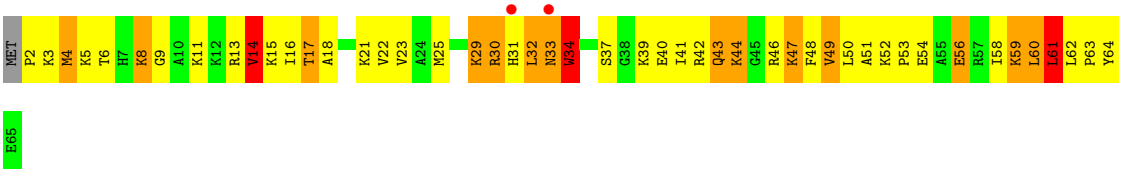
• Molecule 54: 50S RIBOSOMAL PROTEIN L34

Chain D7:

• Molecule 55: 50S RIBOSOMAL PROTEIN L35

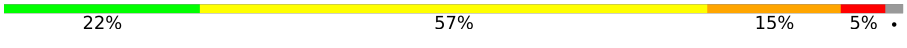
Chain B8:

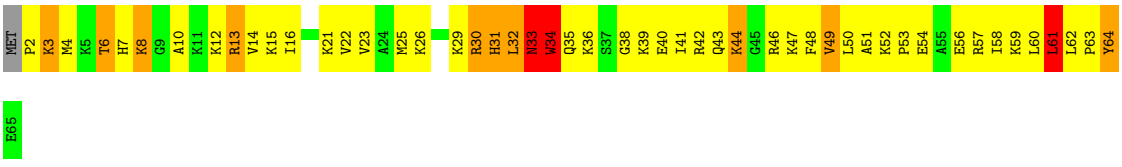




• Molecule 55: 50S RIBOSOMAL PROTEIN L35

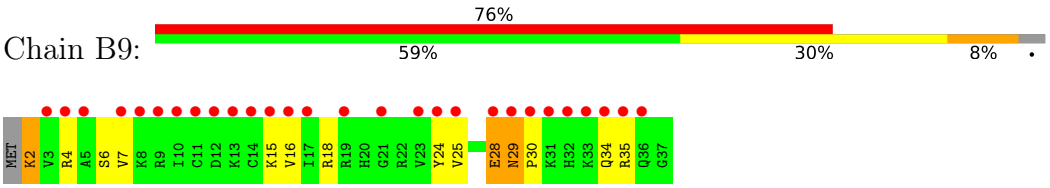
Chain D8:





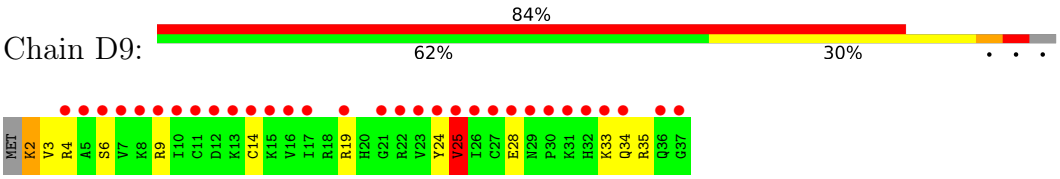
• Molecule 56: 50S RIBOSOMAL PROTEIN L36

Chain B9:



• Molecule 56: 50S RIBOSOMAL PROTEIN L36

Chain D9:



4 Data and refinement statistics (i)

Property	Value
Space group	P 21 21 21
Cell constants a, b, c, α, β, γ	210.46Å 447.34Å 622.30Å 90.00° 90.00° 90.00°
Resolution (Å)	35.07 – 3.52 35.07 – 3.52
% Data completeness (in resolution range)	99.9 (35.07-3.52) 99.9 (35.07-3.52)
R_{merge}	0.44
R_{sym}	0.46
$< I/\sigma(I) >$ [1]	1.81 (at 3.47Å)
Refinement program	PHENIX (phenix.refine: 1.7_641), PHENIX (phenix.refine: 1.8_1069)
R, R_{free}	0.210 , 0.249 0.214 , 0.254
R_{free} test set	32826 reflections (4.56%)
Wilson B-factor (Å^2)	91.1
Anisotropy	0.109
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 80.8
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.25$
Estimated twinning fraction	No twinning to report.
F_o,F_c correlation	0.91
Total number of atoms	293977
Average B, all atoms (Å^2)	79.0

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.60% 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 (i)

5.1 Standard geometry (i)

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

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	0.28	0/36189	0.82	11/56484 (0.0%)
1	CA	0.29	0/36189	0.82	14/56484 (0.0%)
2	AB	0.59	0/1936	0.68	0/2611
2	CB	0.67	0/1936	0.77	0/2611
3	AC	0.70	0/1637	0.76	0/2207
3	CC	0.73	0/1637	0.82	0/2207
4	AD	0.69	0/1733	0.80	0/2318
4	CD	0.77	1/1733 (0.1%)	0.85	0/2318
5	AE	0.71	0/1163	0.88	0/1566
5	CE	0.74	0/1163	0.84	0/1566
6	AF	0.73	0/856	0.89	0/1154
6	CF	0.79	0/856	0.82	0/1154
7	AG	0.72	0/1276	0.79	0/1709
7	CG	0.71	0/1276	0.77	0/1709
8	AH	0.69	1/1136 (0.1%)	0.78	0/1527
8	CH	0.73	0/1136	0.80	1/1527 (0.1%)
9	AI	0.71	0/1029	0.80	0/1379
9	CI	0.70	0/1029	0.81	1/1379 (0.1%)
10	AJ	0.70	0/808	0.79	0/1087
10	CJ	0.65	0/808	0.77	0/1087
11	AK	0.67	0/900	0.81	0/1213
11	CK	0.70	0/900	0.82	0/1213
12	AL	0.86	0/987	0.95	0/1322
12	CL	0.92	1/987 (0.1%)	1.01	0/1322
13	AM	0.67	0/999	0.82	0/1338
13	CM	0.48	1/1008 (0.1%)	0.75	1/1347 (0.1%)
14	AN	0.73	0/501	0.83	1/664 (0.2%)
14	CN	0.77	0/501	0.95	0/664
15	AO	0.72	0/745	0.79	0/992
15	CO	0.71	0/745	0.81	0/992
16	AP	0.72	0/717	0.86	0/965
16	CP	0.79	0/717	0.84	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.69	0/837	0.79	0/1119
17	CQ	0.73	0/837	0.81	0/1119
18	AR	0.69	0/579	0.83	0/768
18	CR	0.76	0/579	0.98	0/768
19	AS	0.66	0/643	0.76	0/867
19	CS	0.80	1/643 (0.2%)	0.86	0/867
20	AT	0.73	0/765	0.77	0/1007
20	CT	0.61	0/765	0.63	0/1007
21	AU	0.73	0/213	0.83	0/279
21	CU	0.75	0/213	0.78	0/279
22	AV	1.13	5/1836 (0.3%)	1.33	13/2859 (0.5%)
22	CV	1.02	0/1835	1.20	13/2859 (0.5%)
23	AW	0.93	3/1809 (0.2%)	1.07	4/2819 (0.1%)
23	AY	1.07	1/408 (0.2%)	1.39	4/634 (0.6%)
23	CW	0.90	0/1809	1.01	0/2819
23	CY	1.15	0/408	1.42	4/634 (0.6%)
24	AX	1.10	1/285 (0.4%)	0.91	2/441 (0.5%)
24	CX	0.96	0/235	1.27	3/364 (0.8%)
25	BA	0.34	1/67788 (0.0%)	0.87	42/105819 (0.0%)
25	DA	0.35	0/68124	0.88	36/106343 (0.0%)
26	BB	0.26	0/2853	0.78	0/4451
26	DB	0.28	0/2853	0.80	0/4451
27	BC	0.65	1/1145 (0.1%)	0.67	0/1556
27	DC	0.24	0/1145	0.46	0/1556
28	BD	0.85	0/2155	0.95	1/2907 (0.0%)
28	DD	0.54	0/2155	0.74	0/2907
29	BE	0.75	0/1597	0.89	0/2155
29	DE	0.49	1/1597 (0.1%)	0.72	0/2155
30	BF	0.80	0/1659	0.87	1/2246 (0.0%)
30	DF	0.49	0/1620	0.76	1/2194 (0.0%)
31	BG	0.70	0/1499	0.78	1/2016 (0.0%)
31	DG	0.42	1/1499 (0.1%)	0.68	1/2016 (0.0%)
32	BH	0.63	0/1246	0.69	0/1684
32	DH	0.40	0/1315	0.79	1/1780 (0.1%)
33	BI	0.67	0/1146	0.81	0/1551
33	DI	0.36	0/1151	0.74	1/1558 (0.1%)
34	BN	0.76	0/1132	0.83	0/1527
34	DN	0.43	0/1132	0.69	0/1527
35	BO	0.76	0/943	0.87	0/1269
35	DO	0.46	0/943	0.68	0/1269
36	BP	0.40	1/1162 (0.1%)	0.78	2/1544 (0.1%)
36	DP	0.39	0/1162	0.76	1/1544 (0.1%)
37	BQ	0.75	0/1143	0.87	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
37	DQ	0.48	0/1143	0.65	0/1527
38	BR	0.80	0/974	0.90	1/1302 (0.1%)
38	DR	0.57	1/982 (0.1%)	0.79	2/1312 (0.2%)
39	BS	0.77	0/779	0.90	0/1038
39	DS	0.40	0/892	0.81	1/1187 (0.1%)
40	BT	0.71	0/1156	0.90	1/1544 (0.1%)
40	DT	0.56	1/1156 (0.1%)	0.84	6/1544 (0.4%)
41	BU	0.81	0/982	0.91	1/1306 (0.1%)
41	DU	0.51	0/975	0.75	0/1297
42	BV	0.72	0/790	0.90	1/1057 (0.1%)
42	DV	0.53	1/790 (0.1%)	0.82	0/1057
43	BW	0.81	0/907	0.89	1/1216 (0.1%)
43	DW	0.48	0/907	0.69	1/1216 (0.1%)
44	BX	0.75	0/740	0.89	1/995 (0.1%)
44	DX	0.52	0/740	0.68	0/995
45	BY	0.74	0/789	0.95	2/1053 (0.2%)
45	DY	0.55	2/798 (0.3%)	0.78	0/1064
46	BZ	0.72	0/1436	0.74	1/1951 (0.1%)
46	DZ	0.35	0/1436	0.57	0/1951
47	B0	0.79	1/671 (0.1%)	0.84	0/892
47	D0	0.44	0/671	0.64	0/892
48	B1	0.87	0/739	0.94	0/983
48	D1	0.48	0/739	0.73	0/983
49	B2	0.72	0/600	0.83	0/793
49	D2	0.54	0/600	0.71	0/793
50	B3	0.73	0/473	0.83	0/636
50	D3	0.43	0/473	0.71	0/636
51	B4	0.72	0/229	0.76	0/311
51	D4	0.40	0/303	0.70	0/409
52	B5	0.82	1/473 (0.2%)	0.83	0/639
52	D5	0.44	0/473	0.65	0/639
53	B6	0.67	0/388	0.92	0/520
53	D6	0.30	0/388	0.58	0/520
54	B7	0.88	0/427	0.99	0/563
54	D7	0.54	0/427	0.75	1/563 (0.2%)
55	B8	0.76	0/516	0.91	0/681
55	D8	0.51	0/516	0.82	0/681
56	B9	0.64	0/302	0.59	0/397
56	D9	0.26	0/302	0.46	0/397
All	All	0.48	27/318178 (0.0%)	0.85	180/475682 (0.0%)

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
28	BD	0	1

All (27) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1453	U	O3'-P	29.98	1.97	1.61
24	AX	14	A	O3'-P	-13.06	1.45	1.61
38	DR	12	ARG	C-N	11.33	1.60	1.34
40	DT	28	VAL	C-N	10.90	1.59	1.34
22	AV	1	C	OP3-P	-9.31	1.50	1.61
42	DV	1	MET	CG-SD	7.84	2.01	1.81
29	DE	127	ASP	C-N	7.30	1.50	1.34
13	CM	82	MET	CG-SD	-6.37	1.64	1.81
23	AW	58	A	N9-C4	-6.09	1.34	1.37
31	DG	86	MET	CG-SD	-6.00	1.65	1.81
45	DY	102	CYS	CB-SG	5.94	1.92	1.82
4	CD	26	CYS	CB-SG	5.83	1.92	1.82
45	DY	5	MET	CG-SD	-5.80	1.66	1.81
27	BC	66	HIS	CG-CD2	-5.66	1.26	1.35
22	AV	11	A	N3-C4	-5.64	1.31	1.34
22	AV	75	C	C2-N3	5.61	1.40	1.35
23	AW	30	G	C6-N1	5.59	1.43	1.39
23	AY	34	G	C5-C4	5.58	1.42	1.38
47	B0	16	SER	CB-OG	-5.48	1.35	1.42
22	AV	9	G	C8-N7	5.39	1.34	1.30
23	AW	5	G	C6-N1	-5.39	1.35	1.39
36	BP	1	MET	CG-SD	-5.33	1.67	1.81
8	AH	81	HIS	CG-CD2	-5.22	1.26	1.35
52	B5	23	HIS	CG-CD2	-5.21	1.26	1.35
12	CL	98	TYR	CD1-CE1	5.19	1.47	1.39
22	AV	31	G	N1-C2	-5.15	1.33	1.37
19	CS	9	VAL	CB-CG2	5.01	1.63	1.52

All (180) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	1453	U	P-O3'-C3'	-10.66	106.91	119.70
38	DR	12	ARG	O-C-N	9.52	137.93	122.70
36	BP	1	MET	CG-SD-CE	9.44	115.30	100.20
40	DT	28	VAL	O-C-N	8.73	136.67	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	DT	28	VAL	CA-C-N	-7.49	100.72	117.20
38	DR	12	ARG	CA-C-N	-6.97	101.86	117.20
13	CM	82	MET	CG-SD-CE	6.64	110.82	100.20
25	BA	1453	U	OP1-P-O3'	6.47	119.44	105.20
30	DF	112	MET	CG-SD-CE	6.43	110.50	100.20
31	DG	86	MET	CG-SD-CE	6.22	110.14	100.20
45	BY	55	TYR	C-N-CD	-6.03	107.33	120.60
40	DT	23	ARG	C-N-CD	-6.02	107.36	120.60
22	AV	44	A	N1-C6-N6	-6.01	114.99	118.60
38	BR	20	LEU	CA-CB-CG	-5.96	101.60	115.30
28	BD	211	ARG	NE-CZ-NH2	-5.95	117.32	120.30
32	DH	124	GLU	N-CA-C	-5.95	94.95	111.00
22	CV	11	A	C2-N3-C4	5.94	113.57	110.60
1	CA	64	G	C4-N9-C1'	-5.91	118.81	126.50
22	CV	28	U	C6-N1-C2	5.91	124.54	121.00
22	CV	46	G	C8-N9-C4	-5.89	104.04	106.40
22	CV	11	A	C5-C6-N1	5.88	120.64	117.70
25	DA	1011	G	C4-N9-C1'	-5.88	118.86	126.50
25	DA	60	G	C4-N9-C1'	-5.87	118.87	126.50
43	DW	51	LEU	CA-CB-CG	5.86	128.78	115.30
40	BT	23	ARG	C-N-CD	-5.82	107.79	120.60
25	DA	669	G	C4-N9-C1'	5.81	134.05	126.50
45	BY	12	THR	O-C-N	5.81	131.99	122.70
8	CH	127	LEU	CA-CB-CG	5.80	128.64	115.30
25	BA	60	G	C4-N9-C1'	-5.78	118.99	126.50
36	DP	115	LEU	CA-CB-CG	5.78	128.58	115.30
36	BP	115	LEU	CA-CB-CG	5.76	128.54	115.30
31	BG	86	MET	C-N-CD	-5.74	107.98	120.60
24	CX	20	U	C2-N1-C1'	-5.73	110.82	117.70
23	AY	38	A	N1-C2-N3	5.72	132.16	129.30
22	CV	17	C	N3-C4-C5	-5.72	119.61	121.90
25	BA	1049	C	C2-N1-C1'	5.71	125.08	118.80
22	AV	13	C	C5-C6-N1	5.71	123.85	121.00
25	DA	1266	G	C4-N9-C1'	-5.70	119.09	126.50
1	AA	1305	G	N3-C4-N9	-5.70	122.58	126.00
22	AV	2	G	N1-C6-O6	-5.70	116.48	119.90
22	CV	40	C	N3-C4-C5	5.70	124.18	121.90
22	CV	28	U	C5-C6-N1	-5.66	119.87	122.70
1	AA	1305	G	C4-N9-C1'	-5.65	119.16	126.50
1	CA	121	C	P-O3'-C3'	5.65	126.48	119.70
40	DT	29	ARG	N-CA-C	5.64	126.22	111.00
25	BA	1011	G	C4-N9-C1'	-5.63	119.18	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	73	A	C5-N7-C8	5.62	106.71	103.90
1	CA	280	C	C2-N1-C1'	5.60	124.96	118.80
25	BA	1786	A	O4'-C1'-N9	5.60	112.68	108.20
25	BA	1698	A	O4'-C1'-N9	5.60	112.68	108.20
25	DA	2296	U	P-O3'-C3'	5.59	126.41	119.70
24	CX	14	A	N7-C8-N9	5.59	116.59	113.80
25	BA	204	A	P-O3'-C3'	5.58	126.39	119.70
1	AA	1442(B)	A	O4'-C1'-N9	5.56	112.65	108.20
25	BA	527	C	O4'-C1'-N1	5.56	112.64	108.20
25	BA	1049	C	N1-C2-O2	5.54	122.23	118.90
23	CY	30	G	N3-C4-C5	-5.53	125.84	128.60
25	BA	2311	A	O4'-C1'-N9	5.52	112.62	108.20
25	BA	1453	U	OP2-P-O3'	-5.52	93.05	105.20
1	CA	1345	U	C2-N1-C1'	-5.52	111.07	117.70
25	DA	323	G	O4'-C1'-N9	5.50	112.60	108.20
23	AY	33	U	N3-C4-O4	-5.49	115.55	119.40
25	DA	1779	U	C5-C6-N1	-5.49	119.95	122.70
22	AV	62	C	N3-C4-C5	-5.49	119.70	121.90
25	BA	1992	G	P-O3'-C3'	5.47	126.26	119.70
23	AW	62	C	C6-N1-C2	-5.44	118.12	120.30
25	BA	685	A	O4'-C1'-N9	5.43	112.55	108.20
1	CA	960	U	C2-N1-C1'	5.43	124.21	117.70
25	DA	2346	A	O4'-C1'-N9	5.38	112.50	108.20
1	AA	1302	U	OP2-P-O3'	5.38	117.03	105.20
25	DA	2334	G	OP2-P-O3'	5.38	117.03	105.20
1	AA	1322	C	C2-N1-C1'	5.37	124.71	118.80
40	DT	30	VAL	N-CA-C	5.37	125.51	111.00
25	BA	828	U	N3-C2-O2	-5.37	118.44	122.20
46	BZ	72	ARG	NE-CZ-NH2	-5.36	117.62	120.30
39	DS	54	LEU	CA-CB-CG	5.36	127.63	115.30
23	AY	33	U	N3-C2-O2	-5.36	118.45	122.20
25	DA	1008	C	P-O3'-C3'	5.36	126.13	119.70
25	BA	1616	A	O4'-C1'-N9	5.35	112.48	108.20
25	DA	372	G	O4'-C1'-N9	5.34	112.47	108.20
25	DA	2238	G	OP1-P-O3'	5.34	116.95	105.20
1	AA	872	A	O4'-C1'-N9	5.34	112.47	108.20
22	AV	73	A	N1-C2-N3	-5.33	126.63	129.30
25	BA	2585	U	O4'-C1'-N1	5.33	112.46	108.20
22	CV	11	A	N1-C6-N6	-5.33	115.40	118.60
1	AA	1305	G	C8-N9-C1'	5.32	133.92	127.00
1	CA	960	U	O4'-C1'-N1	5.32	112.45	108.20
23	AW	26	A	N1-C2-N3	5.30	131.95	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	73	A	N7-C8-N9	-5.30	111.15	113.80
1	CA	1086	U	O5'-P-OP2	-5.30	100.93	105.70
25	DA	669	G	C8-N9-C1'	-5.30	120.11	127.00
1	CA	508	C	P-O3'-C3'	5.29	126.05	119.70
42	BV	18	LEU	CA-CB-CG	5.29	127.47	115.30
25	DA	865	C	OP1-P-O3'	5.29	116.84	105.20
25	BA	1266	G	C8-N9-C4	5.29	108.51	106.40
41	BU	11	ARG	NE-CZ-NH1	-5.26	117.67	120.30
33	DI	135	GLU	N-CA-C	5.26	125.21	111.00
22	AV	27	G	C4-C5-N7	5.25	112.90	110.80
1	CA	530	G	C4-N9-C1'	-5.25	119.67	126.50
25	BA	1053	C	C2-N1-C1'	5.25	124.58	118.80
40	DT	25	GLY	N-CA-C	-5.25	99.98	113.10
1	CA	653	A	O4'-C1'-N9	5.24	112.39	108.20
25	DA	556	G	C4-N9-C1'	5.24	133.31	126.50
22	CV	62	C	N3-C2-O2	-5.23	118.24	121.90
25	BA	556	G	C4-N9-C1'	5.23	133.29	126.50
1	AA	890	G	O4'-C1'-N9	5.22	112.38	108.20
22	CV	35	C	C3'-C2'-C1'	-5.22	97.32	101.50
25	BA	530	G	C4-N9-C1'	-5.21	119.72	126.50
25	DA	322	A	P-O3'-C3'	5.21	125.95	119.70
22	AV	28	U	C5-C6-N1	-5.21	120.10	122.70
25	DA	372	G	C4-N9-C1'	-5.21	119.73	126.50
25	DA	2238	G	P-O3'-C3'	5.20	125.94	119.70
22	CV	56	U	C5-C6-N1	-5.20	120.10	122.70
22	AV	47	G	N1-C6-O6	5.20	123.02	119.90
25	DA	1781	C	C2-N1-C1'	5.19	124.51	118.80
25	BA	1762	A	OP2-P-O3'	5.19	116.62	105.20
25	BA	1940	U	O4'-C1'-N1	5.19	112.35	108.20
25	BA	828	U	N1-C2-O2	5.18	126.43	122.80
25	BA	60	G	O4'-C1'-N9	5.18	112.34	108.20
25	BA	1944	U	P-O3'-C3'	5.18	125.91	119.70
25	DA	865	C	P-O3'-C3'	5.18	125.91	119.70
25	DA	386	G	O4'-C1'-N9	5.17	112.33	108.20
25	DA	1332	G	OP2-P-O3'	5.17	116.57	105.20
25	BA	1497	U	N1-C2-O2	5.17	126.42	122.80
25	BA	1008	C	P-O3'-C3'	5.16	125.90	119.70
25	DA	726	G	C4-N9-C1'	-5.16	119.79	126.50
23	CY	30	G	N3-C4-N9	5.16	129.09	126.00
22	AV	24	C	C4-C5-C6	5.15	119.98	117.40
23	CY	36	A	C3'-C2'-C1'	-5.14	97.39	101.50
25	BA	1011	G	C8-N9-C1'	5.14	133.68	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	49	C	N3-C4-C5	-5.14	119.85	121.90
22	AV	49	C	C4-C5-C6	5.13	119.97	117.40
25	DA	386	G	C4-N9-C1'	-5.13	119.83	126.50
25	BA	1618	A	P-O3'-C3'	5.13	125.85	119.70
25	BA	454	A	P-O3'-C3'	5.12	125.85	119.70
25	BA	801	G	P-O3'-C3'	5.12	125.84	119.70
22	CV	28	U	N1-C2-O2	5.12	126.38	122.80
25	BA	395	U	O4'-C1'-N1	5.12	112.30	108.20
25	BA	454	A	OP2-P-O3'	5.12	116.46	105.20
24	CX	14	A	N1-C2-N3	-5.11	126.74	129.30
24	AX	19	U	C5-C6-N1	5.11	125.25	122.70
25	DA	627	A	OP1-P-O3'	5.10	116.43	105.20
25	DA	1944	U	P-O3'-C3'	5.10	125.81	119.70
25	DA	60	G	C8-N9-C1'	5.09	133.62	127.00
25	DA	1955	U	O4'-C1'-N1	5.09	112.27	108.20
1	CA	64	G	C8-N9-C1'	5.09	133.62	127.00
1	AA	438	G	P-O3'-C3'	5.08	125.80	119.70
23	AW	2	C	C6-N1-C2	5.08	122.33	120.30
25	BA	530	G	C8-N9-C1'	5.08	133.60	127.00
25	DA	685	A	O4'-C1'-N9	5.08	112.26	108.20
1	AA	559	A	O4'-C1'-N9	5.07	112.26	108.20
22	CV	56	U	N1-C2-N3	5.07	117.94	114.90
25	BA	2296	U	OP1-P-O3'	5.06	116.34	105.20
9	CI	83	ARG	NE-CZ-NH2	-5.06	117.77	120.30
25	BA	1741	A	O5'-P-OP1	-5.05	101.15	105.70
25	DA	2296	U	OP1-P-O3'	5.05	116.32	105.20
25	DA	2584	U	N1-C2-O2	5.05	126.34	122.80
25	DA	1008	C	OP1-P-O3'	5.05	116.31	105.20
14	AN	13	THR	C-N-CD	-5.05	109.49	120.60
23	CY	35	A	C2-N3-C4	5.05	113.12	110.60
25	BA	1008	C	OP1-P-O3'	5.05	116.31	105.20
1	CA	496	A	O4'-C1'-N9	5.05	112.24	108.20
25	DA	1779	U	C2-N1-C1'	-5.05	111.64	117.70
25	BA	458	G	C4-N9-C1'	-5.04	119.94	126.50
25	BA	645	C	N1-C2-O2	5.04	121.93	118.90
54	D7	31	LEU	CA-CB-CG	-5.04	103.70	115.30
1	CA	1400	C	OP2-P-O3'	5.04	116.29	105.20
25	DA	1542	A	P-O3'-C3'	5.04	125.75	119.70
23	AW	2	C	N3-C4-C5	5.03	123.91	121.90
44	BX	57	LEU	CA-CB-CG	5.03	126.87	115.30
25	DA	1272	A	C1'-O4'-C4'	-5.03	105.88	109.90
23	AY	34	G	N7-C8-N9	5.02	115.61	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	301	G	C8-N9-C1'	5.02	133.52	127.00
25	BA	1266	G	C4-N9-C1'	-5.01	119.98	126.50
1	CA	1400	C	P-O3'-C3'	5.01	125.71	119.70
1	AA	1302	U	P-O3'-C3'	5.01	125.71	119.70
30	BF	188	ARG	NE-CZ-NH1	-5.01	117.80	120.30
43	BW	86	LEU	CA-CB-CG	5.01	126.81	115.30
25	DA	1011	G	C8-N9-C1'	5.00	133.51	127.00
24	AX	19	U	C2-N3-C4	5.00	130.00	127.00

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	BD	222	ARG	Sidechain

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	32328	0	16317	795	0
1	CA	32328	0	16317	871	1
2	AB	1901	0	1951	245	0
2	CB	1901	0	1951	232	0
3	AC	1613	0	1677	197	0
3	CC	1613	0	1677	148	0
4	AD	1703	0	1765	191	0
4	CD	1703	0	1764	174	0
5	AE	1147	0	1207	148	0
5	CE	1147	0	1207	159	0
6	AF	843	0	857	87	0
6	CF	843	0	857	63	0
7	AG	1257	0	1296	123	0
7	CG	1257	0	1296	102	0
8	AH	1116	0	1177	111	0
8	CH	1116	0	1177	111	0
9	AI	1010	0	1037	133	0
9	CI	1010	0	1037	144	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AJ	795	0	840	127	0
10	CJ	795	0	840	135	0
11	AK	885	0	904	97	0
11	CK	885	0	904	109	0
12	AL	971	0	1057	126	0
12	CL	971	0	1057	123	0
13	AM	988	0	1059	151	0
13	CM	997	0	1072	164	0
14	AN	492	0	529	87	0
14	CN	492	0	531	69	0
15	AO	734	0	771	61	0
15	CO	734	0	771	51	0
16	AP	701	0	720	62	0
16	CP	701	0	720	101	0
17	AQ	824	0	891	68	0
17	CQ	824	0	891	85	0
18	AR	574	0	644	62	0
18	CR	574	0	644	68	0
19	AS	630	0	652	117	0
19	CS	630	0	652	106	0
20	AT	763	0	861	132	0
20	CT	763	0	861	166	0
21	AU	209	0	221	12	0
21	CU	209	0	221	22	0
22	AV	1644	0	836	110	0
22	CV	1643	0	836	143	0
23	AW	1619	0	822	122	0
23	AY	365	0	185	29	0
23	CW	1619	0	822	109	0
23	CY	365	0	185	37	0
24	AX	255	0	129	49	0
24	CX	210	0	109	23	0
25	BA	60527	0	30515	1623	1
25	DA	60827	0	30663	1373	0
26	BB	2551	0	1295	57	1
26	DB	2551	0	1295	55	0
27	BC	1142	0	865	78	0
27	DC	1142	0	865	70	0
28	BD	2105	0	2182	310	0
28	DD	2105	0	2182	277	0
29	BE	1564	0	1629	216	0
29	DE	1564	0	1629	206	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	BF	1624	0	1677	246	0
30	DF	1585	0	1632	188	0
31	BG	1474	0	1535	264	0
31	DG	1474	0	1535	209	0
32	BH	1223	0	1282	136	1
32	DH	1290	0	1364	238	0
33	BI	1131	0	1218	152	0
33	DI	1136	0	1223	229	0
34	BN	1105	0	1180	188	0
34	DN	1105	0	1180	140	0
35	BO	933	0	996	117	0
35	DO	933	0	996	90	0
36	BP	1145	0	1228	279	0
36	DP	1145	0	1228	283	3
37	BQ	1122	0	1179	129	0
37	DQ	1122	0	1179	123	0
38	BR	960	0	1021	146	0
38	DR	968	0	1033	109	0
39	BS	771	0	832	127	0
39	DS	882	0	943	149	0
40	BT	1142	0	1202	240	0
40	DT	1142	0	1202	269	0
41	BU	964	0	1022	160	0
41	DU	958	0	1014	198	0
42	BV	779	0	852	135	0
42	DV	779	0	852	150	3
43	BW	896	0	953	104	0
43	DW	896	0	953	89	0
44	BX	726	0	778	64	0
44	DX	726	0	778	67	0
45	BY	776	0	870	172	0
45	DY	785	0	878	176	0
46	BZ	1404	0	1432	148	0
46	DZ	1404	0	1432	214	0
47	B0	662	0	688	60	0
47	D0	662	0	688	60	0
48	B1	732	0	808	78	0
48	D1	732	0	808	66	0
49	B2	598	0	653	64	0
49	D2	598	0	653	53	0
50	B3	468	0	523	40	3
50	D3	468	0	523	50	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	B4	226	0	229	39	0
51	D4	298	0	312	43	0
52	B5	459	0	480	50	0
52	D5	459	0	480	53	3
53	B6	381	0	391	51	0
53	D6	381	0	391	99	0
54	B7	419	0	467	35	0
54	D7	419	0	467	33	0
55	B8	508	0	576	115	0
55	D8	508	0	576	85	0
56	B9	299	0	326	13	0
56	D9	299	0	326	14	0
57	AA	110	0	0	0	0
57	AE	1	0	0	0	0
57	AV	5	0	0	0	0
57	AX	1	0	0	0	0
57	B5	1	0	0	0	0
57	B7	1	0	0	0	0
57	BA	323	0	0	0	0
57	BB	5	0	0	0	0
57	BD	2	0	0	0	0
57	BE	3	0	0	0	0
57	BF	1	0	0	0	0
57	BN	1	0	0	0	0
57	BO	1	0	0	0	0
57	BP	1	0	0	0	0
57	BU	1	0	0	0	0
57	CA	141	0	0	0	0
57	CE	2	0	0	0	0
57	CV	5	0	0	0	0
57	CW	1	0	0	0	0
57	CX	1	0	0	0	0
57	CY	1	0	0	0	0
57	D0	2	0	0	0	0
57	D1	2	0	0	0	0
57	D2	1	0	0	0	0
57	D5	2	0	0	0	0
57	D8	1	0	0	0	0
57	DA	397	0	0	0	0
57	DB	5	0	0	0	0
57	DD	3	0	0	0	0
57	DE	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	DF	1	0	0	0	0
57	DP	3	0	0	0	0
57	DQ	1	0	0	0	0
57	DU	3	0	0	0	0
57	DW	1	0	0	0	0
57	DX	1	0	0	0	0
58	AA	42	0	45	3	0
58	CA	42	0	45	2	0
59	AD	1	0	0	0	0
59	AN	1	0	0	1	0
59	CD	1	0	0	0	0
59	CN	1	0	0	3	0
All	All	293977	0	199058	16442	8

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 34.

All (16442) 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)
39:BS:34:HIS:CE1	39:BS:54:LEU:HB2	1.32	1.58
42:DV:1:MET:SD	42:DV:1:MET:CG	2.01	1.47
40:BT:28:VAL:CG1	40:BT:46:GLU:HA	1.42	1.44
1:CA:748:C:H1'	1:CA:749:C:C5	1.53	1.44
34:BN:62:VAL:HG22	34:BN:66:LYS:CD	1.49	1.42
1:AA:1049:U:H1'	1:AA:1201:A:N7	1.33	1.41
40:BT:29:ARG:HG3	40:BT:85:LYS:CA	1.49	1.41
19:AS:5:LEU:HD12	19:AS:10:PHE:CD1	1.56	1.41
1:CA:1065:U:C4'	1:CA:1066:C:H5"	1.49	1.41
5:CE:78:HIS:CD2	8:CH:104:ARG:HG3	1.50	1.40
20:AT:37:SER:HB3	20:AT:84:LEU:CD2	1.54	1.36
39:BS:34:HIS:HE1	39:BS:54:LEU:CB	1.38	1.36
33:BI:77:LEU:CD2	33:BI:101:LEU:HD13	1.52	1.36
7:AG:14:PRO:HG3	7:AG:21:VAL:CG1	1.56	1.36
5:CE:102:ALA:CB	5:CE:106:PRO:HB2	1.56	1.36
45:BY:28:LYS:CB	45:BY:37:VAL:HB	1.54	1.35
25:DA:887:A:H1'	25:DA:889:C:N4	1.38	1.35
12:CL:11:VAL:HG13	17:CQ:29:HIS:CD2	1.61	1.34
4:CD:108:LEU:HB3	4:CD:110:PHE:CD1	1.60	1.34
1:CA:1064:G:H4'	1:CA:1065:U:C5'	1.56	1.34
1:CA:1065:U:H4'	1:CA:1066:C:C5'	1.56	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:43:LEU:CB	31:BG:88:ILE:HD11	1.56	1.33
45:BY:28:LYS:HB2	45:BY:37:VAL:CB	1.58	1.32
28:BD:80:ALA:HB2	28:BD:96:HIS:CD2	1.62	1.31
31:BG:72:ARG:CB	31:BG:86:MET:HA	1.61	1.31
38:BR:10:LEU:CB	38:BR:17:ARG:HD3	1.62	1.29
40:DT:32:TYR:HB3	40:DT:81:PRO:CB	1.61	1.29
31:BG:43:LEU:HB2	31:BG:88:ILE:CD1	1.62	1.28
36:BP:59:LEU:HA	36:BP:61:ARG:NH1	1.48	1.28
14:AN:12:ARG:C	14:AN:14:PRO:HD2	1.51	1.27
40:BT:29:ARG:CG	40:BT:85:LYS:HA	1.63	1.27
30:BF:64:ILE:HG23	30:BF:65:TRP:CD1	1.69	1.26
5:AE:121:LYS:CG	5:AE:122:GLU:H	1.45	1.25
22:CV:29:C:C2'	22:CV:30:G:H5'	1.64	1.25
55:B8:31:HIS:ND1	55:B8:32:LEU:HA	1.50	1.24
5:CE:102:ALA:HB1	5:CE:106:PRO:CB	1.68	1.24
13:CM:124:PRO:HB3	13:CM:125:ARG:CG	1.68	1.24
19:AS:9:VAL:CG1	19:AS:11:VAL:HG12	1.67	1.24
31:BG:72:ARG:HH11	31:BG:86:MET:CB	1.51	1.24
1:CA:251:G:H1'	1:CA:252:U:C5	1.73	1.23
31:BG:142:PRO:HG2	31:BG:143:GLU:OE1	1.39	1.23
38:BR:10:LEU:HB3	38:BR:17:ARG:CD	1.69	1.23
25:BA:887:A:H1'	25:BA:889:C:N4	1.53	1.22
25:DA:1693:U:H2'	28:DD:14:ARG:NH2	1.51	1.22
1:AA:1049:U:H1'	1:AA:1201:A:C8	1.75	1.22
25:BA:1453:U:O3'	25:BA:1455:G:P	1.97	1.22
40:BT:28:VAL:HG22	40:BT:47:GLY:N	1.51	1.22
23:AW:34:G:C4	24:AX:14:A:C2	2.27	1.22
39:DS:106:ARG:HA	39:DS:110:LEU:CD1	1.69	1.22
5:CE:102:ALA:O	5:CE:106:PRO:HG3	1.37	1.21
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	1.80	1.21
32:DH:98:LEU:HB2	32:DH:125:VAL:HG21	1.21	1.21
5:CE:78:HIS:HD2	8:CH:104:ARG:CG	1.53	1.20
19:AS:5:LEU:CD1	19:AS:10:PHE:HD1	1.53	1.20
1:CA:251:G:C1'	1:CA:252:U:H5	1.55	1.20
20:CT:56:MET:CG	20:CT:84:LEU:HD12	1.71	1.20
4:CD:108:LEU:HG	4:CD:110:PHE:CE1	1.76	1.19
30:DF:62:ARG:HH11	30:DF:62:ARG:HG2	1.03	1.19
1:AA:1049:U:H1'	1:AA:1201:A:C5	1.78	1.18
31:BG:72:ARG:HB3	31:BG:86:MET:CA	1.72	1.18
19:AS:9:VAL:HG12	19:AS:11:VAL:CG1	1.72	1.18
28:BD:267:SER:O	28:BD:268:ARG:CG	1.91	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:56:MET:HG3	20:CT:84:LEU:HD12	1.18	1.18
1:CA:251:G:C1'	1:CA:252:U:C5	2.25	1.18
36:DP:59:LEU:HA	36:DP:61:ARG:CZ	1.73	1.18
36:BP:59:LEU:HA	36:BP:61:ARG:CZ	1.71	1.18
34:BN:123:TYR:HE1	34:BN:130:HIS:CE1	1.62	1.18
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB2	1.03	1.18
5:AE:103:GLY:O	5:AE:106:PRO:HD2	1.43	1.17
28:BD:267:SER:O	28:BD:268:ARG:HG3	0.99	1.17
36:DP:63:PRO:HB3	55:D8:13:ARG:HB3	1.23	1.17
13:CM:57:ARG:HH21	51:D4:34:GLU:HG3	1.03	1.17
39:DS:106:ARG:CA	39:DS:110:LEU:HD11	1.73	1.17
13:AM:65:LYS:HA	13:AM:66:LEU:HB2	1.25	1.17
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	1.73	1.17
25:BA:2171:A:H4'	25:BA:2172:U:OP1	1.45	1.17
11:CK:21:ILE:HG23	11:CK:30:VAL:HG12	1.24	1.17
20:CT:49:ALA:CB	20:CT:100:ILE:HD11	1.74	1.16
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.17	1.16
12:AL:47:LYS:HB2	12:AL:48:PRO:HD3	1.26	1.16
1:AA:60:A:H4'	1:AA:61:G:O5'	1.41	1.16
5:CE:78:HIS:CD2	8:CH:104:ARG:CG	2.26	1.16
5:AE:121:LYS:HG3	5:AE:122:GLU:N	1.47	1.15
40:DT:38:ASN:O	40:DT:39:ARG:HG2	1.46	1.15
4:CD:108:LEU:HG	4:CD:110:PHE:HE1	1.00	1.15
33:BI:72:LEU:HD11	33:BI:138:ILE:HB	1.21	1.15
1:AA:250:A:H4'	1:AA:251:G:O5'	1.45	1.15
28:BD:80:ALA:HB2	28:BD:96:HIS:NE2	1.62	1.15
20:CT:50:GLU:OE2	20:CT:50:GLU:HA	1.46	1.15
40:BT:29:ARG:HA	40:BT:29:ARG:NE	1.55	1.15
3:AC:79:ARG:HH12	11:CK:100:ALA:HB2	1.12	1.14
35:DO:104:ARG:NH1	40:DT:35:LYS:HE2	1.63	1.14
4:AD:11:LEU:N	4:AD:11:LEU:HD23	1.60	1.14
4:CD:108:LEU:CB	4:CD:110:PHE:HD1	1.58	1.14
20:CT:43:LEU:CD1	20:CT:51:GLU:CG	2.25	1.14
25:DA:1453:U:H4'	25:DA:1455:G:OP1	1.39	1.14
38:BR:4:LEU:HD13	38:BR:4:LEU:O	1.41	1.14
13:CM:124:PRO:HB2	13:CM:125:ARG:HB2	1.22	1.14
24:AX:21:C:H2'	24:AX:22:A:H8	1.10	1.14
41:DU:92:ARG:HD2	42:DV:11:GLN:CD	1.66	1.14
29:BE:39:PRO:O	29:BE:43:GLY:HA2	1.44	1.14
32:BH:107:VAL:HG23	32:BH:109:PHE:CZ	1.83	1.13
28:BD:31:LYS:HG3	28:BD:33:LEU:HD13	1.28	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:64:ILE:CG2	30:BF:65:TRP:CD1	2.30	1.13
43:BW:4:LYS:HE3	43:BW:6:ILE:HD11	1.30	1.13
1:CA:748:C:C1'	1:CA:749:C:C5	2.30	1.13
40:DT:36:GLU:HB3	40:DT:38:ASN:ND2	1.63	1.13
41:DU:92:ARG:NH1	42:DV:11:GLN:HB2	1.64	1.13
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.39	1.13
23:AW:34:G:C5	24:AX:14:A:C2	2.37	1.12
15:AO:24:SER:O	15:AO:28:GLN:HG3	1.46	1.12
36:DP:75:ILE:HD13	36:DP:75:ILE:H	1.06	1.12
39:DS:106:ARG:HB2	39:DS:106:ARG:NH1	1.62	1.12
1:AA:983:A:H2	1:AA:984:C:C5	1.67	1.12
1:AA:1285:A:H1'	1:AA:1286:A:OP2	1.50	1.12
29:BE:36:ARG:NH2	29:BE:88:GLY:HA3	1.63	1.12
20:CT:56:MET:HG3	20:CT:84:LEU:CD1	1.79	1.12
1:AA:992:U:H4'	1:AA:993:G:O5'	1.47	1.12
51:B4:40:ILE:HG13	51:B4:57:ILE:HG21	1.32	1.12
13:CM:125:ARG:HD3	13:CM:126:LYS:H	0.99	1.12
25:DA:84:A:H5'	45:DY:8:LYS:HG2	1.31	1.12
41:DU:92:ARG:HD2	42:DV:11:GLN:NE2	1.65	1.12
20:CT:52:ALA:O	20:CT:56:MET:HB2	1.48	1.11
25:DA:1653:G:H4'	25:DA:1654:A:OP1	1.45	1.11
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.19	1.11
43:BW:4:LYS:HE3	43:BW:6:ILE:CD1	1.79	1.11
25:DA:768:G:H2'	25:DA:769:G:H8	1.04	1.11
1:AA:1201:A:H4'	1:AA:1202:G:O5'	1.46	1.11
25:BA:614(C):A:H4'	25:BA:615:G:OP1	1.42	1.11
25:BA:1966:A:H1'	25:BA:2593:U:H5'	1.28	1.11
12:AL:28:LYS:HG2	12:AL:28:LYS:O	1.47	1.11
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.31	1.11
36:BP:75:ILE:H	36:BP:75:ILE:HD13	1.06	1.10
22:CV:41:C:O2'	22:CV:42:C:H5'	1.51	1.10
41:DU:92:ARG:CZ	42:DV:11:GLN:HB2	1.81	1.10
48:D1:86:SER:HB2	48:D1:89:GLU:HB2	1.32	1.10
25:BA:241:A:H4'	25:BA:242:G:OP1	1.51	1.10
25:BA:2457:U:H2'	25:BA:2458:G:H5'	1.34	1.10
40:DT:129:ARG:NE	40:DT:131:ALA:HB3	1.67	1.10
1:AA:968:A:H4'	1:AA:969:A:OP2	1.42	1.10
25:BA:1385:G:H4'	25:BA:1386:C:OP1	1.46	1.10
1:CA:1226:C:H4'	1:CA:1227:A:OP1	1.39	1.10
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	1.82	1.10
25:DA:1799:G:H4'	25:DA:1800:C:O5'	1.47	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.07	1.10
1:AA:738:C:H5"	6:AF:69:GLU:HB2	1.33	1.10
23:AW:33:U:H2'	23:AW:35:A:OP2	1.52	1.10
31:BG:72:ARG:HH11	31:BG:86:MET:HB3	1.02	1.10
36:BP:63:PRO:HB3	55:B8:13:ARG:HB3	1.23	1.10
39:BS:35:ILE:HD11	39:BS:69:VAL:HG11	1.31	1.10
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.00	1.10
22:CV:29:C:H2'	22:CV:30:G:H5'	1.20	1.10
25:DA:1963:U:H4'	25:DA:1964:G:OP1	1.51	1.10
40:BT:28:VAL:HG13	40:BT:46:GLU:CA	1.81	1.09
1:CA:251:G:O2'	1:CA:252:U:H5"	1.47	1.09
5:CE:100:VAL:HB	5:CE:118:ILE:HG22	1.12	1.09
36:DP:65:ARG:HH12	55:D8:15:LYS:HB2	1.15	1.09
40:DT:125:ARG:O	40:DT:128:GLU:HG3	1.52	1.09
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.32	1.09
25:BA:448:U:H1'	30:BF:84:VAL:CG1	1.82	1.09
38:BR:100:LEU:HB2	38:BR:111:LEU:O	1.52	1.09
40:BT:25:GLY:O	40:BT:48:ILE:HG23	1.53	1.09
46:BZ:5:LEU:HD21	46:BZ:43:GLU:HB3	1.18	1.09
55:B8:32:LEU:H	55:B8:32:LEU:HD12	1.06	1.09
34:DN:4:TYR:HB2	41:DU:64:ARG:HH22	1.16	1.09
36:DP:59:LEU:HA	36:DP:61:ARG:NH1	1.67	1.09
40:DT:33:LYS:HE3	40:DT:43:GLN:NE2	1.66	1.09
25:BA:1342:A:N6	25:BA:1397:U:C5	2.20	1.09
40:BT:83:ILE:HG13	40:BT:84:GLN:H	1.08	1.09
25:DA:1645:G:H5"	25:DA:1646:C:H5'	1.30	1.09
33:DI:131:LYS:HB3	33:DI:132:PRO:HA	1.25	1.09
35:DO:104:ARG:HH12	40:DT:35:LYS:CE	1.63	1.09
40:DT:32:TYR:HB3	40:DT:81:PRO:HB2	1.19	1.09
25:BA:1549:C:H2'	25:BA:1550:C:C6	1.87	1.09
51:D4:9:LEU:HA	51:D4:26:SER:O	1.50	1.09
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.09	1.09
39:DS:106:ARG:HB2	39:DS:106:ARG:HH11	1.10	1.09
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.33	1.08
9:CI:55:ALA:HB1	9:CI:58:HIS:HB2	1.34	1.08
32:DH:89:ILE:HD11	32:DH:129:THR:HB	1.27	1.08
19:AS:12:ASP:HB3	19:AS:14:HIS:CE1	1.89	1.08
25:BA:434:U:H4'	25:BA:435:C:OP1	1.43	1.08
30:BF:51:THR:HG21	30:BF:92:PRO:HD2	1.33	1.08
1:CA:1054:C:N4	23:CY:34:G:H1'	1.67	1.08
25:DA:995:C:C6	41:DU:57:PHE:CE1	2.42	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:59:LYS:HG2	39:DS:60:GLY:H	1.18	1.08
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.32	1.08
25:DA:2701:C:H3'	25:DA:2702:U:H5"	1.30	1.08
38:DR:55:ALA:HA	38:DR:80:PHE:HE1	1.16	1.08
38:BR:13:HIS:HE1	38:BR:16:HIS:HB2	1.18	1.08
45:BY:75:ILE:HG13	45:BY:79:CYS:HA	1.30	1.08
20:CT:53:LEU:HD23	20:CT:100:ILE:HG21	1.14	1.08
25:DA:221:A:H4'	25:DA:222:A:O5'	1.47	1.08
40:BT:83:ILE:HG13	40:BT:84:GLN:N	1.66	1.08
33:DI:115:ALA:HB3	33:DI:128:LEU:HD11	1.12	1.08
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.19	1.07
4:AD:11:LEU:HD23	4:AD:11:LEU:H	0.96	1.07
25:BA:448:U:O2'	30:BF:84:VAL:HG13	1.54	1.07
34:BN:62:VAL:HG22	34:BN:66:LYS:HD3	1.34	1.07
40:BT:60:THR:HG22	40:BT:77:PRO:HA	1.35	1.07
13:CM:124:PRO:CB	13:CM:125:ARG:HG2	1.82	1.07
13:CM:125:ARG:HD3	13:CM:126:LYS:N	1.68	1.07
25:BA:2320:A:N7	25:BA:2333:A:C6	2.23	1.07
33:BI:77:LEU:HD22	33:BI:101:LEU:HD13	1.35	1.07
55:B8:33:ASN:O	55:B8:34:TRP:HB3	1.28	1.07
25:DA:768:G:H2'	25:DA:769:G:C8	1.90	1.07
40:DT:23:ARG:HG2	40:DT:120:ARG:NH1	1.69	1.07
25:BA:1966:A:H4'	25:BA:1967:C:OP1	1.52	1.07
1:CA:819:A:H5'	1:CA:820:U:OP2	1.50	1.07
25:DA:84:A:OP2	45:DY:8:LYS:HD3	1.52	1.07
22:AV:18:U:H4'	22:AV:19:G:OP2	1.52	1.07
25:BA:448:U:H1'	30:BF:84:VAL:HG11	1.12	1.07
40:BT:34:VAL:HG22	40:BT:39:ARG:HB3	1.34	1.07
42:DV:58:VAL:HB	42:DV:98:GLU:HB2	1.28	1.07
39:BS:24:LEU:HB3	39:BS:85:VAL:HG12	1.37	1.07
5:CE:102:ALA:C	5:CE:106:PRO:HG3	1.75	1.07
29:DE:77:ILE:HG22	29:DE:78:LEU:H	1.17	1.07
31:DG:56:ALA:HB2	31:DG:153:ARG:HE	1.16	1.07
25:BA:559:G:H22	41:BU:49:HIS:CE1	1.72	1.06
20:CT:43:LEU:HD13	20:CT:51:GLU:CG	1.84	1.06
30:DF:32:LEU:HD11	30:DF:105:VAL:HG13	1.35	1.06
31:DG:67:LYS:HG2	51:D4:5:ILE:HG22	1.32	1.06
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.33	1.06
25:BA:995:C:N4	34:BN:1:MET:HG3	1.68	1.06
25:BA:1300:U:H4'	25:BA:1301:A:O5'	1.53	1.06
41:BU:108:GLU:OE2	42:BV:44:LYS:HD3	1.55	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:55:TYR:HB2	45:BY:56:PRO:HD2	1.17	1.06
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.37	1.06
27:DC:58:VAL:HG21	27:DC:166:ASP:H	1.12	1.06
20:AT:37:SER:HB3	20:AT:84:LEU:HD22	1.09	1.06
25:BA:1453:U:H4'	25:BA:1455:G:P	1.96	1.06
1:CA:820:U:H4'	1:CA:821:G:OP2	1.53	1.06
25:BA:2198:A:H4'	25:BA:2199:A:OP1	1.56	1.06
9:CI:19:LEU:HD22	9:CI:59:PHE:CB	1.84	1.06
1:AA:1300:G:O2'	1:AA:1301:U:H5"	1.55	1.05
40:BT:28:VAL:CG1	40:BT:46:GLU:CA	2.32	1.05
7:AG:15:ASP:O	7:AG:19:GLY:HA2	1.55	1.05
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	1.57	1.05
24:CX:16:A:H2'	24:CX:17:U:H6	1.19	1.05
9:AI:58:HIS:C	9:AI:59:PHE:CD1	2.30	1.05
25:BA:1453:U:H4'	25:BA:1455:G:OP1	1.53	1.05
41:BU:34:LYS:HA	41:BU:34:LYS:CE	1.79	1.05
13:CM:57:ARG:NH2	51:D4:34:GLU:HG3	1.70	1.05
25:DA:913:U:H4'	25:DA:914:C:OP1	1.49	1.05
30:DF:95:ARG:NE	30:DF:97:TYR:CE1	2.24	1.05
41:DU:108:GLU:HG3	42:DV:44:LYS:HE3	1.10	1.05
45:DY:95:LYS:HB3	45:DY:100:ALA:HA	1.34	1.05
40:BT:28:VAL:HG21	40:BT:46:GLU:HG3	1.12	1.05
42:BV:77:ALA:O	42:BV:79:VAL:HG12	1.55	1.05
1:CA:913:A:H4'	1:CA:914:A:O5'	1.53	1.05
52:D5:57:VAL:O	52:D5:58:LEU:HD23	1.55	1.05
1:AA:1049:U:C1'	1:AA:1201:A:N7	2.20	1.05
25:BA:1342:A:C6	25:BA:1397:U:C5	2.43	1.05
22:CV:17:C:H3'	22:CV:18:U:H5'	1.39	1.05
4:AD:49:ARG:HD3	4:AD:50:ARG:H	1.20	1.04
5:AE:76:ILE:HD11	5:AE:142:LEU:HD11	1.37	1.04
19:AS:9:VAL:CG1	19:AS:11:VAL:CG1	2.30	1.04
42:BV:72:VAL:HG23	42:BV:85:LYS:HB3	1.37	1.04
32:DH:153:LYS:HB3	32:DH:154:PRO:HD2	1.05	1.04
1:AA:1049:U:C1'	1:AA:1201:A:C8	2.40	1.04
5:AE:50:GLU:HB3	5:AE:53:LEU:HD13	1.38	1.04
27:BC:58:VAL:HG21	27:BC:166:ASP:H	1.14	1.04
30:BF:154:VAL:HG22	30:BF:191:ARG:HB2	1.38	1.04
32:BH:107:VAL:CG2	32:BH:109:PHE:CZ	2.40	1.04
25:BA:2126:A:H4'	25:BA:2127:G:O5'	1.54	1.04
13:CM:124:PRO:CB	13:CM:125:ARG:CB	2.36	1.04
28:DD:10:THR:HG23	28:DD:13:ARG:HB3	1.40	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:41:PRO:HD2	53:D6:46:HIS:N	1.73	1.04
1:AA:913:A:H4'	1:AA:914:A:O5'	1.58	1.04
1:CA:1065:U:H4'	1:CA:1066:C:H5"	1.08	1.04
13:CM:124:PRO:HB3	13:CM:125:ARG:HG2	1.04	1.04
1:AA:686:U:H1'	11:AK:42:TRP:HE1	1.22	1.04
20:AT:53:LEU:HD12	20:AT:102:GLY:HA3	1.40	1.04
52:B5:16:ARG:HH11	52:B5:16:ARG:HG2	1.21	1.04
1:CA:1064:G:H4'	1:CA:1065:U:H5"	1.05	1.04
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.54	1.04
20:CT:43:LEU:HD13	20:CT:51:GLU:CB	1.86	1.04
22:CV:43:G:H2'	22:CV:44:A:H5'	1.35	1.04
42:DV:11:GLN:NE2	42:DV:39:LEU:HD23	1.72	1.04
25:DA:1558:A:H4'	25:DA:1559:G:O5'	1.58	1.03
40:DT:129:ARG:CZ	40:DT:131:ALA:HB3	1.87	1.03
44:DX:63:LYS:HE3	44:DX:72:LYS:HE3	1.40	1.03
53:D6:40:CYS:SG	53:D6:45:LYS:HE3	1.97	1.03
25:BA:1300:U:H4'	25:BA:1301:A:C5'	1.88	1.03
25:DA:1693:U:C2'	28:DD:14:ARG:HH21	1.71	1.03
29:DE:49:LEU:H	29:DE:49:LEU:HD12	1.20	1.03
4:CD:7:PRO:HB2	4:CD:10:ARG:HD2	1.41	1.03
38:BR:13:HIS:O	38:BR:14:SER:HB3	1.59	1.03
39:BS:12:PHE:HE1	39:BS:14:VAL:CG2	1.71	1.03
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.40	1.03
12:CL:11:VAL:CG1	17:CQ:29:HIS:HD2	1.70	1.03
28:DD:49:ILE:HD11	28:DD:52:ARG:HA	1.40	1.03
29:BE:134:ILE:HD13	29:BE:134:ILE:H	1.24	1.03
4:CD:108:LEU:CB	4:CD:110:PHE:CD1	2.34	1.03
40:DT:25:GLY:HA3	40:DT:120:ARG:HH22	1.20	1.03
25:BA:2449:U:H4'	25:BA:2450:A:OP1	1.59	1.02
55:B8:50:LEU:HD12	55:B8:51:ALA:H	1.22	1.02
1:CA:428:G:H4'	1:CA:429:U:O5'	1.57	1.02
41:DU:92:ARG:NH2	41:DU:94:ASN:HD22	1.55	1.02
7:AG:10:ARG:HH11	7:AG:10:ARG:HG3	1.21	1.02
25:BA:559:G:N2	41:BU:49:HIS:CE1	2.27	1.02
41:BU:34:LYS:HA	41:BU:34:LYS:HE2	1.07	1.02
42:BV:18:LEU:HD13	42:BV:19:LYS:H	1.23	1.02
43:BW:51:LEU:C	43:BW:51:LEU:HD13	1.79	1.02
1:CA:250:A:H4'	1:CA:251:G:O5'	1.56	1.02
1:CA:484:G:H4'	1:CA:485:G:O5'	1.59	1.02
25:DA:660:G:H21	36:DP:12:ALA:HA	1.18	1.02
41:DU:104:GLN:HE22	41:DU:105:VAL:HG23	1.21	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.39	1.02
30:BF:51:THR:HG21	30:BF:92:PRO:CD	1.90	1.02
31:BG:45:GLU:H	31:BG:88:ILE:HD13	1.21	1.02
28:DD:31:LYS:HG3	28:DD:33:LEU:HD13	1.38	1.02
33:DI:77:LEU:HD11	33:DI:140:LEU:HB2	1.37	1.02
39:DS:107:GLU:H	39:DS:110:LEU:CD1	1.70	1.02
10:AJ:50:ILE:HG12	14:AN:41:ARG:HD3	1.41	1.02
14:AN:13:THR:N	14:AN:14:PRO:HD2	1.71	1.02
28:BD:44:ASN:HB3	28:BD:49:ILE:HA	1.40	1.02
34:BN:62:VAL:HG22	34:BN:66:LYS:HD2	1.35	1.02
9:CI:19:LEU:HD22	9:CI:59:PHE:HB3	1.39	1.02
19:CS:63:THR:HG22	19:CS:66:MET:CE	1.90	1.02
34:DN:56:ASN:HA	34:DN:125:GLY:H	1.19	1.02
42:DV:35:LEU:HD21	42:DV:57:VAL:HG22	1.39	1.02
25:BA:1645:G:H5"	25:BA:1646:C:H5'	1.05	1.01
29:BE:33:VAL:HG13	29:BE:69:LYS:HE3	1.38	1.01
40:BT:24:PRO:O	40:BT:49:VAL:HB	1.59	1.01
1:CA:748:C:H1'	1:CA:749:C:H5	1.20	1.01
1:CA:1502:A:H2	1:CA:1505:G:N2	1.57	1.01
19:CS:63:THR:CG2	19:CS:66:MET:HG2	1.91	1.01
25:DA:2835:A:H4'	25:DA:2836:U:OP1	1.56	1.01
32:DH:4:ILE:HG13	32:DH:6:ARG:NE	1.75	1.01
42:DV:35:LEU:HB2	42:DV:37:VAL:HG22	1.37	1.01
30:BF:123:LEU:HD12	30:BF:124:LEU:H	1.23	1.01
20:AT:49:ALA:HB1	20:AT:100:ILE:HD11	1.42	1.01
20:AT:84:LEU:O	20:AT:84:LEU:HD12	1.59	1.01
30:BF:9:ILE:HA	30:BF:13:SER:O	1.60	1.01
36:BP:19:VAL:HG22	36:BP:20:GLY:H	1.23	1.01
5:CE:102:ALA:HB1	5:CE:106:PRO:HB2	1.01	1.01
25:DA:2171:A:H4'	25:DA:2172:U:OP1	1.60	1.01
36:DP:57:THR:O	36:DP:60:MET:HG2	1.59	1.01
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.41	1.01
36:BP:64:LYS:HB3	55:B8:25:MET:HG3	1.38	1.01
22:CV:18:U:H4'	22:CV:19:G:OP2	1.60	1.01
39:DS:107:GLU:N	39:DS:110:LEU:HD11	1.74	1.01
52:D5:57:VAL:C	52:D5:58:LEU:HD23	1.79	1.01
38:BR:13:HIS:CE1	38:BR:16:HIS:HB2	1.95	1.01
45:BY:55:TYR:CB	45:BY:56:PRO:HD2	1.89	1.01
1:CA:128:G:H2'	1:CA:129:U:H5'	1.42	1.01
13:CM:88:ARG:HH11	13:CM:88:ARG:HB3	1.19	1.01
30:DF:107:LYS:HD2	30:DF:206:ILE:HD13	1.43	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:106:ARG:HA	39:DS:110:LEU:HD11	1.02	1.01
43:DW:5:ALA:HB2	43:DW:54:ALA:HB2	1.37	1.01
7:AG:14:PRO:HG3	7:AG:21:VAL:HG13	1.01	1.00
12:AL:6:THR:HG23	12:AL:9:GLN:HG3	1.42	1.00
40:BT:83:ILE:HG13	40:BT:84:GLN:HG3	1.44	1.00
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.43	1.00
1:CA:1502:A:C2	1:CA:1505:G:N2	2.27	1.00
9:CI:58:HIS:HB3	9:CI:59:PHE:CE1	1.96	1.00
9:CI:78:LYS:HE3	9:CI:101:PHE:HE2	1.24	1.00
1:AA:243:A:H4'	1:AA:244:U:O5'	1.57	1.00
25:BA:1645:G:H5"	25:BA:1646:C:C5'	1.92	1.00
31:BG:44:GLY:HA2	31:BG:88:ILE:HG21	1.43	1.00
13:AM:3:ARG:CZ	31:BG:113:ARG:HH21	1.74	1.00
29:BE:36:ARG:HH22	29:BE:88:GLY:CA	1.75	1.00
32:BH:144:VAL:HA	32:BH:147:ASN:HB2	1.43	1.00
40:BT:30:VAL:HG11	40:BT:83:ILE:CG1	1.90	1.00
40:BT:30:VAL:CG1	40:BT:83:ILE:HG12	1.92	1.00
8:CH:91:ARG:HH11	8:CH:91:ARG:HG2	1.21	1.00
19:CS:63:THR:HG22	19:CS:66:MET:CG	1.90	1.00
25:DA:1204:A:H1'	25:DA:1206:G:N7	1.76	1.00
25:DA:2681:C:H5	25:DA:2725:A:N6	1.58	1.00
29:DE:59:VAL:HG22	29:DE:60:ASN:H	1.26	1.00
53:D6:47:THR:HB	53:D6:49:HIS:CE1	1.96	1.00
25:BA:1504:C:O2'	25:BA:1505:C:H5'	1.59	1.00
31:BG:72:ARG:HD3	31:BG:86:MET:HB3	1.44	1.00
9:CI:96:LEU:HD11	9:CI:102:LEU:HD23	1.43	1.00
31:BG:41:GLN:HB3	31:BG:43:LEU:HD11	1.43	1.00
45:BY:8:LYS:HD2	45:BY:8:LYS:H	1.23	1.00
19:CS:63:THR:CG2	19:CS:66:MET:CG	2.40	1.00
1:CA:344:A:H5"	1:CA:345:C:OP2	1.61	1.00
41:DU:104:GLN:NE2	41:DU:105:VAL:H	1.59	1.00
31:DG:67:LYS:HE2	51:D4:6:HIS:CE1	1.97	0.99
25:DA:1697:G:H3'	25:DA:1698:A:C5'	1.91	0.99
25:DA:644:A:H4'	25:DA:645:C:C5	1.96	0.99
35:BO:85:VAL:HG11	35:BO:114:ILE:HD12	1.42	0.99
25:DA:1693:U:C2'	28:DD:14:ARG:NH2	2.24	0.99
46:BZ:93:ASP:HA	46:BZ:130:PRO:HG2	1.42	0.99
25:BA:995:C:O2'	41:BU:61:TRP:CZ2	2.16	0.99
25:BA:1666:G:C2'	25:BA:1667:G:H5'	1.93	0.99
31:BG:43:LEU:N	31:BG:43:LEU:HD13	1.77	0.99
45:BY:40:GLU:HA	45:BY:40:GLU:OE2	1.61	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2681:C:H5	25:DA:2725:A:H62	1.00	0.99
33:BI:77:LEU:CD2	33:BI:101:LEU:CD1	2.41	0.99
46:DZ:11:GLU:CD	46:DZ:11:GLU:H	1.60	0.99
25:BA:1820:U:H4'	25:BA:1821:A:OP2	1.61	0.99
31:BG:72:ARG:HB3	31:BG:86:MET:HA	1.00	0.99
40:BT:32:TYR:HB2	40:BT:81:PRO:HB2	1.45	0.99
1:CA:968:A:H4'	1:CA:969:A:OP2	1.56	0.99
1:CA:992:U:H4'	1:CA:993:G:O5'	1.60	0.99
1:AA:983:A:C2	1:AA:984:C:C5	2.50	0.99
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.40	0.99
43:DW:9:TYR:H	43:DW:102:HIS:CD2	1.81	0.99
25:BA:1645:G:C5'	25:BA:1646:C:H5'	1.93	0.99
1:AA:595:G:H4'	1:AA:596:C:OP1	1.62	0.98
16:AP:82:GLN:HG2	16:AP:83:GLU:H	1.27	0.98
25:BA:1929:G:H4'	25:BA:1930:G:OP1	1.63	0.98
1:CA:1054:C:H42	23:CY:34:G:H1'	1.19	0.98
32:DH:153:LYS:CB	32:DH:154:PRO:HD2	1.93	0.98
40:DT:28:VAL:HG22	40:DT:47:GLY:H	1.26	0.98
25:BA:1301:A:H5"	25:BA:1301:A:N3	1.76	0.98
25:BA:1342:A:C5	25:BA:1397:U:C6	2.52	0.98
34:BN:62:VAL:CG2	34:BN:66:LYS:CD	2.39	0.98
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.45	0.98
25:BA:865:C:H4'	25:BA:866:A:OP1	1.61	0.98
28:DD:44:ASN:HB3	28:DD:49:ILE:HA	1.44	0.98
25:BA:1653:G:H4'	25:BA:1654:A:O5'	1.60	0.98
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	0.98	0.98
1:CA:1064:G:C4'	1:CA:1065:U:H5"	1.93	0.98
33:DI:92:VAL:HG13	33:DI:120:ILE:HG23	1.44	0.98
25:BA:2320:A:C8	25:BA:2333:A:N6	2.32	0.98
1:CA:1064:G:C4'	1:CA:1065:U:C5'	2.42	0.98
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.27	0.98
45:DY:97:ARG:HH21	45:DY:98:VAL:HB	1.27	0.98
40:BT:32:TYR:CB	40:BT:81:PRO:HB2	1.93	0.97
45:BY:67:LEU:HD12	45:BY:71:LYS:HG3	1.46	0.97
53:D6:46:HIS:HD2	53:D6:47:THR:N	1.61	0.97
25:BA:995:C:N3	34:BN:1:MET:HG2	1.79	0.97
48:B1:90:ILE:HG22	48:B1:94:LEU:HD12	1.43	0.97
30:DF:103:LYS:HA	30:DF:106:ARG:HG3	1.45	0.97
23:AW:34:G:C6	24:AX:14:A:N3	2.31	0.97
24:AX:21:C:H2'	24:AX:22:A:C8	1.98	0.97
25:BA:1251:C:H5'	25:BA:1251:C:H6	1.27	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:42:VAL:HB	45:BY:65:ALA:HB3	1.45	0.97
1:CA:1201:A:H4'	1:CA:1202:G:O5'	1.61	0.97
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	1.78	0.97
11:CK:21:ILE:HG23	11:CK:30:VAL:CG1	1.93	0.97
31:BG:39:ILE:HD11	31:BG:155:MET:HB2	1.46	0.97
25:DA:1497:U:H3'	25:DA:1497:U:O2	1.65	0.97
25:BA:483:A:H1'	45:BY:60:PHE:HZ	1.27	0.97
41:BU:34:LYS:HE2	41:BU:34:LYS:CA	1.94	0.97
45:BY:10:GLY:HA2	45:BY:27:VAL:HG13	1.47	0.97
40:DT:88:ILE:HG22	40:DT:89:VAL:HG23	1.44	0.97
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	1.99	0.97
4:CD:109:GLY:HA3	4:CD:165:MET:SD	2.04	0.97
28:DD:35:LYS:NZ	28:DD:103:ARG:HA	1.79	0.97
40:DT:28:VAL:O	40:DT:29:ARG:HB2	1.65	0.97
40:DT:33:LYS:HE2	40:DT:43:GLN:HB3	1.44	0.97
34:BN:123:TYR:CE1	34:BN:130:HIS:CE1	2.52	0.97
20:CT:53:LEU:HD23	20:CT:100:ILE:CG2	1.94	0.97
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.65	0.97
12:CL:47:LYS:CB	12:CL:48:PRO:HD3	1.94	0.97
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.29	0.97
39:DS:88:ASP:O	39:DS:89:ARG:HB3	1.61	0.97
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.46	0.96
32:DH:98:LEU:CB	32:DH:125:VAL:HG21	1.94	0.96
40:DT:80:SER:HB3	40:DT:81:PRO:CD	1.94	0.96
40:DT:89:VAL:HG11	40:DT:91:ARG:HE	1.25	0.96
25:DA:598:G:H1'	36:DP:12:ALA:HB2	1.46	0.96
25:BA:1666:G:H2'	25:BA:1667:G:H5'	1.47	0.96
1:AA:251:G:O2'	1:AA:252:U:H5"	1.66	0.96
25:BA:311:A:C8	25:BA:332:A:C5	2.52	0.96
25:BA:1966:A:H1'	25:BA:2593:U:C5'	1.96	0.96
20:CT:40:ALA:HB2	20:CT:55:ILE:CG2	1.96	0.96
25:BA:311:A:H4'	25:BA:312:G:OP1	1.61	0.96
25:BA:1549:C:H2'	25:BA:1550:C:H6	1.21	0.96
25:BA:2701:C:H3'	25:BA:2702:U:H5"	1.45	0.96
25:BA:2848:G:H4'	25:BA:2849:U:OP1	1.64	0.96
30:BF:64:ILE:HG23	30:BF:65:TRP:NE1	1.78	0.96
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.46	0.96
1:CA:1065:U:H1'	1:CA:1066:C:OP2	1.66	0.96
3:CC:165:THR:HG22	3:CC:165:THR:O	1.64	0.96
33:BI:77:LEU:HD22	33:BI:101:LEU:CD1	1.95	0.96
46:BZ:124:ILE:HD11	46:BZ:165:VAL:HG21	1.47	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:10:LYS:HB3	50:B3:53:LEU:HB3	1.47	0.96
28:DD:181:GLU:HA	28:DD:272:ALA:HB3	1.48	0.96
20:CT:53:LEU:CD2	20:CT:100:ILE:HG21	1.95	0.96
36:DP:70:GLN:HB3	36:DP:72:PRO:HD2	1.45	0.96
39:DS:107:GLU:H	39:DS:110:LEU:HD11	1.18	0.96
40:DT:32:TYR:HB3	40:DT:81:PRO:HB3	1.43	0.96
1:AA:1158:C:H3'	1:AA:1158:C:O2	1.64	0.96
1:AA:1267:C:O2	1:AA:1267:C:H2'	1.66	0.96
40:BT:30:VAL:HG11	40:BT:83:ILE:HG12	0.98	0.96
25:DA:2311:A:H8	31:DG:88:ILE:HG13	1.29	0.96
25:DA:2406:U:O4	36:DP:70:GLN:HB2	1.66	0.96
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.48	0.96
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.43	0.96
1:AA:983:A:H2	1:AA:984:C:C4	1.84	0.95
5:CE:100:VAL:HB	5:CE:118:ILE:CG2	1.94	0.95
33:DI:78:THR:HA	33:DI:141:LYS:HB2	1.46	0.95
35:DO:104:ARG:HH12	40:DT:35:LYS:HE2	0.80	0.95
1:AA:1054:C:H42	23:AY:34:G:H1'	1.30	0.95
38:BR:10:LEU:CB	38:BR:17:ARG:CD	2.36	0.95
1:CA:748:C:C1'	1:CA:749:C:H5	1.72	0.95
22:CV:17:C:H3'	22:CV:18:U:C5'	1.96	0.95
22:CV:29:C:O2'	22:CV:30:G:H5'	1.65	0.95
41:DU:92:ARG:HH11	41:DU:92:ARG:HG2	1.31	0.95
23:AW:34:G:C6	24:AX:14:A:C4	2.54	0.95
31:BG:4:ASP:HA	31:BG:8:LYS:HD2	1.48	0.95
28:DD:80:ALA:HB3	28:DD:94:LEU:HD13	1.46	0.95
41:DU:108:GLU:HG3	42:DV:44:LYS:CE	1.96	0.95
2:AB:77:ALA:O	2:AB:80:ILE:HG23	1.65	0.95
55:B8:33:ASN:O	55:B8:34:TRP:CB	2.15	0.95
1:CA:251:G:H4'	1:CA:252:U:O5'	1.63	0.95
12:CL:46:LYS:HG2	12:CL:47:LYS:N	1.82	0.95
20:CT:43:LEU:CD1	20:CT:51:GLU:HG3	1.95	0.95
8:CH:25:ASP:OD2	8:CH:60:ARG:HG3	1.67	0.95
13:CM:93:ARG:NH1	25:DA:888:C:O4'	2.00	0.95
25:BA:2320:A:N6	25:BA:2333:A:C4	2.34	0.95
1:CA:342:C:C2'	1:CA:343:U:H5'	1.97	0.95
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.31	0.95
20:CT:43:LEU:CD1	20:CT:51:GLU:CB	2.43	0.95
23:CW:68:C:H2'	23:CW:69:G:H8	1.30	0.95
7:AG:23:VAL:HG13	7:AG:43:PHE:HE2	1.32	0.95
31:BG:86:MET:HG3	31:BG:87:PRO:CD	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:49:U:C4	1:CA:364:A:C5	2.55	0.95
1:CA:1067:A:H4'	1:CA:1068:G:O5'	1.67	0.95
22:CV:15:G:H22	22:CV:49:C:H41	1.10	0.95
42:DV:52:VAL:HG21	42:DV:55:ALA:HB3	1.48	0.95
36:BP:71:VAL:N	36:BP:72:PRO:HD2	1.80	0.95
42:BV:82:ARG:HH11	42:BV:82:ARG:HG2	1.29	0.95
55:B8:32:LEU:HD12	55:B8:32:LEU:N	1.82	0.95
5:CE:105:VAL:N	5:CE:106:PRO:HD2	1.79	0.95
33:DI:95:LYS:HA	33:DI:111:PRO:HG3	1.49	0.94
25:BA:221:A:C8	25:BA:266:G:O6	2.21	0.94
25:BA:2126:A:H1'	25:BA:2127:G:O4'	1.66	0.94
31:BG:72:ARG:NH1	31:BG:86:MET:HB3	1.82	0.94
39:BS:12:PHE:HE1	39:BS:14:VAL:HG22	1.32	0.94
31:BG:144:ILE:HD12	31:BG:145:THR:H	1.30	0.94
12:CL:11:VAL:CG1	17:CQ:29:HIS:CD2	2.47	0.94
20:CT:81:LYS:O	20:CT:85:MET:HG3	1.65	0.94
30:BF:2:LYS:HD3	30:BF:2:LYS:H	1.27	0.94
33:BI:118:LYS:HD2	33:BI:119:PRO:HD2	1.45	0.94
34:BN:14:VAL:HG13	34:BN:137:LYS:HG3	1.49	0.94
25:DA:242:G:H5"	55:D8:62:LEU:HD13	1.49	0.94
30:DF:188:ARG:HG2	36:DP:3:LEU:HD11	1.49	0.94
36:DP:79:ARG:HG3	36:DP:109:GLY:O	1.66	0.94
40:DT:65:LYS:HZ2	40:DT:66:VAL:H	1.16	0.94
34:BN:62:VAL:CG2	34:BN:66:LYS:HD3	1.97	0.94
43:BW:4:LYS:CE	43:BW:6:ILE:HD11	1.98	0.94
1:CA:60:A:H4'	1:CA:61:G:O5'	1.65	0.94
51:D4:8:LYS:O	51:D4:27:THR:HG22	1.67	0.94
3:AC:113:ALA:HB2	3:AC:202:ILE:HG13	1.48	0.94
33:DI:38:LEU:HD12	33:DI:38:LEU:H	1.30	0.94
28:BD:80:ALA:CB	28:BD:96:HIS:NE2	2.30	0.94
40:BT:34:VAL:HG13	40:BT:39:ARG:HG2	1.50	0.94
45:BY:14:LEU:HD12	45:BY:15:VAL:H	1.32	0.94
40:DT:33:LYS:CE	40:DT:43:GLN:CD	2.37	0.94
41:DU:62:ILE:HD11	41:DU:93:LYS:HG2	1.47	0.94
36:DP:65:ARG:NH1	55:D8:15:LYS:HB2	1.82	0.94
36:BP:79:ARG:HG3	36:BP:109:GLY:O	1.66	0.94
2:CB:213:LEU:HD23	2:CB:214:ILE:HG12	1.50	0.94
43:DW:9:TYR:H	43:DW:102:HIS:HD2	1.12	0.94
1:AA:1297:C:O2'	7:AG:114:ARG:NH2	2.00	0.93
3:AC:43:LEU:HD22	3:AC:47:LEU:HD22	1.46	0.93
25:BA:1719:G:O2'	25:BA:1720:U:H5'	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:31:HIS:ND1	55:B8:32:LEU:CA	2.30	0.93
1:CA:49:U:C5	1:CA:364:A:C6	2.56	0.93
1:CA:1445:C:H2'	1:CA:1446:U:H5'	1.51	0.93
13:CM:124:PRO:CB	13:CM:125:ARG:HB2	1.94	0.93
45:DY:76:CYS:HG	45:DY:77:PRO:HD2	1.15	0.93
25:BA:242:G:C6	55:B8:5:LYS:HE2	2.03	0.93
1:CA:1065:U:C4'	1:CA:1066:C:C5'	2.30	0.93
29:DE:73:GLU:HG3	29:DE:74:PRO:HD2	1.49	0.93
40:BT:29:ARG:NE	40:BT:29:ARG:CA	2.31	0.93
55:B8:32:LEU:H	55:B8:32:LEU:CD1	1.81	0.93
10:CJ:78:ASN:ND2	10:CJ:80:LYS:H	1.67	0.93
30:DF:46:ARG:HH11	30:DF:46:ARG:HG2	1.32	0.93
36:BP:59:LEU:CA	36:BP:61:ARG:NH1	2.32	0.93
41:BU:95:LEU:HD13	42:BV:4:ILE:HD13	1.47	0.93
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HB3	1.48	0.93
25:BA:125:G:H5"	25:BA:126:A:OP2	1.69	0.93
28:BD:223:GLY:HA2	28:BD:231:HIS:HD2	1.31	0.93
4:CD:176:LEU:HD12	4:CD:177:ASP:H	1.30	0.93
4:AD:8:VAL:HA	4:AD:11:LEU:HD21	1.48	0.93
13:AM:65:LYS:HA	13:AM:66:LEU:CB	1.95	0.93
1:CA:49:U:C4	1:CA:364:A:C6	2.57	0.93
1:CA:1305:G:H22	1:CA:1331:G:C2'	1.80	0.93
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.51	0.93
20:AT:53:LEU:HD12	20:AT:102:GLY:CA	1.99	0.93
48:B1:52:ARG:HD2	48:B1:53:VAL:H	1.33	0.93
30:DF:136:THR:HG22	30:DF:166:ALA:O	1.69	0.93
7:AG:14:PRO:CG	7:AG:21:VAL:CG1	2.46	0.93
12:AL:39:VAL:HB	12:AL:57:LYS:HB2	1.48	0.93
25:BA:995:C:H42	34:BN:1:MET:HG3	1.33	0.93
31:BG:85:GLY:C	31:BG:87:PRO:HD2	1.88	0.93
16:CP:8:ARG:CG	16:CP:8:ARG:HH11	1.81	0.93
32:DH:153:LYS:HB3	32:DH:154:PRO:CD	1.97	0.93
41:DU:90:VAL:HG12	41:DU:91:ASP:H	1.32	0.93
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.51	0.93
25:DA:887:A:C1'	25:DA:889:C:N4	2.29	0.93
4:AD:11:LEU:H	4:AD:11:LEU:CD2	1.74	0.92
37:DQ:134:ARG:HH21	46:DZ:122:ARG:HH21	1.16	0.92
40:DT:50:ILE:HD11	40:DT:102:ILE:HD11	1.50	0.92
53:D6:46:HIS:CD2	53:D6:46:HIS:C	2.41	0.92
1:AA:1275:A:H2'	1:AA:1276:G:H8	1.33	0.92
1:AA:1423:G:H5'	35:BO:49:ARG:HH22	1.33	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:3:ARG:NH1	31:BG:113:ARG:HH21	1.66	0.92
25:BA:995:C:N3	34:BN:1:MET:CG	2.31	0.92
40:BT:28:VAL:HG13	40:BT:46:GLU:HA	0.95	0.92
3:CC:150:LYS:HE3	3:CC:152:ILE:HD11	1.51	0.92
20:AT:37:SER:CB	20:AT:84:LEU:HD22	1.99	0.92
33:BI:38:LEU:H	33:BI:38:LEU:HD12	1.34	0.92
13:CM:124:PRO:HB2	13:CM:125:ARG:CB	1.96	0.92
29:DE:36:ARG:HH22	29:DE:88:GLY:HA3	1.28	0.92
19:AS:6:LYS:H	19:AS:6:LYS:HE3	1.34	0.92
19:AS:6:LYS:CG	19:AS:7:LYS:HD3	1.98	0.92
30:BF:22:ALA:O	30:BF:26:ALA:HB2	1.69	0.92
33:BI:72:LEU:HD11	33:BI:138:ILE:CB	2.00	0.92
33:BI:133:HIS:HB2	33:BI:134:PRO:HD2	1.49	0.92
41:BU:88:ILE:HG22	42:BV:47:VAL:HG23	1.49	0.92
13:CM:124:PRO:HB3	13:CM:125:ARG:CB	1.99	0.92
22:CV:43:G:C2'	22:CV:44:A:H5'	2.00	0.92
44:DX:60:ARG:HH12	54:D7:47:ARG:NH2	1.67	0.92
25:BA:2519:U:H4'	25:BA:2520:C:OP1	1.68	0.92
34:BN:56:ASN:HA	34:BN:125:GLY:H	1.32	0.92
31:DG:47:LYS:HD3	31:DG:81:LYS:HB2	1.50	0.92
25:BA:2503:A:H4'	25:BA:2504:U:OP1	1.68	0.92
40:DT:25:GLY:CA	40:DT:120:ARG:HH22	1.82	0.92
1:AA:1279:A:C2'	1:AA:1282:C:N4	2.33	0.92
22:AV:55:U:O2'	22:AV:56:U:H5'	1.69	0.92
30:BF:46:ARG:HH11	30:BF:46:ARG:HG3	1.35	0.92
34:DN:67:LEU:O	34:DN:68:GLU:HB2	1.66	0.92
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	1.52	0.92
40:BT:88:ILE:HG22	40:BT:89:VAL:HG23	1.51	0.92
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.50	0.92
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.49	0.92
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.77	0.92
28:DD:108:PRO:HB3	28:DD:143:HIS:CE1	2.05	0.92
53:D6:40:CYS:SG	53:D6:45:LYS:CE	2.57	0.92
2:AB:55:PHE:HA	2:AB:58:ILE:HG13	1.50	0.92
25:BA:2614:A:H4'	25:BA:2615:U:OP1	1.67	0.92
39:BS:12:PHE:CE1	39:BS:14:VAL:HG22	2.05	0.92
40:BT:29:ARG:CG	40:BT:85:LYS:CA	2.33	0.92
23:CW:36:A:H2'	23:CW:37:A:H5"	1.52	0.92
40:DT:25:GLY:HA3	40:DT:120:ARG:NH2	1.85	0.92
25:BA:2500:U:O2	25:BA:2504:U:C5	2.23	0.91
33:DI:115:ALA:CB	33:DI:128:LEU:HD11	1.99	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:79:ARG:NH1	11:CK:100:ALA:HB2	1.84	0.91
13:AM:108:ARG:HG3	13:AM:108:ARG:HH11	1.34	0.91
25:BA:995:C:C4	34:BN:1:MET:HG3	2.05	0.91
31:BG:22:ARG:HH11	31:BG:22:ARG:HB3	1.33	0.91
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	1.50	0.91
21:CU:6:ARG:HE	21:CU:15:ARG:HH22	1.11	0.91
25:DA:614(C):A:H4'	25:DA:615:G:OP1	1.67	0.91
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.05	0.91
20:AT:63:ILE:HD12	20:AT:81:LYS:HG2	1.52	0.91
30:BF:51:THR:OG1	30:BF:88:VAL:HG11	1.69	0.91
1:CA:566:G:OP1	1:CA:566:G:H8	1.53	0.91
40:DT:42:ILE:HD12	40:DT:42:ILE:H	1.34	0.91
28:BD:267:SER:C	28:BD:268:ARG:HG3	1.87	0.91
5:CE:102:ALA:CB	5:CE:106:PRO:CB	2.38	0.91
11:CK:21:ILE:CG2	11:CK:30:VAL:HG12	2.01	0.91
25:DA:83:G:N2	25:DA:102:G:H2'	1.86	0.91
33:DI:77:LEU:HD11	33:DI:140:LEU:CB	2.00	0.91
2:AB:75:LYS:O	2:AB:75:LYS:HD3	1.70	0.91
30:BF:34:TRP:CA	36:BP:6:LEU:HD12	2.01	0.91
4:CD:108:LEU:CG	4:CD:110:PHE:CE1	2.53	0.91
37:DQ:69:PHE:CD1	37:DQ:70:PRO:HD2	2.05	0.91
36:BP:70:GLN:C	36:BP:72:PRO:HD2	1.90	0.91
44:BX:64:LYS:HZ3	44:BX:73:ARG:HE	0.92	0.91
53:B6:43:CYS:O	53:B6:44:ARG:O	1.87	0.91
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.06	0.91
39:DS:71:ARG:HG2	39:DS:104:GLY:HA2	1.48	0.91
40:DT:81:PRO:O	40:DT:82:LEU:HD12	1.69	0.91
45:DY:63:LYS:HZ2	45:DY:64:GLU:H	0.92	0.91
19:AS:5:LEU:HD12	19:AS:10:PHE:HD1	0.75	0.91
23:AW:68:C:H2'	23:AW:69:G:H8	1.36	0.91
33:BI:121:LYS:O	33:BI:122:GLU:HB2	1.69	0.91
39:BS:20:ARG:HH11	39:BS:20:ARG:HG2	1.33	0.91
5:CE:102:ALA:HB3	5:CE:106:PRO:HB2	1.53	0.91
22:CV:7:G:O2'	22:CV:50:G:H5'	1.70	0.91
25:DA:887:A:H1'	25:DA:889:C:H41	1.30	0.91
25:BA:2320:A:C6	25:BA:2333:A:C5	2.59	0.91
36:BP:70:GLN:HB3	36:BP:72:PRO:HD2	1.51	0.91
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	2.11	0.91
22:CV:15:G:H1	22:CV:49:C:H5	0.94	0.91
25:DA:888:C:H5"	25:DA:889:C:OP2	1.69	0.91
31:DG:37:VAL:HG22	31:DG:159:VAL:HA	1.53	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:13:LYS:HE2	32:DH:13:LYS:HA	1.51	0.91
37:DQ:54:MET:HB3	37:DQ:64:ILE:HD13	1.50	0.91
47:D0:53:MET:HB3	47:D0:59:LEU:HD23	1.51	0.91
32:BH:25:LYS:HD3	32:BH:25:LYS:H	1.34	0.91
41:BU:14:HIS:HD2	41:BU:32:PHE:CD1	1.88	0.91
1:CA:913:A:O2'	1:CA:914:A:H5"	1.71	0.91
13:CM:120:LYS:N	13:CM:120:LYS:HD3	1.84	0.91
1:AA:1067:A:O2'	1:AA:1068:G:H8	1.54	0.91
37:BQ:34:LEU:HB2	37:BQ:118:LEU:HD13	1.53	0.91
38:BR:10:LEU:HB2	38:BR:17:ARG:NE	1.85	0.91
20:CT:48:LYS:NZ	20:CT:48:LYS:CB	2.34	0.91
25:DA:2750:A:H4'	25:DA:2751:G:OP2	1.69	0.91
40:DT:129:ARG:CD	40:DT:131:ALA:CB	2.48	0.91
53:D6:46:HIS:CD2	53:D6:47:THR:N	2.38	0.91
1:AA:839:U:H3'	1:AA:839:U:O2	1.71	0.90
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.03	0.90
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.36	0.90
42:BV:21:ARG:HG2	42:BV:91:TYR:CD2	2.06	0.90
36:DP:71:VAL:N	36:DP:72:PRO:HD2	1.85	0.90
41:DU:79:PHE:HE2	41:DU:83:LEU:HD21	1.34	0.90
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.49	0.90
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.36	0.90
25:BA:768:G:H21	25:BA:1379:A:H8	1.19	0.90
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.35	0.90
25:DA:1820:U:H4'	25:DA:1821:A:OP2	1.66	0.90
45:DY:63:LYS:HZ2	45:DY:64:GLU:N	1.70	0.90
35:DO:119:PRO:HB2	40:DT:68:TYR:CE1	2.06	0.90
40:DT:28:VAL:HG13	40:DT:46:GLU:HA	1.53	0.90
40:DT:129:ARG:O	40:DT:129:ARG:HD2	1.72	0.90
55:D8:50:LEU:HD12	55:D8:51:ALA:H	1.33	0.90
2:AB:74:LYS:H	2:AB:74:LYS:HD2	1.33	0.90
25:BA:1819:A:H1'	25:BA:1821:A:C6	2.06	0.90
40:BT:30:VAL:HG23	40:BT:84:GLN:O	1.72	0.90
25:DA:2835:A:C4'	25:DA:2836:U:OP1	2.20	0.90
33:DI:87:LYS:HA	33:DI:122:GLU:HA	1.52	0.90
40:BT:28:VAL:HG12	40:BT:29:ARG:N	1.86	0.90
41:BU:27:LEU:HB3	41:BU:31:SER:HB3	1.54	0.90
45:BY:54:LYS:O	45:BY:55:TYR:CG	2.25	0.90
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.52	0.90
30:DF:9:ILE:HD11	30:DF:125:LEU:HG	1.52	0.90
44:BX:80:ILE:HD13	44:BX:80:ILE:O	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.06	0.90
42:DV:89:GLN:HE21	42:DV:89:GLN:HA	1.37	0.90
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.37	0.90
25:BA:1962:C:H4'	25:BA:1963:U:OP1	1.70	0.90
25:BA:2576:G:H3'	25:BA:2576:G:N3	1.86	0.90
31:BG:85:GLY:O	31:BG:87:PRO:HG2	1.72	0.90
33:DI:74:ASN:ND2	33:DI:75:LEU:H	1.69	0.90
42:DV:35:LEU:HD22	42:DV:35:LEU:H	1.35	0.90
36:BP:75:ILE:HD13	36:BP:75:ILE:N	1.87	0.90
36:BP:79:ARG:HD3	36:BP:109:GLY:CA	2.01	0.90
2:CB:18:GLY:H	2:CB:42:ILE:CG2	1.84	0.90
2:CB:185:ILE:HG12	2:CB:199:TYR:HB2	1.53	0.90
5:CE:72:GLN:O	5:CE:73:ASN:HB3	1.71	0.90
16:CP:8:ARG:HH11	16:CP:8:ARG:HG2	1.35	0.90
25:DA:2457:U:C2'	25:DA:2458:G:H5'	2.02	0.90
31:DG:7:LEU:HD21	31:DG:176:LEU:HD22	1.52	0.90
41:DU:79:PHE:O	41:DU:83:LEU:HD13	1.71	0.90
5:AE:83:GLU:HG2	5:AE:88:LYS:HG3	1.51	0.90
25:DA:1798:U:H5'	28:DD:259:THR:HG22	1.54	0.90
36:DP:75:ILE:HD13	36:DP:75:ILE:N	1.87	0.90
46:BZ:151:HIS:HB3	46:BZ:170:THR:HA	1.52	0.90
1:CA:128:G:C2'	1:CA:129:U:H5'	2.02	0.90
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.07	0.90
40:DT:32:TYR:CB	40:DT:81:PRO:HB2	2.02	0.90
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.54	0.89
31:DG:56:ALA:CB	31:DG:153:ARG:HE	1.84	0.89
36:DP:79:ARG:HD3	36:DP:109:GLY:CA	2.01	0.89
43:DW:9:TYR:HD2	43:DW:102:HIS:HE2	1.17	0.89
52:B5:16:ARG:HG2	52:B5:16:ARG:NH1	1.81	0.89
2:CB:7:VAL:O	2:CB:11:LEU:HD12	1.70	0.89
2:CB:22:LYS:O	2:CB:24:TRP:HD1	1.54	0.89
25:BA:448:U:C1'	30:BF:84:VAL:HG11	2.01	0.89
25:BA:1602:U:H3'	25:BA:1603:A:H5'	1.54	0.89
25:BA:2780:G:H5"	25:BA:2781:A:OP2	1.71	0.89
8:CH:68:ARG:CG	8:CH:68:ARG:HH11	1.84	0.89
20:CT:52:ALA:O	20:CT:56:MET:CB	2.21	0.89
25:DA:1272:A:H1'	25:DA:1618:A:N7	1.87	0.89
23:AW:42:C:H2'	23:AW:43:C:H6	1.37	0.89
34:BN:62:VAL:HG13	34:BN:62:VAL:O	1.72	0.89
35:BO:4:PRO:O	35:BO:5:GLN:HB2	1.72	0.89
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2168:G:C2	25:BA:2171:A:N7	2.41	0.89
40:BT:28:VAL:HG11	40:BT:46:GLU:HA	1.52	0.89
30:DF:62:ARG:HG2	30:DF:62:ARG:NH1	1.74	0.89
42:DV:38:LEU:HD12	42:DV:56:SER:HA	1.54	0.89
25:BA:2689:U:H4'	25:BA:2690:C:H5'	1.55	0.89
45:BY:54:LYS:O	45:BY:55:TYR:CD2	2.26	0.89
1:CA:49:U:O4	1:CA:364:A:C5	2.26	0.89
35:DO:77:ILE:HD13	40:DT:74:ARG:HG2	1.51	0.89
25:DA:886:C:H2'	25:DA:887:A:H4'	1.52	0.89
28:DD:31:LYS:O	28:DD:35:LYS:HB2	1.73	0.89
31:DG:16:ARG:HH11	31:DG:16:ARG:HG2	1.37	0.89
40:DT:33:LYS:HE2	40:DT:43:GLN:CD	1.93	0.89
40:DT:65:LYS:NZ	40:DT:66:VAL:H	1.69	0.89
1:AA:1152:A:H5"	10:AJ:13:HIS:HD2	1.35	0.89
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.54	0.89
25:DA:1455:G:H8	38:DR:60:LEU:HD11	1.36	0.89
46:DZ:118:GLN:HG2	46:DZ:119:GLU:H	1.38	0.89
5:AE:121:LYS:HG3	5:AE:122:GLU:H	0.74	0.89
20:AT:71:THR:HG22	20:AT:72:LEU:N	1.85	0.89
24:AX:13:A:H3'	24:AX:13:A:N3	1.88	0.89
20:CT:43:LEU:HD11	20:CT:51:GLU:HG3	1.54	0.89
39:DS:83:LYS:C	39:DS:109:GLY:HA3	1.93	0.89
40:DT:27:THR:O	40:DT:87:ASP:HA	1.73	0.89
6:AF:8:ILE:HD13	6:AF:26:ILE:HD13	1.53	0.89
38:BR:3:HIS:O	38:BR:5:LYS:HD2	1.72	0.89
1:CA:1065:U:O4'	1:CA:1066:C:H5"	1.72	0.89
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.55	0.89
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.55	0.89
20:CT:48:LYS:NZ	20:CT:48:LYS:HB2	1.88	0.89
25:DA:221:A:H5'	25:DA:222:A:H5'	1.52	0.89
32:DH:89:ILE:CD1	32:DH:129:THR:HB	2.02	0.89
39:DS:26:LEU:HB3	39:DS:87:PHE:HA	1.55	0.89
40:BT:28:VAL:HG22	40:BT:46:GLU:C	1.93	0.88
8:CH:118:VAL:O	8:CH:119:LEU:HD23	1.72	0.88
17:CQ:6:LEU:HD23	17:CQ:23:VAL:HG11	1.53	0.88
33:DI:131:LYS:HB3	33:DI:132:PRO:CA	2.03	0.88
52:D5:4:HIS:HB3	52:D5:5:PRO:HD3	1.54	0.88
25:BA:2873:A:N3	38:BR:6:SER:HB2	1.88	0.88
32:BH:98:LEU:HB2	32:BH:125:VAL:HG21	1.54	0.88
1:CA:243:A:C2	1:CA:246:A:C8	2.61	0.88
24:CX:16:A:H2'	24:CX:17:U:C6	2.05	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1819:A:OP1	28:DD:158:ALA:CB	2.21	0.88
7:AG:14:PRO:CG	7:AG:21:VAL:HG13	1.96	0.88
19:AS:5:LEU:CD1	19:AS:10:PHE:CD1	2.38	0.88
31:BG:72:ARG:CG	31:BG:86:MET:HA	2.03	0.88
33:BI:77:LEU:HD23	33:BI:101:LEU:HD13	1.55	0.88
34:BN:134:ARG:H	34:BN:135:PRO:HD3	1.38	0.88
53:B6:12:GLU:HB2	53:B6:23:THR:H	1.36	0.88
4:CD:111:ALA:HB2	4:CD:120:LEU:HD12	1.53	0.88
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.38	0.88
12:AL:86:ARG:HB2	12:AL:101:VAL:CG2	2.04	0.88
14:AN:15:LYS:HB3	14:AN:16:PHE:CD2	2.09	0.88
25:BA:1301:A:H4'	25:BA:1302:A:OP1	1.71	0.88
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.53	0.88
10:AJ:88:LEU:HG	10:AJ:90:LEU:HD11	1.53	0.88
25:BA:311:A:C1'	25:BA:332:A:C8	2.56	0.88
1:CA:1305:G:N2	1:CA:1331:G:H2'	1.89	0.88
12:CL:11:VAL:HG13	17:CQ:29:HIS:HD2	1.01	0.88
32:DH:37:VAL:HG12	32:DH:38:SER:H	1.38	0.88
40:DT:129:ARG:HD2	40:DT:129:ARG:C	1.94	0.88
48:D1:56:GLN:HE21	48:D1:56:GLN:HA	1.38	0.88
7:AG:75:VAL:HG11	7:AG:144:MET:HB3	1.55	0.88
9:AI:58:HIS:C	9:AI:59:PHE:HD1	1.75	0.88
13:AM:117:VAL:HG12	13:AM:118:ALA:H	1.37	0.88
20:AT:37:SER:HB3	20:AT:84:LEU:HD21	1.55	0.88
20:AT:44:ALA:HB1	20:AT:91:LEU:HB2	1.56	0.88
23:AW:42:C:H2'	23:AW:43:C:C6	2.08	0.88
34:BN:14:VAL:CG1	34:BN:137:LYS:HG3	2.03	0.88
1:CA:968:A:C4'	1:CA:969:A:OP2	2.21	0.88
8:CH:116:LYS:HD2	8:CH:129:VAL:HG11	1.54	0.88
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.36	0.88
40:DT:23:ARG:NE	40:DT:120:ARG:HD3	1.88	0.88
10:AJ:30:SER:HB2	10:AJ:80:LYS:HB3	1.53	0.88
12:AL:41:ARG:HH22	12:AL:57:LYS:NZ	1.72	0.88
12:AL:87:GLY:HA2	12:AL:98:TYR:HA	1.56	0.88
31:BG:43:LEU:HB2	31:BG:88:ILE:HD11	0.89	0.88
36:BP:85:LEU:HA	36:BP:88:LEU:HB3	1.53	0.88
40:BT:29:ARG:CG	40:BT:85:LYS:C	2.42	0.88
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.37	0.88
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.38	0.88
14:AN:15:LYS:HB3	14:AN:16:PHE:CE2	2.08	0.88
25:BA:614:U:O2	25:BA:614:U:H5"	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2320:A:C5	25:BA:2333:A:C6	2.62	0.88
25:BA:2835:A:H4'	25:BA:2836:U:OP1	1.72	0.88
27:BC:169:GLY:H	27:BC:173:ALA:HA	1.36	0.88
20:CT:72:LEU:HD23	20:CT:73:HIS:H	1.39	0.88
32:DH:92:ILE:H	32:DH:92:ILE:HD12	1.38	0.88
40:DT:24:PRO:HD3	40:DT:52:ILE:CD1	2.03	0.88
40:DT:129:ARG:HD3	40:DT:131:ALA:HB2	1.56	0.88
25:BA:2873:A:H1'	38:BR:6:SER:HB2	1.56	0.88
13:CM:57:ARG:HH11	13:CM:57:ARG:HB2	1.37	0.88
20:CT:48:LYS:HB2	20:CT:48:LYS:HZ2	1.36	0.88
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.20	0.88
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.54	0.88
19:AS:9:VAL:HG12	19:AS:11:VAL:HG12	0.90	0.88
1:CA:1456:G:N2	1:CA:1457:G:C5	2.41	0.88
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.56	0.88
36:DP:85:LEU:HA	36:DP:88:LEU:HB3	1.53	0.88
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.38	0.87
14:AN:13:THR:N	14:AN:14:PRO:CD	2.37	0.87
25:BA:1300:U:H5'	25:BA:1301:A:C2	2.09	0.87
27:BC:100:ILE:HG22	27:BC:101:GLN:HG3	1.56	0.87
40:BT:28:VAL:O	40:BT:29:ARG:HB2	1.71	0.87
48:B1:53:VAL:HG23	48:B1:74:VAL:HG13	1.56	0.87
1:CA:913:A:H1'	1:CA:914:A:O4'	1.73	0.87
5:CE:98:THR:HG22	5:CE:99:GLY:O	1.75	0.87
25:DA:1819:A:H4'	25:DA:1820:U:H5'	1.54	0.87
40:DT:23:ARG:CG	40:DT:120:ARG:NH1	2.36	0.87
1:AA:1049:U:O2	1:AA:1201:A:C4	2.27	0.87
4:AD:108:LEU:HD11	4:AD:174:LEU:HB3	1.55	0.87
25:BA:1826:G:H4'	28:BD:242:ARG:HH21	1.39	0.87
1:CA:274:A:O2'	1:CA:275:G:H8	1.58	0.87
5:AE:103:GLY:C	5:AE:106:PRO:HD2	1.95	0.87
33:BI:77:LEU:O	33:BI:140:LEU:HD12	1.73	0.87
38:BR:37:THR:OG1	38:BR:39:PRO:HD2	1.74	0.87
40:BT:3:ARG:HG3	40:BT:6:LEU:HB2	1.54	0.87
1:CA:533:A:H4'	1:CA:534:U:OP1	1.73	0.87
33:DI:4:ILE:HG12	33:DI:18:VAL:HG22	1.55	0.87
28:BD:181:GLU:HA	28:BD:272:ALA:HB3	1.55	0.87
38:BR:9:LYS:O	38:BR:10:LEU:HD23	1.73	0.87
39:BS:15:ARG:HD3	39:BS:15:ARG:N	1.89	0.87
40:BT:30:VAL:HG21	40:BT:84:GLN:HG3	1.55	0.87
1:CA:839:U:H2'	1:CA:839:U:O2	1.75	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:19:ARG:HG2	53:D6:20:ASN:H	1.37	0.87
1:AA:1049:U:H4'	1:AA:1050:G:C5'	2.04	0.87
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.09	0.87
11:AK:33:THR:HB	11:AK:38:ASN:O	1.73	0.87
20:CT:23:ARG:HA	20:CT:26:ASN:OD1	1.73	0.87
40:DT:36:GLU:HB3	40:DT:38:ASN:HD21	1.38	0.87
50:D3:56:VAL:HG12	50:D3:57:GLU:H	1.38	0.87
4:AD:36:ARG:HB3	4:AD:38:TYR:CE1	2.08	0.87
1:CA:1054:C:O2	1:CA:1054:C:H3'	1.75	0.87
40:DT:117:ASP:OD2	40:DT:120:ARG:HG3	1.75	0.87
45:DY:97:ARG:HD3	45:DY:97:ARG:H	1.36	0.87
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.74	0.87
25:BA:1494:A:N3	25:BA:1494:A:H5'	1.88	0.87
1:CA:668:G:O2'	15:CO:46:HIS:HB3	1.75	0.87
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.15	0.87
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.14	0.87
9:CI:126:SER:O	9:CI:127:LYS:HB3	1.75	0.87
22:CV:15:G:N1	22:CV:49:C:H5	1.73	0.87
1:AA:968:A:C4'	1:AA:969:A:OP2	2.23	0.87
12:AL:83:VAL:HG11	12:AL:100:ILE:HG12	1.53	0.87
40:BT:80:SER:HB3	40:BT:81:PRO:HD3	1.54	0.87
45:BY:14:LEU:CD1	45:BY:15:VAL:H	1.88	0.87
45:BY:36:ALA:CB	45:BY:67:LEU:O	2.22	0.87
13:CM:94:ARG:HG2	19:CS:82:GLY:N	1.90	0.87
20:CT:43:LEU:HD13	20:CT:51:GLU:HG2	1.57	0.87
35:DO:49:ARG:HH11	35:DO:49:ARG:HG2	1.39	0.87
31:BG:72:ARG:NH1	31:BG:86:MET:CB	2.36	0.86
25:DA:676:A:H8	25:DA:2069:G:H21	1.19	0.86
19:AS:6:LYS:HG2	19:AS:7:LYS:CD	2.04	0.86
25:BA:332:A:H4'	25:BA:333:G:OP1	1.73	0.86
25:BA:1452:A:H62	25:BA:2703:C:H41	1.22	0.86
25:BA:2745:C:C4	25:BA:2746:U:C4	2.63	0.86
44:BX:64:LYS:NZ	44:BX:73:ARG:HE	1.73	0.86
5:CE:102:ALA:C	5:CE:106:PRO:CG	2.43	0.86
36:DP:70:GLN:C	36:DP:72:PRO:HD2	1.95	0.86
38:DR:8:ARG:HH11	38:DR:39:PRO:HB3	1.38	0.86
38:DR:17:ARG:HH11	38:DR:17:ARG:HG2	1.41	0.86
25:BA:2458:G:C8	25:BA:2490:G:C6	2.63	0.86
1:CA:251:G:C1'	1:CA:252:U:C6	2.58	0.86
53:D6:46:HIS:HD2	53:D6:47:THR:CA	1.87	0.86
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:6:LYS:HA	46:BZ:60:GLU:HB2	1.56	0.86
10:CJ:51:ARG:HD2	10:CJ:59:SER:O	1.75	0.86
19:CS:52:TYR:HD1	19:CS:57:HIS:CE1	1.93	0.86
25:DA:2311:A:C8	31:DG:88:ILE:HG13	2.09	0.86
31:DG:56:ALA:HB2	31:DG:153:ARG:NE	1.91	0.86
1:AA:1226:C:O2'	1:AA:1227:A:H5'	1.73	0.86
25:BA:49:A:H1'	25:BA:51:G:C5	2.11	0.86
47:B0:26:TYR:H	47:B0:29:GLN:NE2	1.72	0.86
22:CV:29:C:C2'	22:CV:30:G:C5'	2.53	0.86
36:DP:59:LEU:CA	36:DP:61:ARG:NH1	2.39	0.86
45:DY:63:LYS:NZ	45:DY:64:GLU:H	1.73	0.86
27:BC:58:VAL:HG21	27:BC:166:ASP:N	1.89	0.86
43:BW:51:LEU:HD13	43:BW:52:GLU:N	1.91	0.86
45:BY:28:LYS:HE3	45:BY:28:LYS:N	1.89	0.86
29:DE:60:ASN:OD1	29:DE:62:PRO:HD2	1.74	0.86
44:DX:12:VAL:HG21	44:DX:17:ALA:HB2	1.56	0.86
13:AM:65:LYS:CA	13:AM:66:LEU:HB2	2.05	0.86
25:BA:243:U:OP1	55:B8:6:THR:HG21	1.75	0.86
25:BA:769:G:H5'	25:BA:1379:A:H62	1.40	0.86
25:BA:1452:A:H4'	25:BA:1453:U:OP2	1.76	0.86
25:BA:2059:A:H5'	25:BA:2060:A:OP2	1.75	0.86
5:CE:78:HIS:HD2	8:CH:104:ARG:HG3	0.71	0.86
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.57	0.86
25:BA:1493:C:O2	25:BA:1493:C:H2'	1.74	0.86
33:BI:5:LEU:HD11	33:BI:19:VAL:HG12	1.56	0.86
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	1.75	0.86
30:DF:198:ALA:HA	30:DF:201:VAL:HG12	1.56	0.86
43:DW:76:VAL:HG23	43:DW:103:ILE:HA	1.58	0.86
1:AA:251:G:H4'	1:AA:252:U:O5'	1.74	0.86
12:AL:5:PRO:HA	12:AL:9:GLN:HE21	1.37	0.86
13:AM:57:ARG:NH2	51:B4:60:GLU:HG3	1.90	0.86
1:CA:274:A:H4'	1:CA:275:G:O5'	1.76	0.86
1:CA:484:G:O2'	1:CA:485:G:H5"	1.74	0.86
25:BA:434:U:O2'	25:BA:435:C:H5	1.58	0.86
34:BN:62:VAL:HG22	34:BN:66:LYS:CG	2.05	0.86
25:DA:1598:C:H5'	44:DX:36:LYS:HB2	1.58	0.86
25:DA:1754:C:OP1	40:DT:96:ARG:NH1	2.08	0.86
41:DU:108:GLU:CG	42:DV:44:LYS:HE3	2.02	0.86
45:DY:81:LYS:HD3	45:DY:97:ARG:NE	1.91	0.86
2:AB:25:ASN:ND2	2:AB:193:ASP:HB3	1.91	0.85
25:BA:769:G:H5'	25:BA:1379:A:N6	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:53:MET:HB2	47:B0:59:LEU:HD23	1.58	0.85
28:DD:43:ARG:NH1	28:DD:44:ASN:ND2	2.24	0.85
36:DP:79:ARG:HD3	36:DP:109:GLY:HA2	1.57	0.85
25:BA:2171:A:O2'	25:BA:2172:U:H5'	1.75	0.85
32:DH:152:ARG:O	32:DH:153:LYS:HB2	1.75	0.85
44:DX:12:VAL:HG11	44:DX:27:THR:OG1	1.76	0.85
46:DZ:82:ARG:HG3	46:DZ:83:PRO:HD2	1.57	0.85
3:AC:79:ARG:HH12	11:CK:100:ALA:CB	1.88	0.85
8:AH:95:VAL:HB	8:AH:99:GLU:HB2	1.59	0.85
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.57	0.85
28:BD:218:ARG:HB3	28:BD:219:PRO:HD2	1.58	0.85
1:CA:251:G:O4'	1:CA:252:U:C6	2.29	0.85
29:DE:101:ARG:NH2	29:DE:171:GLU:HB2	1.92	0.85
45:DY:39:VAL:HG12	45:DY:40:GLU:H	1.41	0.85
4:AD:49:ARG:HD3	4:AD:50:ARG:N	1.91	0.85
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.57	0.85
13:AM:25:ILE:HD11	13:AM:66:LEU:HD21	1.57	0.85
25:BA:243:U:O4	25:BA:254:G:C2	2.30	0.85
25:DA:1819:A:H4'	25:DA:1820:U:OP2	1.77	0.85
37:DQ:27:VAL:HG23	37:DQ:137:TYR:HE1	1.40	0.85
41:DU:95:LEU:HD13	42:DV:4:ILE:CG2	2.06	0.85
25:BA:1504:C:O2'	25:BA:1505:C:C5'	2.24	0.85
26:BB:14:U:H4'	26:BB:15:A:OP2	1.74	0.85
29:BE:73:GLU:HG3	29:BE:74:PRO:HD2	1.55	0.85
38:BR:9:LYS:C	38:BR:10:LEU:HG	1.97	0.85
43:BW:59:VAL:HG12	43:BW:60:ASN:OD1	1.75	0.85
2:CB:24:TRP:CH2	2:CB:26:PRO:HA	2.11	0.85
4:CD:30:LYS:C	4:CD:32:ALA:H	1.78	0.85
13:CM:108:ARG:N	13:CM:108:ARG:HD2	1.91	0.85
25:DA:2457:U:H2'	25:DA:2458:G:H5'	1.56	0.85
31:DG:67:LYS:HG2	51:D4:5:ILE:CG2	2.05	0.85
40:DT:33:LYS:HE2	40:DT:43:GLN:CB	2.06	0.85
1:AA:531:U:H5"	1:AA:532:A:OP1	1.75	0.85
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.57	0.85
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.57	0.85
9:AI:46:ALA:HA	9:AI:78:LYS:HB2	1.57	0.85
12:AL:5:PRO:HA	12:AL:9:GLN:NE2	1.89	0.85
31:BG:39:ILE:HD13	31:BG:157:ILE:HG23	1.58	0.85
31:BG:144:ILE:HD12	31:BG:145:THR:N	1.91	0.85
36:DP:90:ARG:HG2	36:DP:91:PHE:HD1	1.41	0.85
46:DZ:145:GLU:HG3	46:DZ:146:ILE:HG12	1.55	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:982:U:H6	1:AA:982:U:O5'	1.58	0.85
1:CA:819:A:C5'	1:CA:820:U:OP2	2.24	0.85
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.59	0.85
27:DC:68:LEU:HD11	27:DC:179:SER:HA	1.58	0.85
40:DT:36:GLU:CD	40:DT:38:ASN:HD21	1.80	0.85
1:AA:595:G:C4'	1:AA:596:C:OP1	2.24	0.85
40:BT:26:ASP:OD2	40:BT:27:THR:N	2.10	0.85
48:B1:52:ARG:CD	48:B1:53:VAL:H	1.89	0.85
24:CX:17:U:C2'	24:CX:18:G:H5'	2.06	0.85
25:DA:614(A):U:H4'	25:DA:614(B):G:OP1	1.77	0.85
40:DT:129:ARG:CD	40:DT:131:ALA:HB3	2.07	0.85
6:AF:45:LEU:HD11	6:AF:57:GLN:HB3	1.58	0.85
25:BA:1451:C:H5"	25:BA:1452:A:OP1	1.75	0.85
34:BN:32:THR:HG23	34:BN:37:LYS:HB3	1.58	0.85
38:BR:2:ARG:NH1	38:BR:5:LYS:HE2	1.91	0.85
7:CG:10:ARG:HG3	7:CG:10:ARG:HH11	1.41	0.85
20:CT:33:ILE:H	20:CT:33:ILE:HD13	1.42	0.85
27:DC:59:ARG:HB2	27:DC:62:VAL:HG22	1.59	0.85
32:DH:89:ILE:HD13	32:DH:90:LYS:N	1.92	0.85
19:AS:11:VAL:HA	19:AS:38:SER:HB2	1.59	0.85
35:BO:97:ARG:HH21	35:BO:99:PHE:HE1	1.23	0.85
39:BS:12:PHE:CE1	39:BS:14:VAL:CG2	2.59	0.85
46:BZ:37:VAL:O	46:BZ:38:TYR:HB3	1.75	0.85
49:B2:38:GLN:HA	49:B2:41:ILE:HD11	1.58	0.85
20:CT:43:LEU:HD13	20:CT:51:GLU:HB2	1.58	0.85
22:AV:15:G:H1	22:AV:49:C:H5	1.22	0.84
25:BA:588:U:OP2	25:BA:588:U:C5	2.30	0.84
29:BE:3:GLY:HA3	29:BE:81:ILE:HG21	1.59	0.84
37:BQ:12:GLN:HG2	37:BQ:73:PRO:HD2	1.58	0.84
40:BT:31:SER:OG	40:BT:32:TYR:N	2.05	0.84
43:BW:34:ASN:O	43:BW:37:ARG:HB3	1.76	0.84
52:D5:48:GLU:HA	52:D5:57:VAL:CG2	2.07	0.84
52:D5:48:GLU:HA	52:D5:57:VAL:HG21	1.59	0.84
53:D6:41:PRO:CD	53:D6:46:HIS:H	1.90	0.84
1:AA:1049:U:H4'	1:AA:1050:G:O5'	1.75	0.84
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.77	0.84
32:BH:148:ILE:O	32:BH:151:ILE:HG12	1.78	0.84
48:B1:5:CYS:SG	48:B1:8:SER:HB3	2.17	0.84
1:CA:950:U:H1'	1:CA:971:G:N7	1.93	0.84
25:DA:1819:A:OP1	28:DD:158:ALA:HB3	1.77	0.84
30:DF:128:ALA:O	30:DF:129:PHE:CD2	2.30	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:127:GLU:OE1	32:DH:128:PRO:HD2	1.78	0.84
40:DT:23:ARG:HE	40:DT:120:ARG:HD3	1.40	0.84
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.42	0.84
1:CA:1226:C:O2'	1:CA:1227:A:H5'	1.76	0.84
28:DD:35:LYS:O	28:DD:64:ILE:HG22	1.77	0.84
30:DF:7:TYR:HB3	30:DF:21:ALA:HB1	1.57	0.84
25:BA:434:U:O2'	25:BA:435:C:C5	2.30	0.84
25:BA:1340:U:O2'	25:BA:1602:U:H2'	1.76	0.84
30:BF:3:GLU:HG3	30:BF:19:GLU:HB2	1.59	0.84
55:B8:30:ARG:O	55:B8:30:ARG:HD3	1.77	0.84
25:DA:1693:U:OP2	25:DA:1694:C:C5	2.30	0.84
30:BF:17:ARG:HH11	30:BF:17:ARG:HG3	1.41	0.84
36:BP:79:ARG:HD3	36:BP:109:GLY:HA2	1.57	0.84
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.41	0.84
34:DN:4:TYR:HB2	41:DU:64:ARG:NH2	1.92	0.84
34:DN:9:VAL:HG12	34:DN:10:GLU:H	1.43	0.84
1:AA:1502:A:H2	1:AA:1505:G:H22	1.26	0.84
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.60	0.84
34:BN:24:GLY:O	34:BN:28:THR:HB	1.76	0.84
41:BU:66:ASN:HD21	41:BU:70:ARG:HE	1.22	0.84
46:BZ:151:HIS:HB2	46:BZ:168:GLU:O	1.77	0.84
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.60	0.84
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.58	0.84
25:DA:2306:C:H3'	25:DA:2307:G:H5"	1.59	0.84
32:DH:153:LYS:CG	32:DH:162:ILE:H	1.90	0.84
45:DY:47:LYS:HG2	45:DY:60:PHE:CE1	2.12	0.84
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.56	0.84
13:AM:54:VAL:O	13:AM:58:GLU:HG2	1.78	0.84
25:BA:2519:U:C4'	25:BA:2520:C:OP1	2.26	0.84
28:BD:223:GLY:HA2	28:BD:231:HIS:CD2	2.12	0.84
1:CA:136:C:H42	1:CA:227:G:H1	1.24	0.84
1:CA:1226:C:N4	13:CM:104:ARG:HB2	1.92	0.84
38:DR:8:ARG:NH1	38:DR:39:PRO:HB3	1.92	0.84
25:BA:2449:U:C4'	25:BA:2450:A:OP1	2.26	0.84
36:BP:52:GLU:CD	36:BP:55:ARG:HH21	1.81	0.84
42:BV:19:LYS:HG3	42:BV:20:LEU:N	1.92	0.84
7:AG:14:PRO:HG3	7:AG:21:VAL:HG12	1.60	0.84
25:BA:2056:G:N2	25:BA:2057:A:N9	2.26	0.84
28:BD:31:LYS:O	28:BD:35:LYS:HB2	1.76	0.84
34:BN:4:TYR:N	34:BN:4:TYR:CD1	2.44	0.84
5:CE:76:ILE:HD11	5:CE:142:LEU:HD21	1.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:106:THR:HG22	32:DH:112:PRO:HB3	1.58	0.84
35:DO:63:VAL:HG12	35:DO:106:LEU:HD11	1.58	0.84
6:AF:76:ALA:O	6:AF:80:ARG:HG3	1.77	0.84
28:BD:270:ILE:O	28:BD:271:ILE:HG13	1.77	0.84
33:BI:83:ALA:HB2	33:BI:88:ILE:HA	1.57	0.84
33:BI:83:ALA:CB	33:BI:88:ILE:HA	2.08	0.84
36:BP:90:ARG:HG2	36:BP:91:PHE:HD1	1.41	0.84
1:CA:251:G:H1'	1:CA:252:U:C6	2.12	0.84
1:CA:251:G:O4'	1:CA:252:U:C5	2.30	0.84
13:CM:116:THR:HG22	13:CM:117:VAL:N	1.92	0.84
20:CT:81:LYS:O	20:CT:85:MET:CG	2.25	0.84
28:DD:24:ILE:HG12	28:DD:25:THR:H	1.43	0.84
28:DD:35:LYS:HZ1	28:DD:103:ARG:HA	1.42	0.84
32:DH:124:GLU:HB2	32:DH:132:ARG:HD2	1.60	0.84
1:AA:1277:C:O2'	1:AA:1279:A:C8	2.30	0.83
5:AE:26:PHE:O	5:AE:27:ARG:HB2	1.77	0.83
12:AL:6:THR:HG23	12:AL:9:GLN:CG	2.08	0.83
25:BA:483:A:H1'	45:BY:60:PHE:CZ	2.11	0.83
25:BA:2835:A:C4'	25:BA:2836:U:OP1	2.26	0.83
31:BG:86:MET:HG3	31:BG:87:PRO:HD2	1.59	0.83
36:BP:52:GLU:CD	36:BP:55:ARG:NH2	2.31	0.83
33:DI:93:THR:HG22	33:DI:119:PRO:HB3	1.60	0.83
36:DP:47:ASP:HB3	36:DP:48:PRO:C	1.98	0.83
28:BD:231:HIS:ND1	28:BD:232:PRO:HD2	1.92	0.83
33:BI:54:GLN:O	33:BI:58:LEU:HB3	1.78	0.83
23:CW:16:U:H3'	23:CW:17:C:H5'	1.59	0.83
25:DA:598:G:C4'	36:DP:11:GLY:HA3	2.08	0.83
25:DA:1205:U:H4'	25:DA:1206:G:OP2	1.78	0.83
25:DA:1819:A:H1'	25:DA:1821:A:C6	2.13	0.83
30:DF:95:ARG:NE	30:DF:97:TYR:CZ	2.44	0.83
40:DT:33:LYS:HG2	40:DT:43:GLN:CB	2.08	0.83
1:CA:1067:A:O2'	1:CA:1068:G:H8	1.60	0.83
3:CC:123:GLN:HB3	3:CC:128:PHE:CD2	2.13	0.83
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.92	0.83
25:DA:1799:G:O6	28:DD:179:SER:HB3	1.78	0.83
36:DP:64:LYS:HB3	55:D8:25:MET:HG3	1.59	0.83
5:AE:91:LEU:HD12	5:AE:120:THR:HB	1.58	0.83
42:BV:19:LYS:HB3	42:BV:94:LEU:O	1.78	0.83
45:BY:37:VAL:CG2	45:BY:72:VAL:HG21	2.07	0.83
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.60	0.83
25:BA:2873:A:H1'	38:BR:6:SER:CB	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:161:THR:HG22	31:BG:163:ALA:H	1.43	0.83
53:B6:28:ARG:HA	53:B6:32:ASN:HB2	1.60	0.83
25:DA:1455:G:C8	38:DR:60:LEU:HD11	2.11	0.83
30:DF:128:ALA:O	30:DF:129:PHE:HD2	1.61	0.83
41:DU:69:CYS:SG	41:DU:79:PHE:HD1	2.01	0.83
1:AA:1068:G:OP1	1:AA:1388:C:H5'	1.79	0.83
25:BA:2012:G:H4'	43:BW:96:ILE:HD11	1.58	0.83
30:BF:32:LEU:O	30:BF:32:LEU:HD23	1.79	0.83
33:BI:101:LEU:HB3	33:BI:109:ILE:CD1	2.08	0.83
48:B1:3:LYS:HG3	48:B1:4:VAL:H	1.44	0.83
48:B1:12:PRO:HB3	48:B1:43:TYR:HD2	1.43	0.83
24:CX:17:U:H2'	24:CX:18:G:H5'	1.60	0.83
29:DE:3:GLY:HA3	29:DE:81:ILE:HG21	1.57	0.83
33:DI:13:GLY:HA3	33:DI:17:GLN:OE1	1.78	0.83
36:DP:90:ARG:HG2	36:DP:91:PHE:CD1	2.14	0.83
1:AA:328:C:O2	1:AA:328:C:H2'	1.77	0.83
23:AW:67:C:H2'	23:AW:68:C:C6	2.13	0.83
25:BA:242:G:O3'	25:BA:243:U:C6	2.31	0.83
25:BA:2614:A:C4'	25:BA:2615:U:OP1	2.26	0.83
28:BD:223:GLY:CA	28:BD:231:HIS:CD2	2.61	0.83
13:CM:3:ARG:CZ	13:CM:7:VAL:HG13	2.07	0.83
1:AA:533:A:H4'	1:AA:534:U:OP1	1.77	0.83
9:AI:28:VAL:HG13	9:AI:63:ILE:O	1.79	0.83
12:AL:126:LYS:HE2	12:AL:127:GLU:H	1.42	0.83
52:B5:41:PRO:HG2	52:B5:44:THR:HG21	1.61	0.83
55:B8:31:HIS:CG	55:B8:32:LEU:HA	2.13	0.83
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	1.93	0.83
20:CT:40:ALA:HB2	20:CT:55:ILE:HG22	1.59	0.83
22:CV:21:U:H5'	22:CV:22:A:OP2	1.78	0.83
42:DV:34:GLU:HG3	42:DV:58:VAL:HG22	1.61	0.83
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.60	0.83
22:AV:17:C:H3'	22:AV:18:U:C5'	2.09	0.83
25:BA:388:G:H5'	48:B1:25:LYS:HB3	1.58	0.83
25:BA:2127:G:C6	25:BA:2162:G:C2	2.67	0.83
44:BX:55:ASN:HB2	44:BX:80:ILE:HD12	1.58	0.83
49:B2:13:ALA:HA	49:B2:16:LEU:CD1	2.08	0.83
5:CE:104:ALA:C	5:CE:106:PRO:HD2	1.98	0.83
4:AD:128:VAL:HG12	4:AD:129:ASN:ND2	1.94	0.83
9:AI:88:TYR:O	9:AI:89:ASN:HB2	1.77	0.83
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	1.93	0.83
22:AV:2:G:H2'	22:AV:3:C:C6	2.13	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:3:GLU:HB2	30:BF:24:LEU:HG	1.59	0.83
10:CJ:32:ALA:H	10:CJ:76:ASN:HD22	1.24	0.83
25:DA:1139:G:O2'	25:DA:1140:C:H5'	1.78	0.83
25:DA:1739:U:H5"	25:DA:1739:U:O2	1.78	0.83
25:DA:2701:C:H3'	25:DA:2702:U:C5'	2.07	0.83
31:DG:53:LEU:HD23	31:DG:54:GLU:N	1.94	0.83
25:BA:1820:U:C4'	25:BA:1821:A:OP2	2.27	0.82
25:BA:2835:A:H5'	25:BA:2836:U:OP1	1.78	0.82
30:BF:34:TRP:HA	36:BP:6:LEU:HD12	1.58	0.82
36:BP:65:ARG:HH12	55:B8:15:LYS:HB2	1.44	0.82
55:B8:50:LEU:C	55:B8:53:PRO:HD2	1.99	0.82
36:DP:79:ARG:O	36:DP:111:ARG:HB2	1.79	0.82
46:DZ:166:SER:HB2	46:DZ:167:PRO:C	1.99	0.82
25:BA:1251:C:H6	25:BA:1251:C:C5'	1.92	0.82
36:BP:47:ASP:HB3	36:BP:48:PRO:C	1.98	0.82
1:CA:565:U:H3'	1:CA:566:G:H2'	1.58	0.82
25:DA:1819:A:O4'	25:DA:1821:A:C5	2.32	0.82
25:BA:32:C:O2'	25:BA:33:U:H5'	1.79	0.82
31:BG:111:LEU:HB3	31:BG:117:PHE:HE2	1.43	0.82
34:BN:18:ALA:HB1	34:BN:21:LYS:HB2	1.61	0.82
45:BY:39:VAL:HG12	45:BY:40:GLU:H	1.43	0.82
1:CA:100:C:H2'	1:CA:101:A:C8	2.14	0.82
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.44	0.82
9:CI:95:LYS:HD3	9:CI:96:LEU:N	1.94	0.82
1:AA:1255:G:H5"	3:AC:26:LYS:HZ2	1.44	0.82
2:AB:71:VAL:HA	2:AB:93:VAL:HG22	1.60	0.82
25:BA:865:C:C4'	25:BA:866:A:OP1	2.27	0.82
25:BA:887:A:H1'	25:BA:889:C:C4	2.13	0.82
32:BH:102:ALA:HB2	32:BH:117:PRO:HD3	1.59	0.82
53:B6:41:PRO:HD2	53:B6:46:HIS:H	1.45	0.82
7:CG:113:GLU:HG3	7:CG:119:ARG:HG2	1.60	0.82
19:CS:46:GLY:N	19:CS:62:ILE:CG2	2.42	0.82
27:DC:49:ILE:H	27:DC:49:ILE:HD12	1.44	0.82
29:DE:36:ARG:NH2	29:DE:88:GLY:HA3	1.93	0.82
2:AB:204:ASN:ND2	2:AB:206:ASP:H	1.76	0.82
29:BE:132:HIS:CD2	29:BE:135:HIS:CE1	2.67	0.82
31:BG:4:ASP:HA	31:BG:8:LYS:CD	2.09	0.82
31:BG:22:ARG:HB3	31:BG:22:ARG:NH1	1.92	0.82
33:BI:77:LEU:HD12	33:BI:104:GLN:NE2	1.94	0.82
47:B0:24:LYS:O	47:B0:25:ARG:HD3	1.80	0.82
20:CT:53:LEU:HD13	20:CT:53:LEU:N	1.92	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:55:PRO:HG2	32:DH:61:HIS:ND1	1.95	0.82
9:AI:95:LYS:HD3	9:AI:96:LEU:N	1.94	0.82
4:CD:49:ARG:HD3	4:CD:50:ARG:H	1.45	0.82
5:CE:110:LEU:HD21	5:CE:139:LEU:HD21	1.61	0.82
10:CJ:78:ASN:HD21	10:CJ:80:LYS:CB	1.89	0.82
16:CP:8:ARG:C	16:CP:9:PHE:HD2	1.82	0.82
2:AB:87:ARG:NH2	2:AB:233:SER:HB2	1.95	0.82
5:AE:103:GLY:O	5:AE:106:PRO:CD	2.25	0.82
29:BE:39:PRO:O	29:BE:43:GLY:CA	2.27	0.82
36:BP:79:ARG:O	36:BP:111:ARG:HB2	1.79	0.82
9:AI:48:GLU:N	9:AI:49:PRO:HD2	1.94	0.82
10:AJ:50:ILE:HG21	10:AJ:57:LYS:HD2	1.62	0.82
41:BU:95:LEU:HD13	42:BV:4:ILE:CD1	2.09	0.82
48:B1:45:ASN:HD21	48:B1:47:GLN:HE21	1.27	0.82
48:B1:52:ARG:HD2	48:B1:53:VAL:N	1.94	0.82
25:DA:2286:A:H61	53:D6:24:GLU:HB3	1.44	0.82
40:DT:129:ARG:NE	40:DT:131:ALA:CB	2.42	0.82
52:D5:32:PRO:O	52:D5:33:CYS:HB3	1.76	0.82
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.45	0.82
4:AD:22:LYS:HD3	4:AD:26:CYS:SG	2.20	0.82
25:BA:2345:G:H1'	25:BA:2347:C:C6	2.15	0.82
29:BE:36:ARG:HH22	29:BE:88:GLY:HA3	0.79	0.82
12:CL:90:VAL:HG12	12:CL:93:LEU:H	1.44	0.82
19:CS:45:VAL:HA	19:CS:62:ILE:HG13	1.62	0.82
32:DH:150:ALA:C	32:DH:152:ARG:H	1.77	0.82
40:DT:33:LYS:HG2	40:DT:43:GLN:HB2	1.60	0.82
31:BG:101:ILE:HG12	31:BG:105:LYS:HE3	1.60	0.82
36:BP:90:ARG:HG2	36:BP:91:PHE:CD1	2.14	0.82
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.12	0.82
18:CR:86:VAL:HG12	18:CR:87:ARG:HD2	1.61	0.82
25:DA:1558:A:O2'	25:DA:1559:G:H5"	1.78	0.82
31:DG:94:LEU:HD23	31:DG:94:LEU:H	1.45	0.82
33:DI:110:ASP:HB2	33:DI:111:PRO:C	2.01	0.82
40:DT:74:ARG:HD2	40:DT:76:PHE:HE2	1.44	0.82
44:DX:35:THR:HG22	44:DX:37:THR:H	1.45	0.82
5:AE:150:ARG:O	5:AE:153:LYS:HG2	1.80	0.81
31:BG:85:GLY:O	31:BG:87:PRO:HD2	1.79	0.81
39:BS:89:ARG:HB3	39:BS:92:TYR:HB3	1.61	0.81
12:CL:28:LYS:HE2	12:CL:33:ARG:HH22	1.45	0.81
25:DA:221:A:H8	25:DA:221:A:OP2	1.61	0.81
29:DE:77:ILE:HG22	29:DE:78:LEU:N	1.94	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D8:52:LYS:N	55:D8:53:PRO:HD2	1.95	0.81
4:AD:11:LEU:N	4:AD:11:LEU:CD2	2.36	0.81
23:AW:34:G:C5	24:AX:14:A:N3	2.47	0.81
41:BU:112:ARG:HH11	41:BU:112:ARG:HG2	1.45	0.81
25:DA:2700:C:C2'	25:DA:2701:C:H5'	2.09	0.81
28:DD:134:ARG:HG3	28:DD:135:PHE:CE2	2.14	0.81
33:DI:3:VAL:HG12	33:DI:38:LEU:HA	1.62	0.81
1:AA:1529:G:H4'	1:AA:1530:G:OP2	1.79	0.81
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.45	0.81
12:AL:47:LYS:HB2	12:AL:48:PRO:CD	2.04	0.81
25:BA:2866:U:H4'	25:BA:2867:G:OP1	1.79	0.81
31:BG:101:ILE:HD13	31:BG:102:PHE:N	1.95	0.81
32:BH:149:ARG:HD3	32:BH:164:TYR:CE1	2.15	0.81
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.10	0.81
36:BP:56:SER:O	36:BP:57:THR:HB	1.80	0.81
38:BR:103:ARG:HB2	38:BR:109:ALA:O	1.80	0.81
45:BY:90:LEU:HD12	45:BY:91:GLU:HB2	1.62	0.81
48:B1:45:ASN:ND2	48:B1:47:GLN:HE21	1.77	0.81
1:CA:1067:A:O2'	1:CA:1068:G:C8	2.31	0.81
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	1.93	0.81
6:CF:18:GLN:O	6:CF:21:LEU:HB2	1.81	0.81
20:CT:56:MET:HG2	20:CT:84:LEU:HD12	1.59	0.81
30:DF:32:LEU:CD1	30:DF:105:VAL:HG13	2.10	0.81
32:DH:98:LEU:HB2	32:DH:125:VAL:CG2	2.07	0.81
36:DP:70:GLN:HB3	36:DP:72:PRO:CD	2.10	0.81
45:DY:97:ARG:NH2	45:DY:98:VAL:HB	1.95	0.81
47:D0:25:ARG:HD2	47:D0:29:GLN:NE2	1.95	0.81
25:BA:1342:A:N6	25:BA:1397:U:H5	1.77	0.81
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.63	0.81
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.61	0.81
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.59	0.81
29:DE:116:VAL:HG21	29:DE:122:PHE:CD2	2.15	0.81
23:AW:17:C:H41	25:BA:2181:G:H5'	1.45	0.81
25:BA:1647:G:H4'	25:BA:1648:C:O5'	1.79	0.81
25:BA:2286:A:H4'	25:BA:2287:A:O4'	1.80	0.81
25:BA:2457:U:C2'	25:BA:2458:G:H5'	2.10	0.81
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.10	0.81
1:AA:815:A:C2	1:AA:1529:G:C4	2.69	0.81
1:AA:1279:A:H2'	1:AA:1282:C:N4	1.94	0.81
2:AB:21:ARG:O	2:AB:22:LYS:HB2	1.81	0.81
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.01	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2171:A:C4'	25:BA:2172:U:OP1	2.27	0.81
28:BD:264:LYS:HD3	28:BD:266:SER:HB2	1.63	0.81
39:BS:34:HIS:CE1	39:BS:54:LEU:CB	2.28	0.81
22:CV:54:G:N3	22:CV:55:U:C5	2.49	0.81
1:AA:677:U:H3	1:AA:713:G:H22	1.25	0.81
1:AA:1054:C:O2	1:AA:1054:C:H2'	1.81	0.81
18:AR:36:ASN:ND2	18:AR:39:VAL:HG21	1.96	0.81
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.09	0.81
33:BI:49:ALA:O	33:BI:52:ARG:HG3	1.80	0.81
36:BP:112:LEU:HD22	36:BP:113:LYS:N	1.95	0.81
37:BQ:60:ARG:HA	46:BZ:178:GLU:O	1.81	0.81
30:DF:7:TYR:HB3	30:DF:21:ALA:CB	2.11	0.81
30:DF:31:HIS:HB2	36:DP:9:ASN:HD21	1.45	0.81
36:DP:52:GLU:OE1	36:DP:55:ARG:CD	2.29	0.81
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.09	0.81
9:CI:16:ARG:O	9:CI:63:ILE:HG23	1.80	0.81
9:CI:78:LYS:HE3	9:CI:101:PHE:CE2	2.14	0.81
23:CY:28:G:H2'	23:CY:29:G:H8	1.45	0.81
25:DA:806:C:OP2	36:DP:41:ARG:NH2	2.14	0.81
28:DD:25:THR:HG22	28:DD:26:LYS:H	1.45	0.81
40:DT:129:ARG:CD	40:DT:131:ALA:HB2	2.09	0.81
5:AE:76:ILE:CD1	5:AE:142:LEU:HD11	2.10	0.81
32:BH:109:PHE:CE1	32:BH:152:ARG:NH2	2.49	0.81
42:BV:81:TYR:C	42:BV:82:ARG:HD2	2.01	0.81
1:CA:274:A:O2'	1:CA:275:G:C8	2.31	0.81
2:CB:69:LEU:HD12	2:CB:70:PHE:N	1.94	0.81
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.62	0.81
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	1.80	0.81
25:DA:1697:G:H3'	25:DA:1698:A:H5"	1.62	0.81
40:DT:80:SER:CB	40:DT:81:PRO:CD	2.59	0.81
45:DY:84:ARG:HH12	45:DY:97:ARG:HA	1.44	0.81
25:BA:587:C:H4'	25:BA:588:U:OP2	1.80	0.81
31:BG:72:ARG:HH11	31:BG:86:MET:HB2	1.46	0.81
33:BI:53:ALA:O	33:BI:57:ARG:HB2	1.81	0.81
33:BI:77:LEU:HD21	33:BI:101:LEU:HD13	1.61	0.81
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.63	0.81
25:DA:1378:A:H4'	25:DA:1379:A:OP1	1.81	0.81
32:DH:4:ILE:HG13	32:DH:6:ARG:CZ	2.10	0.81
42:DV:15:GLU:HG3	42:DV:16:PRO:HD2	1.60	0.81
42:DV:16:PRO:HB3	42:DV:99:ILE:HD11	1.63	0.81
45:DY:47:LYS:HG2	45:DY:60:PHE:HE1	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1270:C:N4	25:BA:1648:C:H41	1.78	0.80
29:BE:49:LEU:HD13	29:BE:81:ILE:HG13	1.59	0.80
32:BH:27:LYS:HG2	32:BH:32:GLU:HB2	1.60	0.80
32:BH:123:PHE:HA	32:BH:133:VAL:HG22	1.60	0.80
36:BP:19:VAL:HG22	36:BP:20:GLY:N	1.96	0.80
38:BR:103:ARG:CB	38:BR:109:ALA:O	2.28	0.80
45:BY:36:ALA:HB2	45:BY:67:LEU:O	1.79	0.80
2:CB:174:VAL:HG13	2:CB:184:VAL:HG11	1.62	0.80
20:CT:43:LEU:HD11	20:CT:51:GLU:CG	2.10	0.80
25:DA:530:G:C2	25:DA:2021:C:O2'	2.34	0.80
30:DF:128:ALA:O	30:DF:129:PHE:HB2	1.81	0.80
45:DY:76:CYS:SG	45:DY:77:PRO:CD	2.66	0.80
53:D6:46:HIS:HD2	53:D6:47:THR:HA	1.44	0.80
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.80	0.80
1:AA:1504:G:OP2	1:AA:1507:A:H4'	1.80	0.80
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.62	0.80
25:BA:725:G:H5"	25:BA:726:G:OP2	1.80	0.80
31:BG:85:GLY:O	31:BG:87:PRO:CD	2.30	0.80
42:BV:34:GLU:O	42:BV:36:PRO:HD3	1.81	0.80
10:CJ:30:SER:HB2	10:CJ:80:LYS:HB3	1.63	0.80
13:CM:14:ARG:HA	13:CM:44:ARG:HA	1.61	0.80
23:CW:57:G:H2'	23:CW:58:A:H5'	1.62	0.80
32:DH:152:ARG:HG3	32:DH:153:LYS:CE	2.10	0.80
41:DU:102:GLU:OE2	42:DV:2:PHE:CE2	2.34	0.80
4:AD:101:LEU:HD23	4:AD:121:VAL:HG13	1.62	0.80
25:BA:887:A:C1'	25:BA:889:C:N4	2.43	0.80
44:BX:44:GLU:HG3	44:BX:51:VAL:HG23	1.63	0.80
3:CC:140:ARG:HH11	3:CC:140:ARG:HG3	1.46	0.80
34:DN:58:ASP:C	34:DN:60:ILE:H	1.85	0.80
1:AA:1281:U:H4'	1:AA:1282:C:OP1	1.79	0.80
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.47	0.80
16:AP:49:LEU:HD12	16:AP:50:LYS:N	1.95	0.80
20:AT:81:LYS:O	20:AT:85:MET:CG	2.30	0.80
25:BA:1037:G:H1	25:BA:1118:C:H42	1.29	0.80
31:BG:72:ARG:HD3	31:BG:86:MET:CB	2.10	0.80
36:BP:71:VAL:N	36:BP:72:PRO:CD	2.43	0.80
16:CP:82:GLN:N	16:CP:82:GLN:HE21	1.78	0.80
21:CU:6:ARG:HE	21:CU:15:ARG:NH2	1.78	0.80
25:DA:752:A:H4'	25:DA:753:C:O5'	1.81	0.80
25:DA:753:C:OP2	25:DA:753:C:C5	2.33	0.80
25:DA:2849:U:O4	40:DT:23:ARG:NH2	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D8:36:LYS:HB3	55:D8:40:GLU:HG3	1.62	0.80
16:AP:82:GLN:HG2	16:AP:83:GLU:N	1.96	0.80
29:BE:4:ILE:HG12	29:BE:28:ALA:HB1	1.62	0.80
34:BN:62:VAL:O	34:BN:62:VAL:CG1	2.30	0.80
1:CA:1226:C:O2'	1:CA:1227:A:C5'	2.30	0.80
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.64	0.80
13:AM:66:LEU:H	13:AM:70:LEU:HB2	1.46	0.80
13:CM:108:ARG:HD2	13:CM:108:ARG:H	1.46	0.80
22:CV:53:G:O2'	22:CV:54:G:C5'	2.30	0.80
33:DI:64:GLU:HG3	33:DI:67:ARG:NH2	1.97	0.80
44:DX:12:VAL:CG2	44:DX:17:ALA:HB2	2.12	0.80
7:AG:15:ASP:O	7:AG:19:GLY:CA	2.29	0.80
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.62	0.80
28:BD:26:LYS:HZ3	28:BD:81:ALA:HB1	1.47	0.80
36:BP:124:LYS:NZ	36:BP:143:GLY:HA3	1.96	0.80
25:DA:887:A:H1'	25:DA:889:C:C4	2.16	0.80
36:DP:75:ILE:H	36:DP:75:ILE:CD1	1.82	0.80
1:AA:1300:G:O2'	1:AA:1301:U:C5'	2.29	0.80
22:AV:55:U:C2'	22:AV:56:U:H5'	2.11	0.80
25:BA:2303:G:O2'	31:BG:132:ASN:ND2	2.15	0.80
36:BP:83:VAL:HG12	36:BP:112:LEU:HD21	1.64	0.80
37:BQ:56:ARG:HA	37:BQ:56:ARG:CZ	2.12	0.80
50:B3:8:LEU:HG	50:B3:23:LEU:HD21	1.63	0.80
23:CW:36:A:H2'	23:CW:37:A:C5'	2.11	0.80
25:DA:1698:A:H1'	25:DA:1700:A:OP2	1.82	0.80
26:DB:42:C:O3'	31:DG:67:LYS:HE3	1.82	0.80
32:DH:126:PRO:HG2	32:DH:130:ARG:HH11	1.46	0.80
40:DT:28:VAL:HG22	40:DT:47:GLY:N	1.96	0.80
53:D6:41:PRO:CD	53:D6:46:HIS:N	2.44	0.80
10:AJ:37:PRO:HA	10:AJ:72:VAL:CG2	2.10	0.80
25:BA:2171:A:O2'	25:BA:2172:U:C5'	2.29	0.80
25:BA:2477:C:N3	56:B9:4:ARG:NH1	2.29	0.80
31:BG:85:GLY:O	31:BG:87:PRO:CG	2.30	0.80
39:BS:89:ARG:O	39:BS:90:GLY:O	2.00	0.80
7:CG:14:PRO:HG3	7:CG:21:VAL:HG13	1.64	0.80
16:CP:20:VAL:HG21	16:CP:32:TYR:CD1	2.17	0.80
20:CT:24:LEU:HD22	20:CT:24:LEU:O	1.82	0.80
36:DP:124:LYS:NZ	36:DP:143:GLY:HA3	1.96	0.80
37:DQ:34:LEU:HD11	37:DQ:129:THR:HB	1.64	0.80
1:AA:1275:A:H2'	1:AA:1276:G:C8	2.15	0.80
25:BA:1251:C:O2'	25:BA:1252:G:H5"	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2126:A:O2'	25:BA:2127:G:C5'	2.30	0.80
34:BN:62:VAL:HG13	34:BN:66:LYS:HB2	1.64	0.80
45:BY:50:ARG:HG3	45:BY:58:GLY:HA2	1.64	0.80
1:CA:1065:U:H4'	1:CA:1066:C:O5'	1.79	0.80
18:CR:76:LEU:HD23	18:CR:76:LEU:N	1.97	0.80
33:DI:88:ILE:HG12	33:DI:122:GLU:H	1.47	0.80
1:AA:1226:C:N4	13:AM:104:ARG:HB2	1.96	0.79
2:AB:76:GLN:O	2:AB:208:ILE:HD11	1.81	0.79
25:BA:271(D):G:H1	25:BA:271(T):C:H42	1.30	0.79
25:BA:2473:U:O2	25:BA:2473:U:H2'	1.82	0.79
29:BE:47:VAL:HG21	29:BE:86:PRO:HD3	1.61	0.79
30:BF:51:THR:CG2	30:BF:92:PRO:O	2.30	0.79
30:BF:64:ILE:O	30:BF:65:TRP:HD1	1.65	0.79
32:BH:151:ILE:N	32:BH:151:ILE:HD13	1.96	0.79
38:BR:11:ASN:O	38:BR:12:ARG:CG	2.30	0.79
1:CA:1065:U:C1'	1:CA:1066:C:OP2	2.30	0.79
1:CA:1502:A:H2	1:CA:1505:G:H22	0.84	0.79
3:CC:165:THR:O	3:CC:165:THR:CG2	2.30	0.79
11:CK:73:MET:SD	11:CK:103:LEU:HD23	2.23	0.79
13:CM:84:ILE:HD13	19:CS:65:ASN:HB3	1.62	0.79
22:CV:29:C:O2'	22:CV:30:G:C5'	2.30	0.79
22:CV:53:G:C2'	22:CV:54:G:O5'	2.30	0.79
25:DA:222:A:H4'	25:DA:223:A:OP1	1.82	0.79
25:DA:1963:U:H3'	25:DA:1963:U:O2	1.82	0.79
31:DG:60:LEU:O	31:DG:64:THR:HG22	1.82	0.79
36:DP:112:LEU:HD22	36:DP:113:LYS:N	1.95	0.79
37:DQ:30:GLY:HA2	37:DQ:107:ALA:HB2	1.64	0.79
38:DR:51:LEU:HD23	38:DR:66:VAL:HG13	1.64	0.79
40:DT:89:VAL:HG11	40:DT:91:ARG:NE	1.96	0.79
41:DU:104:GLN:NE2	41:DU:105:VAL:N	2.30	0.79
1:AA:1226:C:O2'	1:AA:1227:A:C5'	2.30	0.79
25:BA:676:A:H8	25:BA:2069:G:H21	1.27	0.79
25:BA:1342:A:C6	25:BA:1397:U:C6	2.70	0.79
25:BA:1453:U:C4'	25:BA:1455:G:P	2.70	0.79
32:BH:109:PHE:HE1	32:BH:152:ARG:CZ	1.94	0.79
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.65	0.79
2:CB:71:VAL:HA	2:CB:93:VAL:HG22	1.64	0.79
3:AC:16:ARG:HB2	3:AC:16:ARG:NH1	1.97	0.79
14:AN:27:CYS:SG	59:AN:101:ZN:ZN	1.70	0.79
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.64	0.79
44:BX:64:LYS:HZ3	44:BX:73:ARG:NE	1.76	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:58:HIS:HB3	9:CI:59:PHE:CD1	2.17	0.79
28:DD:134:ARG:HG3	28:DD:135:PHE:CD2	2.16	0.79
40:DT:81:PRO:O	40:DT:82:LEU:CG	2.30	0.79
28:BD:43:ARG:HB3	28:BD:54:ARG:HB2	1.63	0.79
28:BD:206:LEU:HD22	28:BD:211:ARG:HG2	1.65	0.79
30:BF:64:ILE:HG22	30:BF:65:TRP:CD1	2.17	0.79
11:CK:59:TYR:CZ	11:CK:63:LEU:HD12	2.18	0.79
28:DD:94:LEU:HD22	28:DD:95:LEU:N	1.98	0.79
31:DG:145:THR:O	31:DG:146:TYR:HB3	1.81	0.79
33:DI:128:LEU:HD13	33:DI:129:THR:N	1.97	0.79
1:AA:792:A:C8	1:AA:794:A:N6	2.51	0.79
2:AB:96:ARG:HH11	2:AB:148:TYR:HE1	1.28	0.79
22:AV:35:C:C2'	22:AV:36:A:O5'	2.30	0.79
25:BA:752:A:C5	25:BA:1781:C:O4'	2.35	0.79
29:BE:152:LYS:HB3	34:BN:78:TYR:CD2	2.17	0.79
9:CI:58:HIS:CB	9:CI:59:PHE:CE1	2.64	0.79
16:CP:5:ARG:HB3	16:CP:67:THR:OG1	1.81	0.79
22:CV:53:G:H2'	22:CV:54:G:O5'	1.82	0.79
25:DA:1558:A:O2'	25:DA:1559:G:C5'	2.30	0.79
40:DT:129:ARG:CD	40:DT:129:ARG:O	2.30	0.79
5:AE:91:LEU:HD12	5:AE:120:THR:CG2	2.13	0.79
31:BG:44:GLY:H	31:BG:88:ILE:CD1	1.96	0.79
34:BN:67:LEU:H	34:BN:67:LEU:HD12	1.48	0.79
42:BV:49:THR:HB	42:BV:50:PRO:HD2	1.65	0.79
25:BA:2259:G:C8	25:BA:2427:C:C5	2.70	0.79
25:BA:2344:U:H4'	25:BA:2345:G:OP1	1.83	0.79
1:CA:79:G:C4'	1:CA:80:G:OP1	2.30	0.79
1:CA:1456:G:N2	1:CA:1457:G:N7	2.30	0.79
7:CG:10:ARG:HH11	7:CG:10:ARG:CG	1.95	0.79
25:DA:2850:A:OP2	25:DA:2866:U:H5	1.66	0.79
29:DE:92:THR:O	29:DE:95:ILE:HD13	1.81	0.79
32:DH:98:LEU:HD12	32:DH:102:ALA:O	1.82	0.79
33:DI:40:THR:HG22	33:DI:42:SER:H	1.48	0.79
3:AC:175:LEU:HD12	3:AC:175:LEU:H	1.45	0.79
8:AH:10:LEU:HD23	8:AH:83:ILE:HG12	1.64	0.79
15:AO:82:ILE:HG12	15:AO:87:ILE:HB	1.65	0.79
24:AX:13:A:H2	24:AX:14:A:H3'	1.48	0.79
27:BC:196:LEU:C	27:BC:198:ALA:H	1.86	0.79
31:BG:72:ARG:HB3	31:BG:86:MET:C	2.02	0.79
14:CN:3:ARG:HG2	14:CN:3:ARG:O	1.81	0.79
32:DH:152:ARG:O	32:DH:153:LYS:HD2	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:24:GLN:OE1	38:DR:36:THR:HG21	1.83	0.79
40:DT:33:LYS:HE3	40:DT:43:GLN:CD	2.02	0.79
1:AA:1279:A:C2'	1:AA:1282:C:H41	1.94	0.79
1:AA:1285:A:C1'	1:AA:1286:A:OP2	2.30	0.79
8:AH:64:LYS:HB3	8:AH:79:VAL:HG21	1.63	0.79
25:BA:1301:A:C2'	25:BA:1302:A:H5"	2.13	0.79
31:BG:172:LEU:O	31:BG:176:LEU:HD12	1.83	0.79
33:BI:72:LEU:CD1	33:BI:138:ILE:HB	2.09	0.79
11:CK:20:TYR:HB2	11:CK:31:THR:CG2	2.13	0.79
25:DA:75:G:H4'	49:D2:55:ARG:HH11	1.47	0.79
25:DA:483:A:H4'	45:DY:49:VAL:HA	1.63	0.79
39:DS:5:THR:OG1	39:DS:8:GLU:HG3	1.83	0.79
47:D0:41:ARG:H	47:D0:41:ARG:HD2	1.48	0.79
1:AA:1279:A:H3'	1:AA:1279:A:N3	1.97	0.79
9:AI:58:HIS:HB2	9:AI:59:PHE:CE1	2.18	0.79
11:AK:33:THR:HB	11:AK:38:ASN:C	2.04	0.79
14:AN:45:ARG:HH11	14:AN:45:ARG:HG3	1.48	0.79
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.63	0.79
19:AS:9:VAL:HG11	19:AS:11:VAL:HG11	1.64	0.79
25:BA:559:G:H22	41:BU:49:HIS:HE1	1.31	0.79
25:BA:1251:C:H5'	25:BA:1251:C:C6	2.16	0.79
33:BI:48:GLU:O	33:BI:51:ILE:HB	1.82	0.79
39:BS:17:ARG:HA	39:BS:20:ARG:HH12	1.47	0.79
40:BT:29:ARG:HA	40:BT:29:ARG:CZ	2.12	0.79
2:CB:16:HIS:CE1	2:CB:213:LEU:HD13	2.17	0.79
8:CH:91:ARG:HH11	8:CH:91:ARG:CG	1.95	0.79
13:CM:57:ARG:HH21	51:D4:34:GLU:CG	1.91	0.79
28:DD:131:LEU:HD12	28:DD:131:LEU:N	1.96	0.79
36:DP:83:VAL:HG12	36:DP:112:LEU:HD21	1.64	0.79
37:DQ:134:ARG:HH21	46:DZ:122:ARG:NH2	1.79	0.79
42:DV:35:LEU:HB2	42:DV:37:VAL:CG2	2.13	0.79
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.48	0.78
22:AV:53:G:C2'	22:AV:54:G:O5'	2.30	0.78
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.65	0.78
25:DA:483:A:H4'	45:DY:49:VAL:HG13	1.64	0.78
25:DA:767:U:O2'	25:DA:768:G:H5'	1.83	0.78
33:DI:61:ARG:HA	33:DI:61:ARG:NE	1.97	0.78
33:DI:99:GLU:HG2	33:DI:103:ARG:NH2	1.98	0.78
55:D8:4:MET:SD	55:D8:61:LEU:HD22	2.23	0.78
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.49	0.78
12:AL:64:TYR:O	12:AL:65:GLU:HB2	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:6:LYS:HD3	19:AS:7:LYS:HE3	1.65	0.78
25:BA:241:A:C4'	25:BA:242:G:OP1	2.30	0.78
25:BA:448:U:C1'	30:BF:84:VAL:CG1	2.61	0.78
25:BA:2198:A:C4'	25:BA:2199:A:OP1	2.30	0.78
27:BC:68:LEU:HD11	27:BC:179:SER:HA	1.65	0.78
31:BG:2:PRO:HG2	51:B4:51:TYR:CE2	2.17	0.78
1:CA:376:G:H5"	16:CP:5:ARG:HD2	1.63	0.78
1:CA:913:A:O2'	1:CA:914:A:C5'	2.30	0.78
2:CB:235:SER:HG	2:CB:236:TYR:HD1	1.30	0.78
22:CV:18:U:C4'	22:CV:19:G:OP2	2.30	0.78
20:AT:81:LYS:O	20:AT:85:MET:HG3	1.83	0.78
25:BA:240:G:C2	25:BA:241:A:N6	2.51	0.78
25:BA:1396:U:O2	25:BA:1396:U:H3'	1.82	0.78
25:BA:2172:U:H4'	25:BA:2173:A:OP2	1.80	0.78
40:BT:31:SER:CB	40:BT:43:GLN:H	1.96	0.78
10:CJ:45:ARG:HH11	10:CJ:45:ARG:HG3	1.47	0.78
25:DA:2701:C:C3'	25:DA:2702:U:H5"	2.10	0.78
29:DE:77:ILE:CG2	29:DE:78:LEU:H	1.94	0.78
29:DE:101:ARG:HD3	29:DE:169:ASN:HD21	1.47	0.78
1:AA:407:G:H1	1:AA:435:C:H42	1.32	0.78
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.49	0.78
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.65	0.78
22:AV:35:C:H2'	22:AV:36:A:O5'	1.82	0.78
28:BD:24:ILE:HG23	28:BD:25:THR:H	1.47	0.78
39:BS:97:ARG:CZ	39:BS:98:VAL:HA	2.13	0.78
40:BT:31:SER:HB3	40:BT:43:GLN:O	1.83	0.78
55:B8:6:THR:CG2	55:B8:63:PRO:HD3	2.13	0.78
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.48	0.78
5:CE:110:LEU:HD12	5:CE:118:ILE:HG21	1.65	0.78
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.66	0.78
40:DT:106:SER:HA	40:DT:110:ILE:HG13	1.64	0.78
46:DZ:134:PRO:HG2	46:DZ:161:VAL:HG21	1.65	0.78
50:D3:48:GLU:O	50:D3:51:ALA:HB2	1.84	0.78
10:AJ:50:ILE:HG12	14:AN:41:ARG:CD	2.13	0.78
25:BA:242:G:C5	55:B8:5:LYS:HG2	2.17	0.78
25:BA:1452:A:C4'	25:BA:1453:U:OP2	2.30	0.78
5:CE:150:ARG:HH11	5:CE:150:ARG:HG3	1.46	0.78
8:CH:34:GLU:HB3	8:CH:118:VAL:HG21	1.66	0.78
34:DN:23:LEU:HB3	34:DN:60:ILE:HG21	1.64	0.78
40:DT:81:PRO:O	40:DT:82:LEU:CD1	2.30	0.78
53:D6:47:THR:HB	53:D6:49:HIS:HE1	1.43	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.19	0.78
29:BE:30:PRO:O	29:BE:32:PRO:HD3	1.84	0.78
41:BU:96:ALA:C	41:BU:98:LEU:H	1.86	0.78
5:CE:105:VAL:N	5:CE:106:PRO:CD	2.46	0.78
20:CT:40:ALA:HB2	20:CT:55:ILE:HG21	1.63	0.78
33:DI:74:ASN:HD22	33:DI:74:ASN:H	1.31	0.78
41:DU:112:ARG:HH11	41:DU:112:ARG:HG2	1.49	0.78
1:AA:243:A:N6	1:AA:281:G:N3	2.31	0.78
1:AA:1158:C:O2	1:AA:1158:C:C3'	2.31	0.78
28:BD:24:ILE:HG12	28:BD:25:THR:N	1.98	0.78
37:DQ:110:THR:HG23	37:DQ:113:GLN:OE1	1.83	0.78
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	1.99	0.78
25:BA:1142(A):A:H4'	34:BN:25:ARG:HH22	1.48	0.78
25:BA:1452:A:C5'	25:BA:1453:U:OP2	2.31	0.78
28:BD:43:ARG:NH1	28:BD:44:ASN:HD21	1.82	0.78
46:BZ:74:VAL:HG13	46:BZ:86:VAL:HG13	1.64	0.78
52:B5:56:LYS:H	52:B5:56:LYS:HD2	1.47	0.78
33:DI:11:ASN:O	33:DI:12:LEU:HB2	1.82	0.78
33:DI:133:HIS:HB2	33:DI:134:PRO:HD2	1.66	0.78
38:DR:56:LYS:HE2	38:DR:94:TYR:CE2	2.19	0.78
1:AA:1108:G:H5'	3:AC:176:HIS:HD1	1.48	0.78
36:BP:70:GLN:HB3	36:BP:72:PRO:CD	2.14	0.78
41:BU:14:HIS:CD2	41:BU:32:PHE:CD1	2.71	0.78
53:B6:19:ARG:H	53:B6:19:ARG:HD2	1.48	0.78
1:CA:748:C:H4'	1:CA:749:C:O5'	1.81	0.78
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.84	0.78
22:CV:30:G:C6	22:CV:43:G:C6	2.72	0.78
25:DA:957:A:N1	25:DA:2458:G:H4'	1.99	0.78
1:AA:251:G:O2'	1:AA:252:U:C5'	2.32	0.78
4:AD:173:TRP:HA	4:AD:187:ARG:NH1	1.98	0.78
8:AH:84:ARG:HG3	8:AH:85:ARG:N	1.97	0.78
2:CB:34:ALA:O	2:CB:41:ILE:HB	1.84	0.78
10:CJ:5:ARG:HG3	10:CJ:73:ASP:OD1	1.85	0.78
1:AA:484:G:H4'	1:AA:485:G:O5'	1.82	0.77
32:BH:109:PHE:HE1	32:BH:152:ARG:NH2	1.82	0.77
36:BP:47:ASP:HB3	36:BP:48:PRO:O	1.84	0.77
41:BU:95:LEU:CD1	42:BV:4:ILE:HG23	2.14	0.77
52:B5:16:ARG:HH11	52:B5:16:ARG:CG	1.95	0.77
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.85	0.77
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.65	0.77
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:34:VAL:HG13	40:DT:39:ARG:HA	1.65	0.77
25:BA:2126:A:O2'	25:BA:2127:G:H5"	1.84	0.77
25:BA:2847:U:C5	25:BA:2848:G:C6	2.71	0.77
36:BP:106:LEU:HD11	36:BP:112:LEU:HD23	1.65	0.77
39:BS:14:VAL:HB	39:BS:15:ARG:HD3	1.66	0.77
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.48	0.77
9:CI:2:GLU:N	9:CI:88:TYR:HH	1.82	0.77
16:CP:9:PHE:HE1	16:CP:18:ARG:HH21	1.31	0.77
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.64	0.77
25:DA:2032:G:O2'	29:DE:145:LYS:NZ	2.16	0.77
25:DA:2681:C:C5	25:DA:2725:A:N6	2.50	0.77
25:BA:769:G:H4'	25:BA:1379:A:N6	1.99	0.77
25:BA:2320:A:C5	25:BA:2333:A:C5	2.72	0.77
42:BV:2:PHE:HB3	42:BV:42:GLY:N	2.00	0.77
1:CA:129(A):G:O2'	1:CA:189(F):U:H3'	1.84	0.77
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.42	0.77
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.18	0.77
4:CD:108:LEU:CG	4:CD:110:PHE:HE1	1.89	0.77
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.14	0.77
20:CT:73:HIS:HB3	20:CT:74:LYS:HG2	1.65	0.77
25:DA:1141:U:OP1	34:DN:25:ARG:NH1	2.17	0.77
25:DA:1421:G:N3	25:DA:1494:A:N6	2.32	0.77
32:DH:124:GLU:C	32:DH:126:PRO:HD3	2.05	0.77
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.20	0.77
5:AE:80:ILE:HD12	5:AE:138:ALA:HB1	1.65	0.77
23:AY:32:U:H2'	23:AY:32:U:O2	1.84	0.77
30:BF:19:GLU:O	30:BF:20:LEU:HB2	1.84	0.77
40:BT:28:VAL:CG2	40:BT:46:GLU:HG3	2.06	0.77
40:BT:83:ILE:CG1	40:BT:84:GLN:H	1.96	0.77
1:CA:710:G:H5"	6:CF:54:LYS:HE2	1.66	0.77
1:CA:1456:G:H5"	1:CA:1456:G:N3	1.99	0.77
25:DA:84:A:H5"	45:DY:8:LYS:HD2	1.66	0.77
25:DA:1340:U:H4'	25:DA:1341:U:OP2	1.84	0.77
28:DD:28:GLU:H	28:DD:29:PRO:HD2	1.50	0.77
40:DT:24:PRO:HD3	40:DT:52:ILE:HD11	1.65	0.77
53:D6:46:HIS:CD2	53:D6:47:THR:HA	2.20	0.77
1:AA:1298:C:N4	7:AG:114:ARG:HB3	1.99	0.77
8:AH:84:ARG:O	8:AH:135:CYS:HB2	1.84	0.77
18:AR:25:THR:O	18:AR:26:LEU:HD23	1.85	0.77
22:AV:53:G:H2'	22:AV:54:G:O5'	1.85	0.77
28:BD:80:ALA:CB	28:BD:96:HIS:CD2	2.58	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:26:TYR:H	47:B0:29:GLN:HE21	1.29	0.77
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.50	0.77
3:CC:123:GLN:HB3	3:CC:128:PHE:HD2	1.48	0.77
25:DA:1455:G:N2	25:DA:1456:G:H1'	2.00	0.77
35:DO:19:ILE:HG22	35:DO:43:VAL:HA	1.65	0.77
41:DU:90:VAL:HG12	41:DU:91:ASP:N	1.99	0.77
42:DV:62:LEU:HD11	42:DV:95:LEU:HB2	1.66	0.77
45:DY:40:GLU:HA	45:DY:64:GLU:OE1	1.84	0.77
1:AA:686:U:O2'	11:AK:42:TRP:CZ2	2.36	0.77
5:AE:101:ILE:HG13	5:AE:119:LEU:CD2	2.15	0.77
15:AO:63:ARG:O	15:AO:67:LEU:HD12	1.84	0.77
28:BD:19:ALA:HB3	28:BD:21:PHE:CE2	2.20	0.77
29:BE:77:ILE:HG22	29:BE:78:LEU:HG	1.67	0.77
43:BW:5:ALA:HB2	43:BW:54:ALA:HB2	1.65	0.77
53:B6:15:GLU:OE2	53:B6:41:PRO:HG3	1.84	0.77
1:CA:66:G:C4'	1:CA:173:U:O4	2.31	0.77
1:CA:1152:A:H5"	10:CJ:13:HIS:HD2	1.50	0.77
5:CE:90:VAL:CG2	5:CE:121:LYS:HB3	2.15	0.77
7:CG:26:PHE:O	7:CG:30:ILE:HG13	1.84	0.77
25:DA:389:G:H5"	48:D1:26:ARG:NH2	2.00	0.77
25:DA:2519:U:H4'	25:DA:2520:C:OP1	1.84	0.77
40:DT:23:ARG:HG2	40:DT:120:ARG:HH11	1.48	0.77
40:DT:80:SER:CB	40:DT:81:PRO:HD3	2.14	0.77
53:D6:41:PRO:CD	53:D6:46:HIS:CA	2.63	0.77
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.67	0.77
23:AW:72:C:N4	23:AW:73:A:N6	2.33	0.77
25:BA:242:G:O3'	25:BA:243:U:H6	1.67	0.77
25:BA:1300:U:C4'	25:BA:1301:A:O5'	2.30	0.77
25:BA:2056:G:N2	25:BA:2057:A:C8	2.52	0.77
25:BA:2787:C:O2	29:BE:61:ARG:NH1	2.18	0.77
33:BI:117:GLU:HG3	33:BI:118:LYS:H	1.49	0.77
37:BQ:34:LEU:HD11	37:BQ:129:THR:HB	1.66	0.77
39:BS:92:TYR:C	39:BS:94:TYR:H	1.86	0.77
45:BY:8:LYS:HZ1	45:BY:73:ARG:HA	1.50	0.77
1:CA:1305:G:N2	1:CA:1331:G:C2'	2.48	0.77
22:CV:60:A:C2'	22:CV:61:U:H5'	2.15	0.77
33:DI:76:THR:HG23	33:DI:139:GLN:NE2	2.00	0.77
40:DT:129:ARG:O	40:DT:129:ARG:CG	2.30	0.77
45:DY:42:VAL:HB	45:DY:67:LEU:HD11	1.67	0.77
45:DY:88:LYS:HB3	45:DY:90:LEU:HD23	1.64	0.77
51:D4:14:ILE:HG13	51:D4:31:ILE:HG21	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:981:U:H2'	1:AA:982:U:C5	2.20	0.77
1:AA:983:A:C2	1:AA:984:C:C4	2.71	0.77
1:AA:1054:C:N4	23:AY:34:G:H1'	1.98	0.77
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.64	0.77
25:BA:1344:G:O2'	25:BA:1385:G:H5"	1.83	0.77
25:BA:2171:A:C2	25:BA:2172:U:O4	2.38	0.77
29:BE:37:ARG:O	29:BE:38:THR:O	2.02	0.77
43:BW:4:LYS:CE	43:BW:6:ILE:CD1	2.56	0.77
45:BY:31:LEU:HD22	45:BY:36:ALA:O	1.85	0.77
45:BY:39:VAL:HG12	45:BY:40:GLU:N	2.00	0.77
55:B8:39:LYS:O	55:B8:43:GLN:HG3	1.85	0.77
1:CA:1108:G:H5'	3:CC:176:HIS:ND1	1.99	0.77
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	1.99	0.77
23:CW:67:C:H2'	23:CW:68:C:H6	1.50	0.77
25:DA:242:G:C5'	55:D8:62:LEU:HD13	2.14	0.77
36:DP:106:LEU:HD11	36:DP:112:LEU:HD23	1.65	0.77
40:DT:54:ARG:HA	40:DT:59:THR:HB	1.67	0.77
40:DT:120:ARG:O	40:DT:123:GLN:HG2	1.84	0.77
41:DU:62:ILE:CD1	41:DU:93:LYS:HG2	2.13	0.77
2:AB:54:THR:HG21	2:AB:201:ILE:CD1	2.15	0.77
8:AH:20:TYR:CE2	8:AH:75:ARG:HG2	2.20	0.77
13:AM:23:TYR:HB3	13:AM:67:GLU:HA	1.65	0.77
20:AT:37:SER:CB	20:AT:84:LEU:CD2	2.50	0.77
25:BA:1390:U:H3	25:BA:1395:A:H62	1.33	0.77
25:BA:2015:A:H1'	52:B5:2:ALA:HA	1.67	0.77
29:BE:14:ILE:HD11	29:BE:173:VAL:HG11	1.67	0.77
48:B1:44:PRO:O	48:B1:46:LEU:HD22	1.85	0.77
55:B8:6:THR:HG22	55:B8:63:PRO:HD3	1.67	0.77
1:CA:677:U:H3	1:CA:713:G:H22	1.31	0.77
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	1.67	0.77
12:CL:79:GLU:CD	12:CL:79:GLU:H	1.88	0.77
36:DP:52:GLU:OE1	36:DP:55:ARG:HD2	1.84	0.77
46:DZ:144:LEU:O	46:DZ:174:VAL:HG21	1.83	0.77
52:D5:56:LYS:HD2	52:D5:56:LYS:H	1.48	0.77
1:AA:792:A:N7	1:AA:794:A:N6	2.32	0.77
3:AC:29:TYR:OH	14:AN:54:PRO:HD2	1.84	0.77
25:BA:1246:A:OP1	30:BF:38:ARG:NH1	2.18	0.77
25:BA:1902:C:H1'	28:BD:244:ARG:HG3	1.66	0.77
35:BO:68:GLU:HB3	35:BO:78:ARG:HH11	1.50	0.77
36:BP:97:PRO:HD3	36:BP:126:VAL:O	1.85	0.77
42:BV:65:GLY:HA3	42:BV:91:TYR:HE1	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:50:LEU:HD12	55:B8:51:ALA:N	1.98	0.77
19:CS:22:LEU:O	19:CS:26:GLY:HA2	1.83	0.77
33:DI:72:LEU:HD11	33:DI:101:LEU:HD11	1.66	0.77
12:AL:26:ALA:O	12:AL:27:LEU:HB2	1.85	0.76
25:BA:2318:G:O2'	25:BA:2319:G:P	2.42	0.76
28:BD:261:LYS:HZ1	28:BD:263:ARG:CZ	1.98	0.76
30:BF:157:VAL:HB	30:BF:194:MET:HB3	1.64	0.76
31:BG:16:ARG:HH11	31:BG:16:ARG:HG3	1.50	0.76
31:BG:43:LEU:N	31:BG:43:LEU:CD1	2.47	0.76
31:DG:101:ILE:CD1	51:D4:9:LEU:HD11	2.15	0.76
32:DH:21:PRO:HG2	32:DH:22:GLY:H	1.48	0.76
36:DP:71:VAL:N	36:DP:72:PRO:CD	2.47	0.76
36:DP:97:PRO:HD3	36:DP:126:VAL:O	1.85	0.76
40:DT:36:GLU:CB	40:DT:38:ASN:HD21	1.97	0.76
1:AA:1267:C:O2	1:AA:1267:C:C2'	2.33	0.76
25:BA:1721:G:H5"	25:BA:1721:G:N3	2.00	0.76
13:CM:14:ARG:HG2	13:CM:16:ASP:OD2	1.84	0.76
23:CW:68:C:H2'	23:CW:69:G:C8	2.18	0.76
40:DT:24:PRO:CD	40:DT:52:ILE:HD12	2.15	0.76
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	1.68	0.76
2:AB:111:ARG:HH11	2:AB:111:ARG:HG2	1.49	0.76
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.85	0.76
10:AJ:24:VAL:HG11	10:AJ:37:PRO:HD3	1.64	0.76
25:BA:1451:C:C5'	25:BA:1452:A:OP1	2.33	0.76
25:BA:2127:G:O6	25:BA:2162:G:C6	2.38	0.76
31:BG:125:PHE:O	31:BG:128:ARG:HG2	1.85	0.76
43:BW:59:VAL:HG12	43:BW:60:ASN:N	2.00	0.76
45:BY:75:ILE:CG1	45:BY:79:CYS:HA	2.13	0.76
4:CD:62:GLN:O	4:CD:66:ARG:HG3	1.86	0.76
10:CJ:45:ARG:NH1	14:CN:36:PHE:CE2	2.53	0.76
20:CT:48:LYS:HZ3	20:CT:48:LYS:HB3	1.49	0.76
29:DE:111:ARG:HB3	38:DR:1:MET:SD	2.25	0.76
32:DH:152:ARG:NE	32:DH:153:LYS:HE3	1.99	0.76
40:DT:38:ASN:O	40:DT:39:ARG:CG	2.30	0.76
53:D6:30:THR:HB	53:D6:31:PRO:HD2	1.67	0.76
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.66	0.76
22:AV:15:G:N1	22:AV:49:C:H5	1.81	0.76
32:BH:126:PRO:HG2	32:BH:130:ARG:HD2	1.66	0.76
39:BS:20:ARG:HG2	39:BS:20:ARG:NH1	1.91	0.76
40:BT:28:VAL:HG13	40:BT:45:PHE:O	1.85	0.76
46:BZ:53:ILE:CG2	46:BZ:71:VAL:HB	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:55:ALA:HB1	9:CI:58:HIS:CB	2.15	0.76
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.15	0.76
19:CS:4:SER:O	19:CS:5:LEU:HB2	1.85	0.76
23:CY:28:G:H2'	23:CY:29:G:C8	2.21	0.76
32:DH:153:LYS:HG2	32:DH:162:ILE:H	1.49	0.76
2:AB:59:GLU:HB2	2:AB:221:LEU:HD12	1.68	0.76
25:BA:311:A:H1'	25:BA:332:A:C8	2.20	0.76
30:BF:28:ILE:HD12	30:BF:28:ILE:O	1.85	0.76
32:BH:107:VAL:HG23	32:BH:107:VAL:O	1.86	0.76
40:BT:28:VAL:HG12	40:BT:29:ARG:H	1.47	0.76
40:BT:92:GLY:HA2	40:BT:114:LEU:HB3	1.65	0.76
42:BV:98:GLU:OE1	42:BV:100:ARG:HD3	1.86	0.76
55:B8:23:VAL:HG11	55:B8:46:ARG:HD3	1.67	0.76
25:DA:631:A:OP1	36:DP:64:LYS:HE2	1.85	0.76
25:DA:1204:A:H1'	25:DA:1206:G:C5	2.20	0.76
25:DA:2090:G:H21	48:D1:45:ASN:HD21	1.31	0.76
25:DA:2879:C:C5'	25:DA:2880:C:OP1	2.33	0.76
29:DE:49:LEU:H	29:DE:49:LEU:CD1	1.96	0.76
44:DX:60:ARG:HH22	54:D7:47:ARG:NH2	1.84	0.76
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	1.86	0.76
25:BA:242:G:N2	25:BA:254:G:C8	2.54	0.76
25:BA:614(C):A:C4'	25:BA:615:G:OP1	2.31	0.76
25:BA:2238:G:C5'	25:BA:2239:G:OP1	2.33	0.76
48:B1:12:PRO:HB3	48:B1:43:TYR:CD2	2.20	0.76
4:CD:108:LEU:HB3	4:CD:110:PHE:HD1	0.97	0.76
16:CP:43:LYS:HG2	16:CP:48:TRP:CD2	2.20	0.76
25:DA:1497:U:O2	25:DA:1497:U:C3'	2.34	0.76
36:DP:57:THR:CG2	36:DP:59:LEU:HB3	2.15	0.76
42:DV:98:GLU:C	42:DV:99:ILE:HD13	2.06	0.76
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.00	0.76
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	2.16	0.76
25:BA:34:C:C4	25:BA:454:A:O2'	2.39	0.76
31:BG:60:LEU:O	31:BG:64:THR:HG22	1.86	0.76
37:BQ:85:LYS:HG3	47:B0:7:LEU:HB3	1.66	0.76
38:BR:72:ASP:HB3	38:BR:75:LEU:HB2	1.68	0.76
45:BY:67:LEU:HD12	45:BY:68:HIS:H	1.49	0.76
7:CG:10:ARG:HG3	7:CG:10:ARG:NH1	1.99	0.76
10:CJ:9:ARG:HB2	10:CJ:95:GLU:HB3	1.65	0.76
22:CV:24:C:O2'	22:CV:25:U:H5'	1.85	0.76
22:CV:60:A:H2'	22:CV:61:U:H5'	1.68	0.76
25:DA:84:A:H5"	45:DY:8:LYS:CD	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:79:VAL:HG21	28:DD:111:LEU:HD11	1.68	0.76
34:DN:40:PRO:HB3	41:DU:68:ALA:HB2	1.67	0.76
36:DP:47:ASP:HB3	36:DP:48:PRO:O	1.84	0.76
36:DP:63:PRO:CB	55:D8:13:ARG:HB3	2.12	0.76
36:DP:78:PRO:HB3	36:DP:111:ARG:NH2	2.01	0.76
38:DR:33:ARG:HG3	38:DR:115:GLU:HB2	1.67	0.76
41:DU:88:ILE:HD12	41:DU:109:LEU:HD22	1.67	0.76
1:AA:792:A:C5	1:AA:794:A:C6	2.73	0.76
1:AA:1392:G:H21	1:AA:1502:A:H8	1.30	0.76
7:AG:22:LEU:HD23	7:AG:62:PHE:HE2	1.50	0.76
25:BA:769:G:C4'	25:BA:1379:A:N6	2.49	0.76
25:BA:2259:G:C5	25:BA:2427:C:N4	2.54	0.76
30:BF:2:LYS:O	30:BF:25:PRO:HD2	1.84	0.76
30:BF:64:ILE:CG2	30:BF:65:TRP:NE1	2.43	0.76
43:BW:29:LEU:HG	43:BW:33:ARG:HD2	1.68	0.76
45:BY:37:VAL:HG21	45:BY:72:VAL:HG21	1.65	0.76
10:CJ:78:ASN:HD22	10:CJ:80:LYS:H	1.29	0.76
22:CV:15:G:H22	22:CV:49:C:N4	1.84	0.76
22:CV:53:G:H2'	22:CV:54:G:C5'	2.16	0.76
33:DI:64:GLU:O	33:DI:67:ARG:HB3	1.85	0.76
38:DR:67:LEU:HD13	38:DR:76:VAL:HG21	1.68	0.76
39:DS:106:ARG:HA	39:DS:110:LEU:CD2	2.16	0.76
39:DS:106:ARG:C	39:DS:110:LEU:HD11	2.06	0.76
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.66	0.76
7:AG:24:THR:HA	7:AG:27:ILE:HG13	1.66	0.76
25:BA:1453:U:C3'	25:BA:1455:G:P	2.74	0.76
25:BA:1790:C:H5"	25:BA:1791:A:OP1	1.85	0.76
29:BE:29:GLY:HA3	29:BE:51:PHE:HE2	1.51	0.76
37:BQ:62:GLY:O	46:BZ:178:GLU:HG3	1.86	0.76
39:BS:85:VAL:H	39:BS:106:ARG:HB2	1.49	0.76
40:BT:83:ILE:CG1	40:BT:84:GLN:HG3	2.14	0.76
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.68	0.76
41:DU:95:LEU:HD13	42:DV:4:ILE:HG21	1.68	0.76
46:DZ:141:VAL:HG21	46:DZ:144:LEU:HB2	1.65	0.76
3:AC:18:TRP:H	3:AC:18:TRP:HE3	1.34	0.76
19:AS:49:ILE:H	19:AS:49:ILE:HD12	1.51	0.76
25:BA:769:G:C5'	25:BA:1379:A:N6	2.49	0.76
25:BA:1493:C:O2	25:BA:1493:C:C2'	2.33	0.76
29:BE:60:ASN:OD1	29:BE:62:PRO:HD2	1.86	0.76
30:BF:51:THR:HG23	30:BF:92:PRO:O	1.84	0.76
37:BQ:79:LEU:HD22	37:BQ:80:GLU:HG3	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:15:GLU:HB3	42:BV:16:PRO:HD2	1.67	0.76
47:B0:68:GLU:HG2	47:B0:80:HIS:HB2	1.68	0.76
55:B8:51:ALA:HA	55:B8:54:GLU:OE1	1.86	0.76
3:CC:58:GLU:HB2	3:CC:65:ALA:HB2	1.67	0.76
12:CL:84:LEU:HG	12:CL:105:TYR:HE1	1.51	0.76
22:CV:24:C:H2'	22:CV:25:U:H6	1.51	0.76
25:DA:598:G:H5'	36:DP:11:GLY:HA3	1.68	0.76
25:DA:2835:A:H5'	25:DA:2836:U:OP1	1.86	0.76
32:DH:10:PRO:O	32:DH:11:VAL:HG13	1.86	0.76
39:DS:71:ARG:HA	39:DS:104:GLY:O	1.86	0.76
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.86	0.75
24:AX:14:A:H2'	24:AX:15:A:C8	2.21	0.75
28:BD:13:ARG:HA	28:BD:16:MET:HE3	1.68	0.75
30:BF:125:LEU:HD11	30:BF:199:TRP:CD1	2.20	0.75
35:BO:1:MET:HG3	35:BO:32:TYR:CD1	2.20	0.75
1:CA:189(E):U:O2'	1:CA:189(F):U:H5'	1.85	0.75
1:CA:342:C:O2'	1:CA:343:U:H5'	1.84	0.75
1:CA:484:G:O2'	1:CA:485:G:C5'	2.33	0.75
16:CP:5:ARG:HB3	16:CP:67:THR:HG1	1.49	0.75
16:CP:19:ILE:HG22	16:CP:36:ILE:HG12	1.66	0.75
20:CT:73:HIS:O	20:CT:76:ALA:HB3	1.86	0.75
25:DA:753:C:OP2	25:DA:753:C:C6	2.39	0.75
25:DA:1128:A:N7	25:DA:2518:A:N6	2.34	0.75
25:DA:2847:U:C3'	25:DA:2848:G:H5'	2.17	0.75
32:DH:153:LYS:HG2	32:DH:162:ILE:HG13	1.68	0.75
43:DW:84:ARG:HB2	43:DW:96:ILE:HG22	1.68	0.75
44:DX:80:ILE:HD13	44:DX:80:ILE:O	1.87	0.75
1:AA:992:U:O2'	1:AA:993:G:C5'	2.35	0.75
20:AT:26:ASN:HB3	20:AT:71:THR:HG1	1.47	0.75
20:AT:43:LEU:HB2	20:AT:52:ALA:HB2	1.67	0.75
25:BA:588:U:OP2	25:BA:588:U:C6	2.39	0.75
33:BI:79:ILE:HG12	33:BI:140:LEU:HD11	1.68	0.75
34:BN:45:ASN:ND2	34:BN:46:VAL:N	2.35	0.75
36:BP:78:PRO:HB3	36:BP:111:ARG:NH2	2.01	0.75
39:BS:106:ARG:NH1	39:BS:108:GLY:HA3	2.00	0.75
1:CA:243:A:N1	1:CA:246:A:N7	2.35	0.75
1:CA:748:C:H1'	1:CA:749:C:C4	2.21	0.75
8:CH:68:ARG:HH11	8:CH:68:ARG:HG2	1.50	0.75
18:CR:85:LEU:HD12	18:CR:86:VAL:H	1.51	0.75
25:DA:1205:U:C4'	25:DA:1206:G:OP2	2.33	0.75
26:DB:14:U:O2'	26:DB:108:U:H4'	1.84	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:43:ARG:HH11	28:DD:44:ASN:ND2	1.84	0.75
29:DE:81:ILE:HG22	29:DE:81:ILE:O	1.85	0.75
31:DG:113:ARG:HH12	31:DG:142:PRO:HA	1.51	0.75
39:DS:3:ARG:HG2	39:DS:4:LEU:N	1.99	0.75
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.84	0.75
25:BA:2259:G:N7	25:BA:2427:C:N4	2.35	0.75
25:BA:2712:U:H2'	25:BA:2713:A:H5"	1.67	0.75
28:BD:33:LEU:HD12	28:BD:33:LEU:H	1.50	0.75
30:BF:33:LEU:O	30:BF:36:VAL:HG23	1.86	0.75
37:BQ:10:ARG:HH11	37:BQ:10:ARG:CG	1.99	0.75
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.67	0.75
19:CS:63:THR:HG23	19:CS:66:MET:CG	2.15	0.75
25:DA:572:A:OP2	42:DV:78:LYS:NZ	2.19	0.75
36:DP:57:THR:HG23	36:DP:59:LEU:H	1.51	0.75
39:DS:39:ILE:HD11	39:DS:73:LEU:HD11	1.68	0.75
46:DZ:19:ARG:HH12	46:DZ:84:GLU:CA	1.99	0.75
19:AS:29:ARG:HH11	19:AS:30:LEU:N	1.84	0.75
20:AT:84:LEU:HD12	20:AT:84:LEU:C	2.07	0.75
44:BX:12:VAL:HG13	44:BX:27:THR:O	1.86	0.75
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.21	0.75
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	1.86	0.75
19:CS:46:GLY:N	19:CS:62:ILE:HG23	2.01	0.75
1:AA:1238:A:H62	1:AA:1301:U:H3	1.32	0.75
12:AL:7:ILE:HA	12:AL:10:LEU:HD12	1.67	0.75
29:BE:137:HIS:HB3	29:BE:138:PRO:HD2	1.67	0.75
34:BN:42:TRP:CZ3	34:BN:48:MET:HE1	2.20	0.75
40:BT:28:VAL:HG22	40:BT:47:GLY:H	1.49	0.75
4:CD:92:VAL:O	4:CD:96:LEU:HD12	1.87	0.75
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.68	0.75
19:CS:6:LYS:HG2	19:CS:7:LYS:CD	2.15	0.75
36:DP:79:ARG:CG	36:DP:109:GLY:O	2.35	0.75
38:DR:97:VAL:HG22	38:DR:114:VAL:HG22	1.68	0.75
53:D6:41:PRO:HD2	53:D6:46:HIS:CA	2.17	0.75
5:AE:121:LYS:CG	5:AE:122:GLU:N	2.21	0.75
25:BA:662:G:H5'	36:BP:15:ARG:HA	1.68	0.75
25:BA:1275:A:C4	38:BR:16:HIS:CD2	2.74	0.75
25:BA:1452:A:H62	25:BA:2703:C:N4	1.85	0.75
28:BD:75:ILE:HD13	28:BD:99:ASP:OD1	1.87	0.75
36:BP:63:PRO:CB	55:B8:13:ARG:HB3	2.11	0.75
46:BZ:23:LYS:HG2	46:BZ:38:TYR:HE1	1.52	0.75
1:CA:484:G:O4'	1:CA:486:U:C6	2.39	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:20:U:H2'	23:CW:21:A:H4'	1.68	0.75
25:DA:2879:C:H4'	25:DA:2880:C:OP1	1.86	0.75
32:DH:135:GLY:HA3	32:DH:141:VAL:HG22	1.69	0.75
33:DI:115:ALA:HB3	33:DI:128:LEU:CD1	2.06	0.75
42:DV:39:LEU:O	42:DV:40:LEU:HD23	1.85	0.75
43:DW:50:VAL:HG13	43:DW:51:LEU:H	1.51	0.75
5:AE:91:LEU:HD12	5:AE:120:THR:CB	2.16	0.75
30:BF:53:THR:HG23	30:BF:56:GLU:HG3	1.69	0.75
36:BP:57:THR:HG23	36:BP:59:LEU:HB3	1.69	0.75
38:BR:11:ASN:O	38:BR:12:ARG:CB	2.34	0.75
41:BU:66:ASN:ND2	41:BU:70:ARG:HE	1.85	0.75
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.69	0.75
22:CV:15:G:N2	22:CV:49:C:H41	1.83	0.75
23:CW:26:A:H61	23:CW:44:G:H1	1.32	0.75
25:DA:221:A:C4'	25:DA:222:A:O5'	2.30	0.75
25:DA:2298:A:H62	25:DA:2318:G:H8	1.35	0.75
25:DA:2850:A:OP2	25:DA:2866:U:C5	2.39	0.75
32:DH:86:GLU:HG3	32:DH:165:ALA:HB3	1.69	0.75
33:DI:114:LEU:HD12	33:DI:128:LEU:HD12	1.68	0.75
45:DY:81:LYS:HB2	45:DY:96:ILE:HG22	1.66	0.75
4:AD:72:GLU:OE2	4:AD:72:GLU:HA	1.86	0.75
19:AS:6:LYS:CD	19:AS:7:LYS:HD3	2.17	0.75
25:BA:2198:A:H1'	33:BI:28:ASN:O	1.86	0.75
25:BA:2287:A:H2	25:BA:2346:A:C2	2.04	0.75
28:BD:26:LYS:NZ	28:BD:82:ILE:H	1.85	0.75
31:BG:141:PHE:O	31:BG:144:ILE:HG22	1.87	0.75
32:BH:85:LYS:O	32:BH:132:ARG:HA	1.87	0.75
40:BT:29:ARG:HD2	40:BT:86:ILE:N	2.02	0.75
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CE1	2.22	0.75
22:CV:29:C:H2'	22:CV:30:G:C5'	2.10	0.75
30:DF:63:LYS:CE	30:DF:67:GLN:HB3	2.17	0.75
40:DT:33:LYS:CE	40:DT:43:GLN:NE2	2.46	0.75
50:D3:4:LEU:HB2	50:D3:39:ASP:HB2	1.69	0.75
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.67	0.75
6:AF:45:LEU:HD12	6:AF:46:ARG:H	1.51	0.75
1:CA:429:U:O4'	1:CA:430:A:C8	2.40	0.75
25:DA:1247:A:OP1	30:DF:95:ARG:NH2	2.19	0.75
25:DA:1653:G:C4'	25:DA:1654:A:OP1	2.30	0.75
29:DE:111:ARG:HA	38:DR:1:MET:SD	2.27	0.75
36:DP:70:GLN:CB	36:DP:72:PRO:HD2	2.16	0.75
42:DV:38:LEU:HD12	42:DV:56:SER:CA	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:983:A:H3'	1:AA:983:A:N3	2.02	0.74
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.67	0.74
33:BI:29:TYR:HD2	33:BI:30:LEU:HD23	1.51	0.74
36:BP:79:ARG:CG	36:BP:109:GLY:O	2.35	0.74
49:B2:69:ARG:HH11	49:B2:69:ARG:HG2	1.52	0.74
1:CA:79:G:H4'	1:CA:80:G:OP1	1.86	0.74
32:DH:153:LYS:HG3	32:DH:161:GLY:CA	2.17	0.74
1:AA:327:A:C4	1:AA:329:A:C8	2.75	0.74
25:BA:859:G:N2	25:BA:917:A:OP2	2.20	0.74
34:BN:14:VAL:HG22	34:BN:137:LYS:HE3	1.69	0.74
50:B3:26:LEU:HD21	50:B3:46:ASN:HB3	1.67	0.74
52:B5:49:CYS:O	52:B5:56:LYS:HB3	1.87	0.74
1:CA:250:A:C4'	1:CA:251:G:O5'	2.34	0.74
1:CA:342:C:H2'	1:CA:343:U:H5'	1.69	0.74
12:CL:101:VAL:HG12	12:CL:104:VAL:HG23	1.67	0.74
25:DA:975(A):G:C2'	25:DA:976:C:H5'	2.17	0.74
32:DH:143:GLN:HE22	32:DH:147:ASN:HD21	1.32	0.74
33:DI:101:LEU:HD21	33:DI:107:VAL:HB	1.67	0.74
35:DO:35:VAL:HG21	35:DO:69:ILE:HD13	1.68	0.74
15:AO:78:TYR:O	15:AO:82:ILE:HG22	1.88	0.74
16:AP:39:TYR:O	16:AP:41:PRO:HD3	1.87	0.74
25:BA:2689:U:H4'	25:BA:2690:C:C5'	2.17	0.74
32:BH:107:VAL:HG23	32:BH:109:PHE:CE1	2.21	0.74
41:BU:61:TRP:CH2	41:BU:94:ASN:HB2	2.22	0.74
51:B4:48:ILE:H	51:B4:48:ILE:HD12	1.50	0.74
22:CV:54:G:C4	22:CV:55:U:C5	2.74	0.74
36:DP:61:ARG:HH11	55:D8:13:ARG:HD2	1.49	0.74
39:DS:106:ARG:HA	39:DS:110:LEU:HD21	1.69	0.74
1:AA:974:A:H1'	14:AN:31:ARG:HE	1.51	0.74
1:AA:992:U:C4'	1:AA:993:G:O5'	2.30	0.74
1:AA:1054:C:O2	1:AA:1054:C:C2'	2.33	0.74
3:AC:22:TRP:CZ3	3:AC:32:LEU:HB3	2.21	0.74
13:AM:3:ARG:NH1	31:BG:113:ARG:HE	1.86	0.74
13:AM:83:ASP:C	13:AM:85:GLY:H	1.89	0.74
25:BA:581:C:OP1	41:BU:33:ARG:HG3	1.87	0.74
29:BE:40:GLU:CD	29:BE:40:GLU:H	1.89	0.74
29:BE:50:GLY:HA2	29:BE:78:LEU:HB3	1.69	0.74
40:BT:78:LEU:O	40:BT:78:LEU:HD23	1.87	0.74
25:DA:9271:G:C2	25:DA:9272:G:H1'	2.22	0.74
31:DG:13:GLU:O	31:DG:14:GLU:HB2	1.85	0.74
32:DH:30:LYS:HD2	32:DH:81:GLU:H	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.70	0.74
39:DS:83:LYS:O	39:DS:109:GLY:HA3	1.87	0.74
45:DY:50:ARG:HD3	45:DY:53:PRO:HG2	1.69	0.74
51:D4:10:VAL:HB	51:D4:11:PRO:HD2	1.69	0.74
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.70	0.74
24:AX:13:A:C2	24:AX:14:A:H3'	2.21	0.74
25:BA:1340:U:H4'	25:BA:1341:U:OP2	1.88	0.74
30:BF:40:GLN:NE2	30:BF:182:ASN:HB2	2.03	0.74
38:BR:79:LEU:O	38:BR:79:LEU:HD22	1.87	0.74
55:B8:46:ARG:O	55:B8:47:LYS:HB3	1.87	0.74
2:CB:15:VAL:HG21	2:CB:209:ARG:HE	1.51	0.74
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.51	0.74
25:DA:389:G:H5"	48:D1:26:ARG:HH22	1.53	0.74
45:DY:42:VAL:CG1	45:DY:65:ALA:HB3	2.17	0.74
13:AM:83:ASP:OD1	19:AS:74:PHE:CE1	2.41	0.74
20:AT:25:ARG:HH11	20:AT:25:ARG:HG3	1.52	0.74
25:BA:752:A:H4'	25:BA:753:C:O5'	1.87	0.74
36:BP:56:SER:O	36:BP:57:THR:CB	2.35	0.74
47:B0:68:GLU:CG	47:B0:80:HIS:HB2	2.18	0.74
13:CM:68:GLY:HA3	31:DG:116:ASP:OD2	1.88	0.74
13:CM:124:PRO:CB	13:CM:125:ARG:CG	2.44	0.74
25:DA:995:C:H6	41:DU:57:PHE:CE1	1.99	0.74
25:DA:2751:G:H8	25:DA:2751:G:O5'	1.69	0.74
46:DZ:23:LYS:HG3	46:DZ:38:TYR:CE1	2.22	0.74
12:AL:86:ARG:HB2	12:AL:101:VAL:HG23	1.68	0.74
25:BA:2835:A:C5'	25:BA:2836:U:OP1	2.36	0.74
41:BU:14:HIS:CD2	41:BU:32:PHE:CG	2.75	0.74
46:BZ:5:LEU:HD12	46:BZ:6:LYS:H	1.53	0.74
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.02	0.74
5:CE:34:VAL:O	5:CE:41:VAL:HG12	1.87	0.74
9:CI:58:HIS:CB	9:CI:59:PHE:CD1	2.71	0.74
10:CJ:38:ILE:CD1	10:CJ:71:LEU:HD23	2.17	0.74
18:CR:40:LEU:O	18:CR:42:ARG:N	2.21	0.74
20:CT:64:ASP:HA	20:CT:67:ALA:HB3	1.69	0.74
22:CV:3:C:H2'	22:CV:4:G:H5'	1.69	0.74
24:CX:16:A:N3	24:CX:17:U:C6	2.55	0.74
37:DQ:141:GLN:HE22	46:DZ:72:ARG:HA	1.52	0.74
39:DS:83:LYS:HG2	39:DS:109:GLY:H	1.53	0.74
40:DT:33:LYS:CG	40:DT:43:GLN:HB2	2.17	0.74
40:DT:74:ARG:HD2	40:DT:76:PHE:CE2	2.22	0.74
45:DY:84:ARG:HH12	45:DY:97:ARG:CA	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:120:ILE:O	7:AG:124:LEU:HB2	1.88	0.74
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.68	0.74
9:AI:58:HIS:O	9:AI:59:PHE:CD1	2.41	0.74
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.52	0.74
16:AP:18:ARG:HA	16:AP:38:TYR:HA	1.68	0.74
25:BA:2127:G:C5	25:BA:2162:G:C2	2.75	0.74
25:BA:2172:U:H1'	25:BA:2173:A:OP1	1.87	0.74
30:BF:24:LEU:O	30:BF:26:ALA:N	2.21	0.74
38:BR:92:GLY:O	38:BR:94:TYR:CE2	2.41	0.74
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.70	0.74
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.88	0.74
20:CT:49:ALA:HB1	20:CT:100:ILE:HD13	1.67	0.74
23:CW:36:A:C2	23:CW:37:A:C4	2.75	0.74
25:DA:2879:C:C4'	25:DA:2880:C:OP1	2.35	0.74
39:DS:5:THR:OG1	39:DS:7:TYR:HB3	1.88	0.74
40:DT:24:PRO:HD3	40:DT:52:ILE:HD12	1.70	0.74
41:DU:92:ARG:CG	42:DV:11:GLN:OE1	2.36	0.74
12:AL:24:VAL:HG12	12:AL:24:VAL:O	1.87	0.74
15:AO:39:LEU:HD12	15:AO:56:LEU:HB2	1.70	0.74
16:AP:49:LEU:HD12	16:AP:50:LYS:H	1.52	0.74
25:BA:2287:A:O2'	25:BA:2288:A:H2'	1.88	0.74
30:BF:64:ILE:HG22	30:BF:65:TRP:CG	2.23	0.74
31:BG:64:THR:HG23	31:BG:66:GLN:H	1.53	0.74
42:BV:47:VAL:HB	42:BV:50:PRO:O	1.88	0.74
49:B2:13:ALA:HA	49:B2:16:LEU:HD12	1.68	0.74
9:CI:19:LEU:CD2	9:CI:59:PHE:HB3	2.18	0.74
20:CT:89:ARG:NH2	20:CT:104:LEU:HD21	2.02	0.74
25:DA:1494:A:H2'	25:DA:1495:A:C8	2.22	0.74
29:DE:1:MET:HB2	29:DE:83:ASP:O	1.87	0.74
35:DO:35:VAL:HG11	35:DO:103:ALA:HB3	1.70	0.74
25:BA:311:A:C8	25:BA:332:A:N7	2.56	0.74
42:BV:18:LEU:CD1	42:BV:19:LYS:H	2.00	0.74
47:B0:27:GLU:HB2	47:B0:69:PHE:HD1	1.52	0.74
2:CB:163:PHE:HA	2:CB:185:ILE:O	1.87	0.74
9:CI:8:GLY:HA3	9:CI:76:ALA:O	1.88	0.74
9:CI:46:ALA:HA	9:CI:78:LYS:HB2	1.70	0.74
9:CI:83:ARG:HE	9:CI:102:LEU:HD11	1.52	0.74
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.69	0.74
30:DF:20:LEU:HD12	30:DF:21:ALA:H	1.51	0.74
33:DI:64:GLU:HG3	33:DI:67:ARG:CZ	2.18	0.74
40:DT:88:ILE:HG22	40:DT:89:VAL:CG2	2.15	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:92:ARG:CD	42:DV:11:GLN:CD	2.52	0.74
46:DZ:144:LEU:HD12	46:DZ:174:VAL:HG23	1.70	0.74
7:AG:32:ARG:O	7:AG:33:ASP:HB2	1.87	0.73
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.70	0.73
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.70	0.73
20:AT:50:GLU:HA	20:AT:100:ILE:HG21	1.70	0.73
23:AW:33:U:C2'	23:AW:35:A:OP2	2.35	0.73
23:AW:66:U:H2'	23:AW:67:C:C6	2.23	0.73
28:BD:72:LYS:HB3	28:BD:75:ILE:HD12	1.68	0.73
39:BS:69:VAL:O	39:BS:72:ALA:HB3	1.88	0.73
43:BW:5:ALA:C	43:BW:6:ILE:HG13	2.06	0.73
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.18	0.73
5:CE:115:VAL:HG12	5:CE:116:THR:H	1.52	0.73
14:CN:27:CYS:SG	59:CN:101:ZN:ZN	1.76	0.73
25:DA:1287:A:C6	25:DA:1288:U:C4	2.76	0.73
25:DA:1799:G:C4'	25:DA:1800:C:O5'	2.30	0.73
28:DD:43:ARG:HB3	28:DD:54:ARG:HB2	1.70	0.73
33:DI:60:GLU:HG3	33:DI:61:ARG:HH22	1.53	0.73
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.35	0.73
25:BA:727:A:N6	25:BA:728:G:C6	2.57	0.73
25:BA:2126:A:C1'	25:BA:2127:G:O4'	2.35	0.73
39:BS:53:SER:OG	39:BS:54:LEU:HD22	1.88	0.73
39:BS:66:ALA:O	39:BS:69:VAL:HG12	1.86	0.73
41:BU:27:LEU:HB2	41:BU:34:LYS:CG	2.18	0.73
41:BU:91:ASP:C	41:BU:92:ARG:HD3	2.08	0.73
45:BY:66:PRO:O	45:BY:67:LEU:HG	1.88	0.73
1:CA:243:A:C6	1:CA:246:A:N7	2.55	0.73
1:CA:1456:G:N2	1:CA:1457:G:C8	2.57	0.73
20:CT:53:LEU:CD2	20:CT:100:ILE:CG2	2.62	0.73
25:DA:242:G:C8	55:D8:3:LYS:HD3	2.23	0.73
25:DA:1819:A:C1'	25:DA:1821:A:C6	2.71	0.73
28:DD:62:TYR:HA	28:DD:87:ASN:HD21	1.53	0.73
32:DH:152:ARG:O	32:DH:153:LYS:CB	2.36	0.73
36:DP:20:GLY:O	36:DP:21:ARG:HD2	1.88	0.73
42:DV:11:GLN:HE21	42:DV:39:LEU:HD23	1.53	0.73
45:DY:76:CYS:HB3	45:DY:96:ILE:HD13	1.69	0.73
1:AA:1067:A:H4'	1:AA:1068:G:O5'	1.89	0.73
4:AD:134:ASP:O	4:AD:136:PRO:HD3	1.88	0.73
25:BA:2820:A:O2'	38:BR:2:ARG:NH2	2.21	0.73
28:BD:130:ALA:C	28:BD:131:LEU:HD12	2.09	0.73
36:BP:64:LYS:CB	55:B8:25:MET:HG3	2.16	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:35:VAL:HG23	37:BQ:101:ARG:O	1.88	0.73
1:CA:1201:A:H5'	1:CA:1203:C:OP2	1.88	0.73
19:CS:19:VAL:O	19:CS:23:ASN:HB2	1.88	0.73
29:DE:51:PHE:CE1	29:DE:52:LEU:HD13	2.23	0.73
13:AM:40:ASN:HB3	13:AM:43:THR:HG23	1.70	0.73
25:BA:2259:G:C8	25:BA:2427:C:C4	2.76	0.73
29:BE:68:ALA:C	29:BE:70:ALA:H	1.91	0.73
47:B0:43:THR:HG23	47:B0:43:THR:O	1.89	0.73
1:CA:327:A:N3	1:CA:329:A:H1'	2.03	0.73
12:CL:21:LYS:N	12:CL:21:LYS:HD2	2.03	0.73
18:CR:61:LYS:O	18:CR:65:ILE:HD12	1.87	0.73
22:CV:21:U:C5'	22:CV:22:A:OP2	2.36	0.73
22:CV:29:C:C2	22:CV:30:G:C8	2.75	0.73
23:CW:38:A:H3'	23:CW:39:U:H5"	1.71	0.73
46:DZ:58:VAL:HA	46:DZ:67:LEU:O	1.88	0.73
46:DZ:151:HIS:HB3	46:DZ:170:THR:HA	1.70	0.73
1:AA:686:U:H1'	11:AK:42:TRP:NE1	2.03	0.73
4:AD:30:LYS:C	4:AD:32:ALA:H	1.90	0.73
25:BA:2168:G:N2	25:BA:2171:A:C8	2.55	0.73
29:BE:152:LYS:HG2	34:BN:78:TYR:CE1	2.23	0.73
31:BG:125:PHE:CE2	31:BG:131:TYR:HB2	2.23	0.73
38:BR:9:LYS:O	38:BR:10:LEU:CD2	2.36	0.73
7:CG:145:ALA:O	7:CG:147:ALA:N	2.20	0.73
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.53	0.73
19:CS:19:VAL:HG12	19:CS:20:LEU:HG	1.71	0.73
29:DE:49:LEU:HD12	29:DE:49:LEU:N	2.00	0.73
29:DE:101:ARG:HD3	29:DE:169:ASN:ND2	2.02	0.73
46:DZ:61:LEU:HD12	46:DZ:65:GLN:HE21	1.52	0.73
2:AB:36:ARG:HE	2:AB:36:ARG:N	1.86	0.73
6:AF:7:ASN:ND2	18:AR:34:TYR:HE1	1.84	0.73
23:AW:45:U:O2'	23:AW:46:G:H5'	1.89	0.73
25:BA:7:G:H1	25:BA:2896:C:H42	1.36	0.73
25:BA:2124:G:H1	25:BA:2174:C:H42	1.36	0.73
25:BA:2679:A:H5'	29:BE:165:VAL:HG21	1.69	0.73
26:BB:22:U:H3	26:BB:61:G:H1	1.37	0.73
29:BE:134:ILE:HD13	29:BE:134:ILE:N	1.99	0.73
31:BG:16:ARG:O	31:BG:20:ILE:HG13	1.87	0.73
31:BG:37:VAL:CG1	31:BG:94:LEU:HD12	2.17	0.73
33:BI:97:ILE:HD12	33:BI:114:LEU:HD11	1.68	0.73
37:BQ:69:PHE:CD1	37:BQ:70:PRO:HD2	2.22	0.73
40:BT:28:VAL:CG1	40:BT:29:ARG:H	2.01	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B2:29:LYS:HD2	49:B2:57:ILE:HD13	1.69	0.73
1:CA:511:C:H1'	4:CD:43:HIS:NE2	2.03	0.73
1:CA:1125:U:OP2	1:CA:1145:C:N4	2.21	0.73
21:CU:25:LYS:HG2	21:CU:26:LYS:N	2.04	0.73
28:DD:43:ARG:HD2	28:DD:44:ASN:OD1	1.89	0.73
29:DE:143:ASN:HB2	29:DE:147:PRO:HD2	1.69	0.73
30:DF:95:ARG:CZ	30:DF:97:TYR:CE1	2.72	0.73
30:DF:128:ALA:O	30:DF:129:PHE:CB	2.37	0.73
1:AA:817:C:H1'	1:AA:819:A:H5'	1.70	0.73
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.20	0.73
5:AE:10:MET:HA	5:AE:32:VAL:HG22	1.71	0.73
6:AF:91:VAL:CG1	18:AR:72:ARG:NH1	2.51	0.73
13:AM:7:VAL:HG22	31:BG:115:ARG:HA	1.70	0.73
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.03	0.73
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	1.69	0.73
22:AV:15:G:H22	22:AV:49:C:H41	1.36	0.73
25:BA:995:C:O2'	41:BU:61:TRP:CH2	2.42	0.73
30:BF:164:ARG:HH11	30:BF:164:ARG:HG2	1.54	0.73
34:BN:2:LYS:O	34:BN:4:TYR:CE1	2.42	0.73
36:BP:70:GLN:CB	36:BP:72:PRO:HD2	2.17	0.73
39:BS:74:ALA:HB1	39:BS:103:GLU:HG3	1.70	0.73
40:BT:28:VAL:CG1	40:BT:29:ARG:N	2.51	0.73
40:BT:31:SER:O	40:BT:32:TYR:HD2	1.71	0.73
53:B6:16:CYS:O	53:B6:17:LYS:HB2	1.88	0.73
22:CV:29:C:N3	22:CV:30:G:N7	2.36	0.73
32:DH:9:ILE:HG22	32:DH:51:ARG:HG2	1.69	0.73
34:DN:4:TYR:CB	41:DU:64:ARG:HH22	1.97	0.73
40:DT:80:SER:HB3	40:DT:81:PRO:HD2	1.68	0.73
19:AS:63:THR:H	19:AS:66:MET:HE3	1.53	0.73
25:BA:1826:G:H2'	25:BA:1827:C:C6	2.24	0.73
30:BF:51:THR:CG2	30:BF:92:PRO:CD	2.67	0.73
38:BR:4:LEU:O	38:BR:4:LEU:CD1	2.30	0.73
22:CV:53:G:O2'	22:CV:54:G:H5'	1.88	0.73
25:DA:1140:C:H4'	25:DA:1143:A:C6	2.24	0.73
3:AC:155:GLY:O	3:AC:156:ARG:HB2	1.88	0.73
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.37	0.73
6:AF:62:TRP:CG	18:AR:35:ARG:NH1	2.57	0.73
13:AM:25:ILE:HD11	13:AM:66:LEU:CD2	2.18	0.73
25:BA:2238:G:H5'	25:BA:2239:G:OP1	1.87	0.73
28:BD:31:LYS:HG3	28:BD:33:LEU:CD1	2.15	0.73
33:BI:77:LEU:CD1	33:BI:104:GLN:NE2	2.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:51:LEU:HD23	38:BR:66:VAL:HG22	1.70	0.73
40:BT:31:SER:O	40:BT:32:TYR:CD2	2.42	0.73
1:CA:49:U:C5	1:CA:364:A:N6	2.55	0.73
14:CN:43:CYS:SG	59:CN:101:ZN:ZN	1.78	0.73
32:DH:154:PRO:HD3	32:DH:161:GLY:HA3	1.71	0.73
41:DU:83:LEU:HG	41:DU:88:ILE:HD11	1.69	0.73
1:AA:1152:A:H5"	10:AJ:13:HIS:CD2	2.21	0.73
19:AS:9:VAL:HG11	19:AS:11:VAL:CG1	2.18	0.73
25:BA:995:C:O2'	41:BU:61:TRP:HZ2	1.67	0.73
25:BA:1453:U:O4	38:BR:73:VAL:CG1	2.36	0.73
31:BG:128:ARG:C	31:BG:130:ASN:H	1.92	0.73
36:BP:80:TYR:HA	36:BP:111:ARG:O	1.89	0.73
40:BT:35:LYS:H	40:BT:39:ARG:HA	1.52	0.73
41:BU:62:ILE:HG13	41:BU:76:TYR:CZ	2.24	0.73
1:CA:764:C:H5"	15:CO:50:HIS:CE1	2.23	0.73
1:CA:1054:C:O2	1:CA:1054:C:C3'	2.37	0.73
9:CI:99:LEU:HD13	9:CI:99:LEU:O	1.89	0.73
19:CS:63:THR:CG2	19:CS:66:MET:HG3	2.19	0.73
20:CT:82:SER:O	20:CT:85:MET:HG3	1.89	0.73
30:DF:62:ARG:HH11	30:DF:62:ARG:CG	1.90	0.73
39:DS:10:ARG:O	39:DS:12:PHE:N	2.22	0.73
41:DU:91:ASP:C	41:DU:92:ARG:HD3	2.09	0.73
1:AA:250:A:C4'	1:AA:251:G:O5'	2.30	0.72
6:AF:91:VAL:HG11	18:AR:72:ARG:NH1	2.04	0.72
6:AF:91:VAL:HG11	18:AR:72:ARG:HH11	1.53	0.72
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.71	0.72
13:AM:19:LEU:O	13:AM:22:ILE:HG13	1.89	0.72
20:AT:49:ALA:CB	20:AT:100:ILE:HD11	2.18	0.72
25:BA:887:A:N3	25:BA:889:C:C5	2.58	0.72
25:BA:2745:C:C5	25:BA:2746:U:O4	2.42	0.72
28:BD:3:VAL:CG1	28:BD:17:THR:HB	2.19	0.72
35:BO:97:ARG:NH2	35:BO:99:PHE:HE1	1.87	0.72
55:B8:51:ALA:N	55:B8:53:PRO:HD2	2.02	0.72
22:CV:29:C:C2	22:CV:30:G:N7	2.57	0.72
25:DA:749:C:C4	25:DA:1618:A:C2	2.77	0.72
25:DA:995:C:N3	34:DN:1:MET:HG3	2.03	0.72
25:DA:2519:U:C4'	25:DA:2520:C:OP1	2.37	0.72
46:DZ:68:PRO:HB2	46:DZ:91:LEU:HB2	1.69	0.72
51:D4:20:ASN:HD22	51:D4:21:VAL:N	1.87	0.72
1:AA:413:G:N2	1:AA:428:G:O2'	2.21	0.72
25:BA:530:G:N3	25:BA:2021:C:O2'	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:14:ASP:HB2	33:BI:17:GLN:HE21	1.53	0.72
33:BI:113:ARG:O	33:BI:130:TYR:HD1	1.71	0.72
41:BU:27:LEU:CB	41:BU:31:SER:HB3	2.19	0.72
43:BW:51:LEU:C	43:BW:51:LEU:CD1	2.55	0.72
49:B2:65:ASN:HB3	49:B2:69:ARG:NH2	2.04	0.72
1:CA:1256:A:N6	1:CA:1278:U:O2'	2.22	0.72
1:CA:1456:G:O2'	20:CT:39:LYS:NZ	2.23	0.72
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.88	0.72
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.89	0.72
16:CP:12:LYS:O	16:CP:13:HIS:HB2	1.87	0.72
17:CQ:45:HIS:O	17:CQ:73:VAL:HG23	1.88	0.72
22:CV:24:C:C2'	22:CV:25:U:H5'	2.19	0.72
39:DS:59:LYS:HG2	39:DS:60:GLY:N	1.99	0.72
40:DT:13:ARG:CZ	40:DT:13:ARG:HA	2.19	0.72
40:DT:23:ARG:CD	40:DT:120:ARG:HD3	2.19	0.72
42:DV:52:VAL:CG2	42:DV:55:ALA:HB3	2.20	0.72
48:D1:23:LYS:HE2	48:D1:28:GLY:H	1.53	0.72
9:AI:58:HIS:HB2	9:AI:59:PHE:HE1	1.51	0.72
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.88	0.72
25:BA:601:C:H4'	30:BF:104:LYS:NZ	2.05	0.72
25:BA:2357:U:OP1	47:B0:20:ARG:NH1	2.22	0.72
30:BF:51:THR:OG1	30:BF:88:VAL:CG1	2.38	0.72
32:BH:85:LYS:HD3	32:BH:133:VAL:HB	1.70	0.72
33:BI:27:ARG:HA	33:BI:31:LEU:HD22	1.70	0.72
37:BQ:141:GLN:HB2	46:BZ:98:MET:HA	1.71	0.72
38:BR:24:GLN:NE2	38:BR:36:THR:HG21	2.04	0.72
41:BU:95:LEU:CD1	42:BV:4:ILE:CG2	2.67	0.72
1:CA:992:U:C4'	1:CA:993:G:O5'	2.37	0.72
5:CE:148:VAL:HG21	8:CH:107:LEU:HD22	1.70	0.72
20:CT:89:ARG:HH22	20:CT:104:LEU:HD21	1.54	0.72
25:DA:221:A:OP2	25:DA:221:A:C8	2.42	0.72
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.35	0.72
25:DA:1791:A:N6	25:DA:1828:G:O2'	2.23	0.72
28:DD:71:ASP:HB2	28:DD:103:ARG:HH22	1.54	0.72
28:DD:76:PRO:O	28:DD:98:VAL:HG23	1.88	0.72
33:DI:94:ALA:HA	33:DI:97:ILE:HG12	1.70	0.72
40:DT:80:SER:HB3	40:DT:81:PRO:HD3	1.71	0.72
52:D5:4:HIS:HB3	52:D5:5:PRO:CD	2.17	0.72
55:D8:8:LYS:O	55:D8:12:LYS:HG3	1.89	0.72
2:AB:87:ARG:HH22	2:AB:233:SER:HB2	1.54	0.72
8:AH:129:VAL:HG23	8:AH:130:GLY:N	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	1.89	0.72
25:BA:1287:A:C6	25:BA:1288:U:C4	2.77	0.72
28:BD:223:GLY:HA3	28:BD:231:HIS:CD2	2.24	0.72
28:BD:261:LYS:HZ1	28:BD:263:ARG:NH2	1.88	0.72
42:BV:19:LYS:HG2	42:BV:94:LEU:HB2	1.72	0.72
1:CA:251:G:O2'	1:CA:252:U:C5'	2.33	0.72
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.54	0.72
25:DA:995:C:C6	41:DU:57:PHE:HE1	2.06	0.72
28:DD:108:PRO:HB3	28:DD:143:HIS:HE1	1.54	0.72
33:DI:124:GLY:O	33:DI:142:VAL:HG22	1.88	0.72
36:DP:63:PRO:O	36:DP:65:ARG:N	2.22	0.72
41:DU:95:LEU:CD1	42:DV:4:ILE:CG2	2.67	0.72
42:DV:49:THR:CB	42:DV:50:PRO:HD2	2.19	0.72
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.87	0.72
12:AL:25:PRO:C	12:AL:27:LEU:H	1.91	0.72
12:AL:81:SER:HA	12:AL:106:ASP:OD2	1.89	0.72
28:BD:85:ASP:HB2	28:BD:92:ILE:HD12	1.71	0.72
40:BT:50:ILE:HD11	40:BT:102:ILE:HG12	1.72	0.72
1:CA:251:G:HO2'	1:CA:252:U:H5"	1.54	0.72
3:CC:166:GLU:HA	3:CC:166:GLU:OE1	1.90	0.72
19:CS:62:ILE:HD12	19:CS:63:THR:N	2.05	0.72
25:DA:1272:A:N9	25:DA:1618:A:C8	2.58	0.72
25:DA:1902:C:H5'	28:DD:246:PRO:HD3	1.70	0.72
27:DC:41:VAL:HA	27:DC:213:TYR:HA	1.71	0.72
33:DI:72:LEU:HD13	33:DI:107:VAL:HG11	1.69	0.72
42:DV:95:LEU:HD13	42:DV:97:LYS:HE3	1.69	0.72
1:AA:689:C:OP1	11:AK:27:ASN:ND2	2.22	0.72
16:AP:28:ARG:HH11	16:AP:28:ARG:HG2	1.55	0.72
17:AQ:85:VAL:HG12	17:AQ:89:LEU:HD12	1.72	0.72
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.04	0.72
25:BA:1301:A:O2'	25:BA:1302:A:H5"	1.90	0.72
28:BD:45:ASN:CG	28:BD:46:GLN:H	1.91	0.72
30:BF:63:LYS:HE2	30:BF:67:GLN:HB3	1.71	0.72
30:BF:132:VAL:HG13	30:BF:133:ASN:H	1.53	0.72
40:BT:30:VAL:HG21	40:BT:84:GLN:CG	2.18	0.72
1:CA:872:A:C2	1:CA:874:G:C6	2.77	0.72
7:CG:60:LYS:HA	7:CG:60:LYS:NZ	2.05	0.72
23:CW:67:C:H2'	23:CW:68:C:C6	2.24	0.72
29:DE:36:ARG:HH12	29:DE:86:PRO:HD2	1.53	0.72
36:DP:80:TYR:HA	36:DP:111:ARG:O	1.89	0.72
39:DS:10:ARG:O	39:DS:14:VAL:HG12	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.72	0.72
6:AF:91:VAL:HG12	6:AF:92:LYS:O	1.89	0.72
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	1.90	0.72
19:AS:10:PHE:O	19:AS:38:SER:HA	1.89	0.72
25:BA:587:C:O2	36:BP:33:ARG:NH1	2.21	0.72
25:BA:2056:G:C2	25:BA:2057:A:C8	2.77	0.72
25:BA:2745:C:C4	25:BA:2746:U:O4	2.43	0.72
36:BP:63:PRO:O	36:BP:65:ARG:N	2.22	0.72
6:CF:17:SER:O	6:CF:21:LEU:HD23	1.90	0.72
23:CW:18:G:H1	23:CW:55:U:H1'	1.55	0.72
31:DG:180:PHE:C	31:DG:182:LYS:H	1.90	0.72
3:AC:11:ARG:HH21	3:AC:180:ALA:HB3	1.53	0.72
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.71	0.72
25:BA:242:G:C6	55:B8:5:LYS:CE	2.71	0.72
25:BA:2848:G:C4'	25:BA:2849:U:OP1	2.37	0.72
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.05	0.72
26:DB:3:C:H42	26:DB:118:G:H1	1.37	0.72
30:DF:63:LYS:HA	30:DF:76:GLY:O	1.90	0.72
32:DH:101:ARG:HG2	32:DH:117:PRO:HG3	1.71	0.72
2:AB:167:PRO:HG2	2:AB:192:SER:OG	1.89	0.72
3:AC:90:GLU:OE1	3:AC:93:LYS:HD2	1.90	0.72
8:AH:40:ALA:O	8:AH:42:GLU:N	2.22	0.72
12:AL:46:LYS:HG2	12:AL:47:LYS:N	2.05	0.72
25:BA:13:A:O2'	25:BA:15:G:N7	2.22	0.72
25:BA:321:G:OP2	30:BF:136:THR:HG22	1.90	0.72
30:BF:152:GLU:OE1	30:BF:191:ARG:HD2	1.90	0.72
31:BG:72:ARG:HB3	31:BG:86:MET:O	1.88	0.72
1:CA:186:C:O2'	20:CT:85:MET:SD	2.47	0.72
1:CA:872:A:C2	1:CA:874:G:O6	2.43	0.72
1:CA:1300:G:O2'	1:CA:1301:U:H6	1.72	0.72
20:CT:53:LEU:O	20:CT:57:ARG:HB2	1.90	0.72
25:DA:27:G:N2	25:DA:512:G:H2'	2.05	0.72
25:DA:72:U:H1'	49:D2:58:ALA:HA	1.71	0.72
25:DA:2285:C:H5	53:D6:27:LYS:HE3	1.53	0.72
30:DF:31:HIS:HB2	36:DP:9:ASN:ND2	2.04	0.72
33:DI:92:VAL:HG13	33:DI:120:ILE:CG2	2.17	0.72
37:DQ:137:TYR:OH	46:DZ:81:ARG:NH2	2.23	0.72
38:DR:12:ARG:HG3	38:DR:12:ARG:HH11	1.53	0.72
39:DS:106:ARG:N	39:DS:110:LEU:HD21	2.05	0.72
41:DU:104:GLN:NE2	41:DU:105:VAL:HG23	2.02	0.72
46:DZ:19:ARG:HH12	46:DZ:84:GLU:HA	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:52:ARG:HG3	48:D1:53:VAL:H	1.53	0.72
1:AA:839:U:O2	1:AA:839:U:C3'	2.38	0.72
1:AA:1118:C:H5"	9:AI:104:ARG:HG3	1.72	0.72
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.70	0.72
3:AC:113:ALA:HA	3:AC:116:VAL:HG23	1.72	0.72
13:AM:96:LEU:HD23	13:AM:97:PRO:HD2	1.71	0.72
14:AN:12:ARG:C	14:AN:14:PRO:CD	2.46	0.72
23:AW:63:G:O2'	27:BC:53:ARG:HG2	1.89	0.72
25:BA:196:A:N3	25:BA:196:A:H2'	2.03	0.72
27:BC:51:PRO:HG3	27:BC:204:ALA:HB2	1.72	0.72
40:BT:28:VAL:HG11	40:BT:46:GLU:CA	2.13	0.72
13:CM:3:ARG:NH1	13:CM:7:VAL:HG22	2.04	0.72
34:DN:4:TYR:N	34:DN:4:TYR:CD1	2.53	0.72
41:DU:62:ILE:HD12	41:DU:76:TYR:CZ	2.24	0.72
41:DU:91:ASP:OD2	41:DU:96:ALA:HB2	1.90	0.72
5:AE:148:VAL:HG21	8:AH:107:LEU:HD13	1.71	0.71
36:BP:52:GLU:OE1	36:BP:55:ARG:CD	2.38	0.71
39:BS:12:PHE:C	39:BS:12:PHE:CD1	2.64	0.71
40:BT:29:ARG:HG2	40:BT:85:LYS:C	2.09	0.71
1:CA:791:G:H2'	1:CA:792:A:H5'	1.70	0.71
9:CI:19:LEU:CD2	9:CI:59:PHE:CB	2.65	0.71
11:CK:20:TYR:HB2	11:CK:31:THR:HG23	1.72	0.71
19:CS:40:ILE:HG12	19:CS:71:LEU:HD23	1.72	0.71
20:CT:50:GLU:OE2	20:CT:50:GLU:CA	2.33	0.71
25:DA:84:A:C5'	45:DY:8:LYS:HG2	2.14	0.71
25:DA:529:A:H62	25:DA:2041:U:H3	1.37	0.71
25:DA:1558:A:C4'	25:DA:1559:G:O5'	2.37	0.71
33:DI:60:GLU:HG3	33:DI:61:ARG:NH2	2.05	0.71
20:AT:50:GLU:HA	20:AT:100:ILE:HG12	1.72	0.71
25:BA:1646:C:C2'	25:BA:1647:G:OP1	2.39	0.71
25:BA:1788:C:OP1	28:BD:222:ARG:NH2	2.23	0.71
35:BO:2:ILE:HD12	35:BO:6:THR:HG21	1.70	0.71
43:BW:6:ILE:HG12	43:BW:104:THR:HG23	1.71	0.71
1:CA:243:A:C2	1:CA:246:A:N7	2.58	0.71
1:CA:484:G:H1'	1:CA:486:U:C5	2.24	0.71
5:CE:48:ALA:HB3	5:CE:54:ALA:N	2.05	0.71
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	1.72	0.71
25:DA:645:C:H2'	25:DA:645:C:O2	1.89	0.71
27:DC:58:VAL:HG21	27:DC:166:ASP:N	1.97	0.71
28:DD:26:LYS:O	28:DD:27:THR:HB	1.89	0.71
30:DF:24:LEU:HD23	30:DF:115:ALA:HA	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:95:ARG:CZ	30:DF:97:TYR:HE1	2.03	0.71
46:DZ:5:LEU:HD21	46:DZ:39:VAL:HB	1.71	0.71
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.71	0.71
30:BF:7:TYR:HB2	30:BF:17:ARG:N	2.06	0.71
31:BG:142:PRO:CG	31:BG:143:GLU:OE1	2.30	0.71
33:BI:77:LEU:O	33:BI:140:LEU:CD1	2.36	0.71
45:BY:31:LEU:HB2	45:BY:32:PRO:HA	1.72	0.71
45:BY:67:LEU:CD1	45:BY:71:LYS:HG3	2.20	0.71
55:B8:53:PRO:HA	55:B8:56:GLU:HB3	1.71	0.71
2:CB:155:LEU:HD13	2:CB:157:ARG:H	1.54	0.71
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.72	0.71
2:CB:219:VAL:O	2:CB:222:ILE:HB	1.90	0.71
20:CT:29:LYS:CD	20:CT:66:ALA:HB2	2.19	0.71
25:DA:1694:C:H4'	25:DA:1695:G:C4	2.25	0.71
32:DH:87:LEU:HD13	32:DH:148:ILE:HG21	1.72	0.71
33:DI:77:LEU:O	33:DI:78:THR:HG23	1.91	0.71
40:DT:102:ILE:O	40:DT:106:SER:HB3	1.91	0.71
41:DU:66:ASN:HB2	41:DU:76:TYR:HB2	1.72	0.71
47:D0:40:GLN:NE2	47:D0:43:THR:HA	2.05	0.71
22:AV:63:C:H2'	22:AV:64:G:C8	2.26	0.71
41:BU:27:LEU:HB2	41:BU:34:LYS:HG3	1.72	0.71
1:CA:687:A:C2	1:CA:704:A:C5	2.78	0.71
22:CV:3:C:H42	22:CV:71:G:H1	1.38	0.71
25:DA:942:G:O2'	25:DA:1189:A:N3	2.22	0.71
28:DD:264:LYS:HD3	28:DD:266:SER:HB3	1.71	0.71
32:DH:154:PRO:HG2	32:DH:162:ILE:O	1.91	0.71
36:DP:11:GLY:O	36:DP:12:ALA:HB3	1.90	0.71
40:DT:36:GLU:CB	40:DT:38:ASN:ND2	2.49	0.71
1:AA:971:G:OP1	1:AA:971:G:H3'	1.89	0.71
25:BA:1270:C:N4	25:BA:1648:C:N4	2.38	0.71
30:BF:65:TRP:CH2	30:BF:72:ARG:NH2	2.58	0.71
32:BH:86:GLU:HA	32:BH:132:ARG:HA	1.72	0.71
9:CI:59:PHE:CD1	9:CI:59:PHE:N	2.56	0.71
35:DO:113:LYS:O	35:DO:117:LEU:HB2	1.91	0.71
40:DT:125:ARG:O	40:DT:128:GLU:CG	2.36	0.71
46:DZ:59:LEU:HG	46:DZ:69:THR:HG21	1.72	0.71
53:D6:41:PRO:HD3	53:D6:46:HIS:C	2.11	0.71
1:AA:1047:G:H2'	1:AA:1048:G:H5'	1.71	0.71
17:AQ:56:VAL:HB	17:AQ:78:GLU:HG2	1.71	0.71
23:AY:35:A:C2'	23:AY:36:A:O5'	2.39	0.71
25:BA:395:U:O2'	25:BA:396:G:N7	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2681:C:H5	25:BA:2725:A:H62	1.36	0.71
30:BF:205:ARG:HG2	30:BF:205:ARG:O	1.90	0.71
33:BI:83:ALA:HA	33:BI:89:TYR:CD1	2.25	0.71
40:BT:36:GLU:HG3	40:BT:38:ASN:HB3	1.72	0.71
1:CA:411:A:C8	1:CA:429:U:O4	2.43	0.71
1:CA:538:G:H5"	12:CL:114:LYS:HB2	1.72	0.71
1:CA:820:U:H6	1:CA:820:U:O5'	1.72	0.71
10:CJ:63:PHE:HB3	14:CN:58:LYS:CA	2.18	0.71
22:CV:48:U:C6	22:CV:51:U:OP1	2.44	0.71
25:DA:2015:A:H1'	52:D5:2:ALA:HA	1.72	0.71
31:DG:146:TYR:O	31:DG:149:VAL:HG22	1.90	0.71
33:DI:60:GLU:HG3	33:DI:61:ARG:HH12	1.56	0.71
40:DT:66:VAL:HA	40:DT:71:GLY:HA2	1.72	0.71
1:AA:1524:C:OP1	11:AK:120:ARG:NH1	2.22	0.71
2:AB:95:GLN:HG3	2:AB:148:TYR:HA	1.72	0.71
19:AS:29:ARG:HH11	19:AS:30:LEU:H	1.35	0.71
21:AU:2:GLY:O	21:AU:4:GLY:N	2.22	0.71
25:BA:240:G:N1	25:BA:241:A:N6	2.39	0.71
29:BE:11:MET:HB2	29:BE:23:VAL:O	1.91	0.71
43:BW:4:LYS:HE3	43:BW:6:ILE:HD12	1.70	0.71
43:BW:82:LEU:HB3	43:BW:84:ARG:HH12	1.55	0.71
19:CS:58:VAL:HG11	19:CS:75:ALA:HB1	1.71	0.71
25:DA:2725:A:O2'	25:DA:2726:U:C2	2.44	0.71
41:DU:79:PHE:HE2	41:DU:83:LEU:CD2	2.04	0.71
45:DY:20:TYR:CE1	45:DY:42:VAL:HA	2.26	0.71
45:DY:84:ARG:HH12	45:DY:97:ARG:CB	2.04	0.71
46:DZ:14:LYS:HZ2	46:DZ:14:LYS:H	1.36	0.71
6:AF:91:VAL:HG21	18:AR:72:ARG:HD3	1.71	0.71
23:AW:8:U:O2	23:AW:21:A:H2	1.72	0.71
25:BA:1653:G:C4'	25:BA:1654:A:O5'	2.37	0.71
25:BA:2238:G:C4'	25:BA:2239:G:OP1	2.39	0.71
31:BG:111:LEU:HB3	31:BG:117:PHE:CE2	2.26	0.71
35:BO:98:VAL:HG12	35:BO:117:LEU:HD22	1.72	0.71
41:BU:90:VAL:HG12	41:BU:91:ASP:H	1.56	0.71
43:BW:100:THR:HG22	43:BW:100:THR:O	1.91	0.71
2:CB:21:ARG:CB	2:CB:39:ILE:HA	2.15	0.71
11:CK:54:ARG:HH12	23:CW:40:C:H5"	1.55	0.71
23:CW:33:U:O2'	23:CW:34:G:H5"	1.91	0.71
23:CW:60:U:H2'	23:CW:61:C:H5	1.55	0.71
25:DA:1694:C:H6	25:DA:1694:C:OP2	1.74	0.71
28:DD:80:ALA:CB	28:DD:94:LEU:HD13	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:151:ALA:HB3	31:DG:153:ARG:NH1	2.05	0.71
39:DS:106:ARG:HA	39:DS:110:LEU:CG	2.21	0.71
40:DT:40:THR:O	40:DT:41:ARG:HB2	1.91	0.71
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.21	0.71
12:AL:5:PRO:CA	12:AL:9:GLN:HE21	2.02	0.71
13:AM:57:ARG:HH22	51:B4:60:GLU:HG3	1.53	0.71
25:BA:2126:A:C4'	25:BA:2127:G:O5'	2.32	0.71
45:BY:13:VAL:HG22	45:BY:28:LYS:HE2	1.71	0.71
13:CM:3:ARG:HB3	51:D4:34:GLU:HG2	1.72	0.71
16:CP:49:LEU:HD12	16:CP:50:LYS:N	2.06	0.71
25:DA:1204:A:H1'	25:DA:1206:G:C8	2.25	0.71
25:DA:1645:G:C5'	25:DA:1646:C:H5'	2.16	0.71
28:DD:45:ASN:CG	28:DD:46:GLN:H	1.93	0.71
35:DO:2:ILE:HD12	35:DO:6:THR:HG21	1.73	0.71
53:D6:36:LEU:HD13	53:D6:50:ARG:NH1	2.05	0.71
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.73	0.71
25:BA:1342:A:C5	25:BA:1397:U:C5	2.77	0.71
25:BA:1966:A:C1'	25:BA:2593:U:H5'	2.16	0.71
25:BA:2222:G:H5"	28:BD:186:HIS:HE2	1.55	0.71
28:BD:97:TYR:HE1	28:BD:103:ARG:HG3	1.56	0.71
38:BR:38:VAL:O	38:BR:42:LYS:HG3	1.91	0.71
40:BT:30:VAL:CG1	40:BT:31:SER:N	2.54	0.71
45:BY:8:LYS:HE3	45:BY:72:VAL:C	2.12	0.71
1:CA:66:G:H4'	1:CA:173:U:O4	1.91	0.71
2:CB:168:THR:OG1	2:CB:169:LYS:N	2.24	0.71
5:CE:126:ARG:HH11	5:CE:126:ARG:CG	2.01	0.71
22:CV:62:C:O2'	22:CV:63:C:H5'	1.91	0.71
25:DA:1689:A:H62	25:DA:1698:A:H2	1.39	0.71
37:DQ:27:VAL:HG23	37:DQ:137:TYR:CE1	2.26	0.71
42:DV:49:THR:OG1	42:DV:50:PRO:HD2	1.91	0.71
53:D6:35:GLU:HB3	53:D6:51:GLU:HG3	1.71	0.71
1:AA:979:C:OP1	1:AA:1223:C:N4	2.23	0.70
7:AG:145:ALA:O	7:AG:146:GLU:HB2	1.88	0.70
9:AI:8:GLY:HA2	9:AI:79:LEU:HD12	1.73	0.70
35:BO:3:GLN:HB2	35:BO:4:PRO:HD2	1.72	0.70
36:BP:34:GLY:O	36:BP:35:HIS:C	2.28	0.70
39:BS:53:SER:OG	39:BS:54:LEU:N	2.23	0.70
40:BT:31:SER:HB3	40:BT:43:GLN:H	1.54	0.70
52:B5:36:CYS:HB2	52:B5:49:CYS:SG	2.31	0.70
1:CA:1067:A:HO2'	1:CA:1068:G:H8	1.22	0.70
1:CA:1432:G:OP1	40:DT:107:ASP:HB2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:83:G:H21	25:DA:84:A:N6	1.89	0.70
25:DA:2713:A:H5'	25:DA:2714:G:OP2	1.91	0.70
33:DI:25:TYR:HE2	33:DI:29:TYR:HD2	1.37	0.70
40:DT:31:SER:HB3	40:DT:43:GLN:O	1.90	0.70
40:DT:89:VAL:CG1	40:DT:91:ARG:HE	2.04	0.70
46:DZ:24:LEU:HD21	46:DZ:86:VAL:HG23	1.72	0.70
55:D8:30:ARG:HE	55:D8:30:ARG:HA	1.56	0.70
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.24	0.70
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.89	0.70
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.74	0.70
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.90	0.70
18:AR:43:PHE:O	18:AR:51:LEU:HD12	1.91	0.70
25:BA:2745:C:H2'	25:BA:2746:U:C6	2.27	0.70
28:BD:33:LEU:O	28:BD:35:LYS:N	2.24	0.70
30:BF:51:THR:CG2	30:BF:92:PRO:HD2	2.16	0.70
1:CA:429:U:O4'	1:CA:430:A:H8	1.72	0.70
1:CA:1442(B):A:N1	40:DT:118:ARG:NH1	2.39	0.70
3:CC:103:VAL:O	3:CC:103:VAL:HG12	1.92	0.70
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.73	0.70
19:CS:63:THR:HG22	19:CS:66:MET:SD	2.31	0.70
25:DA:84:A:H5'	45:DY:8:LYS:CG	2.16	0.70
25:DA:750:A:H2'	25:DA:752:A:OP1	1.91	0.70
28:DD:24:ILE:CG1	28:DD:25:THR:N	2.53	0.70
29:DE:203:LYS:HE2	29:DE:204:ALA:HB2	1.73	0.70
33:DI:60:GLU:HG3	33:DI:61:ARG:NH1	2.07	0.70
1:AA:971:G:OP1	1:AA:972:C:H5"	1.92	0.70
2:AB:32:ILE:HD11	2:AB:190:THR:CG2	2.21	0.70
20:AT:12:ALA:O	20:AT:15:ARG:HB2	1.91	0.70
25:BA:673:C:H5'	30:BF:54:ARG:HH12	1.57	0.70
29:BE:116:VAL:HG21	29:BE:122:PHE:CD2	2.26	0.70
36:BP:19:VAL:CG2	36:BP:20:GLY:H	2.02	0.70
40:BT:28:VAL:O	40:BT:29:ARG:CB	2.39	0.70
40:BT:29:ARG:HD2	40:BT:86:ILE:O	1.91	0.70
1:CA:913:A:C1'	1:CA:914:A:O4'	2.38	0.70
23:CW:60:U:H2'	23:CW:61:C:C5	2.26	0.70
25:DA:913:U:C4'	25:DA:914:C:OP1	2.34	0.70
29:DE:33:VAL:HG13	29:DE:69:LYS:HE3	1.72	0.70
29:DE:34:VAL:O	29:DE:35:GLN:HB2	1.91	0.70
31:DG:21:ARG:HH11	31:DG:21:ARG:HG2	1.55	0.70
40:DT:32:TYR:OH	40:DT:76:PHE:CE2	2.44	0.70
53:D6:9:LEU:HD23	53:D6:10:LEU:N	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:28:LYS:O	12:AL:28:LYS:CG	2.32	0.70
23:AY:31:A:C5	23:AY:32:U:C5	2.80	0.70
25:BA:651:G:H5"	55:B8:18:ALA:HB3	1.73	0.70
25:BA:769:G:C5'	25:BA:1379:A:H62	2.04	0.70
25:BA:2392:A:H2	25:BA:2424:C:H42	1.35	0.70
28:BD:200:ASP:O	28:BD:203:ASN:HB2	1.90	0.70
28:BD:270:ILE:H	28:BD:270:ILE:HD12	1.56	0.70
40:BT:31:SER:OG	40:BT:43:GLN:N	2.25	0.70
48:B1:3:LYS:CG	48:B1:4:VAL:H	2.05	0.70
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.21	0.70
2:CB:167:PRO:HG2	2:CB:192:SER:OG	1.91	0.70
2:CB:236:TYR:HA	2:CB:239:VAL:HG21	1.73	0.70
8:CH:82:HIS:CD2	8:CH:138:TRP:CE2	2.78	0.70
20:CT:33:ILE:H	20:CT:33:ILE:CD1	2.04	0.70
25:DA:598:G:C5'	36:DP:11:GLY:HA3	2.22	0.70
25:DA:1272:A:C1'	25:DA:1618:A:C8	2.74	0.70
28:DD:121:PRO:HB3	28:DD:135:PHE:CE1	2.26	0.70
32:DH:20:ALA:HB3	32:DH:21:PRO:HD2	1.73	0.70
39:DS:60:GLY:O	39:DS:61:ASN:HB2	1.90	0.70
39:DS:106:ARG:CA	39:DS:110:LEU:HD21	2.21	0.70
47:D0:24:LYS:O	47:D0:25:ARG:HD3	1.90	0.70
1:AA:1300:G:H2'	1:AA:1301:U:OP2	1.91	0.70
3:AC:131:ARG:HH11	5:AE:50:GLU:HG2	1.56	0.70
4:AD:49:ARG:CD	4:AD:50:ARG:H	2.02	0.70
25:BA:181:A:C2	25:BA:435:C:C5	2.79	0.70
25:BA:804:A:H5"	25:BA:805:G:OP1	1.91	0.70
28:BD:224:ALA:O	28:BD:225:ALA:HB3	1.92	0.70
36:BP:64:LYS:HB3	55:B8:25:MET:CG	2.18	0.70
42:BV:15:GLU:HB3	42:BV:16:PRO:CD	2.22	0.70
1:CA:1049:U:H1'	1:CA:1201:A:C8	2.27	0.70
2:CB:224:GLN:HA	2:CB:229:VAL:HG22	1.72	0.70
8:CH:87:SER:HA	8:CH:93:VAL:CG2	2.20	0.70
19:CS:63:THR:HG23	19:CS:66:MET:HG2	1.74	0.70
25:DA:1918:A:O2'	25:DA:1919:A:N7	2.22	0.70
28:DD:8:PRO:HB3	28:DD:14:ARG:HB2	1.72	0.70
28:DD:172:TYR:CD1	28:DD:186:HIS:HA	2.27	0.70
31:DG:6:ALA:HB3	31:DG:104:GLU:OE2	1.91	0.70
32:DH:4:ILE:HG13	32:DH:6:ARG:CD	2.22	0.70
32:DH:117:PRO:HB3	32:DH:123:PHE:CE1	2.26	0.70
40:DT:32:TYR:HD2	40:DT:81:PRO:O	1.74	0.70
43:DW:55:ALA:HA	43:DW:107:LEU:HD23	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:135:THR:O	5:AE:138:ALA:HB3	1.91	0.70
10:AJ:35:SER:O	10:AJ:72:VAL:HG13	1.90	0.70
22:AV:19:G:N2	22:AV:59:A:C8	2.60	0.70
22:AV:41:C:O2'	22:AV:42:C:H5'	1.91	0.70
23:AY:35:A:H2'	23:AY:36:A:O5'	1.90	0.70
25:BA:2578:G:OP2	25:BA:2578:G:H4'	1.89	0.70
30:BF:47:GLY:HA3	30:BF:95:ARG:O	1.92	0.70
33:BI:4:ILE:HG12	33:BI:18:VAL:HG22	1.71	0.70
39:BS:97:ARG:NH1	39:BS:98:VAL:HA	2.06	0.70
1:CA:397:A:N7	1:CA:547:A:O2'	2.24	0.70
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.05	0.70
7:CG:41:ARG:O	7:CG:45:ASP:HB2	1.91	0.70
33:DI:25:TYR:HE2	33:DI:29:TYR:CD2	2.09	0.70
1:AA:686:U:O2'	11:AK:42:TRP:HZ2	1.74	0.70
5:AE:70:PRO:HB2	5:AE:144:THR:CG2	2.22	0.70
25:BA:2222:G:H5"	28:BD:186:HIS:NE2	2.07	0.70
29:BE:116:VAL:HG22	29:BE:117:MET:N	2.06	0.70
1:CA:839:U:O2	1:CA:839:U:C2'	2.39	0.70
11:CK:125:PHE:HD1	11:CK:125:PHE:N	1.88	0.70
20:CT:48:LYS:CB	20:CT:48:LYS:HZ3	2.02	0.70
28:DD:95:LEU:O	28:DD:95:LEU:HD12	1.92	0.70
38:DR:56:LYS:HE2	38:DR:94:TYR:HE2	1.56	0.70
45:DY:63:LYS:NZ	45:DY:63:LYS:HA	2.07	0.70
1:AA:366:C:O2'	1:AA:367:U:P	2.49	0.70
1:AA:1067:A:HO2'	1:AA:1068:G:H8	0.74	0.70
1:AA:1226:C:HO2'	1:AA:1227:A:C5'	2.05	0.70
4:AD:8:VAL:O	4:AD:11:LEU:CD2	2.39	0.70
5:AE:75:THR:OG1	5:AE:76:ILE:N	2.22	0.70
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.59	0.70
25:BA:974:G:N2	25:BA:989:G:H1'	2.07	0.70
37:BQ:56:ARG:HA	37:BQ:56:ARG:NH1	2.06	0.70
45:BY:46:LYS:HB3	45:BY:47:LYS:HD2	1.72	0.70
49:B2:63:VAL:O	49:B2:66:GLU:HG2	1.92	0.70
1:CA:376:G:P	16:CP:67:THR:HG21	2.32	0.70
11:CK:20:TYR:O	11:CK:30:VAL:HA	1.92	0.70
20:CT:49:ALA:HB3	20:CT:100:ILE:HD11	1.71	0.70
20:CT:56:MET:O	20:CT:60:GLU:HB2	1.91	0.70
22:CV:24:C:H2'	22:CV:25:U:C6	2.26	0.70
25:DA:395:U:O2'	25:DA:396:G:N7	2.23	0.70
25:DA:975(A):G:O2'	25:DA:976:C:H5'	1.91	0.70
29:DE:59:VAL:HG22	29:DE:60:ASN:N	2.03	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:27:SER:HA	39:DS:88:ASP:HB3	1.73	0.70
9:AI:59:PHE:CD1	9:AI:59:PHE:N	2.57	0.70
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.72	0.70
25:BA:1341:U:O4	44:BX:16:LYS:HE2	1.91	0.70
25:BA:1646:C:H2'	25:BA:1647:G:OP1	1.92	0.70
33:BI:83:ALA:HA	33:BI:89:TYR:HD1	1.54	0.70
39:BS:17:ARG:O	39:BS:19:LYS:N	2.25	0.70
39:BS:97:ARG:HH22	39:BS:98:VAL:HG23	1.57	0.70
40:BT:32:TYR:CD2	40:BT:81:PRO:O	2.45	0.70
45:BY:36:ALA:HB1	45:BY:67:LEU:O	1.91	0.70
4:CD:119:GLN:O	4:CD:123:HIS:HB2	1.92	0.70
23:CY:27:G:H2'	23:CY:28:G:C8	2.26	0.70
25:DA:973:A:H5"	25:DA:974:G:OP2	1.92	0.70
33:DI:49:ALA:O	33:DI:52:ARG:HG2	1.91	0.70
36:DP:34:GLY:O	36:DP:35:HIS:C	2.28	0.70
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.26	0.70
45:DY:81:LYS:HB2	45:DY:96:ILE:CG2	2.21	0.70
5:AE:91:LEU:CD1	5:AE:120:THR:HB	2.22	0.70
13:AM:94:ARG:HG2	19:AS:82:GLY:N	2.07	0.70
15:AO:65:ARG:HH11	15:AO:65:ARG:HG2	1.55	0.70
23:AW:16:U:H3'	23:AW:17:C:H5'	1.71	0.70
29:BE:91:VAL:HG13	29:BE:95:ILE:HG12	1.74	0.70
31:BG:54:GLU:HA	31:BG:57:ALA:HB3	1.74	0.70
43:BW:12:ILE:HG12	43:BW:17:VAL:HG12	1.73	0.70
45:BY:8:LYS:HD2	45:BY:8:LYS:N	2.04	0.70
1:CA:1054:C:O2	1:CA:1054:C:C2'	2.40	0.70
1:CA:1504:G:H3'	1:CA:1504:G:P	2.32	0.70
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.07	0.70
16:CP:17:TYR:HE1	16:CP:41:PRO:HG3	1.56	0.70
17:CQ:12:SER:HB3	17:CQ:20:THR:HB	1.74	0.70
22:CV:48:U:H3'	22:CV:49:C:C5'	2.22	0.70
32:DH:8:PRO:HG2	32:DH:69:ARG:NE	2.07	0.70
33:DI:23:PRO:HB2	33:DI:27:ARG:HH12	1.56	0.70
38:DR:33:ARG:HG3	38:DR:115:GLU:CB	2.21	0.70
41:DU:95:LEU:HD13	42:DV:4:ILE:HG23	1.71	0.70
1:AA:1528:U:O2'	1:AA:1530:G:H5'	1.92	0.69
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.92	0.69
8:AH:111:ILE:O	8:AH:112:LEU:HD23	1.92	0.69
25:BA:2134:A:N6	25:BA:2157:G:O2'	2.25	0.69
30:BF:123:LEU:HD12	30:BF:124:LEU:N	2.04	0.69
32:BH:102:ALA:HB1	32:BH:115:VAL:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:85:VAL:HG23	39:BS:106:ARG:HG3	1.73	0.69
40:BT:27:THR:CG2	40:BT:49:VAL:CG2	2.70	0.69
55:B8:22:VAL:HG11	55:B8:56:GLU:HG2	1.72	0.69
1:CA:407:G:H1	1:CA:435:C:H42	1.40	0.69
1:CA:429:U:H4'	1:CA:430:A:O5'	1.91	0.69
5:CE:78:HIS:CD2	8:CH:104:ARG:HG2	2.27	0.69
13:CM:125:ARG:CD	13:CM:126:LYS:H	1.92	0.69
25:DA:2835:A:C5'	25:DA:2836:U:OP1	2.39	0.69
30:DF:136:THR:O	30:DF:140:LEU:HB2	1.92	0.69
33:DI:2:LYS:HA	33:DI:20:ASP:HA	1.72	0.69
37:DQ:59:ARG:O	37:DQ:60:ARG:HB2	1.91	0.69
43:DW:68:ARG:HD2	43:DW:110:LYS:CB	2.22	0.69
45:DY:86:ARG:HB2	45:DY:95:LYS:HD2	1.72	0.69
53:D6:19:ARG:HG2	53:D6:20:ASN:N	2.05	0.69
25:BA:2689:U:H5'	25:BA:2689:U:C6	2.27	0.69
28:BD:172:TYR:HD1	28:BD:186:HIS:HA	1.57	0.69
30:BF:2:LYS:HD3	30:BF:2:LYS:N	2.06	0.69
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.74	0.69
1:CA:1348:U:H4'	9:CI:120:ARG:CD	2.20	0.69
3:CC:105:GLU:HG2	3:CC:106:VAL:H	1.56	0.69
10:CJ:58:ASP:O	10:CJ:60:ARG:N	2.24	0.69
29:DE:110:GLY:HA2	29:DE:161:GLY:HA3	1.72	0.69
32:DH:30:LYS:HE3	32:DH:81:GLU:HA	1.74	0.69
32:DH:46:GLU:OE2	32:DH:51:ARG:HD2	1.91	0.69
32:DH:168:PRO:O	32:DH:169:VAL:HG12	1.91	0.69
35:DO:7:TYR:C	35:DO:8:LEU:HD22	2.11	0.69
40:DT:92:GLY:C	40:DT:94:ALA:H	1.96	0.69
41:DU:33:ARG:O	41:DU:37:GLU:HG3	1.91	0.69
41:DU:83:LEU:HD12	41:DU:113:ALA:HB2	1.74	0.69
1:AA:1216:G:H5"	14:AN:5:ALA:HB2	1.73	0.69
2:AB:54:THR:HG22	2:AB:58:ILE:HD11	1.73	0.69
2:AB:81:VAL:O	2:AB:85:ALA:HB2	1.93	0.69
13:AM:25:ILE:HD12	13:AM:25:ILE:N	2.05	0.69
25:BA:221:A:N7	25:BA:266:G:C6	2.59	0.69
25:BA:517:C:OP1	52:B5:16:ARG:NH2	2.25	0.69
25:BA:1747(A):G:H2'	25:BA:1748:G:H5"	1.74	0.69
29:BE:116:VAL:O	29:BE:117:MET:HB3	1.90	0.69
36:BP:85:LEU:HA	36:BP:88:LEU:CB	2.22	0.69
40:BT:27:THR:HG22	40:BT:49:VAL:HG23	1.75	0.69
41:BU:102:GLU:O	41:BU:105:VAL:HG23	1.92	0.69
53:B6:17:LYS:C	53:B6:18:ARG:HD3	2.13	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:161:ASN:O	4:CD:165:MET:HG2	1.92	0.69
12:CL:90:VAL:HG11	12:CL:93:LEU:HG	1.73	0.69
25:DA:958:U:O2	26:DB:90:A:H4'	1.92	0.69
25:DA:1171:G:H3'	25:DA:1173:G:H4'	1.72	0.69
25:DA:1817:G:H2'	25:DA:1818:U:H5'	1.74	0.69
28:DD:154:LYS:C	28:DD:155:LEU:HD12	2.12	0.69
30:DF:198:ALA:CA	30:DF:201:VAL:HG12	2.23	0.69
31:DG:130:ASN:OD1	31:DG:160:VAL:HA	1.92	0.69
33:DI:38:LEU:HD12	33:DI:38:LEU:N	2.07	0.69
45:DY:81:LYS:HZ3	45:DY:98:VAL:HG11	1.57	0.69
48:D1:19:GLN:HB2	48:D1:35:THR:HG22	1.74	0.69
6:AF:45:LEU:CD1	6:AF:57:GLN:HB3	2.22	0.69
8:AH:6:ILE:HD12	8:AH:6:ILE:N	2.06	0.69
13:AM:81:LEU:HD22	13:AM:86:CYS:SG	2.33	0.69
25:BA:1966:A:C4'	25:BA:1967:C:OP1	2.37	0.69
25:BA:2056:G:N2	25:BA:2057:A:C4	2.61	0.69
29:BE:81:ILE:HG22	29:BE:81:ILE:O	1.92	0.69
30:BF:51:THR:HG21	30:BF:92:PRO:N	2.07	0.69
35:BO:115:VAL:O	35:BO:118:ALA:N	2.25	0.69
39:BS:106:ARG:HD2	39:BS:107:GLU:O	1.91	0.69
46:BZ:33:LEU:HD23	46:BZ:90:VAL:HG21	1.73	0.69
55:B8:11:LYS:HE2	55:B8:64:TYR:HE1	1.56	0.69
13:CM:4:ILE:HG22	13:CM:5:ALA:N	2.08	0.69
22:CV:53:G:C2'	22:CV:54:G:C5'	2.70	0.69
25:DA:2311:A:H1'	31:DG:82:LEU:HD11	1.73	0.69
29:DE:11:MET:HB3	29:DE:24:THR:HA	1.73	0.69
34:DN:125:GLY:HA3	34:DN:126:PRO:O	1.91	0.69
34:DN:133:GLN:HG2	34:DN:135:PRO:HD3	1.72	0.69
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.10	0.69
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.74	0.69
13:AM:3:ARG:NH1	31:BG:113:ARG:NH2	2.40	0.69
19:AS:45:VAL:C	19:AS:47:HIS:H	1.95	0.69
25:BA:388:G:H5'	48:B1:25:LYS:CB	2.22	0.69
25:BA:819:A:OP2	25:BA:1187:G:N2	2.20	0.69
25:BA:1340:U:O2	25:BA:1602:U:C5'	2.41	0.69
25:BA:2458:G:C8	25:BA:2490:G:O6	2.45	0.69
31:BG:44:GLY:CA	31:BG:88:ILE:HG21	2.20	0.69
33:BI:101:LEU:HB3	33:BI:109:ILE:HD13	1.72	0.69
1:CA:31:G:O6	1:CA:48:C:H1'	1.91	0.69
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.74	0.69
9:CI:53:VAL:HB	9:CI:92:TYR:HE2	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:116:THR:O	13:CM:117:VAL:HG12	1.92	0.69
17:CQ:44:ALA:HA	17:CQ:71:PHE:O	1.92	0.69
20:CT:72:LEU:CD2	20:CT:73:HIS:H	2.04	0.69
36:DP:63:PRO:C	36:DP:65:ARG:H	1.96	0.69
44:DX:12:VAL:CG2	44:DX:17:ALA:CB	2.71	0.69
46:DZ:117:LEU:HA	46:DZ:174:VAL:HG22	1.75	0.69
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.74	0.69
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	1.74	0.69
25:BA:448:U:O2'	30:BF:84:VAL:CG1	2.38	0.69
25:BA:529:A:H62	25:BA:2041:U:H3	1.41	0.69
25:BA:1326:U:O4	25:BA:1647:G:H1'	1.93	0.69
25:BA:1385:G:C4'	25:BA:1386:C:OP1	2.35	0.69
25:BA:2528:U:P	56:B9:30:PRO:HG2	2.32	0.69
28:BD:130:ALA:HB2	28:BD:192:THR:HB	1.75	0.69
36:BP:66:GLY:O	36:BP:67:MET:CB	2.41	0.69
45:BY:95:LYS:CG	45:BY:100:ALA:HA	2.22	0.69
1:CA:1152:A:H5"	10:CJ:13:HIS:CD2	2.27	0.69
1:CA:1399:C:H4'	1:CA:1400:C:O5'	1.91	0.69
4:CD:198:VAL:HG12	4:CD:199:ASN:N	2.07	0.69
22:CV:20:G:H3'	22:CV:21:U:O2	1.92	0.69
22:CV:20:G:H4'	22:CV:21:U:OP2	1.91	0.69
31:DG:7:LEU:O	31:DG:7:LEU:HD23	1.92	0.69
39:DS:106:ARG:CA	39:DS:110:LEU:CD1	2.50	0.69
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.74	0.69
48:D1:56:GLN:HE21	48:D1:56:GLN:CA	2.04	0.69
1:AA:1049:U:H4'	1:AA:1050:G:H5'	1.75	0.69
2:AB:178:ARG:HH21	8:AH:74:PRO:HG3	1.58	0.69
3:AC:41:GLY:O	3:AC:45:LYS:HG3	1.92	0.69
4:AD:31:CYS:C	4:AD:33:MET:H	1.94	0.69
12:AL:83:VAL:CG1	12:AL:100:ILE:HG12	2.23	0.69
13:AM:83:ASP:C	13:AM:85:GLY:N	2.46	0.69
20:AT:81:LYS:O	20:AT:85:MET:CB	2.40	0.69
25:BA:2168:G:N2	25:BA:2170:A:H3'	2.07	0.69
28:BD:11:PRO:C	28:BD:13:ARG:H	1.93	0.69
31:BG:43:LEU:CB	31:BG:88:ILE:CD1	2.42	0.69
41:BU:34:LYS:CE	41:BU:34:LYS:CA	2.55	0.69
1:CA:428:G:C4'	1:CA:429:U:O5'	2.34	0.69
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.26	0.69
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.07	0.69
12:CL:113:ARG:HB3	12:CL:122:THR:HG21	1.74	0.69
25:DA:2331:G:O2'	47:D0:43:THR:HG22	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2331:G:H4'	47:D0:43:THR:H	1.57	0.69
25:DA:2336:A:H61	47:D0:43:THR:HG21	1.58	0.69
26:DB:43:C:P	31:DG:67:LYS:HE3	2.33	0.69
31:DG:118:ARG:HA	31:DG:118:ARG:HE	1.57	0.69
32:DH:59:ARG:HG3	32:DH:59:ARG:HH11	1.58	0.69
33:DI:14:ASP:OD1	33:DI:15:VAL:HG22	1.92	0.69
41:DU:92:ARG:NH2	41:DU:94:ASN:ND2	2.36	0.69
1:AA:79:G:C1'	1:AA:80:G:OP1	2.41	0.69
1:AA:251:G:N1	1:AA:266:G:C6	2.61	0.69
1:AA:1347:G:N7	9:AI:10:ARG:NH2	2.40	0.69
1:AA:1399:C:H4'	1:AA:1400:C:O5'	1.93	0.69
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.75	0.69
4:AD:146:ILE:H	4:AD:146:ILE:HD12	1.57	0.69
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.22	0.69
8:AH:112:LEU:HD22	8:AH:133:LEU:HA	1.74	0.69
13:AM:28:ALA:C	13:AM:30:ALA:H	1.96	0.69
13:AM:83:ASP:OD1	19:AS:74:PHE:HE1	1.75	0.69
25:BA:243:U:C4	25:BA:254:G:C2	2.81	0.69
25:BA:481:G:O5'	45:BY:47:LYS:HE3	1.93	0.69
25:BA:1301:A:O2'	25:BA:1302:A:C5'	2.40	0.69
29:BE:11:MET:HB3	29:BE:24:THR:HA	1.75	0.69
29:BE:51:PHE:CE1	29:BE:52:LEU:HD13	2.28	0.69
29:BE:104:VAL:HG11	29:BE:188:VAL:HG23	1.73	0.69
30:BF:63:LYS:CE	30:BF:67:GLN:HB3	2.23	0.69
36:BP:63:PRO:C	36:BP:65:ARG:H	1.96	0.69
40:BT:50:ILE:HD12	40:BT:99:LEU:HD13	1.74	0.69
45:BY:14:LEU:HD12	45:BY:15:VAL:N	2.06	0.69
45:BY:67:LEU:HD11	45:BY:71:LYS:HB2	1.73	0.69
45:BY:95:LYS:HG3	45:BY:100:ALA:HA	1.74	0.69
51:B4:52:SER:OG	51:B4:53:THR:N	2.22	0.69
3:CC:23:TYR:C	3:CC:23:TYR:CD2	2.66	0.69
9:CI:53:VAL:O	9:CI:54:ASP:HB2	1.93	0.69
10:CJ:58:ASP:O	10:CJ:60:ARG:HG3	1.92	0.69
11:CK:41:THR:HG21	11:CK:71:LYS:HB3	1.73	0.69
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.74	0.69
25:DA:604:G:H2'	25:DA:605:C:C6	2.28	0.69
25:DA:660:G:N2	36:DP:12:ALA:HA	2.03	0.69
25:DA:768:G:O2'	25:DA:1379:A:N6	2.26	0.69
25:DA:1287:A:C6	25:DA:1288:U:N3	2.61	0.69
28:DD:33:LEU:H	28:DD:33:LEU:HD12	1.58	0.69
29:DE:36:ARG:HH22	29:DE:88:GLY:CA	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:25:ARG:HH11	34:DN:25:ARG:HG3	1.57	0.69
36:DP:48:PRO:HG2	36:DP:49:ARG:H	1.58	0.69
37:DQ:12:GLN:HG2	37:DQ:73:PRO:HD2	1.75	0.69
37:DQ:29:PHE:HB2	37:DQ:105:GLU:OE2	1.92	0.69
38:DR:26:LYS:HE2	38:DR:71:GLN:H	1.56	0.69
41:DU:92:ARG:HH21	41:DU:95:LEU:HG	1.58	0.69
53:D6:41:PRO:HG3	53:D6:46:HIS:O	1.93	0.69
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.56	0.69
23:AW:57:G:H2'	23:AW:58:A:H5'	1.75	0.69
25:BA:2307:G:N1	31:BG:43:LEU:O	2.25	0.69
33:BI:133:HIS:HB2	33:BI:134:PRO:CD	2.22	0.69
36:BP:31:ALA:O	36:BP:32:THR:HG23	1.93	0.69
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.58	0.69
40:BT:27:THR:CG2	40:BT:49:VAL:HG23	2.23	0.69
45:BY:28:LYS:O	45:BY:29:GLU:C	2.31	0.69
8:CH:30:ARG:HH11	8:CH:30:ARG:HB3	1.56	0.69
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.58	0.69
25:DA:530:G:N3	25:DA:2021:C:O2'	2.26	0.69
25:DA:1739:U:O2	25:DA:1739:U:C5'	2.39	0.69
31:DG:8:LYS:O	31:DG:11:TYR:HB3	1.93	0.69
33:DI:1:MET:HG3	33:DI:23:PRO:HB3	1.74	0.69
33:DI:23:PRO:HB2	33:DI:27:ARG:NH1	2.08	0.69
48:D1:67:ILE:N	48:D1:68:PRO:HD2	2.08	0.69
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.06	0.69
10:AJ:89:ASP:C	10:AJ:91:PRO:HD3	2.13	0.69
25:BA:243:U:C4	25:BA:254:G:N2	2.62	0.69
35:BO:68:GLU:HB3	35:BO:78:ARG:HB2	1.74	0.69
38:BR:9:LYS:O	38:BR:10:LEU:CG	2.40	0.69
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.25	0.69
13:CM:4:ILE:HG22	13:CM:5:ALA:H	1.56	0.69
25:DA:2700:C:O2'	25:DA:2701:C:H5'	1.93	0.69
29:DE:117:MET:O	29:DE:118:LYS:HB2	1.92	0.69
31:DG:101:ILE:HD13	51:D4:9:LEU:HD11	1.75	0.69
45:DY:39:VAL:HG12	45:DY:40:GLU:N	2.06	0.69
46:DZ:175:VAL:HB	46:DZ:176:PRO:HD2	1.75	0.69
1:AA:79:G:H1'	1:AA:80:G:OP1	1.94	0.68
1:AA:1452:C:O2'	1:AA:1456:G:N2	2.26	0.68
20:AT:26:ASN:CB	20:AT:71:THR:OG1	2.39	0.68
25:BA:1902:C:O2'	28:BD:244:ARG:HB2	1.93	0.68
25:BA:2406:U:O4	36:BP:70:GLN:HB2	1.94	0.68
29:BE:104:VAL:HG11	29:BE:188:VAL:CG2	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:129:HIS:O	29:BE:130:GLY:O	2.10	0.68
31:BG:43:LEU:CG	31:BG:88:ILE:HD11	2.22	0.68
40:BT:30:VAL:HG12	40:BT:31:SER:N	2.08	0.68
45:BY:28:LYS:HA	45:BY:39:VAL:H	1.58	0.68
45:BY:52:SER:O	45:BY:54:LYS:N	2.26	0.68
53:B6:32:ASN:CG	53:B6:33:LYS:H	1.97	0.68
1:CA:1029:C:H4'	1:CA:1033:G:H22	1.57	0.68
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.74	0.68
3:CC:64:VAL:HG23	3:CC:98:ASN:O	1.93	0.68
13:CM:15:VAL:HG23	13:CM:43:THR:O	1.93	0.68
28:DD:102:LYS:C	28:DD:103:ARG:HG2	2.13	0.68
32:DH:35:VAL:HG13	32:DH:71:LEU:HG	1.75	0.68
36:DP:63:PRO:HB3	55:D8:13:ARG:CB	2.15	0.68
39:DS:105:ALA:C	39:DS:110:LEU:HD21	2.14	0.68
44:DX:13:LEU:HA	44:DX:18:TYR:CE1	2.28	0.68
1:AA:1157:A:H5'	1:AA:1158:C:C6	2.28	0.68
7:AG:60:LYS:HA	7:AG:60:LYS:NZ	2.09	0.68
25:BA:1270:C:C4	25:BA:1648:C:N4	2.60	0.68
25:BA:1820:U:O2'	28:BD:201:HIS:HD2	1.75	0.68
25:BA:2745:C:C5	25:BA:2746:U:C4	2.81	0.68
31:BG:108:ASN:O	31:BG:112:PRO:HG2	1.93	0.68
50:B3:46:ASN:O	50:B3:50:VAL:HG22	1.93	0.68
1:CA:484:G:C4'	1:CA:485:G:O5'	2.36	0.68
13:CM:116:THR:CG2	13:CM:117:VAL:N	2.56	0.68
23:CW:67:C:O2'	23:CW:68:C:H5'	1.93	0.68
25:DA:614:U:H5"	25:DA:614:U:O2	1.93	0.68
29:DE:32:PRO:HB3	29:DE:69:LYS:HB3	1.76	0.68
30:DF:65:TRP:HB2	30:DF:66:PRO:CD	2.24	0.68
31:DG:126:ASP:CG	31:DG:130:ASN:HB2	2.13	0.68
32:DH:150:ALA:C	32:DH:152:ARG:N	2.42	0.68
40:DT:100:TYR:HD2	40:DT:103:ARG:HH21	1.40	0.68
42:DV:25:LEU:HD12	42:DV:94:LEU:HD21	1.74	0.68
1:AA:970:C:H4'	1:AA:972:C:C5	2.28	0.68
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.07	0.68
19:AS:6:LYS:HE3	19:AS:6:LYS:N	2.08	0.68
25:BA:1698:A:O2'	25:BA:1699:G:H5"	1.93	0.68
25:BA:1754:C:OP1	40:BT:96:ARG:NH1	2.25	0.68
25:BA:1799:G:H4'	25:BA:1800:C:O5'	1.93	0.68
25:BA:1902:C:C1'	28:BD:244:ARG:HG3	2.22	0.68
32:BH:40:GLU:HB2	32:BH:41:MET:SD	2.33	0.68
40:BT:133:GLU:OE2	40:BT:137:LYS:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1298:C:C4	7:CG:114:ARG:HD2	2.28	0.68
5:CE:72:GLN:O	5:CE:73:ASN:CB	2.38	0.68
6:CF:44:GLY:HA2	6:CF:59:TYR:CZ	2.28	0.68
8:CH:20:TYR:CE2	8:CH:75:ARG:HB3	2.28	0.68
25:DA:1187:G:H5"	42:DV:81:TYR:CE2	2.28	0.68
25:DA:2377:A:H4'	39:DS:111:GLU:O	1.93	0.68
32:DH:152:ARG:HG3	32:DH:153:LYS:HE2	1.74	0.68
33:DI:52:ARG:HH11	33:DI:52:ARG:HB2	1.58	0.68
36:DP:66:GLY:O	36:DP:67:MET:CB	2.41	0.68
45:DY:50:ARG:HB3	45:DY:53:PRO:HD2	1.75	0.68
47:D0:72:ARG:HB3	47:D0:75:LEU:HB3	1.76	0.68
1:AA:251:G:C6	1:AA:266:G:N1	2.62	0.68
4:AD:101:LEU:HD23	4:AD:121:VAL:CG1	2.23	0.68
5:AE:70:PRO:HB2	5:AE:144:THR:HG21	1.76	0.68
12:AL:55:VAL:HG13	12:AL:68:ALA:O	1.93	0.68
19:AS:32:LYS:HG2	19:AS:57:HIS:CD2	2.29	0.68
23:AW:34:G:C4	24:AX:14:A:H2	2.07	0.68
25:BA:1283:G:N2	25:BA:1286:A:OP2	2.24	0.68
28:BD:127:VAL:HA	28:BD:193:VAL:CG2	2.24	0.68
29:BE:116:VAL:HG22	29:BE:117:MET:H	1.58	0.68
38:BR:11:ASN:O	38:BR:12:ARG:HD2	1.94	0.68
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.40	0.68
50:B3:4:LEU:HB2	50:B3:39:ASP:HB2	1.75	0.68
9:CI:4:TYR:N	9:CI:4:TYR:CD1	2.62	0.68
12:CL:53:ARG:CB	12:CL:93:LEU:HD11	2.24	0.68
19:CS:53:ASN:OD1	19:CS:54:GLY:N	2.27	0.68
23:CW:24:G:H2'	23:CW:25:C:C6	2.28	0.68
23:CY:34:G:H2'	23:CY:35:A:C8	2.29	0.68
25:DA:630:G:N2	25:DA:633:A:OP2	2.26	0.68
25:DA:866:A:C6	25:DA:914:C:C5	2.82	0.68
25:DA:2285:C:C5	53:D6:27:LYS:HE3	2.27	0.68
25:DA:2392:A:H2	25:DA:2424:C:H42	1.41	0.68
28:DD:172:TYR:HD1	28:DD:186:HIS:HA	1.58	0.68
31:DG:88:ILE:HG23	31:DG:88:ILE:O	1.92	0.68
32:DH:20:ALA:CB	32:DH:21:PRO:CD	2.71	0.68
36:DP:11:GLY:O	36:DP:12:ALA:CB	2.40	0.68
36:DP:57:THR:HG21	36:DP:59:LEU:HB3	1.75	0.68
37:DQ:51:ARG:HH11	37:DQ:51:ARG:CG	2.06	0.68
40:DT:53:ARG:HH11	40:DT:53:ARG:HG2	1.59	0.68
41:DU:40:PHE:CD1	42:DV:75:PHE:CE2	2.82	0.68
43:DW:111:HIS:CG	43:DW:112:GLY:H	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.75	0.68
4:AD:9:CYS:HB2	4:AD:22:LYS:NZ	2.07	0.68
21:AU:2:GLY:C	21:AU:4:GLY:H	1.96	0.68
25:BA:527:C:H1'	25:BA:528:A:C5	2.29	0.68
25:BA:2259:G:H1'	25:BA:2427:C:H2'	1.74	0.68
25:BA:2304:G:H1	25:BA:2312:U:H3	1.41	0.68
25:BA:2320:A:N6	25:BA:2333:A:C5	2.59	0.68
25:BA:2457:U:H2'	25:BA:2458:G:C5'	2.20	0.68
25:BA:2780:G:C5'	25:BA:2781:A:OP2	2.41	0.68
32:BH:126:PRO:HB2	32:BH:130:ARG:HH11	1.59	0.68
32:BH:156:ALA:H	32:BH:158:HIS:H	1.42	0.68
39:BS:78:LEU:HD11	39:BS:103:GLU:HB3	1.75	0.68
51:B4:42:CYS:HB2	51:B4:46:ASN:O	1.93	0.68
54:B7:24:THR:HG23	54:B7:27:GLY:HA3	1.75	0.68
2:CB:223:ILE:HA	2:CB:226:ARG:HD2	1.74	0.68
3:CC:23:TYR:CD2	3:CC:24:ALA:N	2.62	0.68
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.75	0.68
9:CI:4:TYR:CE2	9:CI:59:PHE:HE2	2.10	0.68
22:CV:41:C:C2'	22:CV:42:C:H5'	2.22	0.68
23:CW:1:G:C6	23:CW:73:A:C2	2.82	0.68
25:DA:390:A:C6	36:DP:71:VAL:HG11	2.28	0.68
25:DA:613:G:C2	25:DA:615:G:C5	2.80	0.68
25:DA:620:G:H4'	25:DA:621:A:H5"	1.75	0.68
25:DA:729:G:OP2	28:DD:13:ARG:NH1	2.26	0.68
28:DD:26:LYS:NZ	28:DD:82:ILE:H	1.92	0.68
30:DF:59:TYR:CD1	30:DF:78:ILE:HB	2.28	0.68
36:DP:48:PRO:O	36:DP:49:ARG:C	2.30	0.68
36:DP:85:LEU:HA	36:DP:88:LEU:CB	2.22	0.68
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.75	0.68
40:DT:30:VAL:HG23	40:DT:31:SER:N	2.08	0.68
41:DU:92:ARG:HH11	41:DU:92:ARG:CG	2.06	0.68
47:D0:60:PHE:CD1	47:D0:60:PHE:O	2.47	0.68
12:AL:41:ARG:HH22	12:AL:57:LYS:HZ3	1.41	0.68
16:AP:44:THR:C	16:AP:45:THR:HG22	2.14	0.68
25:BA:662:G:OP1	36:BP:15:ARG:NE	2.27	0.68
34:BN:67:LEU:HB3	34:BN:88:GLU:HG2	1.75	0.68
40:BT:28:VAL:CB	40:BT:46:GLU:HA	2.23	0.68
49:B2:46:GLN:OE1	49:B2:46:GLN:HA	1.93	0.68
5:CE:91:LEU:HD21	5:CE:138:ALA:HB1	1.76	0.68
23:CW:38:A:C3'	23:CW:39:U:H5"	2.24	0.68
25:DA:660:G:H21	36:DP:12:ALA:CA	2.01	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:662:G:H5'	36:DP:15:ARG:HA	1.75	0.68
25:DA:2068:U:H3	25:DA:2430:A:H2	1.40	0.68
29:DE:179:GLU:O	29:DE:180:ASN:HB2	1.92	0.68
32:DH:37:VAL:HG12	32:DH:38:SER:N	2.07	0.68
2:AB:111:ARG:HG2	2:AB:111:ARG:NH1	2.08	0.68
12:AL:113:ARG:HG3	12:AL:117:ARG:HG2	1.75	0.68
15:AO:65:ARG:HG2	15:AO:65:ARG:NH1	2.07	0.68
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.74	0.68
25:BA:125:G:C5'	25:BA:126:A:OP2	2.41	0.68
25:BA:1451:C:H6	25:BA:1451:C:O5'	1.76	0.68
25:BA:1918:A:O2'	25:BA:1920:C:N4	2.27	0.68
30:BF:45:ARG:HG3	30:BF:46:ARG:H	1.59	0.68
37:BQ:68:ILE:CG2	37:BQ:101:ARG:HD3	2.23	0.68
40:BT:80:SER:HB3	40:BT:81:PRO:CD	2.23	0.68
42:BV:64:HIS:CG	42:BV:92:THR:HG22	2.29	0.68
1:CA:429:U:O2'	1:CA:430:A:P	2.52	0.68
1:CA:575:G:H4'	1:CA:576:G:O5'	1.93	0.68
2:CB:17:PHE:HB3	2:CB:44:LEU:HD21	1.76	0.68
4:CD:79:PHE:CD2	4:CD:207:TYR:HD1	2.11	0.68
6:CF:19:LEU:O	6:CF:23:LYS:HG3	1.93	0.68
8:CH:13:ILE:O	8:CH:17:THR:HG23	1.93	0.68
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.76	0.68
16:CP:8:ARG:HG2	16:CP:8:ARG:NH1	2.07	0.68
22:CV:51:U:H3	22:CV:65:G:H1	1.42	0.68
24:CX:16:A:C2	24:CX:17:U:C2	2.81	0.68
28:DD:35:LYS:HZ2	28:DD:103:ARG:HA	1.57	0.68
38:DR:78:LYS:O	38:DR:83:ILE:HG12	1.93	0.68
53:D6:46:HIS:HD2	53:D6:46:HIS:C	1.86	0.68
1:AA:90:U:H5"	1:AA:91:C:H5'	1.76	0.68
2:AB:87:ARG:NH2	2:AB:233:SER:CB	2.57	0.68
23:AW:34:G:C8	24:AX:14:A:N1	2.61	0.68
25:BA:1299:G:H5"	25:BA:1300:U:OP1	1.94	0.68
25:BA:1340:U:O2	25:BA:1602:U:H5'	1.93	0.68
28:BD:80:ALA:HB2	28:BD:96:HIS:HD2	1.52	0.68
34:BN:67:LEU:O	34:BN:68:GLU:HB2	1.92	0.68
45:BY:48:ALA:O	45:BY:58:GLY:HA3	1.94	0.68
50:B3:7:LYS:HB2	50:B3:34:GLU:HG2	1.74	0.68
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.74	0.68
4:CD:4:TYR:O	4:CD:5:ILE:HB	1.92	0.68
6:CF:22:GLU:O	6:CF:26:ILE:HG13	1.94	0.68
20:CT:43:LEU:HD12	20:CT:51:GLU:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:614(B):G:H1'	30:DF:44:ARG:HD2	1.74	0.68
25:DA:1287:A:C5	25:DA:1288:U:C4	2.81	0.68
25:DA:1963:U:C4'	25:DA:1964:G:OP1	2.36	0.68
31:DG:101:ILE:HG13	31:DG:102:PHE:N	2.08	0.68
34:DN:58:ASP:O	34:DN:60:ILE:N	2.27	0.68
40:DT:129:ARG:O	40:DT:129:ARG:HG3	1.93	0.68
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.75	0.68
3:AC:206:GLU:O	3:AC:208:ILE:N	2.26	0.68
5:AE:76:ILE:HG12	5:AE:142:LEU:HD13	1.76	0.68
7:AG:15:ASP:N	7:AG:24:THR:CG2	2.57	0.68
14:AN:12:ARG:O	14:AN:14:PRO:HD2	1.93	0.68
25:BA:1428:C:N4	25:BA:1570:A:OP2	2.21	0.68
30:BF:149:ASP:OD2	30:BF:151:SER:N	2.27	0.68
34:BN:48:MET:HE2	34:BN:48:MET:H	1.57	0.68
39:BS:31:SER:HB3	39:BS:34:HIS:O	1.94	0.68
43:BW:50:VAL:HG22	43:BW:105:VAL:HG23	1.76	0.68
1:CA:31:G:O6	1:CA:48:C:C1'	2.42	0.68
25:DA:1434:A:H61	25:DA:1558:A:H62	1.42	0.68
28:DD:181:GLU:HA	28:DD:272:ALA:CB	2.22	0.68
30:DF:66:PRO:O	30:DF:67:GLN:HB3	1.93	0.68
36:DP:31:ALA:O	36:DP:32:THR:HG23	1.93	0.68
42:DV:89:GLN:HA	42:DV:89:GLN:NE2	2.09	0.68
5:AE:75:THR:HA	5:AE:115:VAL:HG13	1.75	0.68
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.29	0.68
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	1.93	0.68
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.58	0.68
13:AM:3:ARG:HE	13:AM:9:ILE:HD11	1.59	0.68
23:AW:18:G:H1	23:AW:55:U:H1'	1.59	0.68
25:BA:1300:U:C5'	25:BA:1301:A:C2	2.77	0.68
28:BD:231:HIS:ND1	28:BD:232:PRO:CD	2.57	0.68
31:BG:110:ALA:HA	31:BG:140:ILE:HG22	1.76	0.68
41:BU:95:LEU:HD13	42:BV:4:ILE:CG1	2.24	0.68
43:BW:59:VAL:CG1	43:BW:60:ASN:OD1	2.41	0.68
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.76	0.68
29:DE:52:LEU:HD12	29:DE:53:PRO:HD2	1.76	0.68
30:DF:178:PRO:HB2	30:DF:201:VAL:HG11	1.76	0.68
32:DH:109:PHE:HZ	32:DH:152:ARG:HG2	1.58	0.68
33:DI:76:THR:HG23	33:DI:139:GLN:HE22	1.57	0.68
38:DR:45:ARG:HG3	38:DR:46:GLY:H	1.59	0.68
39:DS:61:ASN:O	39:DS:65:VAL:HG23	1.92	0.68
1:AA:1054:C:N4	23:AY:34:G:C1'	2.57	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:48:U:C5	22:AV:51:U:OP1	2.47	0.67
25:BA:2178:C:H4'	27:BC:46:LYS:HE2	1.76	0.67
28:BD:96:HIS:HD1	28:BD:102:LYS:HD3	1.59	0.67
30:BF:24:LEU:HB3	30:BF:25:PRO:CD	2.24	0.67
40:BT:28:VAL:HG11	40:BT:46:GLU:CB	2.23	0.67
1:CA:8:A:H62	4:CD:208:SER:HB2	1.59	0.67
1:CA:48:C:H4'	1:CA:49:U:OP2	1.94	0.67
1:CA:1399:C:C2	1:CA:1502:A:N6	2.62	0.67
3:CC:139:GLN:O	3:CC:143:GLU:HB2	1.93	0.67
3:CC:140:ARG:HH11	3:CC:140:ARG:CG	2.08	0.67
13:CM:84:ILE:CD1	19:CS:65:ASN:HB3	2.24	0.67
25:DA:2712:U:OP1	25:DA:2714:G:H4'	1.93	0.67
45:DY:97:ARG:HD3	45:DY:97:ARG:N	2.09	0.67
55:D8:43:GLN:C	55:D8:44:LYS:HD2	2.15	0.67
1:AA:1307:U:OP1	13:AM:101:GLN:NE2	2.27	0.67
25:BA:1039:G:O6	25:BA:1116:C:N4	2.27	0.67
25:BA:2002:G:C5'	38:BR:13:HIS:HA	2.24	0.67
29:BE:176:ILE:CG2	29:BE:178:GLU:HB3	2.24	0.67
36:BP:88:LEU:HD11	36:BP:95:VAL:HG21	1.77	0.67
2:CB:61:LEU:HD21	2:CB:68:ILE:CD1	2.22	0.67
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.75	0.67
12:CL:36:VAL:CG1	12:CL:80:HIS:HA	2.23	0.67
14:CN:44:LEU:HD12	14:CN:44:LEU:O	1.94	0.67
20:CT:89:ARG:HB2	20:CT:104:LEU:HD11	1.76	0.67
31:DG:26:GLN:NE2	31:DG:27:ASN:HB2	2.10	0.67
31:DG:81:LYS:O	31:DG:82:LEU:HB2	1.92	0.67
34:DN:30:ILE:HG23	34:DN:52:VAL:HG11	1.76	0.67
43:DW:9:TYR:N	43:DW:102:HIS:HD2	1.90	0.67
8:AH:40:ALA:C	8:AH:42:GLU:H	1.98	0.67
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.14	0.67
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	1.94	0.67
25:BA:987:G:O2'	25:BA:1000:A:N3	2.27	0.67
36:BP:14:LYS:O	36:BP:16:ARG:N	2.27	0.67
36:BP:85:LEU:HD23	36:BP:85:LEU:H	1.59	0.67
40:BT:89:VAL:HG11	40:BT:91:ARG:HE	1.59	0.67
5:CE:86:ALA:HB3	5:CE:130:ASN:ND2	2.09	0.67
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.75	0.67
20:CT:43:LEU:CD1	20:CT:51:GLU:HG2	2.15	0.67
22:CV:53:G:C2'	22:CV:54:G:H5'	2.24	0.67
25:DA:221:A:H5'	25:DA:222:A:C5'	2.24	0.67
25:DA:1817:G:C2'	25:DA:1818:U:H5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:76:SER:O	31:DG:77:ILE:HD12	1.94	0.67
34:DN:15:LEU:HD13	34:DN:16:ILE:H	1.59	0.67
41:DU:102:GLU:OE2	42:DV:2:PHE:CD2	2.47	0.67
41:DU:104:GLN:HE21	41:DU:105:VAL:N	1.92	0.67
1:AA:79:G:C4'	1:AA:80:G:OP1	2.42	0.67
3:AC:113:ALA:HA	3:AC:202:ILE:HD11	1.75	0.67
4:AD:10:ARG:HH11	4:AD:10:ARG:CG	2.07	0.67
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.77	0.67
17:AQ:18:THR:HG23	17:AQ:44:ALA:O	1.95	0.67
33:BI:14:ASP:HB2	33:BI:17:GLN:NE2	2.08	0.67
35:BO:107:ARG:HG3	35:BO:112:MET:HE1	1.76	0.67
39:BS:74:ALA:HB1	39:BS:103:GLU:CG	2.25	0.67
40:BT:92:GLY:C	40:BT:94:ALA:H	1.95	0.67
9:CI:10:ARG:HD3	9:CI:75:ASP:CB	2.23	0.67
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG12	1.76	0.67
11:CK:59:TYR:CE1	11:CK:63:LEU:HD12	2.28	0.67
25:DA:301:G:N2	25:DA:316:C:N3	2.41	0.67
31:DG:77:ILE:HG22	31:DG:77:ILE:O	1.95	0.67
33:DI:88:ILE:HG12	33:DI:122:GLU:N	2.10	0.67
40:DT:65:LYS:HZ2	40:DT:66:VAL:N	1.90	0.67
41:DU:91:ASP:OD2	41:DU:96:ALA:N	2.28	0.67
43:DW:92:ARG:HH11	43:DW:92:ARG:HG2	1.58	0.67
2:AB:44:LEU:H	2:AB:44:LEU:HD12	1.59	0.67
3:AC:83:ARG:O	3:AC:87:LEU:HG	1.95	0.67
4:AD:30:LYS:C	4:AD:32:ALA:N	2.48	0.67
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.24	0.67
10:AJ:95:GLU:OE2	10:AJ:95:GLU:HA	1.94	0.67
22:AV:15:G:H22	22:AV:49:C:N4	1.93	0.67
24:AX:12:A:C5'	24:AX:12:A:N3	2.57	0.67
25:BA:705:A:C8	25:BA:727:A:C2	2.83	0.67
25:BA:1452:A:H5'	25:BA:1453:U:OP2	1.93	0.67
25:BA:2259:G:N7	25:BA:2427:C:C4	2.63	0.67
25:BA:2519:U:C5'	25:BA:2520:C:OP1	2.43	0.67
27:BC:38:ASP:HB2	27:BC:181:PRO:CB	2.24	0.67
28:BD:105:ILE:HD12	28:BD:106:ILE:HG22	1.75	0.67
31:BG:43:LEU:HB2	31:BG:88:ILE:CG1	2.25	0.67
32:BH:20:ALA:HB1	32:BH:21:PRO:HD2	1.76	0.67
33:BI:133:HIS:N	33:BI:133:HIS:ND1	2.42	0.67
36:BP:48:PRO:O	36:BP:49:ARG:C	2.30	0.67
36:BP:97:PRO:O	36:BP:98:GLU:HB3	1.94	0.67
40:BT:13:ARG:HA	40:BT:13:ARG:NH1	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B5:46:CYS:HB3	52:B5:50:GLY:H	1.59	0.67
1:CA:1226:C:HO2'	1:CA:1227:A:C5'	2.08	0.67
1:CA:1226:C:C4'	1:CA:1227:A:OP1	2.30	0.67
1:CA:1239:A:H62	1:CA:1299:A:H62	1.42	0.67
5:CE:8:GLU:HA	5:CE:34:VAL:HG22	1.75	0.67
19:CS:62:ILE:HD12	19:CS:63:THR:H	1.59	0.67
36:DP:97:PRO:O	36:DP:98:GLU:HB3	1.94	0.67
38:DR:47:PHE:O	38:DR:51:LEU:HD12	1.94	0.67
46:DZ:58:VAL:CG1	46:DZ:66:SER:HB3	2.25	0.67
1:AA:707:C:OP1	11:AK:85:ARG:NH1	2.28	0.67
1:AA:1054:C:H42	23:AY:34:G:C1'	2.07	0.67
2:AB:75:LYS:HD3	2:AB:75:LYS:C	2.07	0.67
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.10	0.67
25:BA:458:G:N2	25:BA:470:A:OP2	2.27	0.67
25:BA:1779:U:OP2	25:BA:1784:A:N6	2.27	0.67
25:BA:2680:C:OP2	29:BE:111:ARG:NH2	2.27	0.67
29:BE:203:LYS:HE2	29:BE:204:ALA:HB2	1.75	0.67
31:BG:15:VAL:HG13	31:BG:175:LEU:HB3	1.76	0.67
33:BI:29:TYR:CD2	33:BI:30:LEU:HD23	2.30	0.67
34:BN:49:GLY:O	34:BN:119:ARG:NH1	2.28	0.67
34:BN:62:VAL:CG2	34:BN:66:LYS:CG	2.72	0.67
35:BO:17:ARG:HD3	35:BO:47:ILE:HD13	1.77	0.67
46:BZ:150:LEU:HD23	46:BZ:171:ILE:HG12	1.77	0.67
1:CA:1457:G:H8	1:CA:1457:G:O5'	1.78	0.67
25:DA:77:C:OP1	49:D2:59:ARG:NH1	2.27	0.67
25:DA:1799:G:O6	28:DD:179:SER:CB	2.42	0.67
30:DF:157:VAL:HB	30:DF:194:MET:HB3	1.75	0.67
41:DU:52:ARG:HD3	41:DU:55:ARG:HE	1.59	0.67
52:D5:49:CYS:O	52:D5:56:LYS:HB3	1.95	0.67
1:AA:1067:A:O2'	1:AA:1068:G:P	2.53	0.67
10:AJ:29:ARG:HH11	1:CA:1163:C:H5"	1.59	0.67
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.77	0.67
31:BG:125:PHE:CD2	31:BG:131:TYR:HB2	2.30	0.67
36:BP:79:ARG:HH21	36:BP:81:GLN:HG2	1.60	0.67
41:BU:95:LEU:HD13	42:BV:4:ILE:CG2	2.24	0.67
49:B2:10:LEU:HD22	49:B2:14:ARG:NH1	2.10	0.67
1:CA:1445:C:C2'	1:CA:1446:U:H5'	2.24	0.67
3:CC:40:ARG:O	3:CC:44:GLU:HG3	1.94	0.67
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.95	0.67
9:CI:21:PRO:HA	9:CI:58:HIS:O	1.94	0.67
9:CI:59:PHE:N	9:CI:59:PHE:HD1	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:32:ILE:HD11	11:CK:68:ALA:O	1.95	0.67
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.77	0.67
20:CT:72:LEU:HD22	20:CT:77:ALA:HB2	1.75	0.67
32:DH:150:ALA:O	32:DH:152:ARG:N	2.26	0.67
55:D8:6:THR:CG2	55:D8:63:PRO:HD3	2.25	0.67
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.75	0.67
27:BC:65:PRO:HG2	27:BC:189:ILE:HA	1.76	0.67
29:BE:117:MET:HA	29:BE:122:PHE:H	1.58	0.67
38:BR:2:ARG:CZ	38:BR:5:LYS:CE	2.73	0.67
43:BW:12:ILE:HD13	43:BW:46:PHE:HD2	1.59	0.67
1:CA:992:U:H1'	1:CA:993:G:C2	2.30	0.67
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.59	0.67
5:CE:102:ALA:O	5:CE:106:PRO:CG	2.30	0.67
25:DA:560:C:H4'	41:DU:52:ARG:NH2	2.09	0.67
30:DF:184:TYR:O	30:DF:188:ARG:HG3	1.95	0.67
39:DS:103:GLU:O	39:DS:106:ARG:HG3	1.93	0.67
43:DW:60:ASN:N	43:DW:60:ASN:HD22	1.91	0.67
46:DZ:63:ASP:O	46:DZ:65:GLN:HG2	1.94	0.67
47:D0:73:GLY:C	47:D0:75:LEU:H	1.98	0.67
1:AA:1343:G:H4'	9:AI:122:ALA:HB3	1.76	0.67
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.25	0.67
3:AC:175:LEU:HD23	3:AC:201:TYR:CE2	2.28	0.67
4:AD:18:LYS:HB2	4:AD:33:MET:HG2	1.77	0.67
6:AF:37:VAL:O	6:AF:38:GLU:HG3	1.95	0.67
25:BA:2302:G:H21	31:BG:128:ARG:HG3	1.58	0.67
31:BG:46:ALA:O	31:BG:82:LEU:HD21	1.94	0.67
41:BU:78:THR:O	41:BU:81:HIS:HB3	1.95	0.67
44:BX:16:LYS:O	44:BX:19:ALA:HB3	1.95	0.67
1:CA:484:G:C1'	1:CA:486:U:C5	2.77	0.67
4:CD:31:CYS:C	4:CD:33:MET:H	1.97	0.67
12:CL:23:LYS:O	12:CL:24:VAL:HG23	1.93	0.67
16:CP:26:ARG:HD3	16:CP:31:LYS:O	1.95	0.67
25:DA:1340:U:O2'	25:DA:1602:U:H2'	1.95	0.67
30:DF:180:GLY:O	30:DF:181:LEU:C	2.32	0.67
37:DQ:39:PRO:HB3	37:DQ:99:PRO:HD3	1.76	0.67
40:DT:91:ARG:HA	40:DT:117:ASP:H	1.59	0.67
46:DZ:13:GLU:O	46:DZ:15:PRO:HD3	1.94	0.67
7:AG:14:PRO:CG	7:AG:21:VAL:HG12	2.22	0.67
20:AT:16:HIS:O	20:AT:19:SER:HB3	1.95	0.67
23:AW:68:C:H2'	23:AW:69:G:C8	2.25	0.67
25:BA:322:A:H5"	25:BA:323:G:OP2	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:172:TYR:CD1	28:BD:186:HIS:HA	2.30	0.67
33:BI:101:LEU:HB3	33:BI:109:ILE:HD11	1.77	0.67
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.23	0.67
5:CE:100:VAL:HA	5:CE:118:ILE:O	1.94	0.67
20:CT:42:GLN:O	20:CT:42:GLN:HG3	1.95	0.67
25:DA:1170:G:H1	25:DA:1179:C:H42	1.42	0.67
25:DA:2788:C:O2'	25:DA:2809:A:N3	2.26	0.67
28:DD:65:ILE:HD11	28:DD:67:PHE:CE1	2.29	0.67
31:DG:131:TYR:HB3	31:DG:159:VAL:HG13	1.76	0.67
33:DI:114:LEU:CD1	33:DI:128:LEU:HD12	2.25	0.67
42:DV:35:LEU:O	42:DV:35:LEU:HD23	1.95	0.67
46:DZ:48:PHE:CE2	46:DZ:52:SER:HA	2.30	0.67
50:D3:59:VAL:HG12	50:D3:60:GLU:N	2.09	0.67
9:AI:5:TYR:O	9:AI:84:ALA:HA	1.95	0.66
11:AK:21:ILE:HA	11:AK:30:VAL:CG1	2.25	0.66
12:AL:101:VAL:HG12	12:AL:101:VAL:O	1.93	0.66
25:BA:1784:A:H4'	25:BA:1785:A:O5'	1.95	0.66
25:BA:2197:U:O2'	25:BA:2198:A:H3'	1.95	0.66
28:BD:69:ARG:NH2	28:BD:192:THR:HB	2.11	0.66
31:BG:37:VAL:HG12	31:BG:94:LEU:HD12	1.77	0.66
36:BP:124:LYS:HZ3	36:BP:143:GLY:HA3	1.57	0.66
42:BV:64:HIS:ND1	42:BV:92:THR:HG22	2.10	0.66
23:CW:31:A:C2	23:CW:40:C:N3	2.62	0.66
25:DA:82:G:C6	25:DA:83:G:C6	2.83	0.66
30:DF:107:LYS:CD	30:DF:206:ILE:HD13	2.21	0.66
32:DH:148:ILE:O	32:DH:151:ILE:HG12	1.95	0.66
38:DR:10:LEU:O	38:DR:12:ARG:HG3	1.94	0.66
40:DT:29:ARG:HG3	40:DT:30:VAL:CG1	2.26	0.66
41:DU:91:ASP:OD2	41:DU:96:ALA:CA	2.43	0.66
53:D6:20:ASN:ND2	53:D6:21:TYR:H	1.94	0.66
3:AC:18:TRP:HE1	14:AN:55:GLY:H	1.41	0.66
5:AE:101:ILE:CG1	5:AE:119:LEU:HD23	2.24	0.66
25:BA:892:G:H2'	25:BA:893:C:C6	2.30	0.66
25:BA:1902:C:O2'	28:BD:244:ARG:HG3	1.95	0.66
25:BA:2504:U:H1'	25:BA:2572:A:N1	2.10	0.66
26:BB:57:A:H5'	31:BG:27:ASN:HD22	1.60	0.66
27:BC:59:ARG:HB2	27:BC:62:VAL:HG22	1.75	0.66
28:BD:25:THR:HG22	28:BD:26:LYS:H	1.60	0.66
34:BN:123:TYR:CE1	34:BN:130:HIS:NE2	2.63	0.66
38:BR:10:LEU:HB3	38:BR:17:ARG:HD3	0.77	0.66
1:CA:792:A:H4'	1:CA:793:U:O5'	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:24:VAL:O	12:CL:24:VAL:HG12	1.95	0.66
20:CT:83:ARG:C	20:CT:85:MET:H	1.99	0.66
25:DA:83:G:H22	25:DA:102:G:H2'	1.58	0.66
25:DA:90:U:HO2'	25:DA:92:A:H8	1.42	0.66
25:DA:2615:U:H2'	25:DA:2616:C:H6	1.61	0.66
31:DG:77:ILE:HG22	31:DG:80:PHE:H	1.60	0.66
32:DH:124:GLU:HB3	32:DH:126:PRO:HD3	1.77	0.66
35:DO:77:ILE:CD1	40:DT:74:ARG:HG2	2.25	0.66
35:DO:87:ILE:CG2	35:DO:91:LEU:HA	2.24	0.66
1:AA:8:A:N6	4:AD:205:GLU:O	2.28	0.66
1:AA:993:G:H2'	1:AA:993:G:N3	2.11	0.66
11:AK:29:ILE:HB	11:AK:44:SER:HB3	1.76	0.66
19:AS:6:LYS:H	19:AS:6:LYS:CE	2.07	0.66
25:BA:1598:C:H5'	44:BX:36:LYS:HB2	1.78	0.66
25:BA:1963:U:H4'	25:BA:1964:G:OP1	1.94	0.66
29:BE:92:THR:O	29:BE:95:ILE:HD13	1.95	0.66
29:BE:102:VAL:HG12	29:BE:199:ARG:O	1.95	0.66
32:BH:44:VAL:HG12	32:BH:45:VAL:H	1.61	0.66
36:BP:18:ARG:O	36:BP:19:VAL:HB	1.95	0.66
37:BQ:30:GLY:CA	37:BQ:107:ALA:HB2	2.24	0.66
41:BU:74:LEU:HD12	41:BU:75:ASN:N	2.11	0.66
42:BV:45:THR:O	42:BV:46:VAL:HG12	1.95	0.66
52:B5:32:PRO:O	52:B5:33:CYS:HB3	1.96	0.66
55:B8:23:VAL:HG12	55:B8:46:ARG:HH11	1.61	0.66
1:CA:872:A:H4'	1:CA:873:A:OP1	1.94	0.66
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.76	0.66
4:CD:125:HIS:O	4:CD:126:ILE:HD13	1.96	0.66
8:CH:104:ARG:O	8:CH:106:GLY:N	2.27	0.66
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.96	0.66
16:CP:9:PHE:HE1	16:CP:18:ARG:NH2	1.94	0.66
25:DA:1799:G:O2'	25:DA:1800:C:C5'	2.44	0.66
31:DG:113:ARG:NH1	31:DG:142:PRO:HA	2.10	0.66
34:DN:46:VAL:O	34:DN:47:ALA:HB3	1.95	0.66
40:DT:13:ARG:HA	40:DT:13:ARG:NE	2.09	0.66
48:D1:12:PRO:HB3	48:D1:43:TYR:HD2	1.59	0.66
56:D9:9:ARG:NH1	56:D9:9:ARG:HB3	2.10	0.66
2:AB:170:GLU:O	2:AB:173:ALA:HB3	1.95	0.66
11:AK:43:SER:HB3	11:AK:68:ALA:HB2	1.78	0.66
12:AL:53:ARG:HH12	12:AL:92:ASP:CB	2.09	0.66
19:AS:63:THR:N	19:AS:66:MET:HE3	2.10	0.66
29:BE:176:ILE:HD12	29:BE:176:ILE:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:34:TRP:N	36:BP:6:LEU:HD12	2.11	0.66
31:BG:76:SER:CB	31:BG:83:ARG:HB2	2.25	0.66
32:BH:23:ARG:HD2	32:BH:34:GLU:OE2	1.94	0.66
33:BI:113:ARG:O	33:BI:130:TYR:HA	1.94	0.66
47:B0:38:VAL:HG12	47:B0:40:GLN:HG2	1.76	0.66
56:B9:24:TYR:O	56:B9:25:VAL:HG23	1.95	0.66
1:CA:1456:G:C2	1:CA:1457:G:C8	2.83	0.66
7:CG:38:LEU:O	7:CG:42:ILE:HG13	1.95	0.66
8:CH:104:ARG:C	8:CH:106:GLY:H	1.98	0.66
21:CU:18:TYR:CD2	21:CU:22:ARG:HD3	2.31	0.66
22:CV:29:C:O2	22:CV:30:G:C8	2.49	0.66
25:DA:1648:C:C4	25:DA:2010:G:N1	2.63	0.66
29:DE:76:ARG:O	29:DE:77:ILE:O	2.13	0.66
31:DG:173:LEU:HD22	31:DG:178:PHE:CZ	2.30	0.66
32:DH:80:SER:O	32:DH:81:GLU:HB2	1.95	0.66
33:DI:92:VAL:HG22	33:DI:92:VAL:O	1.96	0.66
53:D6:33:LYS:HE2	53:D6:33:LYS:HA	1.77	0.66
1:AA:686:U:C1’	11:AK:42:TRP:HE1	2.04	0.66
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.10	0.66
11:AK:12:ARG:O	11:AK:13:GLN:HG3	1.95	0.66
13:AM:4:ILE:HG22	13:AM:5:ALA:N	2.09	0.66
25:BA:2092:U:H4’	25:BA:2093:G:O5’	1.96	0.66
30:BF:132:VAL:HG22	30:BF:133:ASN:N	2.09	0.66
36:BP:59:LEU:HG	55:B8:13:ARG:CZ	2.26	0.66
45:BY:66:PRO:O	45:BY:67:LEU:CG	2.43	0.66
1:CA:819:A:C4’	1:CA:820:U:OP2	2.43	0.66
1:CA:968:A:C5’	1:CA:969:A:OP2	2.43	0.66
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.10	0.66
8:CH:20:TYR:HE2	8:CH:75:ARG:HB3	1.59	0.66
12:CL:54:LYS:O	12:CL:70:ILE:HG13	1.95	0.66
14:CN:59:ALA:O	14:CN:60:SER:HB2	1.94	0.66
25:DA:307:G:H21	25:DA:330:A:H62	1.42	0.66
25:DA:1827:C:OP2	28:DD:222:ARG:NH1	2.27	0.66
25:DA:2393:A:H4’	36:DP:60:MET:O	1.95	0.66
36:DP:88:LEU:HD11	36:DP:95:VAL:HG21	1.76	0.66
40:DT:24:PRO:CD	40:DT:52:ILE:CD1	2.71	0.66
45:DY:52:SER:OG	45:DY:53:PRO:HD3	1.95	0.66
8:AH:109:ILE:HG22	8:AH:137:VAL:HB	1.76	0.66
12:AL:38:THR:O	12:AL:79:GLU:HG3	1.96	0.66
14:AN:15:LYS:HE3	14:AN:16:PHE:HE2	1.61	0.66
20:AT:44:ALA:O	20:AT:91:LEU:HB3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:89:ARG:HB2	20:AT:104:LEU:HD11	1.77	0.66
23:AW:18:G:N1	23:AW:55:U:H1'	2.10	0.66
25:BA:265:A:H1'	25:BA:266:G:O4'	1.95	0.66
25:BA:1740:G:H4'	25:BA:1741:A:OP1	1.95	0.66
34:BN:14:VAL:HG12	34:BN:15:LEU:N	2.11	0.66
1:CA:992:U:O2'	1:CA:993:G:C5'	2.43	0.66
1:CA:1349:A:OP2	9:CI:118:LYS:NZ	2.28	0.66
12:CL:126:LYS:HG3	12:CL:127:GLU:N	2.10	0.66
16:CP:2:VAL:HG22	16:CP:64:ALA:HB2	1.78	0.66
22:CV:53:G:H2'	22:CV:54:G:H5'	1.78	0.66
29:DE:199:ARG:HH11	29:DE:199:ARG:HB2	1.60	0.66
30:DF:46:ARG:HH11	30:DF:46:ARG:CG	2.08	0.66
46:DZ:16:SER:O	46:DZ:20:ARG:HG3	1.96	0.66
51:D4:8:LYS:O	51:D4:27:THR:CG2	2.43	0.66
1:AA:9:G:H2'	1:AA:10:A:H8	1.60	0.66
3:AC:157:ILE:HD11	3:AC:166:GLU:HB2	1.77	0.66
4:AD:116:GLN:NE2	4:AD:157:LEU:HD11	2.11	0.66
24:AX:13:A:C2	24:AX:14:A:H8	2.13	0.66
25:BA:242:G:O3'	25:BA:243:U:C5	2.48	0.66
25:BA:1252:G:C6	25:BA:1253:A:N1	2.63	0.66
25:BA:2500:U:O2	25:BA:2504:U:C4	2.48	0.66
30:BF:46:ARG:HH11	30:BF:46:ARG:CG	2.08	0.66
31:BG:46:ALA:C	31:BG:82:LEU:HD11	2.15	0.66
40:BT:19:LEU:HD22	40:BT:85:LYS:HD3	1.78	0.66
45:BY:17:SER:OG	45:BY:18:GLY:N	2.23	0.66
45:BY:67:LEU:CD1	45:BY:68:HIS:H	2.08	0.66
1:CA:1442(B):A:C2	40:DT:118:ARG:NH1	2.64	0.66
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.24	0.66
25:DA:1129:A:N6	25:DA:2491:U:OP1	2.29	0.66
27:DC:38:ASP:HB2	27:DC:181:PRO:CB	2.25	0.66
29:DE:23:VAL:HA	29:DE:184:VAL:O	1.95	0.66
34:DN:19:GLU:HG3	34:DN:20:GLY:N	2.10	0.66
39:DS:107:GLU:N	39:DS:110:LEU:CD1	2.46	0.66
44:DX:70:LEU:HD23	44:DX:71:GLY:N	2.11	0.66
46:DZ:108:PRO:HB3	46:DZ:117:LEU:HD22	1.78	0.66
4:AD:60:GLU:HG3	4:AD:198:VAL:HG13	1.77	0.66
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HG2	1.78	0.66
16:AP:58:TYR:HA	16:AP:61:SER:HB3	1.77	0.66
25:BA:1340:U:HO2'	25:BA:1602:U:H2'	1.60	0.66
28:BD:28:GLU:H	28:BD:29:PRO:HD2	1.59	0.66
29:BE:114:ALA:HB1	29:BE:118:LYS:HD2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:78:THR:HA	33:BI:141:LYS:O	1.96	0.66
34:BN:58:ASP:C	34:BN:60:ILE:H	1.98	0.66
41:BU:96:ALA:C	41:BU:98:LEU:N	2.46	0.66
1:CA:60:A:C4'	1:CA:61:G:O5'	2.42	0.66
3:CC:24:ALA:HB1	3:CC:28:GLN:O	1.96	0.66
4:CD:152:SER:O	4:CD:158:ILE:HD12	1.95	0.66
4:CD:172:PRO:HB2	4:CD:187:ARG:HH22	1.59	0.66
25:DA:943:U:P	36:DP:36:LYS:HG3	2.35	0.66
33:DI:69:LYS:HE2	33:DI:73:GLU:OE2	1.96	0.66
43:DW:9:TYR:HD2	43:DW:102:HIS:NE2	1.89	0.66
1:AA:652:U:O2'	1:AA:653:A:N3	2.29	0.66
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.77	0.66
24:AX:13:A:C2	24:AX:14:A:C8	2.84	0.66
25:BA:322:A:H4'	25:BA:323:G:OP2	1.96	0.66
32:BH:121:ILE:HD11	32:BH:140:LYS:HG2	1.77	0.66
36:BP:15:ARG:O	36:BP:16:ARG:C	2.34	0.66
38:BR:37:THR:CG2	38:BR:40:LYS:HE3	2.26	0.66
42:BV:19:LYS:CG	42:BV:94:LEU:HB2	2.25	0.66
46:BZ:97:GLU:HB3	46:BZ:125:LEU:HD11	1.77	0.66
1:CA:61:G:OP2	20:CT:10:LEU:HD21	1.96	0.66
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.29	0.66
5:CE:11:ILE:HG13	5:CE:31:LEU:HB3	1.78	0.66
28:DD:218:ARG:HH11	28:DD:218:ARG:HG3	1.59	0.66
29:DE:120:TRP:O	29:DE:121:ASN:HB2	1.94	0.66
32:DH:19:VAL:HG12	32:DH:20:ALA:N	2.10	0.66
32:DH:109:PHE:C	32:DH:111:HIS:H	1.98	0.66
38:DR:3:HIS:O	38:DR:5:LYS:N	2.22	0.66
40:DT:65:LYS:HZ1	40:DT:66:VAL:HB	1.61	0.66
41:DU:83:LEU:HG	41:DU:88:ILE:CD1	2.25	0.66
45:DY:35:TYR:CE1	45:DY:69:ALA:HB3	2.31	0.66
1:AA:625:G:C4'	16:AP:16:HIS:HD2	2.09	0.66
1:AA:914:A:O2'	1:AA:915:A:H5'	1.96	0.66
4:AD:88:VAL:O	4:AD:92:VAL:HG23	1.96	0.66
39:BS:89:ARG:HD3	39:BS:92:TYR:HA	1.76	0.66
41:BU:33:ARG:O	41:BU:37:GLU:HG2	1.95	0.66
1:CA:255:G:H1'	17:CQ:16:GLN:OE1	1.95	0.66
1:CA:993:G:N3	1:CA:993:G:H2'	2.10	0.66
11:CK:20:TYR:O	11:CK:30:VAL:CA	2.44	0.66
25:DA:1819:A:H5"	25:DA:1820:U:C5'	2.26	0.66
25:DA:2700:C:H2'	25:DA:2701:C:H5'	1.78	0.66
30:DF:178:PRO:HG2	30:DF:179:GLU:OE2	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:133:LEU:HD21	31:DG:157:ILE:HB	1.78	0.66
34:DN:54:VAL:HB	34:DN:122:VAL:HG22	1.78	0.66
34:DN:128:HIS:NE2	34:DN:134:ARG:HG2	2.11	0.66
53:D6:10:LEU:HD12	55:D8:34:TRP:NE1	2.11	0.66
1:AA:1346:A:C8	1:AA:1348:U:C2	2.84	0.65
2:AB:32:ILE:HD11	2:AB:190:THR:HG22	1.77	0.65
8:AH:51:VAL:HG23	8:AH:52:ASP:N	2.11	0.65
22:AV:3:C:H2'	22:AV:4:G:H5'	1.78	0.65
25:BA:1365:A:OP1	48:B1:41:ARG:NH1	2.29	0.65
25:BA:1620:G:O2'	54:B7:2:LYS:HG3	1.96	0.65
25:BA:2443:C:OP1	30:BF:68:LYS:HG2	1.96	0.65
28:BD:44:ASN:OD1	28:BD:44:ASN:N	2.29	0.65
28:BD:131:LEU:HD12	28:BD:131:LEU:N	2.11	0.65
29:BE:9:VAL:HG13	29:BE:25:VAL:O	1.97	0.65
36:BP:63:PRO:C	36:BP:65:ARG:N	2.49	0.65
4:CD:108:LEU:CG	4:CD:110:PHE:CD1	2.77	0.65
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	1.78	0.65
8:CH:68:ARG:HH11	8:CH:68:ARG:HG3	1.59	0.65
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.11	0.65
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.59	0.65
18:CR:76:LEU:N	18:CR:76:LEU:CD2	2.59	0.65
23:CW:36:A:H2'	23:CW:37:A:O4'	1.96	0.65
25:DA:614(C):A:C4'	25:DA:615:G:OP1	2.44	0.65
25:DA:747:U:C5	52:D5:3:LYS:HB2	2.30	0.65
25:DA:1141:U:OP2	34:DN:22:THR:HG21	1.96	0.65
30:DF:34:TRP:HA	36:DP:6:LEU:HD12	1.78	0.65
30:DF:127:GLU:O	30:DF:129:PHE:N	2.29	0.65
33:DI:110:ASP:HB2	33:DI:112:LYS:N	2.11	0.65
36:DP:124:LYS:HZ2	36:DP:143:GLY:HA3	1.60	0.65
39:DS:49:VAL:HG22	39:DS:80:LEU:HD12	1.78	0.65
39:DS:58:LEU:HD23	39:DS:58:LEU:H	1.60	0.65
39:DS:66:ALA:O	39:DS:69:VAL:HG13	1.96	0.65
40:DT:88:ILE:HG22	40:DT:89:VAL:N	2.12	0.65
46:DZ:150:LEU:HB2	46:DZ:154:ASP:OD1	1.96	0.65
1:AA:242:C:H3'	1:AA:242:C:H6	1.61	0.65
1:AA:955:U:OP1	13:AM:120:LYS:NZ	2.29	0.65
10:AJ:47:PHE:CE2	14:AN:37:PHE:HE2	2.14	0.65
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.95	0.65
20:AT:45:GLN:CA	20:AT:91:LEU:HD13	2.26	0.65
24:AX:11:U:OP2	24:AX:11:U:H5	1.78	0.65
25:BA:995:C:C4	34:BN:1:MET:CG	2.75	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:32:SER:O	28:BD:36:PRO:HD2	1.97	0.65
28:BD:36:PRO:HA	28:BD:62:TYR:O	1.95	0.65
28:BD:226:MET:O	28:BD:234:GLY:HA3	1.96	0.65
29:BE:16:ARG:O	29:BE:17:ASP:HB2	1.96	0.65
29:BE:186:GLY:O	29:BE:188:VAL:N	2.29	0.65
34:BN:3:THR:HG22	34:BN:5:VAL:HG12	1.78	0.65
36:BP:83:VAL:HG23	36:BP:105:LEU:HD22	1.79	0.65
41:BU:112:ARG:HG2	41:BU:112:ARG:NH1	2.12	0.65
46:BZ:53:ILE:HG21	46:BZ:71:VAL:O	1.96	0.65
49:B2:63:VAL:HA	49:B2:66:GLU:HG2	1.78	0.65
1:CA:251:G:N9	1:CA:252:U:H5	1.92	0.65
25:DA:362(F):A:HO2'	25:DA:364:C:H5	1.44	0.65
25:DA:483:A:H5'	45:DY:49:VAL:HG13	1.77	0.65
25:DA:1615:C:C5	25:DA:1617:C:C4	2.84	0.65
36:DP:79:ARG:HH21	36:DP:81:GLN:HG2	1.60	0.65
46:DZ:23:LYS:HE2	46:DZ:38:TYR:HE1	1.60	0.65
1:AA:1226:C:C4'	1:AA:1227:A:OP1	2.30	0.65
4:AD:173:TRP:HA	4:AD:187:ARG:HH12	1.59	0.65
13:AM:29:ARG:HB3	13:AM:64:TRP:CZ2	2.31	0.65
25:BA:242:G:C2	25:BA:254:G:N7	2.64	0.65
25:BA:322:A:C4'	25:BA:323:G:OP2	2.44	0.65
25:BA:2128:C:OP1	27:BC:35:ALA:HB1	1.96	0.65
29:BE:64:LYS:C	29:BE:66:HIS:H	1.98	0.65
31:BG:16:ARG:HG3	31:BG:16:ARG:NH1	2.10	0.65
31:BG:117:PHE:HD1	31:BG:118:ARG:N	1.94	0.65
34:BN:134:ARG:N	34:BN:135:PRO:HD3	2.09	0.65
36:BP:78:PRO:HB3	36:BP:111:ARG:CZ	2.27	0.65
40:BT:102:ILE:HD12	40:BT:103:ARG:N	2.12	0.65
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HB2	1.78	0.65
51:B4:62:CYS:SG	51:B4:63:SER:N	2.69	0.65
1:CA:119:A:H4'	1:CA:120:A:O5'	1.97	0.65
1:CA:1446:U:C2	1:CA:1457:G:N1	2.64	0.65
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.77	0.65
20:CT:50:GLU:O	20:CT:52:ALA:N	2.29	0.65
25:DA:1205:U:H5'	25:DA:1206:G:OP2	1.96	0.65
25:DA:1899:G:N2	25:DA:1902:C:H41	1.94	0.65
33:DI:74:ASN:HD22	33:DI:74:ASN:N	1.93	0.65
36:DP:3:LEU:HA	36:DP:6:LEU:HD23	1.78	0.65
36:DP:20:GLY:O	36:DP:21:ARG:CD	2.44	0.65
36:DP:85:LEU:HD23	36:DP:85:LEU:H	1.59	0.65
42:DV:1:MET:HG3	42:DV:43:GLU:HG2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:95:LYS:HB3	45:DY:100:ALA:CA	2.19	0.65
46:DZ:53:ILE:H	46:DZ:71:VAL:CG2	2.09	0.65
53:D6:45:LYS:O	53:D6:46:HIS:HB3	1.95	0.65
2:AB:7:VAL:N	2:AB:8:LYS:HE2	2.11	0.65
6:AF:1:MET:CE	6:AF:68:PRO:HB3	2.27	0.65
13:AM:47:ASP:O	13:AM:48:LEU:HB3	1.95	0.65
25:BA:1301:A:C5'	25:BA:1301:A:N3	2.58	0.65
25:BA:1899:G:H21	25:BA:1902:C:H41	1.44	0.65
25:BA:2447:G:C1'	25:BA:2501:C:C5	2.79	0.65
26:BB:44:G:H1'	26:BB:47:C:H42	1.62	0.65
38:BR:76:VAL:O	38:BR:80:PHE:N	2.29	0.65
41:BU:108:GLU:OE2	42:BV:44:LYS:CD	2.40	0.65
45:BY:28:LYS:CG	45:BY:37:VAL:HB	2.26	0.65
1:CA:913:A:C4'	1:CA:914:A:O5'	2.33	0.65
28:DD:11:PRO:C	28:DD:13:ARG:H	1.97	0.65
31:DG:67:LYS:CG	51:D4:5:ILE:HG22	2.18	0.65
33:DI:69:LYS:HG3	33:DI:136:VAL:HB	1.79	0.65
1:AA:962:C:H2'	1:AA:963:G:H8	1.62	0.65
4:AD:8:VAL:CA	4:AD:11:LEU:HD21	2.23	0.65
7:AG:10:ARG:HH11	7:AG:10:ARG:CG	2.05	0.65
16:AP:82:GLN:O	16:AP:83:GLU:HB2	1.96	0.65
19:AS:39:THR:HG22	19:AS:40:ILE:O	1.97	0.65
23:AW:7:A:H61	23:AW:66:U:H3	1.42	0.65
25:BA:2168:G:N2	25:BA:2171:A:OP2	2.30	0.65
25:BA:2466:C:H5"	56:B9:6:SER:HB3	1.79	0.65
28:BD:49:ILE:HD11	28:BD:52:ARG:HA	1.79	0.65
28:BD:210:GLY:O	28:BD:213:ARG:N	2.30	0.65
36:BP:83:VAL:CG1	36:BP:112:LEU:HD21	2.26	0.65
40:BT:64:ARG:NH1	40:BT:103:ARG:HA	2.11	0.65
43:BW:5:ALA:O	43:BW:6:ILE:HG13	1.96	0.65
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.11	0.65
20:CT:29:LYS:HD2	20:CT:66:ALA:HA	1.79	0.65
33:DI:32:PRO:C	33:DI:34:GLY:H	1.98	0.65
33:DI:77:LEU:HD11	33:DI:140:LEU:CA	2.27	0.65
41:DU:92:ARG:HD3	41:DU:92:ARG:N	2.10	0.65
43:DW:55:ALA:HA	43:DW:107:LEU:CD2	2.26	0.65
45:DY:50:ARG:HB3	45:DY:53:PRO:CG	2.27	0.65
1:AA:971:G:H3'	1:AA:971:G:P	2.37	0.65
8:AH:97:VAL:O	8:AH:100:ILE:HG13	1.96	0.65
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.17	0.65
11:AK:51:LYS:HA	11:AK:55:LYS:HG3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.11	0.65
14:AN:13:THR:O	14:AN:15:LYS:N	2.30	0.65
19:AS:6:LYS:CG	19:AS:7:LYS:CD	2.70	0.65
25:BA:668:G:N7	25:BA:670:A:C8	2.65	0.65
28:BD:79:VAL:HG21	28:BD:111:LEU:HD11	1.77	0.65
30:BF:154:VAL:HG22	30:BF:191:ARG:CB	2.21	0.65
31:BG:66:GLN:NE2	31:BG:94:LEU:HD23	2.12	0.65
38:BR:2:ARG:HH12	38:BR:5:LYS:HE2	1.60	0.65
45:BY:31:LEU:CB	45:BY:32:PRO:HA	2.27	0.65
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.27	0.65
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.11	0.65
8:CH:68:ARG:HG2	8:CH:68:ARG:NH1	2.12	0.65
11:CK:78:GLN:O	11:CK:103:LEU:HD22	1.96	0.65
22:CV:24:C:C2	22:CV:25:U:C5	2.85	0.65
25:DA:896:A:C2	46:DZ:113:ALA:HB3	2.32	0.65
25:DA:1559:G:N2	25:DA:1559:G:OP1	2.30	0.65
2:AB:106:LYS:O	2:AB:110:GLN:HG3	1.96	0.65
25:BA:1396:U:O2	25:BA:1396:U:C2'	2.45	0.65
26:BB:109:C:C6	26:BB:109:C:OP2	2.50	0.65
35:BO:64:ARG:HG2	35:BO:79:PHE:CG	2.30	0.65
35:BO:105:GLU:HA	35:BO:108:GLU:OE2	1.97	0.65
40:BT:31:SER:C	40:BT:32:TYR:CD2	2.70	0.65
45:BY:14:LEU:CG	45:BY:15:VAL:H	2.10	0.65
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.31	0.65
4:CD:146:ILE:H	4:CD:146:ILE:HD12	1.60	0.65
17:CQ:11:VAL:HG12	17:CQ:85:VAL:HG22	1.77	0.65
20:CT:40:ALA:CB	20:CT:55:ILE:HG21	2.27	0.65
25:DA:2258:C:H4'	25:DA:2259:G:OP2	1.94	0.65
28:DD:227:ASN:HB3	28:DD:228:PRO:CD	2.26	0.65
30:DF:20:LEU:HD12	30:DF:21:ALA:N	2.12	0.65
30:DF:57:VAL:HG12	30:DF:59:TYR:H	1.61	0.65
31:DG:16:ARG:HB3	31:DG:17:PRO:CD	2.26	0.65
33:DI:114:LEU:HD22	33:DI:130:TYR:CD1	2.31	0.65
36:DP:78:PRO:HB3	36:DP:111:ARG:CZ	2.27	0.65
42:DV:41:GLY:HA3	42:DV:46:VAL:HG11	1.79	0.65
45:DY:95:LYS:HE3	45:DY:95:LYS:O	1.96	0.65
3:AC:153:VAL:HG22	3:AC:198:VAL:HG13	1.79	0.65
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	1.79	0.65
12:AL:35:GLY:O	12:AL:82:VAL:HG13	1.97	0.65
14:AN:15:LYS:HD2	14:AN:16:PHE:CE2	2.31	0.65
23:AW:38:A:C3'	23:AW:39:U:C5'	2.75	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2318:G:C2'	25:BA:2319:G:OP1	2.44	0.65
39:BS:89:ARG:CD	39:BS:92:TYR:HA	2.27	0.65
40:BT:30:VAL:CG2	40:BT:84:GLN:O	2.42	0.65
1:CA:429:U:O2'	1:CA:430:A:C5'	2.45	0.65
7:CG:26:PHE:HB2	7:CG:101:LEU:HD22	1.79	0.65
8:CH:82:HIS:CD2	8:CH:138:TRP:CZ2	2.85	0.65
14:CN:44:LEU:HD12	14:CN:44:LEU:C	2.18	0.65
28:DD:74:GLY:O	28:DD:76:PRO:HD3	1.96	0.65
30:DF:34:TRP:CA	36:DP:6:LEU:HD12	2.25	0.65
30:DF:185:ASP:HA	30:DF:188:ARG:HD3	1.78	0.65
31:DG:135:LEU:HD23	31:DG:140:ILE:HD11	1.79	0.65
33:DI:77:LEU:HD13	33:DI:78:THR:H	1.61	0.65
40:DT:50:ILE:HD11	40:DT:102:ILE:CD1	2.25	0.65
44:DX:60:ARG:NH1	54:D7:47:ARG:NH2	2.41	0.65
46:DZ:42:VAL:HG13	46:DZ:43:GLU:OE1	1.96	0.65
46:DZ:99:TYR:HD2	46:DZ:99:TYR:H	1.45	0.65
2:AB:74:LYS:O	2:AB:78:GLN:HG3	1.96	0.65
5:AE:68:GLU:O	5:AE:68:GLU:CD	2.35	0.65
6:AF:12:PRO:HB3	6:AF:57:GLN:O	1.96	0.65
13:AM:57:ARG:CZ	51:B4:60:GLU:HG3	2.26	0.65
25:BA:196:A:C4	25:BA:805:G:C6	2.84	0.65
25:BA:1396:U:O2	25:BA:1396:U:C3'	2.44	0.65
25:BA:1858:G:O2'	25:BA:1884:A:N6	2.30	0.65
30:BF:24:LEU:HB3	30:BF:25:PRO:HD2	1.77	0.65
36:BP:3:LEU:HA	36:BP:6:LEU:HD23	1.78	0.65
39:BS:12:PHE:CG	39:BS:12:PHE:O	2.49	0.65
41:BU:91:ASP:O	41:BU:92:ARG:HD3	1.96	0.65
42:BV:82:ARG:HG2	42:BV:82:ARG:NH1	2.04	0.65
43:BW:111:HIS:CD2	43:BW:112:GLY:H	2.14	0.65
51:B4:60:GLU:O	51:B4:61:VAL:HB	1.95	0.65
1:CA:566:G:H4'	1:CA:567:G:OP1	1.97	0.65
11:CK:41:THR:HG21	11:CK:71:LYS:CB	2.27	0.65
16:CP:3:LYS:O	16:CP:21:VAL:HA	1.95	0.65
20:CT:29:LYS:CD	20:CT:66:ALA:CB	2.75	0.65
20:CT:43:LEU:CD1	20:CT:51:GLU:HB3	2.27	0.65
23:CW:55:U:C4	23:CW:57:G:H5'	2.32	0.65
25:DA:819:A:OP2	25:DA:1187:G:N2	2.20	0.65
25:DA:1310:G:OP2	54:D7:9:ARG:NH1	2.29	0.65
25:DA:2377:A:O2'	39:DS:112:PHE:HB3	1.97	0.65
25:DA:2520:C:C6	25:DA:2567:G:H1'	2.32	0.65
29:DE:111:ARG:CB	38:DR:1:MET:SD	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:63:LYS:HE3	30:DF:65:TRP:O	1.95	0.65
30:DF:123:LEU:HD12	30:DF:192:LEU:O	1.97	0.65
31:DG:55:LYS:NZ	31:DG:148:MET:HG3	2.12	0.65
33:DI:4:ILE:HG12	33:DI:18:VAL:CG2	2.25	0.65
42:DV:58:VAL:CB	42:DV:98:GLU:HB2	2.18	0.65
48:D1:56:GLN:HA	48:D1:56:GLN:NE2	2.11	0.65
49:D2:48:HIS:O	49:D2:52:ASP:HB2	1.96	0.65
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.12	0.65
22:AV:53:G:O2'	22:AV:54:G:P	2.55	0.65
25:BA:1287:A:N6	25:BA:1288:U:O4	2.30	0.65
25:BA:2002:G:H5'	38:BR:13:HIS:HA	1.79	0.65
25:BA:2779:U:H5"	25:BA:2780:G:H3'	1.79	0.65
28:BD:17:THR:O	28:BD:211:ARG:NH2	2.28	0.65
30:BF:40:GLN:HE22	30:BF:182:ASN:HB2	1.60	0.65
30:BF:123:LEU:CD1	30:BF:124:LEU:H	2.03	0.65
32:BH:126:PRO:HB2	32:BH:130:ARG:NH1	2.11	0.65
33:BI:53:ALA:O	33:BI:57:ARG:CB	2.44	0.65
33:BI:79:ILE:HB	33:BI:142:VAL:HG13	1.78	0.65
39:BS:12:PHE:CD1	39:BS:12:PHE:O	2.50	0.65
41:BU:80:ILE:HG22	41:BU:81:HIS:N	2.12	0.65
41:BU:90:VAL:HG22	42:BV:39:LEU:HG	1.79	0.65
47:B0:53:MET:HB2	47:B0:59:LEU:CD2	2.26	0.65
48:B1:70:VAL:O	48:B1:74:VAL:HG23	1.97	0.65
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	1.97	0.65
1:CA:1452:C:O2'	1:CA:1456:G:N2	2.30	0.65
17:CQ:29:HIS:O	17:CQ:31:LEU:N	2.30	0.65
19:CS:63:THR:HG23	19:CS:66:MET:HG3	1.78	0.65
20:CT:82:SER:O	20:CT:85:MET:N	2.30	0.65
25:DA:340:A:O2'	25:DA:341:G:H5'	1.97	0.65
25:DA:447:A:N1	25:DA:454:A:H2'	2.12	0.65
25:DA:483:A:C5'	45:DY:49:VAL:HG13	2.26	0.65
25:DA:1455:G:N2	25:DA:1456:G:C1'	2.61	0.65
36:DP:15:ARG:O	36:DP:16:ARG:C	2.34	0.65
36:DP:57:THR:O	36:DP:60:MET:CG	2.42	0.65
39:DS:85:VAL:HG23	39:DS:112:PHE:CZ	2.32	0.65
46:DZ:6:LYS:N	46:DZ:6:LYS:HD2	2.12	0.65
46:DZ:14:LYS:H	46:DZ:14:LYS:NZ	1.95	0.65
13:AM:93:ARG:HA	13:AM:93:ARG:HE	1.62	0.64
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.12	0.64
23:AW:49:C:H42	23:AW:65:G:H1	1.45	0.64
25:BA:1481:U:H5'	25:BA:1482:G:OP2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:10:THR:HG23	28:BD:13:ARG:HB3	1.78	0.64
33:BI:125:GLU:OE1	33:BI:141:LYS:HG2	1.96	0.64
34:BN:42:TRP:CZ3	34:BN:48:MET:CE	2.78	0.64
34:BN:99:LEU:HD22	34:BN:103:VAL:HG23	1.79	0.64
36:BP:63:PRO:HB3	55:B8:13:ARG:CB	2.14	0.64
37:BQ:42:ILE:HD13	37:BQ:97:VAL:HB	1.79	0.64
45:BY:67:LEU:CG	45:BY:68:HIS:H	2.10	0.64
53:B6:35:GLU:HB3	53:B6:51:GLU:CD	2.18	0.64
2:CB:18:GLY:H	2:CB:42:ILE:HG23	1.60	0.64
2:CB:178:ARG:HH22	2:CB:196:LEU:HA	1.62	0.64
10:CJ:38:ILE:HD11	10:CJ:71:LEU:CD2	2.24	0.64
14:CN:26:ARG:HD2	14:CN:43:CYS:HB3	1.78	0.64
25:DA:1819:A:H1'	25:DA:1821:A:N6	2.12	0.64
25:DA:2712:U:O2	25:DA:2712:U:H5"	1.97	0.64
28:DD:36:PRO:HA	28:DD:62:TYR:O	1.97	0.64
29:DE:3:GLY:O	29:DE:4:ILE:HB	1.97	0.64
34:DN:23:LEU:CD1	34:DN:98:VAL:HG12	2.27	0.64
41:DU:104:GLN:HE22	41:DU:105:VAL:CG2	2.05	0.64
51:D4:4:GLY:O	51:D4:5:ILE:HB	1.96	0.64
1:AA:748:C:H4'	1:AA:749:C:O5'	1.96	0.64
2:AB:181:PHE:HD1	8:AH:70:GLN:HB3	1.62	0.64
3:AC:54:ARG:HD3	3:AC:56:ASP:HB2	1.80	0.64
4:AD:128:VAL:HG12	4:AD:129:ASN:HD22	1.61	0.64
22:AV:35:C:HO2'	22:AV:36:A:P	2.20	0.64
25:BA:614:U:O2'	25:BA:614(C):A:N7	2.30	0.64
25:BA:630:G:N2	25:BA:633:A:OP2	2.26	0.64
35:BO:107:ARG:CG	35:BO:112:MET:HE1	2.27	0.64
36:BP:57:THR:O	36:BP:59:LEU:N	2.30	0.64
36:BP:146:VAL:HG13	36:BP:147:LEU:HD13	1.80	0.64
45:BY:27:VAL:C	45:BY:28:LYS:HE3	2.17	0.64
1:CA:60:A:O2'	1:CA:61:G:P	2.55	0.64
1:CA:751:U:C2'	1:CA:752:G:H5'	2.26	0.64
1:CA:881:G:P	12:CL:12:ARG:HH22	2.20	0.64
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.62	0.64
2:CB:7:VAL:N	2:CB:217:ARG:HH22	1.95	0.64
5:CE:105:VAL:O	5:CE:108:ALA:HB3	1.97	0.64
19:CS:29:ARG:O	19:CS:31:ILE:N	2.30	0.64
25:DA:1963:U:O2	25:DA:1963:U:C3'	2.44	0.64
25:DA:2396:G:O2'	48:D1:29:GLY:HA3	1.97	0.64
25:DA:2577:A:H5"	25:DA:2578:G:H5'	1.80	0.64
28:DD:182:LEU:O	28:DD:271:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:44:GLY:HA2	31:DG:88:ILE:HG12	1.79	0.64
31:DG:116:ASP:O	31:DG:117:PHE:HB3	1.96	0.64
32:DH:30:LYS:HE3	32:DH:81:GLU:HG3	1.79	0.64
36:DP:71:VAL:HG23	36:DP:72:PRO:HD3	1.79	0.64
36:DP:78:PRO:CB	36:DP:111:ARG:HD3	2.26	0.64
36:DP:146:VAL:HG13	36:DP:147:LEU:HD13	1.80	0.64
37:DQ:51:ARG:HG2	37:DQ:51:ARG:NH1	2.12	0.64
42:DV:35:LEU:O	42:DV:37:VAL:N	2.30	0.64
52:D5:58:LEU:O	52:D5:59:GLU:CD	2.35	0.64
1:AA:189(F):U:H2'	17:AQ:63:ARG:HH21	1.63	0.64
1:AA:832:C:O2	1:AA:854:G:N2	2.29	0.64
1:AA:925:G:H1'	1:AA:1502:A:C4	2.32	0.64
12:AL:71:PRO:HD2	12:AL:102:ARG:HD3	1.79	0.64
15:AO:17:ARG:CD	15:AO:26:GLU:HG3	2.28	0.64
20:AT:56:MET:CE	20:AT:85:MET:HE2	2.27	0.64
25:BA:2238:G:H4'	25:BA:2239:G:OP1	1.98	0.64
28:BD:260:ARG:NH1	28:BD:267:SER:OG	2.30	0.64
28:BD:264:LYS:HG2	28:BD:266:SER:H	1.63	0.64
30:BF:32:LEU:HD23	30:BF:32:LEU:C	2.18	0.64
32:BH:146:ALA:HA	32:BH:149:ARG:HG2	1.79	0.64
36:BP:57:THR:CG2	36:BP:59:LEU:HB3	2.28	0.64
37:BQ:29:PHE:HB2	37:BQ:105:GLU:OE2	1.97	0.64
40:BT:31:SER:HB3	40:BT:43:GLN:C	2.18	0.64
55:B8:16:ILE:HG22	55:B8:64:TYR:CD2	2.32	0.64
1:CA:8:A:O4'	5:CE:101:ILE:HG22	1.97	0.64
2:CB:213:LEU:CD2	2:CB:214:ILE:HG12	2.24	0.64
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.11	0.64
8:CH:25:ASP:HA	8:CH:59:LEU:O	1.96	0.64
25:DA:1740:G:H4'	25:DA:1741:A:OP1	1.97	0.64
28:DD:218:ARG:HB3	28:DD:219:PRO:HD2	1.79	0.64
38:DR:8:ARG:N	38:DR:43:GLU:OE1	2.27	0.64
41:DU:95:LEU:CD1	42:DV:4:ILE:HG21	2.27	0.64
41:DU:107:ALA:O	41:DU:110:VAL:HB	1.97	0.64
45:DY:76:CYS:HB3	45:DY:96:ILE:CD1	2.26	0.64
53:D6:32:ASN:CG	53:D6:33:LYS:H	2.01	0.64
12:AL:23:LYS:O	12:AL:24:VAL:HG23	1.98	0.64
19:AS:12:ASP:OD1	19:AS:37:ARG:HD2	1.98	0.64
25:BA:1299:G:H5'	25:BA:1301:A:O4'	1.98	0.64
28:BD:65:ILE:HD11	28:BD:67:PHE:CZ	2.32	0.64
31:BG:143:GLU:OE1	31:BG:143:GLU:N	2.30	0.64
34:BN:32:THR:CG2	34:BN:37:LYS:HB3	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:23:PRO:HB3	42:BV:80:GLN:HG3	1.79	0.64
36:BP:78:PRO:CB	36:BP:111:ARG:HD3	2.26	0.64
38:BR:10:LEU:HB2	38:BR:17:ARG:CD	2.21	0.64
39:BS:49:VAL:HG12	39:BS:50:SER:N	2.12	0.64
40:BT:57:PHE:O	40:BT:59:THR:N	2.30	0.64
45:BY:75:ILE:HG13	45:BY:79:CYS:CA	2.18	0.64
4:CD:198:VAL:HG12	4:CD:199:ASN:H	1.62	0.64
25:DA:975(A):G:H2'	25:DA:976:C:H5'	1.78	0.64
25:DA:2590:A:OP2	28:DD:238:GLY:HA2	1.98	0.64
26:DB:14:U:C5'	26:DB:15:A:OP2	2.45	0.64
33:DI:77:LEU:CD1	33:DI:140:LEU:HB2	2.23	0.64
35:DO:49:ARG:HG2	35:DO:49:ARG:NH1	2.12	0.64
36:DP:9:ASN:HB2	36:DP:10:PRO:HD2	1.78	0.64
36:DP:61:ARG:NH1	55:D8:13:ARG:HD2	2.12	0.64
40:DT:81:PRO:O	40:DT:82:LEU:HG	1.97	0.64
25:BA:373:U:H2'	25:BA:374:A:H8	1.61	0.64
28:BD:4:LYS:HB2	28:BD:18:VAL:HG23	1.79	0.64
29:BE:68:ALA:O	29:BE:70:ALA:N	2.31	0.64
34:BN:46:VAL:O	34:BN:47:ALA:HB3	1.96	0.64
36:BP:58:THR:O	36:BP:61:ARG:NE	2.30	0.64
55:B8:29:LYS:HG2	55:B8:29:LYS:O	1.95	0.64
1:CA:49:U:C6	1:CA:364:A:N6	2.66	0.64
1:CA:61:G:O2'	1:CA:62:U:H5'	1.98	0.64
1:CA:1452:C:C2'	1:CA:1456:G:OP2	2.46	0.64
2:CB:18:GLY:N	2:CB:42:ILE:CG2	2.57	0.64
2:CB:71:VAL:HG13	2:CB:93:VAL:HG21	1.79	0.64
13:CM:88:ARG:HH11	13:CM:88:ARG:CB	2.01	0.64
13:CM:93:ARG:HH12	25:DA:888:C:C4'	2.10	0.64
16:CP:8:ARG:O	16:CP:9:PHE:HD2	1.80	0.64
34:DN:42:TRP:CD1	41:DU:63:VAL:HG11	2.32	0.64
42:DV:11:GLN:NE2	42:DV:39:LEU:CD2	2.55	0.64
42:DV:44:LYS:O	42:DV:46:VAL:N	2.30	0.64
1:AA:867:G:O2'	1:AA:873:A:N1	2.27	0.64
2:AB:36:ARG:N	2:AB:36:ARG:NE	2.45	0.64
3:AC:39:ILE:HG22	3:AC:40:ARG:N	2.12	0.64
3:AC:125:GLU:OE2	3:AC:189:ALA:HA	1.98	0.64
24:AX:11:U:OP2	24:AX:11:U:C5	2.51	0.64
25:BA:805:G:H5'	25:BA:806:C:C5	2.33	0.64
25:BA:2110:G:H2'	25:BA:2120:G:H5'	1.78	0.64
35:BO:87:ILE:CG2	35:BO:91:LEU:HA	2.26	0.64
38:BR:106:GLY:O	38:BR:107:ASP:HB3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:31:G:N2	1:CA:48:C:OP1	2.31	0.64
1:CA:76:C:H42	1:CA:93:G:H1	1.46	0.64
1:CA:748:C:O2'	1:CA:749:C:P	2.56	0.64
2:CB:7:VAL:N	2:CB:217:ARG:NH2	2.46	0.64
34:DN:57:ALA:H	34:DN:124:ALA:HA	1.62	0.64
36:DP:83:VAL:CG1	36:DP:112:LEU:HD21	2.26	0.64
37:DQ:69:PHE:HD1	37:DQ:70:PRO:HD2	1.61	0.64
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.80	0.64
48:D1:66:HIS:C	48:D1:68:PRO:HD2	2.18	0.64
51:D4:9:LEU:HG	51:D4:26:SER:HA	1.80	0.64
55:D8:50:LEU:HD12	55:D8:51:ALA:N	2.09	0.64
1:AA:1279:A:N3	1:AA:1279:A:O5'	2.30	0.64
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.62	0.64
7:AG:15:ASP:H	7:AG:24:THR:HG23	1.62	0.64
9:AI:63:ILE:HD13	9:AI:77:ILE:HG23	1.79	0.64
12:AL:82:VAL:O	12:AL:106:ASP:HB2	1.98	0.64
17:AQ:51:TYR:CE1	17:AQ:73:VAL:HG11	2.33	0.64
22:AV:57:C:H2'	22:AV:58:A:H5'	1.78	0.64
25:BA:669:G:H2'	25:BA:669:G:N3	2.12	0.64
29:BE:11:MET:CB	29:BE:24:THR:HA	2.28	0.64
29:BE:37:ARG:HB2	29:BE:46:ALA:HB3	1.80	0.64
32:BH:122:THR:O	32:BH:133:VAL:HG13	1.98	0.64
48:B1:45:ASN:HD22	48:B1:45:ASN:C	2.01	0.64
49:B2:42:GLY:O	49:B2:44:LEU:N	2.31	0.64
2:CB:21:ARG:HB2	2:CB:38:GLY:O	1.96	0.64
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.31	0.64
5:CE:115:VAL:HG12	5:CE:116:THR:N	2.11	0.64
6:CF:24:GLU:HG3	6:CF:25:ILE:HD13	1.80	0.64
10:CJ:33:GLN:HB2	10:CJ:75:ILE:HD13	1.79	0.64
20:CT:72:LEU:CD2	20:CT:73:HIS:N	2.61	0.64
25:DA:141:A:H8	25:DA:1408:C:HO2'	1.46	0.64
25:DA:943:U:OP1	36:DP:36:LYS:HG3	1.98	0.64
28:DD:96:HIS:CE1	28:DD:102:LYS:HE2	2.33	0.64
34:DN:17:ASP:OD1	34:DN:56:ASN:HB3	1.97	0.64
36:DP:59:LEU:O	36:DP:61:ARG:NH1	2.30	0.64
44:DX:60:ARG:HH12	54:D7:47:ARG:HH22	1.44	0.64
1:AA:241:C:H2'	1:AA:242:C:H5'	1.79	0.64
8:AH:31:PHE:O	8:AH:34:GLU:HB2	1.98	0.64
12:AL:25:PRO:C	12:AL:27:LEU:N	2.49	0.64
19:AS:9:VAL:C	19:AS:10:PHE:CG	2.72	0.64
19:AS:20:LEU:O	19:AS:23:ASN:HB3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:12:U:H3	23:AW:23:A:H61	1.46	0.64
25:BA:601:C:H4'	30:BF:104:LYS:HZ1	1.63	0.64
25:BA:703:U:H3	25:BA:727:A:N6	1.95	0.64
25:BA:1799:G:N2	25:BA:1818:U:O2'	2.31	0.64
28:BD:77:ALA:HB2	28:BD:97:TYR:CD2	2.32	0.64
32:BH:53:GLU:O	32:BH:54:ARG:HB3	1.98	0.64
36:BP:57:THR:C	36:BP:59:LEU:H	2.01	0.64
50:B3:29:ARG:HH11	50:B3:29:ARG:HG3	1.62	0.64
50:B3:39:ASP:OD1	50:B3:44:ARG:HG2	1.97	0.64
1:CA:820:U:C4'	1:CA:821:G:OP2	2.40	0.64
1:CA:926:G:H22	24:CX:15:A:H3'	1.62	0.64
4:CD:22:LYS:CG	4:CD:26:CYS:SG	2.84	0.64
14:CN:36:PHE:HD1	14:CN:37:PHE:CD2	2.16	0.64
20:CT:72:LEU:HD23	20:CT:73:HIS:N	2.13	0.64
23:CW:18:G:N1	23:CW:55:U:H1'	2.12	0.64
25:DA:265:A:H8	25:DA:266:G:H1'	1.63	0.64
25:DA:1645:G:H5"	25:DA:1646:C:C5'	2.19	0.64
28:DD:165:ILE:HD13	28:DD:175:LEU:HD21	1.80	0.64
33:DI:57:ARG:NH1	33:DI:57:ARG:HB2	2.11	0.64
36:DP:63:PRO:C	36:DP:65:ARG:N	2.49	0.64
37:DQ:141:GLN:HB2	46:DZ:98:MET:HA	1.79	0.64
46:DZ:97:GLU:HB3	46:DZ:125:LEU:HD11	1.77	0.64
53:D6:46:HIS:O	53:D6:47:THR:OG1	2.16	0.64
1:AA:984:C:H6	1:AA:984:C:O5'	1.81	0.64
1:AA:1049:U:C4'	1:AA:1050:G:O5'	2.46	0.64
2:AB:19:HIS:CE1	2:AB:20:GLU:CD	2.71	0.64
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.63	0.64
8:AH:91:ARG:NH1	17:AQ:33:GLY:HA3	2.12	0.64
23:AW:38:A:C3'	23:AW:39:U:H5"	2.28	0.64
25:BA:34:C:N4	25:BA:454:A:O2'	2.30	0.64
25:BA:532:A:HO2'	25:BA:2021:C:N4	1.95	0.64
25:BA:614(A):U:C2'	25:BA:614(B):G:OP1	2.45	0.64
25:BA:957:A:OP1	37:BQ:76:LYS:HE3	1.98	0.64
25:BA:2528:U:OP1	56:B9:30:PRO:HG2	1.97	0.64
30:BF:85:GLY:O	30:BF:86:GLY:O	2.16	0.64
33:BI:77:LEU:HD21	33:BI:101:LEU:HA	1.80	0.64
34:BN:55:VAL:HG22	34:BN:126:PRO:HA	1.80	0.64
36:BP:79:ARG:CD	36:BP:109:GLY:CA	2.76	0.64
40:BT:91:ARG:HB3	40:BT:115:ARG:O	1.98	0.64
45:BY:35:TYR:CD2	45:BY:69:ALA:HB3	2.32	0.64
46:BZ:3:TYR:N	46:BZ:3:TYR:CD1	2.64	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1067:A:O2'	1:CA:1068:G:P	2.55	0.64
5:CE:147:ASP:HA	5:CE:150:ARG:HB2	1.80	0.64
20:CT:53:LEU:HD21	20:CT:100:ILE:CB	2.27	0.64
20:CT:53:LEU:HD21	20:CT:100:ILE:HB	1.79	0.64
25:DA:1455:G:H21	25:DA:1456:G:H1'	1.62	0.64
30:DF:32:LEU:HD21	30:DF:108:LYS:HB3	1.80	0.64
33:DI:130:TYR:C	33:DI:131:LYS:HD2	2.18	0.64
41:DU:92:ARG:HH21	41:DU:94:ASN:HD22	1.43	0.64
42:DV:76:LYS:O	42:DV:79:VAL:HG12	1.97	0.64
45:DY:78:ALA:HB3	45:DY:81:LYS:HE3	1.79	0.64
1:AA:1301:U:O2'	13:AM:13:LYS:NZ	2.30	0.64
6:AF:62:TRP:CD1	18:AR:35:ARG:NH1	2.66	0.64
9:AI:4:TYR:HB2	9:AI:19:LEU:HD12	1.79	0.64
11:AK:101:SER:OG	11:AK:103:LEU:HB2	1.98	0.64
13:AM:57:ARG:HH12	51:B4:60:GLU:HA	1.63	0.64
19:AS:41:VAL:HB	19:AS:44:MET:HG2	1.80	0.64
22:AV:53:G:HO2'	22:AV:54:G:P	2.21	0.64
25:BA:27:G:H22	25:BA:512:G:H2'	1.62	0.64
29:BE:106:GLY:HA3	29:BE:189:PRO:HG2	1.80	0.64
31:BG:139:LEU:O	31:BG:139:LEU:HG	1.97	0.64
41:BU:61:TRP:CE2	41:BU:94:ASN:HA	2.33	0.64
14:CN:13:THR:H	14:CN:14:PRO:HD2	1.61	0.64
15:CO:10:LYS:HG3	15:CO:11:VAL:N	2.13	0.64
23:CW:38:A:H8	23:CW:38:A:O5'	1.81	0.64
25:DA:2519:U:C5'	25:DA:2520:C:OP1	2.46	0.64
25:DA:2580:U:H4'	29:DE:130:GLY:HA3	1.79	0.64
27:DC:86:ALA:HB1	27:DC:94:VAL:HG11	1.78	0.64
32:DH:86:GLU:HG3	32:DH:165:ALA:CB	2.27	0.64
41:DU:69:CYS:SG	41:DU:79:PHE:CD1	2.88	0.64
42:DV:46:VAL:O	42:DV:46:VAL:HG13	1.97	0.64
44:DX:60:ARG:HH22	54:D7:47:ARG:CZ	2.10	0.64
1:AA:792:A:C4	1:AA:794:A:C6	2.86	0.63
3:AC:61:ALA:O	3:AC:62:ASP:HB2	1.97	0.63
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.80	0.63
19:AS:12:ASP:CB	19:AS:14:HIS:CE1	2.75	0.63
25:BA:1174:A:H5"	25:BA:1175:U:H5'	1.80	0.63
25:BA:1403:C:H5"	25:BA:1471:A:H1'	1.79	0.63
25:BA:1666:G:H1'	35:BO:3:GLN:OE1	1.97	0.63
25:BA:1917:U:C2'	25:BA:1918:A:H5'	2.27	0.63
25:BA:2458:G:N9	25:BA:2490:G:N1	2.47	0.63
34:BN:26:LEU:HD21	34:BN:30:ILE:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:9:ASN:HB2	36:BP:10:PRO:HD2	1.78	0.63
37:BQ:116:GLU:HA	37:BQ:116:GLU:OE1	1.96	0.63
44:BX:63:LYS:HB3	44:BX:72:LYS:HG3	1.80	0.63
2:CB:69:LEU:HD12	2:CB:70:PHE:H	1.60	0.63
23:CW:36:A:C6	23:CW:37:A:C5	2.86	0.63
28:DD:62:TYR:HA	28:DD:87:ASN:ND2	2.13	0.63
32:DH:4:ILE:HD13	32:DH:4:ILE:N	2.12	0.63
36:DP:59:LEU:HA	36:DP:61:ARG:NH2	2.11	0.63
36:DP:79:ARG:CD	36:DP:109:GLY:CA	2.76	0.63
40:DT:29:ARG:HG3	40:DT:30:VAL:HG13	1.80	0.63
40:DT:128:GLU:OE1	40:DT:129:ARG:N	2.30	0.63
40:DT:129:ARG:NH1	40:DT:130:ALA:O	2.31	0.63
41:DU:47:TYR:HA	41:DU:50:ARG:NH2	2.13	0.63
46:DZ:126:VAL:HG12	46:DZ:163:LEU:HA	1.79	0.63
54:D7:41:ARG:HD3	54:D7:45:ALA:HB2	1.80	0.63
55:D8:30:ARG:HA	55:D8:30:ARG:NE	2.12	0.63
1:AA:533:A:O2'	1:AA:534:U:P	2.55	0.63
1:AA:1003:G:N2	1:AA:1038:C:N3	2.46	0.63
13:AM:3:ARG:HD3	31:BG:113:ARG:NH2	2.13	0.63
16:AP:12:LYS:O	16:AP:13:HIS:HB2	1.98	0.63
17:AQ:9:VAL:HG22	17:AQ:56:VAL:HG22	1.79	0.63
20:AT:45:GLN:N	20:AT:91:LEU:HD13	2.13	0.63
25:BA:2259:G:C5	25:BA:2427:C:C4	2.86	0.63
30:BF:46:ARG:HG3	30:BF:46:ARG:NH1	2.10	0.63
33:BI:8:PRO:C	33:BI:9:LEU:HG	2.18	0.63
38:BR:2:ARG:NH1	38:BR:5:LYS:CE	2.61	0.63
39:BS:13:ARG:HG3	39:BS:13:ARG:HH11	1.62	0.63
40:BT:27:THR:O	40:BT:28:VAL:HB	1.98	0.63
40:BT:50:ILE:CD1	40:BT:99:LEU:HD13	2.28	0.63
41:BU:66:ASN:O	41:BU:70:ARG:HG3	1.98	0.63
44:BX:29:TRP:CZ3	44:BX:78:LYS:HB3	2.34	0.63
46:BZ:140:ASP:O	46:BZ:140:ASP:CG	2.36	0.63
1:CA:61:G:C6	1:CA:107:G:N1	2.66	0.63
1:CA:413:G:N2	1:CA:428:G:O2'	2.31	0.63
2:CB:87:ARG:NH1	2:CB:219:VAL:HB	2.13	0.63
23:CW:24:G:C5	23:CW:25:C:C4	2.87	0.63
25:DA:1342:A:N6	25:DA:1397:U:C5	2.66	0.63
25:DA:2820:A:OP1	38:DR:4:LEU:HD22	1.98	0.63
25:DA:2848:G:H3'	40:DT:95:ARG:O	1.98	0.63
28:DD:33:LEU:HD22	28:DD:102:LYS:HD2	1.79	0.63
28:DD:44:ASN:OD1	28:DD:44:ASN:N	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:20:GLY:O	36:DP:21:ARG:NE	2.31	0.63
45:DY:49:VAL:O	45:DY:51:VAL:N	2.31	0.63
48:D1:5:CYS:SG	48:D1:62:VAL:HG23	2.37	0.63
1:AA:227:G:N2	16:AP:62:VAL:O	2.30	0.63
1:AA:411:A:C5	1:AA:413:G:H1'	2.33	0.63
1:AA:595:G:C5'	1:AA:596:C:OP1	2.46	0.63
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.62	0.63
7:AG:76:ARG:HD3	7:AG:89:MET:SD	2.39	0.63
9:AI:3:GLN:O	9:AI:88:TYR:CE1	2.51	0.63
13:AM:3:ARG:HB2	31:BG:113:ARG:HH22	1.62	0.63
25:BA:34:C:H2'	25:BA:35:G:O5'	1.98	0.63
25:BA:83:G:N2	25:BA:103:A:OP2	2.27	0.63
25:BA:2177:C:H1'	27:BC:44:HIS:CD2	2.33	0.63
25:BA:2306:C:H3'	25:BA:2307:G:H5"	1.80	0.63
31:BG:5:VAL:HG12	51:B4:51:TYR:HE1	1.63	0.63
31:BG:32:PRO:HB3	31:BG:172:LEU:HD22	1.80	0.63
32:BH:107:VAL:CG2	32:BH:109:PHE:CE2	2.81	0.63
34:BN:125:GLY:HA3	34:BN:126:PRO:O	1.98	0.63
35:BO:68:GLU:HB3	35:BO:78:ARG:NH1	2.13	0.63
36:BP:52:GLU:OE1	36:BP:55:ARG:NH2	2.32	0.63
36:BP:124:LYS:HG2	36:BP:145:PRO:HD3	1.80	0.63
37:BQ:42:ILE:HG23	37:BQ:46:GLN:OE1	1.98	0.63
45:BY:28:LYS:CB	45:BY:37:VAL:CB	2.40	0.63
6:CF:100:ASN:HB3	18:CR:27:GLY:O	1.97	0.63
25:DA:560:C:H4'	41:DU:52:ARG:HH22	1.62	0.63
25:DA:2259:G:C5	25:DA:2427:C:N4	2.67	0.63
25:DA:2847:U:H3'	25:DA:2848:G:H5'	1.79	0.63
29:DE:4:ILE:HG12	29:DE:28:ALA:HB1	1.79	0.63
40:DT:132:LYS:C	40:DT:134:GLU:H	2.01	0.63
43:DW:9:TYR:CD2	43:DW:102:HIS:NE2	2.55	0.63
43:DW:50:VAL:HG13	43:DW:51:LEU:N	2.13	0.63
44:DX:30:VAL:HG11	44:DX:39:ILE:HD12	1.80	0.63
46:DZ:23:LYS:HD2	46:DZ:39:VAL:O	1.97	0.63
1:AA:1124:G:O2'	10:AJ:38:ILE:HG21	1.99	0.63
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.81	0.63
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.34	0.63
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.12	0.63
25:BA:331:A:H5"	25:BA:332:A:OP2	1.98	0.63
25:BA:1943:U:H4'	25:BA:1944:U:O5'	1.97	0.63
25:BA:1963:U:H3'	25:BA:1963:U:O2	1.99	0.63
30:BF:45:ARG:CG	30:BF:46:ARG:H	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:111:LEU:HB2	31:BG:112:PRO:HD3	1.81	0.63
31:BG:124:SER:HB2	31:BG:131:TYR:CE1	2.32	0.63
45:BY:66:PRO:O	45:BY:67:LEU:HD23	1.98	0.63
2:CB:31:TYR:CD1	2:CB:202:PRO:HB3	2.33	0.63
3:CC:32:LEU:HD22	3:CC:59:ARG:NH1	2.13	0.63
6:CF:39:LYS:HG2	6:CF:40:VAL:H	1.64	0.63
25:DA:458:G:N2	25:DA:470:A:OP2	2.31	0.63
25:DA:1403:C:H5"	25:DA:1471:A:H1'	1.79	0.63
36:DP:78:PRO:HB2	36:DP:111:ARG:HD3	1.81	0.63
43:DW:9:TYR:N	43:DW:102:HIS:CD2	2.62	0.63
45:DY:14:LEU:HD23	45:DY:14:LEU:C	2.18	0.63
1:AA:1224:G:N1	1:AA:1322:C:H1'	2.14	0.63
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.71	0.63
5:AE:139:LEU:O	5:AE:141:GLN:N	2.31	0.63
5:AE:139:LEU:O	5:AE:142:LEU:N	2.31	0.63
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.81	0.63
25:BA:1453:U:O2'	25:BA:1455:G:C8	2.49	0.63
25:BA:2691:C:C4	25:BA:2719:G:N2	2.67	0.63
28:BD:24:ILE:HG13	28:BD:83:GLU:HA	1.80	0.63
30:BF:101:LEU:HD12	30:BF:102:PRO:HD2	1.81	0.63
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	1.99	0.63
1:CA:66:G:C4'	1:CA:173:U:C4	2.82	0.63
1:CA:992:U:O2'	1:CA:993:G:H5"	1.97	0.63
3:CC:132:ARG:O	3:CC:136:GLN:HB2	1.98	0.63
9:CI:4:TYR:HB2	9:CI:19:LEU:CB	2.27	0.63
22:CV:40:C:H2'	22:CV:41:C:H6	1.64	0.63
25:DA:915:C:N4	25:DA:916:G:C6	2.66	0.63
25:DA:945:A:H2'	25:DA:945:A:N3	2.12	0.63
29:DE:188:VAL:CG2	29:DE:189:PRO:HD2	2.28	0.63
33:DI:82:ARG:HH11	33:DI:82:ARG:HG3	1.62	0.63
36:DP:83:VAL:HG23	36:DP:105:LEU:HD22	1.79	0.63
42:DV:28:GLU:O	42:DV:61:VAL:HG11	1.99	0.63
1:AA:197:A:H4'	1:AA:198:G:O5'	1.98	0.63
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.28	0.63
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.14	0.63
23:AW:38:A:H3'	23:AW:39:U:C5'	2.29	0.63
24:AX:12:A:N3	24:AX:12:A:H5"	2.14	0.63
25:BA:866:A:N3	25:BA:866:A:H2'	2.14	0.63
40:BT:34:VAL:HG22	40:BT:39:ARG:CB	2.20	0.63
46:BZ:158:PRO:HG2	46:BZ:161:VAL:HG21	1.79	0.63
2:CB:61:LEU:HD12	2:CB:61:LEU:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.13	0.63
5:CE:127:ASN:O	5:CE:131:ILE:HB	1.98	0.63
6:CF:7:ASN:HB2	6:CF:89:MET:HB3	1.81	0.63
6:CF:29:ALA:O	6:CF:32:ASN:N	2.31	0.63
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.62	0.63
12:CL:92:ASP:O	12:CL:94:PRO:HD3	1.98	0.63
24:CX:19:U:O2'	24:CX:20:U:H5'	1.98	0.63
25:DA:482:A:H4'	45:DY:47:LYS:HD2	1.81	0.63
29:DE:26:ILE:HG22	29:DE:27:LEU:H	1.63	0.63
30:DF:47:GLY:HA3	30:DF:95:ARG:O	1.98	0.63
34:DN:2:LYS:HZ1	41:DU:95:LEU:HD21	1.64	0.63
36:DP:9:ASN:O	36:DP:10:PRO:C	2.36	0.63
37:DQ:30:GLY:CA	37:DQ:107:ALA:HB2	2.27	0.63
39:DS:83:LYS:HE3	39:DS:109:GLY:HA2	1.81	0.63
48:D1:23:LYS:HD3	48:D1:28:GLY:HA3	1.80	0.63
1:AA:562:C:O2'	12:AL:15:ARG:HB3	1.98	0.63
4:AD:3:ARG:HG2	4:AD:118:ARG:CD	2.29	0.63
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.29	0.63
9:AI:55:ALA:O	9:AI:56:LEU:C	2.36	0.63
25:BA:242:G:N1	55:B8:5:LYS:HE2	2.14	0.63
25:BA:1299:G:H4'	25:BA:1301:A:C4	2.34	0.63
28:BD:43:ARG:HH11	28:BD:44:ASN:HD21	1.41	0.63
28:BD:65:ILE:HD11	28:BD:67:PHE:CE1	2.33	0.63
30:BF:22:ALA:HB1	30:BF:26:ALA:HB1	1.81	0.63
39:BS:19:LYS:O	39:BS:20:ARG:HD3	1.99	0.63
40:BT:28:VAL:CG2	40:BT:46:GLU:C	2.66	0.63
40:BT:29:ARG:CD	40:BT:86:ILE:O	2.47	0.63
42:BV:21:ARG:HB3	42:BV:91:TYR:HB2	1.81	0.63
46:BZ:144:LEU:HG	46:BZ:150:LEU:HD12	1.80	0.63
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.81	0.63
1:CA:1442(A):G:N1	25:DA:2864:G:OP1	2.31	0.63
2:CB:31:TYR:HE2	2:CB:46:LYS:HZ3	1.46	0.63
4:CD:64:LEU:HB2	4:CD:198:VAL:HG21	1.80	0.63
5:CE:41:VAL:HG22	5:CE:113:ALA:HA	1.81	0.63
5:CE:150:ARG:HG3	5:CE:150:ARG:NH1	2.09	0.63
9:CI:106:ALA:O	9:CI:108:VAL:HG22	1.99	0.63
16:CP:43:LYS:HG2	16:CP:48:TRP:CE2	2.32	0.63
25:DA:99:U:H1'	25:DA:102:G:N3	2.14	0.63
25:DA:389:G:N1	36:DP:71:VAL:HG22	2.14	0.63
25:DA:750:A:C2'	25:DA:752:A:OP1	2.47	0.63
32:DH:136:ILE:HG22	32:DH:136:ILE:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:153:LYS:HG3	32:DH:161:GLY:HA2	1.79	0.63
36:DP:124:LYS:HG2	36:DP:145:PRO:HD3	1.80	0.63
37:DQ:12:GLN:HE21	37:DQ:73:PRO:HD2	1.62	0.63
39:DS:19:LYS:O	39:DS:21:THR:N	2.31	0.63
39:DS:52:SER:HB2	39:DS:55:ALA:H	1.61	0.63
39:DS:58:LEU:HD23	39:DS:58:LEU:N	2.14	0.63
40:DT:91:ARG:HB3	40:DT:116:ALA:HA	1.80	0.63
45:DY:79:CYS:O	45:DY:80:GLY:O	2.17	0.63
1:AA:451:A:H5"	1:AA:452:A:OP1	1.99	0.63
1:AA:1238:A:N7	1:AA:1301:U:O4	2.31	0.63
2:AB:55:PHE:HA	2:AB:58:ILE:CG1	2.27	0.63
2:AB:178:ARG:NH2	8:AH:74:PRO:HG3	2.14	0.63
7:AG:105:VAL:O	7:AG:108:ALA:HB3	1.99	0.63
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.62	0.63
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.79	0.63
12:AL:36:VAL:O	12:AL:58:VAL:HA	1.98	0.63
15:AO:24:SER:O	15:AO:28:GLN:CG	2.36	0.63
24:AX:20:U:C4	24:AX:21:C:N4	2.66	0.63
25:BA:2171:A:N3	25:BA:2172:U:C4	2.67	0.63
25:BA:2320:A:C6	25:BA:2333:A:N7	2.66	0.63
25:BA:2683:C:OP1	40:BT:53:ARG:NH2	2.31	0.63
25:BA:2712(A):A:H5'	38:BR:13:HIS:HD2	1.64	0.63
25:BA:2779:U:H1'	25:BA:2781:A:C6	2.33	0.63
46:BZ:23:LYS:HG2	46:BZ:38:TYR:CE1	2.31	0.63
46:BZ:75:ASN:O	46:BZ:84:GLU:HB2	1.98	0.63
53:B6:19:ARG:HG2	53:B6:20:ASN:N	2.13	0.63
1:CA:1054:C:N4	23:CY:34:G:C1'	2.55	0.63
2:CB:74:LYS:HB3	2:CB:169:LYS:HE3	1.81	0.63
4:CD:10:ARG:HG3	4:CD:10:ARG:HH11	1.64	0.63
5:CE:31:LEU:HD13	5:CE:43:LEU:HD11	1.80	0.63
11:CK:13:GLN:HB3	11:CK:75:TYR:O	1.99	0.63
25:DA:1105:U:H2'	25:DA:1106:G:H8	1.64	0.63
25:DA:1287:A:N6	38:DR:106:GLY:O	2.32	0.63
25:DA:2542:A:O2'	25:DA:2544:G:N7	2.31	0.63
29:DE:100:GLU:O	29:DE:172:VAL:HG23	1.99	0.63
30:DF:129:PHE:HA	30:DF:142:TRP:NE1	2.14	0.63
31:DG:76:SER:OG	31:DG:83:ARG:HA	1.99	0.63
31:DG:81:LYS:N	31:DG:81:LYS:HD3	2.14	0.63
42:DV:38:LEU:HB3	42:DV:52:VAL:HG22	1.81	0.63
43:DW:64:MET:O	43:DW:65:LEU:HB3	1.98	0.63
2:AB:25:ASN:CG	2:AB:26:PRO:HD2	2.20	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:96:ARG:NH1	2:AB:148:TYR:HE1	1.97	0.63
8:AH:109:ILE:CG2	8:AH:137:VAL:HB	2.28	0.63
11:AK:21:ILE:HD13	11:AK:84:VAL:HG12	1.81	0.63
13:AM:49:THR:HB	13:AM:51:ALA:HB3	1.80	0.63
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.28	0.63
25:BA:32:C:O5'	25:BA:32:C:H6	1.82	0.63
25:BA:311:A:N9	25:BA:332:A:N7	2.47	0.63
25:BA:865:C:H5'	25:BA:866:A:OP1	1.99	0.63
25:BA:2712:U:H5"	25:BA:2714:G:C5'	2.29	0.63
31:BG:102:PHE:HE2	31:BG:141:PHE:CE1	2.17	0.63
39:BS:30:ARG:HH22	39:BS:62:LYS:HD2	1.62	0.63
44:BX:11:PRO:HG2	44:BX:13:LEU:HG	1.81	0.63
45:BY:55:TYR:CD1	45:BY:56:PRO:HG2	2.34	0.63
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CD1	2.34	0.63
1:CA:339:C:OP2	35:DO:97:ARG:NH1	2.32	0.63
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.27	0.63
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	1.80	0.63
11:CK:82:VAL:HG11	11:CK:108:ILE:HG12	1.80	0.63
19:CS:46:GLY:H	19:CS:62:ILE:HG23	1.61	0.63
23:CW:31:A:N1	23:CW:39:U:O4	2.32	0.63
25:DA:389:G:H1	36:DP:71:VAL:HG22	1.63	0.63
31:DG:16:ARG:HG2	31:DG:16:ARG:NH1	2.12	0.63
32:DH:89:ILE:HD11	32:DH:129:THR:CB	2.18	0.63
39:DS:20:ARG:HD3	39:DS:21:THR:N	2.13	0.63
40:DT:86:ILE:HG12	40:DT:87:ASP:N	2.12	0.63
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.64	0.62
4:AD:20:TYR:HE2	4:AD:27:TYR:CE2	2.16	0.62
7:AG:27:ILE:HD11	7:AG:43:PHE:HD2	1.63	0.62
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.00	0.62
22:AV:36:A:C2	24:AX:18:G:C2	2.87	0.62
25:BA:536:A:OP1	41:BU:53:ARG:NH1	2.32	0.62
25:BA:866:A:N6	25:BA:914:C:C5	2.67	0.62
25:BA:2258:C:H6	25:BA:2258:C:O5'	1.82	0.62
25:BA:2458:G:C4	25:BA:2490:G:C2	2.87	0.62
28:BD:69:ARG:HH22	28:BD:192:THR:HB	1.64	0.62
28:BD:129:ASN:O	28:BD:193:VAL:HG13	1.98	0.62
28:BD:243:GLY:O	28:BD:244:ARG:HB3	1.99	0.62
37:BQ:54:MET:HG3	37:BQ:117:ALA:HB1	1.80	0.62
39:BS:53:SER:HG	39:BS:54:LEU:HD22	1.60	0.62
41:BU:8:VAL:HG12	41:BU:9:VAL:N	2.14	0.62
47:B0:26:TYR:N	47:B0:29:GLN:HE21	1.96	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B7:46:VAL:HG12	54:B7:48:LYS:NZ	2.14	0.62
2:CB:19:HIS:CE1	2:CB:20:GLU:HG2	2.34	0.62
2:CB:85:ALA:CB	2:CB:92:TYR:HB3	2.29	0.62
10:CJ:30:SER:CB	10:CJ:80:LYS:HB3	2.29	0.62
22:CV:53:G:O2'	22:CV:54:G:P	2.57	0.62
25:DA:242:G:C8	55:D8:3:LYS:CD	2.82	0.62
25:DA:9271:G:N2	25:DA:9272:G:H1'	2.14	0.62
25:DA:627:A:H4'	25:DA:628:G:H5'	1.81	0.62
28:DD:227:ASN:HB3	28:DD:228:PRO:HD2	1.80	0.62
34:DN:10:GLU:CD	34:DN:11:PRO:HD2	2.19	0.62
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.79	0.62
10:AJ:49:VAL:HG12	10:AJ:61:GLU:O	1.99	0.62
19:AS:43:GLU:HA	19:AS:45:VAL:HG13	1.80	0.62
25:BA:311:A:OP1	25:BA:311:A:H8	1.80	0.62
25:BA:832:G:H21	36:BP:53:GLY:HA3	1.63	0.62
25:BA:1523:U:H2'	25:BA:1524:G:H8	1.64	0.62
25:BA:2051:A:H61	25:BA:2614:A:H2'	1.63	0.62
25:BA:2345:G:O2'	25:BA:2382:G:C4'	2.47	0.62
36:BP:59:LEU:HD21	55:B8:13:ARG:HH22	1.63	0.62
39:BS:89:ARG:HD3	39:BS:92:TYR:N	2.14	0.62
43:BW:2:GLU:HA	43:BW:107:LEU:O	1.99	0.62
44:BX:66:LEU:O	44:BX:69:TYR:HB2	1.99	0.62
1:CA:119:A:N6	1:CA:288:A:C4	2.68	0.62
2:CB:235:SER:O	2:CB:237:ALA:N	2.31	0.62
4:CD:33:MET:HE2	4:CD:37:PRO:CA	2.28	0.62
5:CE:142:LEU:C	5:CE:143:ARG:HG2	2.19	0.62
11:CK:20:TYR:O	11:CK:31:THR:N	2.31	0.62
17:CQ:22:LEU:HD12	17:CQ:40:LYS:O	1.99	0.62
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	1.99	0.62
18:CR:56:THR:OG1	18:CR:58:LEU:HD13	1.99	0.62
25:DA:13:A:C4	25:DA:15:G:O6	2.53	0.62
29:DE:61:ARG:HB3	29:DE:62:PRO:CD	2.29	0.62
29:DE:116:VAL:HG22	29:DE:117:MET:N	2.14	0.62
30:DF:9:ILE:HD11	30:DF:125:LEU:CG	2.28	0.62
32:DH:86:GLU:O	32:DH:87:LEU:HB2	2.00	0.62
35:DO:47:ILE:HG23	35:DO:48:PRO:HD2	1.81	0.62
39:DS:86:ALA:O	39:DS:87:PHE:HB3	1.99	0.62
42:DV:6:LYS:HG3	42:DV:10:LYS:O	1.98	0.62
50:D3:56:VAL:HG12	50:D3:57:GLU:N	2.11	0.62
1:AA:1128:C:H5'	9:AI:16:ARG:HH22	1.65	0.62
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.14	0.62
11:AK:58:PRO:HB3	11:AK:93:GLN:HG3	1.80	0.62
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.82	0.62
20:AT:12:ALA:O	20:AT:15:ARG:N	2.30	0.62
25:BA:620:G:H4'	25:BA:621:A:O5'	1.99	0.62
27:BC:55:ASP:CG	27:BC:56:GLN:H	2.01	0.62
30:BF:64:ILE:C	30:BF:65:TRP:CD1	2.72	0.62
37:BQ:110:THR:HG23	37:BQ:113:GLN:HB2	1.80	0.62
41:BU:25:TRP:CD1	41:BU:26:GLY:N	2.67	0.62
41:BU:62:ILE:HG13	41:BU:76:TYR:CE1	2.34	0.62
46:BZ:108:PRO:HB2	46:BZ:144:LEU:O	1.99	0.62
54:B7:11:LYS:O	54:B7:11:LYS:HD2	1.99	0.62
2:CB:68:ILE:HD13	2:CB:161:ALA:HB3	1.81	0.62
12:CL:43:VAL:HG23	12:CL:44:THR:N	2.14	0.62
13:CM:83:ASP:H	13:CM:93:ARG:NH2	1.96	0.62
13:CM:126:LYS:HG3	13:CM:126:LYS:O	1.99	0.62
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.35	0.62
20:CT:97:ALA:O	20:CT:99:LEU:N	2.31	0.62
36:DP:57:THR:HG23	36:DP:59:LEU:HB3	1.80	0.62
45:DY:47:LYS:O	45:DY:49:VAL:HG23	1.99	0.62
55:D8:23:VAL:CG1	55:D8:46:ARG:HH11	2.11	0.62
1:AA:251:G:N1	1:AA:266:G:N1	2.47	0.62
1:AA:1228:C:O2'	13:AM:116:THR:O	2.15	0.62
2:AB:115:LEU:HB2	2:AB:145:LEU:HD12	1.82	0.62
14:AN:9:LYS:HG3	14:AN:12:ARG:NH2	2.15	0.62
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.80	0.62
23:AW:14:A:N1	23:AW:15:G:H1'	2.14	0.62
25:BA:804:A:H2'	25:BA:806:C:C4	2.35	0.62
25:BA:1251:C:C5'	25:BA:1251:C:C6	2.79	0.62
25:BA:2447:G:H1'	25:BA:2501:C:C5	2.33	0.62
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.63	0.62
30:BF:25:PRO:HG3	30:BF:119:ARG:HB2	1.80	0.62
30:BF:101:LEU:O	30:BF:106:ARG:NH1	2.31	0.62
31:BG:72:ARG:HD3	31:BG:86:MET:CA	2.30	0.62
50:B3:29:ARG:HG3	50:B3:29:ARG:NH1	2.13	0.62
2:CB:235:SER:OG	2:CB:236:TYR:HD1	1.82	0.62
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.29	0.62
19:CS:52:TYR:CD1	19:CS:57:HIS:CE1	2.84	0.62
20:CT:29:LYS:HD2	20:CT:66:ALA:CB	2.29	0.62
28:DD:24:ILE:HG12	28:DD:25:THR:N	2.10	0.62
29:DE:101:ARG:HH21	29:DE:171:GLU:CA	2.11	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:147:ASN:N	32:DH:147:ASN:HD22	1.96	0.62
35:DO:104:ARG:HH21	40:DT:43:GLN:HE22	1.47	0.62
40:DT:27:THR:HA	40:DT:87:ASP:HB2	1.81	0.62
1:AA:991:U:O2	1:AA:993:G:H8	1.81	0.62
1:AA:1049:U:C2	1:AA:1201:A:C4	2.86	0.62
1:AA:1358:U:OP1	14:AN:35:ARG:HG2	2.00	0.62
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.99	0.62
5:AE:57:LYS:O	5:AE:61:TYR:CD2	2.52	0.62
9:AI:58:HIS:CB	9:AI:59:PHE:CE1	2.82	0.62
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.99	0.62
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.81	0.62
23:AW:34:G:C5	24:AX:14:A:C4	2.86	0.62
25:BA:2614:A:C5'	25:BA:2615:U:OP1	2.48	0.62
27:BC:78:ALA:HB2	27:BC:82:LYS:HD2	1.81	0.62
33:BI:29:TYR:HD2	33:BI:30:LEU:CD2	2.12	0.62
33:BI:38:LEU:HD12	33:BI:38:LEU:N	2.11	0.62
36:BP:57:THR:HG23	36:BP:59:LEU:H	1.64	0.62
38:BR:5:LYS:O	38:BR:6:SER:HB3	1.99	0.62
42:BV:22:VAL:O	42:BV:23:GLU:HB2	2.00	0.62
43:BW:6:ILE:HA	43:BW:103:ILE:O	2.00	0.62
47:B0:41:ARG:HD2	47:B0:41:ARG:H	1.65	0.62
48:B1:58:ILE:HD11	48:B1:60:PHE:CZ	2.34	0.62
13:CM:116:THR:HG22	13:CM:117:VAL:H	1.65	0.62
13:CM:119:GLY:C	13:CM:120:LYS:HD3	2.19	0.62
22:CV:53:G:HO2'	22:CV:54:G:P	2.22	0.62
25:DA:250:G:C6	25:DA:251:A:C6	2.87	0.62
25:DA:890:A:N6	25:DA:892:G:C6	2.67	0.62
26:DB:66:A:H61	26:DB:108:U:H2'	1.65	0.62
30:DF:198:ALA:HA	30:DF:201:VAL:CG1	2.28	0.62
31:DG:97:ASP:O	31:DG:100:TRP:N	2.32	0.62
33:DI:52:ARG:CB	33:DI:52:ARG:NH1	2.62	0.62
34:DN:9:VAL:HG12	34:DN:10:GLU:N	2.14	0.62
46:DZ:6:LYS:HD2	46:DZ:6:LYS:H	1.64	0.62
46:DZ:99:TYR:CD2	46:DZ:125:LEU:HD13	2.35	0.62
46:DZ:125:LEU:HG	46:DZ:164:ALA:HB3	1.82	0.62
52:D5:46:CYS:SG	52:D5:47:PRO:HD2	2.39	0.62
1:AA:742:G:OP2	15:AO:35:ARG:NH2	2.32	0.62
3:AC:35:GLU:HA	3:AC:38:ARG:HD2	1.80	0.62
4:AD:116:GLN:HE22	4:AD:157:LEU:HD11	1.64	0.62
7:AG:10:ARG:HG3	7:AG:10:ARG:NH1	1.99	0.62
7:AG:16:LEU:HD13	9:AI:44:VAL:HG23	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:11:ARG:O	13:AM:13:LYS:N	2.33	0.62
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.15	0.62
25:BA:1050:A:H2'	25:BA:1051:G:H8	1.65	0.62
25:BA:1453:U:HO2'	25:BA:1455:G:H8	1.43	0.62
25:BA:2344:U:OP1	53:B6:38:LYS:HD2	1.99	0.62
27:BC:49:ILE:HG22	27:BC:50:ASP:H	1.64	0.62
31:BG:44:GLY:H	31:BG:88:ILE:CG1	2.12	0.62
37:BQ:140:ALA:HB1	46:BZ:99:TYR:HB2	1.82	0.62
40:BT:91:ARG:HA	40:BT:117:ASP:H	1.65	0.62
46:BZ:117:LEU:HA	46:BZ:173:ALA:O	2.00	0.62
1:CA:279:A:P	1:CA:281:G:H5'	2.39	0.62
23:CY:35:A:H2'	23:CY:36:A:H5"	1.82	0.62
25:DA:2712:U:O2'	25:DA:2713:A:C5'	2.48	0.62
26:DB:57:A:H1'	31:DG:29:TRP:HB2	1.81	0.62
29:DE:44:TYR:O	29:DE:45:THR:HB	1.99	0.62
29:DE:59:VAL:O	29:DE:60:ASN:HB3	1.99	0.62
31:DG:181:ARG:HG2	31:DG:181:ARG:O	1.98	0.62
36:DP:92:GLU:HA	36:DP:123:LEU:HD13	1.81	0.62
43:DW:8:ARG:HA	43:DW:102:HIS:CD2	2.34	0.62
43:DW:64:MET:HE3	43:DW:109:GLU:HG2	1.82	0.62
46:DZ:99:TYR:HA	46:DZ:125:LEU:HA	1.80	0.62
48:D1:45:ASN:ND2	48:D1:47:GLN:HE21	1.96	0.62
50:D3:36:VAL:O	50:D3:36:VAL:HG23	1.99	0.62
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.14	0.62
3:AC:123:GLN:O	3:AC:128:PHE:HB2	1.99	0.62
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.00	0.62
19:AS:6:LYS:HD2	19:AS:7:LYS:HD3	1.81	0.62
25:BA:588:U:OP2	25:BA:588:U:H5	1.83	0.62
25:BA:704:G:N2	25:BA:726:G:C4	2.68	0.62
30:BF:124:LEU:HG	30:BF:126:VAL:HG13	1.82	0.62
31:BG:117:PHE:HE1	31:BG:119:GLY:CA	2.11	0.62
32:BH:76:VAL:O	32:BH:79:VAL:HG22	2.00	0.62
36:BP:78:PRO:HB2	36:BP:111:ARG:HD3	1.81	0.62
38:BR:11:ASN:O	38:BR:12:ARG:HB2	1.98	0.62
1:CA:192:U:O3'	20:CT:57:ARG:HD2	2.00	0.62
1:CA:365:U:O2'	1:CA:366:C:H5	1.82	0.62
4:CD:8:VAL:O	4:CD:10:ARG:N	2.33	0.62
6:CF:72:VAL:HG12	6:CF:73:ASN:N	2.13	0.62
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.80	0.62
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.33	0.62
22:CV:48:U:H3'	22:CV:49:C:H5"	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CY:33:U:H5"	23:CY:34:G:OP2	2.00	0.62
25:DA:481:G:H1'	25:DA:506:G:H21	1.63	0.62
40:DT:23:ARG:HG3	40:DT:120:ARG:CZ	2.29	0.62
44:DX:54:VAL:HG22	44:DX:81:VAL:HG12	1.81	0.62
45:DY:88:LYS:HB3	45:DY:90:LEU:CD2	2.29	0.62
50:D3:4:LEU:HD23	50:D3:5:LYS:N	2.15	0.62
1:AA:1158:C:O2	1:AA:1158:C:C2'	2.47	0.62
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	1.82	0.62
19:AS:43:GLU:C	19:AS:45:VAL:HG13	2.19	0.62
22:AV:15:G:N2	22:AV:49:C:H41	1.98	0.62
22:AV:19:G:C2	22:AV:59:A:C5	2.87	0.62
22:AV:57:C:H1'	31:BG:76:SER:O	1.99	0.62
29:BE:119:ARG:HD2	29:BE:120:TRP:CE2	2.34	0.62
36:BP:102:ARG:O	36:BP:102:ARG:HD2	2.00	0.62
48:B1:52:ARG:NH1	48:B1:74:VAL:HG12	2.14	0.62
48:B1:86:SER:HB2	48:B1:89:GLU:HB2	1.80	0.62
51:B4:36:VAL:HB	51:B4:37:PRO:HD2	1.82	0.62
1:CA:1057:G:H5"	3:CC:154:SER:HB2	1.82	0.62
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.82	0.62
25:DA:1648:C:N4	25:DA:2010:G:C6	2.68	0.62
25:DA:2468:G:HO2'	25:DA:2469:A:H8	1.46	0.62
26:DB:109:C:OP2	26:DB:109:C:C6	2.53	0.62
31:DG:41:GLN:HB3	31:DG:43:LEU:CD1	2.30	0.62
33:DI:74:ASN:ND2	33:DI:74:ASN:H	1.97	0.62
34:DN:120:LEU:CD1	34:DN:122:VAL:HG23	2.29	0.62
38:DR:94:TYR:N	38:DR:94:TYR:CD1	2.68	0.62
39:DS:56:LEU:O	39:DS:58:LEU:HD22	1.98	0.62
39:DS:70:GLY:O	39:DS:73:LEU:HB3	1.99	0.62
55:D8:14:VAL:HG21	55:D8:22:VAL:CG1	2.29	0.62
1:AA:710:G:OP1	6:AF:54:LYS:HD2	2.00	0.62
1:AA:1139:G:N3	1:AA:1141:C:N4	2.47	0.62
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.14	0.62
2:AB:144:ARG:HA	2:AB:147:LYS:CB	2.28	0.62
4:AD:138:TYR:C	4:AD:138:TYR:HD2	2.03	0.62
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.81	0.62
13:AM:63:THR:HG22	13:AM:64:TRP:N	2.14	0.62
14:AN:15:LYS:O	14:AN:16:PHE:O	2.17	0.62
19:AS:29:ARG:HD2	19:AS:29:ARG:C	2.21	0.62
23:AW:51:U:H2'	23:AW:52:G:H8	1.64	0.62
25:BA:84:A:H4'	25:BA:85:G:O5'	1.99	0.62
25:BA:686:G:N2	25:BA:788:A:H61	1.97	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1456:G:H2'	25:BA:1457:A:H8	1.64	0.62
32:BH:20:ALA:HB3	32:BH:23:ARG:O	1.99	0.62
34:BN:34:LEU:O	34:BN:49:GLY:HA3	2.00	0.62
34:BN:126:PRO:O	34:BN:127:ASP:HB2	1.99	0.62
36:BP:92:GLU:HA	36:BP:123:LEU:HD13	1.80	0.62
39:BS:67:ARG:HH11	39:BS:67:ARG:HG2	1.64	0.62
1:CA:438:G:H4'	1:CA:439:A:OP1	1.98	0.62
1:CA:1224:G:C6	1:CA:1322:C:H1'	2.34	0.62
3:CC:62:ASP:O	3:CC:98:ASN:HB3	1.99	0.62
18:CR:74:ARG:HH21	18:CR:81:PHE:HA	1.65	0.62
23:CY:36:A:H3'	23:CY:36:A:C8	2.34	0.62
25:DA:2469:A:O2'	37:DQ:56:ARG:HD3	2.00	0.62
25:DA:2729:G:H1'	29:DE:187:ALA:HB2	1.81	0.62
31:DG:94:LEU:HD23	31:DG:94:LEU:N	2.14	0.62
35:DO:18:LYS:HB2	35:DO:45:GLU:HG2	1.82	0.62
42:DV:55:ALA:HB1	42:DV:101:GLY:HA2	1.82	0.62
52:D5:56:LYS:HB3	52:D5:56:LYS:HZ2	1.65	0.62
1:AA:324:G:OP1	20:AT:70:SER:HB2	2.00	0.62
2:AB:74:LYS:HD2	2:AB:74:LYS:N	2.12	0.62
4:AD:105:VAL:HG11	4:AD:126:ILE:HD11	1.82	0.62
22:AV:35:C:O2'	22:AV:36:A:P	2.57	0.62
23:AW:34:G:N1	24:AX:14:A:N3	2.47	0.62
25:BA:311:A:O4'	25:BA:332:A:C8	2.52	0.62
25:BA:531:C:OP1	25:BA:561:G:N1	2.33	0.62
25:BA:1139:G:O2'	25:BA:1143:A:N1	2.29	0.62
25:BA:2477:C:C4	56:B9:4:ARG:NH1	2.66	0.62
28:BD:49:ILE:HD11	28:BD:51:VAL:O	1.99	0.62
29:BE:100:GLU:O	29:BE:172:VAL:HG23	2.00	0.62
30:BF:132:VAL:HG13	30:BF:133:ASN:N	2.13	0.62
38:BR:10:LEU:CB	38:BR:17:ARG:NE	2.54	0.62
39:BS:96:GLY:O	39:BS:98:VAL:N	2.29	0.62
41:BU:14:HIS:C	41:BU:16:LYS:H	2.02	0.62
45:BY:42:VAL:CB	45:BY:65:ALA:HB3	2.26	0.62
46:BZ:150:LEU:HD21	46:BZ:172:ALA:HB3	1.82	0.62
1:CA:324:G:P	20:CT:70:SER:HB2	2.39	0.62
1:CA:1372:U:H5"	9:CI:71:SER:HB3	1.81	0.62
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.19	0.62
25:DA:1312:U:OP2	44:DX:63:LYS:NZ	2.32	0.62
26:DB:9:G:OP1	39:DS:15:ARG:NH1	2.32	0.62
26:DB:14:U:O2'	26:DB:108:U:C4'	2.46	0.62
28:DD:28:GLU:N	28:DD:29:PRO:HD2	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:77:ALA:CB	28:DD:97:TYR:HA	2.29	0.62
30:DF:133:ASN:O	30:DF:135:LYS:N	2.32	0.62
31:DG:98:ARG:O	31:DG:101:ILE:HG12	2.00	0.62
36:DP:57:THR:HG23	36:DP:59:LEU:N	2.15	0.62
39:DS:41:ASP:OD2	39:DS:44:LYS:HB2	2.00	0.62
39:DS:106:ARG:HB2	39:DS:106:ARG:CZ	2.28	0.62
42:DV:66:ARG:NH1	42:DV:88:ARG:HD3	2.15	0.62
45:DY:50:ARG:HB3	45:DY:53:PRO:HG2	1.82	0.62
45:DY:57:GLN:HE21	45:DY:57:GLN:C	2.02	0.62
56:D9:2:LYS:HD2	56:D9:3:VAL:HG23	1.81	0.62
1:AA:547:A:H4'	1:AA:548:G:O5'	2.00	0.61
1:AA:1243:C:OP2	21:AU:10:ARG:NH2	2.33	0.61
9:AI:96:LEU:HD11	9:AI:102:LEU:HD23	1.82	0.61
25:BA:637:A:H4'	25:BA:638:G:O5'	1.99	0.61
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.64	0.61
33:BI:25:TYR:HE1	33:BI:29:TYR:CD2	2.18	0.61
37:BQ:42:ILE:HD12	37:BQ:42:ILE:N	2.15	0.61
39:BS:15:ARG:HD3	39:BS:15:ARG:H	1.61	0.61
45:BY:28:LYS:CB	45:BY:37:VAL:CG2	2.78	0.61
46:BZ:57:ILE:HG22	46:BZ:58:VAL:H	1.64	0.61
1:CA:411:A:N7	1:CA:429:U:C4	2.68	0.61
2:CB:33:TYR:HB3	2:CB:41:ILE:HG22	1.82	0.61
2:CB:63:MET:HG3	2:CB:64:ARG:N	2.14	0.61
7:CG:69:VAL:HG12	7:CG:69:VAL:O	1.98	0.61
25:DA:2378:A:H4'	39:DS:23:ARG:NH1	2.14	0.61
33:DI:25:TYR:CE2	33:DI:29:TYR:HD2	2.18	0.61
47:D0:41:ARG:H	47:D0:41:ARG:CD	2.11	0.61
48:D1:6:GLU:HG3	48:D1:61:ARG:O	2.00	0.61
53:D6:15:GLU:O	53:D6:47:THR:HG21	1.99	0.61
1:AA:1279:A:H2'	1:AA:1282:C:H41	1.55	0.61
3:AC:46:GLU:O	3:AC:47:LEU:HB2	1.99	0.61
25:BA:27:G:N2	25:BA:512:G:H2'	2.14	0.61
25:BA:243:U:OP1	55:B8:6:THR:CG2	2.46	0.61
25:BA:660:G:H5'	30:BF:99:TYR:CD2	2.35	0.61
25:BA:806:C:OP2	36:BP:41:ARG:NH2	2.32	0.61
25:BA:1188:U:H4'	42:BV:79:VAL:HG23	1.82	0.61
25:BA:2249:U:H1'	25:BA:2275:C:H41	1.65	0.61
29:BE:30:PRO:C	29:BE:32:PRO:HD3	2.20	0.61
29:BE:132:HIS:CG	29:BE:135:HIS:NE2	2.68	0.61
30:BF:28:ILE:HG21	30:BF:116:ASP:HB2	1.82	0.61
31:BG:72:ARG:CD	31:BG:86:MET:HB3	2.27	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:52:GLU:OE1	36:BP:55:ARG:HD3	1.99	0.61
42:BV:79:VAL:HG22	42:BV:79:VAL:O	1.98	0.61
46:BZ:128:VAL:HG13	46:BZ:129:SER:N	2.14	0.61
10:CJ:61:GLU:OE1	14:CN:58:LYS:HD3	2.00	0.61
16:CP:8:ARG:O	16:CP:9:PHE:CD2	2.53	0.61
20:CT:33:ILE:CD1	20:CT:33:ILE:N	2.61	0.61
20:CT:83:ARG:O	20:CT:85:MET:N	2.30	0.61
29:DE:30:PRO:HA	29:DE:92:THR:HG22	1.83	0.61
33:DI:133:HIS:O	33:DI:134:PRO:C	2.38	0.61
35:DO:9:GLU:O	35:DO:83:ALA:HA	2.00	0.61
36:DP:82:GLY:HA2	36:DP:113:LYS:O	2.00	0.61
39:DS:99:LYS:O	39:DS:102:ALA:HB3	2.00	0.61
46:DZ:17:ALA:HA	46:DZ:20:ARG:HG3	1.82	0.61
53:D6:10:LEU:HD12	55:D8:34:TRP:CD1	2.34	0.61
1:AA:79:G:H21	1:AA:91:C:H41	1.48	0.61
1:AA:971:G:OP1	1:AA:972:C:C5’	2.49	0.61
1:AA:1239:A:H1’	1:AA:1241:G:C4	2.35	0.61
2:AB:186:ALA:O	2:AB:201:ILE:HG12	1.99	0.61
3:AC:141:VAL:HG11	3:AC:149:ALA:HB2	1.81	0.61
22:AV:50:G:O6	22:AV:66:C:N4	2.33	0.61
25:BA:1266:G:OP2	52:B5:19:ARG:NH1	2.34	0.61
25:BA:2123:G:N2	27:BC:42:GLU:OE2	2.32	0.61
25:BA:2729:G:H1’	29:BE:187:ALA:HB2	1.82	0.61
28:BD:60:ARG:HD3	28:BD:86:PRO:O	2.01	0.61
29:BE:179:GLU:HB3	29:BE:181:LEU:HD22	1.81	0.61
30:BF:117:ARG:HD3	30:BF:120:GLU:OE1	2.00	0.61
52:B5:35:GLU:O	52:B5:36:CYS:HB2	1.99	0.61
53:B6:11:LEU:HG	53:B6:26:ASN:ND2	2.15	0.61
1:CA:748:C:H6	1:CA:748:C:O5’	1.82	0.61
4:CD:19:LEU:HD23	4:CD:21:LEU:HD11	1.82	0.61
16:CP:22:THR:HA	16:CP:33:ILE:CG1	2.30	0.61
23:CY:36:A:H8	23:CY:36:A:C5’	2.13	0.61
32:DH:6:ARG:NE	32:DH:54:ARG:HH12	1.99	0.61
36:DP:102:ARG:O	36:DP:102:ARG:HD2	2.00	0.61
51:D4:9:LEU:CA	51:D4:26:SER:O	2.39	0.61
3:AC:16:ARG:HB2	3:AC:16:ARG:HH11	1.61	0.61
19:AS:40:ILE:CG2	19:AS:62:ILE:HD11	2.29	0.61
23:AW:8:U:O2	23:AW:21:A:C2	2.54	0.61
25:BA:2578:G:O2’	25:BA:2579:C:H5’	2.01	0.61
29:BE:33:VAL:CG1	29:BE:69:LYS:HE3	2.22	0.61
31:BG:44:GLY:H	31:BG:88:ILE:HG12	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:114:ILE:O	31:BG:116:ASP:N	2.33	0.61
49:B2:67:LYS:HA	49:B2:70:GLN:HE22	1.65	0.61
2:CB:18:GLY:CA	2:CB:42:ILE:HG22	2.30	0.61
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.81	0.61
13:CM:124:PRO:CB	13:CM:125:ARG:CA	2.77	0.61
25:DA:82:G:C6	25:DA:83:G:O6	2.53	0.61
25:DA:340:A:H2'	25:DA:341:G:H8	1.65	0.61
25:DA:704:G:O2'	25:DA:726:G:N2	2.34	0.61
25:DA:995:C:C5	41:DU:57:PHE:CE1	2.88	0.61
25:DA:1209:G:O2'	25:DA:1237:A:N1	2.26	0.61
25:DA:1272:A:H1'	25:DA:1618:A:C8	2.35	0.61
27:DC:36:LYS:HD3	27:DC:37:PHE:H	1.63	0.61
30:DF:46:ARG:HG2	30:DF:46:ARG:NH1	2.10	0.61
32:DH:127:GLU:HG3	32:DH:130:ARG:CZ	2.30	0.61
34:DN:51:PHE:CZ	34:DN:119:ARG:HD2	2.35	0.61
53:D6:17:LYS:C	53:D6:18:ARG:HD3	2.21	0.61
1:AA:429:U:OP1	4:AD:13:ARG:NH2	2.33	0.61
3:AC:131:ARG:NH1	5:AE:50:GLU:HG2	2.15	0.61
12:AL:26:ALA:C	12:AL:27:LEU:HD22	2.21	0.61
23:AY:31:A:C4	23:AY:32:U:C6	2.88	0.61
25:BA:1170:G:O6	25:BA:1179:C:N4	2.33	0.61
30:BF:20:LEU:O	30:BF:24:LEU:HD23	2.00	0.61
31:BG:86:MET:CG	31:BG:87:PRO:CD	2.75	0.61
33:BI:18:VAL:HG12	33:BI:18:VAL:O	2.00	0.61
36:BP:55:ARG:HG2	36:BP:56:SER:N	2.15	0.61
37:BQ:79:LEU:HD22	37:BQ:80:GLU:CG	2.30	0.61
55:B8:46:ARG:O	55:B8:47:LYS:CB	2.49	0.61
1:CA:280:C:O2	17:CQ:38:ARG:HG3	2.00	0.61
1:CA:992:U:O2'	1:CA:993:G:P	2.59	0.61
2:CB:158:LEU:HD12	2:CB:158:LEU:N	2.15	0.61
5:CE:86:ALA:HB3	5:CE:130:ASN:HD22	1.64	0.61
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.81	0.61
17:CQ:31:LEU:HD12	17:CQ:31:LEU:O	2.00	0.61
23:CY:29:G:N3	23:CY:29:G:H2'	2.14	0.61
25:DA:568:U:H5'	25:DA:945:A:C6	2.35	0.61
25:DA:913:U:O2'	25:DA:914:C:C5	2.53	0.61
25:DA:1826:G:H4'	28:DD:242:ARG:HH21	1.64	0.61
25:DA:2406:U:N3	36:DP:73:GLY:O	2.28	0.61
29:DE:97:LYS:HE2	29:DE:98:PRO:HD2	1.80	0.61
36:DP:9:ASN:CB	36:DP:10:PRO:HD2	2.30	0.61
36:DP:79:ARG:CZ	36:DP:109:GLY:HA3	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:124:LYS:HZ3	36:DP:143:GLY:HA3	1.64	0.61
39:DS:108:GLY:H	39:DS:110:LEU:HD12	1.64	0.61
39:DS:110:LEU:O	39:DS:112:PHE:CE1	2.54	0.61
41:DU:79:PHE:CE2	41:DU:83:LEU:HD21	2.25	0.61
42:DV:41:GLY:HA3	42:DV:46:VAL:CG1	2.31	0.61
4:AD:78:LEU:CD2	4:AD:96:LEU:HB3	2.30	0.61
6:AF:37:VAL:HG12	6:AF:38:GLU:H	1.65	0.61
12:AL:46:LYS:CG	12:AL:47:LYS:H	2.13	0.61
23:AY:39:U:H2'	23:AY:40:C:H6	1.64	0.61
25:BA:139:G:H1	25:BA:142(A):C:H42	1.49	0.61
25:BA:1569:A:O2'	28:BD:38:LYS:HG3	2.01	0.61
53:B6:43:CYS:O	53:B6:44:ARG:C	2.38	0.61
2:CB:149:LEU:O	2:CB:153:ARG:HG3	2.00	0.61
3:CC:70:VAL:O	3:CC:106:VAL:N	2.33	0.61
10:CJ:9:ARG:O	10:CJ:94:VAL:HG13	2.00	0.61
12:CL:25:PRO:C	12:CL:27:LEU:H	2.04	0.61
18:CR:86:VAL:O	18:CR:87:ARG:HD3	2.01	0.61
25:DA:602:G:N2	25:DA:655:A:N7	2.47	0.61
25:DA:1693:U:H4'	25:DA:1694:C:OP1	2.01	0.61
33:DI:41:GLU:CD	33:DI:41:GLU:H	2.04	0.61
35:DO:119:PRO:HB2	40:DT:68:TYR:HE1	1.60	0.61
40:DT:80:SER:OG	40:DT:81:PRO:HD3	2.01	0.61
46:DZ:169:GLU:HG2	46:DZ:170:THR:N	2.15	0.61
50:D3:5:LYS:HG3	50:D3:36:VAL:HG12	1.83	0.61
1:AA:1065:U:H4'	1:AA:1066:C:H5'	1.82	0.61
13:AM:65:LYS:HD2	13:AM:69:GLU:HB3	1.83	0.61
25:BA:8:A:H2'	25:BA:9:U:C6	2.35	0.61
25:BA:2857:G:N2	25:BA:2860:A:OP2	2.23	0.61
30:BF:65:TRP:CH2	30:BF:72:ARG:CZ	2.84	0.61
33:BI:83:ALA:HB1	33:BI:87:LYS:O	2.01	0.61
38:BR:11:ASN:O	38:BR:12:ARG:CD	2.49	0.61
45:BY:67:LEU:CG	45:BY:68:HIS:N	2.63	0.61
55:B8:51:ALA:C	55:B8:53:PRO:HD2	2.21	0.61
3:CC:141:VAL:HG11	3:CC:202:ILE:HG23	1.83	0.61
4:CD:30:LYS:C	4:CD:32:ALA:N	2.51	0.61
10:CJ:45:ARG:HH12	14:CN:36:PHE:HE2	1.47	0.61
18:CR:37:VAL:HG23	18:CR:38:GLU:H	1.65	0.61
25:DA:297:C:H5"	45:DY:85:VAL:HG21	1.82	0.61
25:DA:568:U:O5'	25:DA:945:A:N6	2.33	0.61
25:DA:886:C:C2'	25:DA:887:A:H4'	2.28	0.61
25:DA:2125:G:N1	25:DA:2172:U:OP2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2406:U:C4	36:DP:72:PRO:HG2	2.35	0.61
31:DG:21:ARG:HG2	31:DG:21:ARG:NH1	2.15	0.61
32:DH:89:ILE:HD13	32:DH:89:ILE:C	2.19	0.61
45:DY:81:LYS:HD3	45:DY:97:ARG:HE	1.63	0.61
46:DZ:39:VAL:HG23	46:DZ:40:ASP:N	2.14	0.61
49:D2:2:LYS:HA	49:D2:5:GLU:OE1	2.00	0.61
53:D6:32:ASN:ND2	53:D6:33:LYS:H	1.99	0.61
2:AB:24:TRP:HB3	2:AB:40:HIS:CD2	2.35	0.61
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.65	0.61
9:AI:59:PHE:HD1	9:AI:59:PHE:N	1.93	0.61
13:AM:117:VAL:HG12	13:AM:118:ALA:N	2.12	0.61
20:AT:49:ALA:C	20:AT:100:ILE:CD1	2.68	0.61
25:BA:196:A:C4	25:BA:805:G:O6	2.54	0.61
25:BA:1287:A:C5	25:BA:1288:U:C4	2.89	0.61
25:BA:2377:A:H4'	39:BS:107:GLU:HG3	1.81	0.61
36:BP:79:ARG:CZ	36:BP:109:GLY:HA3	2.31	0.61
36:BP:107:LYS:O	36:BP:109:GLY:N	2.34	0.61
41:BU:12:ARG:C	41:BU:14:HIS:H	2.03	0.61
43:BW:5:ALA:O	43:BW:6:ILE:CB	2.49	0.61
45:BY:8:LYS:HE3	45:BY:72:VAL:O	2.00	0.61
1:CA:950:U:H1'	1:CA:971:G:C5	2.35	0.61
2:CB:22:LYS:O	2:CB:24:TRP:CD1	2.45	0.61
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.15	0.61
13:CM:110:ARG:HG2	13:CM:110:ARG:O	2.01	0.61
19:CS:4:SER:O	19:CS:5:LEU:CB	2.47	0.61
19:CS:7:LYS:HD3	19:CS:7:LYS:N	2.16	0.61
23:CW:69:G:C3'	23:CW:70:G:H5"	2.31	0.61
23:CY:28:G:N3	23:CY:43:C:N3	2.49	0.61
25:DA:958:U:OP2	37:DQ:14:ARG:NH1	2.33	0.61
25:DA:2520:C:H6	25:DA:2520:C:O5'	1.84	0.61
32:DH:132:ARG:HB2	32:DH:132:ARG:HH11	1.64	0.61
34:DN:22:THR:HB	34:DN:25:ARG:HB2	1.83	0.61
36:DP:107:LYS:O	36:DP:109:GLY:N	2.34	0.61
39:DS:49:VAL:HG21	39:DS:77:ALA:HA	1.82	0.61
40:DT:60:THR:HG22	40:DT:77:PRO:HA	1.81	0.61
41:DU:92:ARG:NH1	41:DU:92:ARG:HG2	2.10	0.61
44:DX:27:THR:HG22	44:DX:80:ILE:HB	1.81	0.61
45:DY:84:ARG:NH1	45:DY:97:ARG:HA	2.14	0.61
46:DZ:99:TYR:HD2	46:DZ:99:TYR:N	1.99	0.61
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.83	0.61
7:AG:150:ALA:O	7:AG:153:HIS:CE1	2.54	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.01	0.61
20:AT:46:GLU:HG2	20:AT:46:GLU:O	2.00	0.61
28:BD:139:GLY:H	28:BD:165:ILE:HB	1.66	0.61
31:BG:45:GLU:N	31:BG:88:ILE:HD13	2.05	0.61
31:BG:72:ARG:CD	31:BG:86:MET:HA	2.30	0.61
34:BN:3:THR:O	34:BN:5:VAL:HG12	2.00	0.61
34:BN:125:GLY:HA3	34:BN:126:PRO:C	2.21	0.61
46:BZ:71:VAL:HG22	46:BZ:88:PHE:CE2	2.35	0.61
49:B2:25:VAL:O	49:B2:29:LYS:HG2	2.00	0.61
2:CB:223:ILE:O	2:CB:226:ARG:HG2	2.00	0.61
4:CD:206:PHE:CD2	4:CD:207:TYR:CE2	2.89	0.61
7:CG:23:VAL:CG1	7:CG:43:PHE:HE2	2.12	0.61
10:CJ:8:LEU:N	10:CJ:70:ARG:O	2.33	0.61
16:CP:72:ARG:HG2	16:CP:73:LEU:HD23	1.83	0.61
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.01	0.61
23:CW:11:C:O5'	23:CW:11:C:H6	1.84	0.61
25:DA:598:G:C4'	36:DP:11:GLY:CA	2.78	0.61
32:DH:109:PHE:CZ	32:DH:152:ARG:HG2	2.36	0.61
37:DQ:140:ALA:HB1	46:DZ:99:TYR:HB2	1.83	0.61
40:DT:11:GLU:CD	40:DT:11:GLU:H	2.04	0.61
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.36	0.61
45:DY:97:ARG:HH21	45:DY:98:VAL:CB	2.08	0.61
53:D6:15:GLU:HG3	53:D6:47:THR:OG1	2.01	0.61
53:D6:40:CYS:SG	53:D6:45:LYS:HE2	2.41	0.61
1:AA:840:C:H4'	1:AA:841:U:OP1	2.01	0.61
4:AD:88:VAL:HG22	5:AE:97:GLY:HA3	1.83	0.61
11:AK:51:LYS:HG2	11:AK:52:GLY:N	2.16	0.61
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.00	0.61
18:AR:62:GLU:HA	18:AR:65:ILE:HD12	1.82	0.61
22:AV:35:C:C2	22:AV:36:A:C8	2.89	0.61
31:BG:5:VAL:HG23	31:BG:6:ALA:N	2.15	0.61
33:BI:8:PRO:O	33:BI:9:LEU:HG	2.01	0.61
36:BP:82:GLY:HA2	36:BP:113:LYS:O	2.01	0.61
43:BW:51:LEU:CD1	43:BW:52:GLU:N	2.64	0.61
46:BZ:166:SER:OG	46:BZ:168:GLU:N	2.33	0.61
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.66	0.61
4:CD:108:LEU:CB	4:CD:110:PHE:CE1	2.77	0.61
5:CE:102:ALA:HB1	5:CE:106:PRO:HB3	1.77	0.61
25:DA:531:C:OP1	25:DA:561:G:N1	2.34	0.61
25:DA:1212:G:H1'	25:DA:1237:A:N6	2.16	0.61
27:DC:86:ALA:HB3	27:DC:94:VAL:HG21	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:132:PRO:HD3	28:DD:190:TYR:CZ	2.36	0.61
34:DN:120:LEU:HD11	34:DN:122:VAL:HG23	1.82	0.61
35:DO:20:MET:O	35:DO:41:ALA:HB1	2.01	0.61
39:DS:13:ARG:O	39:DS:13:ARG:HD2	2.00	0.61
44:DX:63:LYS:HE3	44:DX:72:LYS:CE	2.25	0.61
1:AA:327:A:C2	1:AA:329:A:C4	2.88	0.60
1:AA:942:G:N2	9:AI:124:GLN:OE1	2.33	0.60
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.31	0.60
3:AC:64:VAL:O	3:AC:100:ALA:HB3	2.01	0.60
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.01	0.60
5:AE:20:GLN:HG2	5:AE:21:ALA:O	2.01	0.60
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.11	0.60
8:AH:122:ARG:NH1	8:AH:122:ARG:HB2	2.16	0.60
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.66	0.60
13:AM:20:THR:C	13:AM:22:ILE:H	2.04	0.60
25:BA:1464:C:HO2'	25:BA:1528:A:H8	1.49	0.60
30:BF:17:ARG:HH11	30:BF:17:ARG:CG	2.13	0.60
30:BF:41:LEU:HA	30:BF:44:ARG:HD3	1.81	0.60
30:BF:202:PHE:O	30:BF:206:ILE:HG12	2.01	0.60
31:BG:130:ASN:HB3	31:BG:160:VAL:HA	1.83	0.60
32:BH:41:MET:HG3	32:BH:54:ARG:HA	1.83	0.60
34:BN:42:TRP:CE3	34:BN:48:MET:HE1	2.36	0.60
34:BN:57:ALA:O	34:BN:58:ASP:O	2.19	0.60
36:BP:55:ARG:O	36:BP:56:SER:C	2.39	0.60
36:BP:101:VAL:HA	36:BP:105:LEU:O	2.01	0.60
38:BR:2:ARG:NH2	38:BR:5:LYS:NZ	2.49	0.60
1:CA:652:U:H1'	1:CA:653:A:C2	2.36	0.60
2:CB:223:ILE:HA	2:CB:226:ARG:HG2	1.83	0.60
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.82	0.60
7:CG:115:ARG:O	7:CG:118:VAL:HG22	2.01	0.60
25:DA:607:U:OP1	30:DF:102:PRO:HA	2.00	0.60
29:DE:176:ILE:CG2	29:DE:178:GLU:HB3	2.31	0.60
30:DF:57:VAL:CG1	30:DF:58:ALA:N	2.64	0.60
33:DI:60:GLU:HG3	33:DI:61:ARG:CZ	2.31	0.60
41:DU:92:ARG:C	41:DU:94:ASN:H	2.04	0.60
43:DW:64:MET:CE	43:DW:109:GLU:HG2	2.30	0.60
46:DZ:114:GLY:HA3	46:DZ:177:PRO:HG3	1.83	0.60
48:D1:45:ASN:HD21	48:D1:47:GLN:NE2	1.99	0.60
51:D4:22:ILE:H	51:D4:22:ILE:HD12	1.65	0.60
55:D8:43:GLN:O	55:D8:44:LYS:HD2	2.01	0.60
1:AA:952:U:H5'	1:AA:972:C:N4	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.82	0.60
2:AB:92:TYR:CE2	2:AB:151:GLY:HA3	2.36	0.60
2:AB:93:VAL:HG23	2:AB:93:VAL:O	2.01	0.60
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.83	0.60
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.01	0.60
3:AC:156:ARG:HD3	3:AC:193:TYR:O	2.01	0.60
5:AE:78:HIS:HE1	5:AE:143:ARG:N	1.98	0.60
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.01	0.60
10:AJ:35:SER:O	10:AJ:36:GLY:O	2.19	0.60
10:AJ:40:LEU:HB2	10:AJ:41:PRO:CD	2.22	0.60
18:AR:44:LEU:CD1	18:AR:80:PRO:HD2	2.31	0.60
23:AW:39:U:O2	23:AW:39:U:H5'	2.01	0.60
25:BA:311:A:C8	25:BA:332:A:C6	2.89	0.60
25:BA:1326:U:HO2'	25:BA:2010:G:HO2'	1.46	0.60
25:BA:2576:G:N3	25:BA:2576:G:C3'	2.62	0.60
25:BA:2779:U:H1'	25:BA:2781:A:C5	2.35	0.60
39:BS:49:VAL:HG12	39:BS:50:SER:H	1.66	0.60
39:BS:66:ALA:O	39:BS:67:ARG:C	2.39	0.60
42:BV:20:LEU:C	42:BV:21:ARG:HD3	2.21	0.60
44:BX:64:LYS:HZ2	44:BX:73:ARG:HH21	1.49	0.60
45:BY:76:CYS:SG	45:BY:77:PRO:CD	2.87	0.60
1:CA:411:A:C4	1:CA:413:G:H1'	2.35	0.60
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.65	0.60
19:CS:43:GLU:C	19:CS:45:VAL:H	2.04	0.60
25:DA:2847:U:C2'	25:DA:2848:G:H5'	2.31	0.60
26:DB:50:G:OP1	39:DS:63:THR:HG23	2.01	0.60
28:DD:238:GLY:O	28:DD:239:ARG:O	2.19	0.60
36:DP:101:VAL:HA	36:DP:105:LEU:O	2.01	0.60
41:DU:58:ARG:O	41:DU:62:ILE:HG12	2.01	0.60
45:DY:74:PRO:O	45:DY:80:GLY:HA2	2.01	0.60
55:D8:60:LEU:C	55:D8:63:PRO:HD2	2.22	0.60
1:AA:279:A:H5"	1:AA:281:G:O4'	2.01	0.60
4:AD:13:ARG:HA	4:AD:33:MET:SD	2.41	0.60
14:AN:42:ILE:O	14:AN:45:ARG:HB3	2.01	0.60
17:AQ:58:GLU:O	17:AQ:59:ILE:HD13	2.01	0.60
25:BA:1183:G:O3'	50:B3:29:ARG:NH1	2.35	0.60
28:BD:97:TYR:CE1	28:BD:103:ARG:HG3	2.35	0.60
34:BN:2:LYS:HB3	34:BN:4:TYR:CE2	2.36	0.60
37:BQ:137:TYR:OH	46:BZ:81:ARG:NH1	2.35	0.60
38:BR:93:GLY:O	38:BR:117:VAL:HG21	2.01	0.60
42:BV:46:VAL:HG13	42:BV:47:VAL:N	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:17:SER:HB2	45:BY:71:LYS:HE2	1.81	0.60
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.01	0.60
4:CD:25:ARG:O	4:CD:27:TYR:N	2.33	0.60
5:CE:16:THR:O	5:CE:17:ALA:HB2	2.01	0.60
10:CJ:33:GLN:O	10:CJ:75:ILE:HG23	2.01	0.60
12:CL:31:PRO:O	12:CL:32:PHE:CD1	2.53	0.60
12:CL:101:VAL:HG12	12:CL:104:VAL:CG2	2.31	0.60
13:CM:23:TYR:HE1	13:CM:70:LEU:HD12	1.64	0.60
22:CV:64:G:H2'	22:CV:65:G:H5'	1.82	0.60
25:DA:242:G:N2	25:DA:255:A:OP2	2.31	0.60
25:DA:598:G:O4'	36:DP:11:GLY:HA3	2.01	0.60
25:DA:1272:A:C4	25:DA:1618:A:C8	2.89	0.60
25:DA:1558:A:O2'	25:DA:1559:G:P	2.60	0.60
25:DA:2330:G:H1'	47:D0:41:ARG:HB3	1.84	0.60
33:DI:133:HIS:CB	33:DI:134:PRO:HD2	2.31	0.60
36:DP:79:ARG:HD3	36:DP:109:GLY:C	2.21	0.60
44:DX:60:ARG:HH22	54:D7:47:ARG:HH21	1.46	0.60
53:D6:16:CYS:O	53:D6:17:LYS:HB2	2.01	0.60
53:D6:46:HIS:CD2	53:D6:47:THR:CA	2.75	0.60
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ3	1.65	0.60
5:AE:131:ILE:O	5:AE:134:ALA:HB3	2.02	0.60
10:AJ:49:VAL:HG23	14:AN:41:ARG:CB	2.25	0.60
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	2.30	0.60
25:BA:2520:C:C6	25:BA:2567:G:H1'	2.36	0.60
28:BD:206:LEU:HD22	28:BD:211:ARG:CG	2.31	0.60
31:BG:25:TYR:CE2	31:BG:31:VAL:HG23	2.36	0.60
40:BT:28:VAL:HG21	40:BT:46:GLU:CG	2.08	0.60
42:BV:35:LEU:O	42:BV:37:VAL:N	2.35	0.60
1:CA:624:C:H2'	1:CA:625:G:H8	1.65	0.60
1:CA:624:C:H4'	16:CP:10:GLY:C	2.21	0.60
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.30	0.60
2:CB:15:VAL:HG21	2:CB:209:ARG:NE	2.16	0.60
5:CE:107:ARG:HD3	5:CE:111:GLU:OE2	2.00	0.60
9:CI:3:GLN:HA	9:CI:19:LEU:O	2.01	0.60
9:CI:19:LEU:CD2	9:CI:59:PHE:HB2	2.31	0.60
28:DD:226:MET:HB3	28:DD:230:ASP:HB2	1.83	0.60
32:DH:126:PRO:CG	32:DH:130:ARG:HH11	2.14	0.60
33:DI:93:THR:O	33:DI:96:ASP:HB2	2.01	0.60
34:DN:1:MET:HG2	34:DN:2:LYS:N	2.15	0.60
34:DN:15:LEU:HD13	34:DN:16:ILE:N	2.15	0.60
34:DN:25:ARG:HH11	34:DN:25:ARG:CG	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.84	0.60
35:DO:24:VAL:HG22	35:DO:24:VAL:O	2.01	0.60
38:DR:33:ARG:HD2	38:DR:33:ARG:N	2.16	0.60
40:DT:33:LYS:HG2	40:DT:43:GLN:HB3	1.83	0.60
25:BA:2405:G:O2'	25:BA:2411:A:N6	2.34	0.60
30:BF:103:LYS:HG3	30:BF:106:ARG:NH2	2.16	0.60
31:BG:3:LEU:O	31:BG:4:ASP:HB3	2.01	0.60
37:BQ:63:LYS:HD3	37:BQ:65:PHE:CZ	2.37	0.60
39:BS:26:LEU:HD13	39:BS:87:PHE:CD1	2.36	0.60
42:BV:4:ILE:HG22	42:BV:4:ILE:O	2.01	0.60
43:BW:38:TYR:CE2	52:B5:41:PRO:HD3	2.37	0.60
53:B6:14:THR:O	53:B6:49:HIS:HA	2.01	0.60
1:CA:66:G:O4'	1:CA:173:U:C4	2.54	0.60
1:CA:67:C:H2'	1:CA:68:G:C8	2.36	0.60
1:CA:792:A:H1'	1:CA:794:A:N7	2.16	0.60
18:CR:65:ILE:O	18:CR:69:THR:HG23	2.01	0.60
30:DF:134:GLY:H	30:DF:162:LEU:HD22	1.65	0.60
36:DP:66:GLY:O	36:DP:67:MET:HB3	2.02	0.60
38:DR:111:LEU:N	38:DR:111:LEU:HD22	2.16	0.60
40:DT:36:GLU:HB3	40:DT:38:ASN:CG	2.22	0.60
41:DU:57:PHE:O	41:DU:59:ARG:N	2.35	0.60
46:DZ:114:GLY:HA3	46:DZ:177:PRO:HB3	1.83	0.60
1:AA:67:C:H2'	1:AA:68:G:C8	2.37	0.60
3:AC:40:ARG:HD3	3:AC:55:VAL:HB	1.84	0.60
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	1.81	0.60
5:AE:48:ALA:HB2	5:AE:57:LYS:HD3	1.83	0.60
18:AR:82:THR:CG2	18:AR:83:GLU:N	2.64	0.60
25:BA:769:G:C4'	25:BA:1379:A:H62	2.14	0.60
25:BA:1300:U:H4'	25:BA:1301:A:H5"	1.80	0.60
25:BA:1971:A:C4	28:BD:241:PRO:HD3	2.36	0.60
30:BF:51:THR:HG22	30:BF:92:PRO:O	2.01	0.60
36:BP:29:LYS:HD2	36:BP:30:THR:HG23	1.84	0.60
44:BX:36:LYS:HA	44:BX:39:ILE:HG13	1.82	0.60
1:CA:511:C:C2	1:CA:512:U:C5	2.90	0.60
1:CA:869:G:H4'	1:CA:872:A:C8	2.36	0.60
8:CH:112:LEU:HD12	8:CH:113:SER:N	2.17	0.60
16:CP:17:TYR:CE1	16:CP:41:PRO:HG3	2.36	0.60
25:DA:861:A:N3	26:DB:79:C:O2'	2.34	0.60
25:DA:1205:U:C5'	25:DA:1206:G:OP2	2.50	0.60
26:DB:44:G:H1'	26:DB:47:C:N4	2.16	0.60
28:DD:36:PRO:HB2	28:DD:61:LEU:HD12	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:167:ALA:HB1	30:DF:173:VAL:HG11	1.83	0.60
36:DP:42:SER:O	36:DP:43:GLY:C	2.40	0.60
46:DZ:103:ARG:HG3	46:DZ:138:GLU:HG2	1.82	0.60
50:D3:29:ARG:HH11	50:D3:29:ARG:HG3	1.66	0.60
54:D7:29:LYS:O	54:D7:32:LYS:HB3	2.01	0.60
1:AA:372:C:H4'	1:AA:373:A:OP1	2.01	0.60
4:AD:170:VAL:O	4:AD:171:GLY:O	2.20	0.60
13:AM:3:ARG:CB	31:BG:113:ARG:HH22	2.14	0.60
13:AM:3:ARG:NE	31:BG:113:ARG:HH21	1.99	0.60
13:AM:7:VAL:HG21	31:BG:115:ARG:HG2	1.83	0.60
25:BA:532:A:N7	25:BA:2021:C:H2'	2.16	0.60
25:BA:2172:U:C4'	25:BA:2173:A:OP2	2.48	0.60
31:BG:109:VAL:C	31:BG:112:PRO:HD2	2.22	0.60
34:BN:40:PRO:HD3	41:BU:67:ALA:O	2.01	0.60
36:BP:59:LEU:O	55:B8:13:ARG:NH1	2.34	0.60
40:BT:27:THR:HG22	40:BT:49:VAL:CG2	2.31	0.60
41:BU:31:SER:OG	41:BU:34:LYS:HB2	2.02	0.60
43:BW:9:TYR:HD2	43:BW:9:TYR:N	1.98	0.60
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.15	0.60
4:CD:148:VAL:HG21	4:CD:158:ILE:HG21	1.84	0.60
14:CN:15:LYS:O	14:CN:16:PHE:O	2.19	0.60
17:CQ:8:GLY:O	17:CQ:56:VAL:HA	2.00	0.60
22:CV:20:G:H1	22:CV:57:C:H42	1.48	0.60
25:DA:890:A:C6	25:DA:892:G:C6	2.89	0.60
28:DD:176:ARG:HH11	28:DD:176:ARG:HG2	1.65	0.60
30:DF:65:TRP:HB2	30:DF:66:PRO:HD2	1.82	0.60
33:DI:74:ASN:ND2	33:DI:75:LEU:N	2.46	0.60
34:DN:24:GLY:HA2	34:DN:27:ALA:HB3	1.84	0.60
36:DP:52:GLU:CD	36:DP:55:ARG:HH21	2.04	0.60
38:DR:32:GLY:C	38:DR:33:ARG:HD2	2.22	0.60
39:DS:42:ASP:O	39:DS:43:GLU:HB2	1.99	0.60
41:DU:103:PRO:O	41:DU:106:PHE:N	2.34	0.60
43:DW:27:LYS:O	43:DW:70:TYR:HB2	2.01	0.60
44:DX:11:PRO:O	44:DX:13:LEU:HG	2.02	0.60
13:AM:39:ILE:CD1	13:AM:56:LEU:HD23	2.31	0.60
17:AQ:53:LEU:HD12	17:AQ:54:GLY:H	1.67	0.60
19:AS:10:PHE:CD1	19:AS:10:PHE:N	2.69	0.60
25:BA:848:G:C4	25:BA:933:A:H8	2.19	0.60
25:BA:1602:U:H3'	25:BA:1603:A:C5'	2.31	0.60
28:BD:52:ARG:HB2	28:BD:53:PHE:CD2	2.36	0.60
29:BE:66:HIS:ND1	29:BE:66:HIS:O	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:11:VAL:C	30:BF:13:SER:H	2.04	0.60
30:BF:143:ALA:HB1	30:BF:148:LEU:HB2	1.83	0.60
30:BF:178:PRO:HB2	30:BF:201:VAL:HG11	1.82	0.60
32:BH:65:HIS:CE1	32:BH:69:ARG:HD2	2.37	0.60
36:BP:66:GLY:O	36:BP:67:MET:HB3	2.02	0.60
39:BS:92:TYR:C	39:BS:94:TYR:N	2.54	0.60
25:DA:1250:G:O2'	41:DU:13:LYS:NZ	2.31	0.60
25:DA:2725:A:C6	25:DA:2727:G:C4	2.89	0.60
25:DA:2847:U:H2'	25:DA:2848:G:H5'	1.82	0.60
26:DB:117:G:H4'	39:DS:54:LEU:HD12	1.84	0.60
29:DE:61:ARG:HB3	29:DE:62:PRO:HD3	1.84	0.60
31:DG:15:VAL:HG13	31:DG:175:LEU:HB2	1.84	0.60
36:DP:52:GLU:OE1	36:DP:55:ARG:HD3	2.01	0.60
40:DT:25:GLY:CA	40:DT:120:ARG:NH2	2.54	0.60
43:DW:61:ASN:HD22	43:DW:61:ASN:N	1.98	0.60
46:DZ:150:LEU:HD13	46:DZ:150:LEU:O	2.01	0.60
49:D2:42:GLY:O	49:D2:44:LEU:N	2.34	0.60
55:D8:53:PRO:HA	55:D8:56:GLU:HB2	1.82	0.60
1:AA:745:C:OP1	1:AA:851:G:O2'	2.20	0.60
5:AE:78:HIS:NE2	5:AE:142:LEU:HD23	2.15	0.60
25:BA:196:A:N3	25:BA:805:G:O6	2.35	0.60
25:BA:532:A:O2'	25:BA:2021:C:N4	2.35	0.60
25:BA:1653:G:O2'	25:BA:1654:A:P	2.59	0.60
30:BF:41:LEU:O	30:BF:44:ARG:HG2	2.01	0.60
31:BG:44:GLY:H	31:BG:88:ILE:HD13	1.64	0.60
33:BI:5:LEU:O	33:BI:6:LEU:HD23	2.02	0.60
34:BN:18:ALA:HB1	34:BN:21:LYS:CB	2.31	0.60
42:BV:39:LEU:CB	42:BV:40:LEU:HD23	2.31	0.60
46:BZ:11:GLU:CD	46:BZ:11:GLU:H	2.04	0.60
1:CA:523:A:H61	12:CL:92:ASP:HB2	1.66	0.60
13:CM:116:THR:C	13:CM:117:VAL:CG1	2.70	0.60
25:DA:222:A:N6	25:DA:232:G:H1'	2.17	0.60
25:DA:695:G:C6	25:DA:768:G:C6	2.90	0.60
25:DA:974:G:H5'	25:DA:975:C:H5'	1.84	0.60
25:DA:1566:A:OP1	28:DD:211:ARG:NH1	2.34	0.60
25:DA:1821:A:OP1	28:DD:201:HIS:HE1	1.83	0.60
25:DA:2030:A:H4'	25:DA:2031:A:H8	1.67	0.60
31:DG:107:LEU:HD11	31:DG:178:PHE:CE1	2.37	0.60
31:DG:131:TYR:HB3	31:DG:159:VAL:CG1	2.32	0.60
34:DN:30:ILE:O	34:DN:34:LEU:HB2	2.02	0.60
35:DO:104:ARG:NH2	40:DT:43:GLN:NE2	2.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:65:LYS:CE	40:DT:66:VAL:H	2.14	0.60
41:DU:110:VAL:O	41:DU:113:ALA:HB3	2.02	0.60
42:DV:45:THR:HG22	42:DV:45:THR:O	2.02	0.60
47:D0:73:GLY:O	47:D0:75:LEU:N	2.35	0.60
1:AA:983:A:N6	1:AA:1222:G:H22	2.00	0.60
1:AA:1049:U:C2	1:AA:1201:A:N9	2.70	0.60
3:AC:19:GLU:O	3:AC:20:SER:HB2	2.01	0.60
3:AC:83:ARG:O	3:AC:86:VAL:HG22	2.02	0.60
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.01	0.60
14:AN:38:GLY:O	14:AN:39:LEU:HD23	2.02	0.60
18:AR:37:VAL:O	18:AR:40:LEU:N	2.28	0.60
20:AT:43:LEU:HD12	20:AT:52:ALA:HA	1.83	0.60
23:AW:39:U:O2'	23:AW:40:C:H5'	2.02	0.60
25:BA:587:C:H6	25:BA:587:C:O5'	1.85	0.60
25:BA:1128:A:O2'	25:BA:1129:A:O4'	2.20	0.60
25:BA:2127:G:O5'	27:BC:36:LYS:HE2	2.01	0.60
28:BD:181:GLU:CA	28:BD:272:ALA:HB3	2.31	0.60
28:BD:243:GLY:O	28:BD:244:ARG:CB	2.50	0.60
31:BG:47:LYS:NZ	31:BG:82:LEU:HD12	2.17	0.60
36:BP:42:SER:O	36:BP:43:GLY:C	2.40	0.60
40:BT:15:VAL:HA	40:BT:79:HIS:CD2	2.37	0.60
45:BY:101:LYS:HG2	45:BY:102:CYS:N	2.17	0.60
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.84	0.60
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.01	0.60
7:CG:15:ASP:HB2	7:CG:20:ASP:O	2.02	0.60
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.66	0.60
13:CM:93:ARG:NH1	25:DA:888:C:C4'	2.64	0.60
23:CW:60:U:OP2	23:CW:61:C:N4	2.30	0.60
25:DA:99:U:H1'	25:DA:102:G:C2	2.37	0.60
28:DD:31:LYS:NZ	28:DD:102:LYS:HZ2	2.00	0.60
29:DE:45:THR:HG22	29:DE:83:ASP:HA	1.82	0.60
29:DE:55:ASN:O	29:DE:57:LYS:N	2.35	0.60
30:DF:66:PRO:O	30:DF:67:GLN:CB	2.50	0.60
32:DH:8:PRO:HG2	32:DH:69:ARG:HE	1.66	0.60
34:DN:73:THR:HG23	34:DN:82:LEU:HD11	1.84	0.60
35:DO:17:ARG:HD3	35:DO:47:ILE:HD13	1.84	0.60
50:D3:6:VAL:CG1	50:D3:56:VAL:HG13	2.32	0.60
54:D7:24:THR:HG23	54:D7:27:GLY:H	1.67	0.60
1:AA:979:C:H3'	1:AA:980:C:H5"	1.83	0.59
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.82	0.59
2:AB:71:VAL:HG22	2:AB:93:VAL:HG21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:4:TYR:HE2	4:AD:6:GLY:O	1.84	0.59
14:AN:36:PHE:HD1	14:AN:37:PHE:CD2	2.20	0.59
20:AT:63:ILE:HD12	20:AT:81:LYS:CG	2.29	0.59
23:AW:38:A:N6	23:AW:39:U:C4	2.70	0.59
25:BA:2787:C:H1'	29:BE:61:ARG:HG3	1.84	0.59
31:BG:44:GLY:N	31:BG:88:ILE:HG12	2.17	0.59
31:BG:76:SER:O	31:BG:77:ILE:HD13	2.02	0.59
36:BP:79:ARG:HD3	36:BP:109:GLY:C	2.21	0.59
40:BT:32:TYR:HB2	40:BT:81:PRO:CB	2.27	0.59
52:B5:41:PRO:HG2	52:B5:44:THR:CG2	2.31	0.59
1:CA:452:A:H62	1:CA:480:U:H3	1.49	0.59
1:CA:870:U:H5"	1:CA:871:U:H5'	1.82	0.59
1:CA:873:A:H4'	1:CA:874:G:OP1	2.00	0.59
1:CA:1279:A:H61	3:CC:26:LYS:NZ	2.00	0.59
13:CM:81:LEU:O	13:CM:84:ILE:HG22	2.02	0.59
23:CW:5:G:C2	23:CW:69:G:C2	2.90	0.59
25:DA:387:U:H4'	25:DA:388:G:O5'	2.02	0.59
25:DA:1846:G:H5'	25:DA:1847:A:OP2	2.03	0.59
29:DE:9:VAL:HG13	29:DE:25:VAL:O	2.02	0.59
29:DE:116:VAL:O	29:DE:117:MET:HB3	2.01	0.59
32:DH:151:ILE:HG22	32:DH:151:ILE:O	2.02	0.59
33:DI:29:TYR:C	33:DI:32:PRO:HD2	2.22	0.59
38:DR:81:ASP:O	38:DR:82:GLU:HB2	2.02	0.59
50:D3:13:ILE:HG22	50:D3:13:ILE:O	2.01	0.59
53:D6:36:LEU:HD13	53:D6:50:ARG:HH12	1.66	0.59
5:AE:39:GLY:HA2	5:AE:71:LEU:CD1	2.32	0.59
13:AM:28:ALA:C	13:AM:30:ALA:N	2.55	0.59
20:AT:87:LYS:HE3	20:AT:91:LEU:HD11	1.84	0.59
22:AV:15:G:N1	22:AV:49:C:C5	2.56	0.59
25:BA:1140:C:OP2	34:BN:66:LYS:NZ	2.31	0.59
25:BA:1678:G:N2	25:BA:1989:G:H22	2.00	0.59
25:BA:2503:A:C4'	25:BA:2504:U:OP1	2.46	0.59
25:BA:2753:A:O2'	56:B9:15:LYS:NZ	2.35	0.59
29:BE:174:ASP:O	29:BE:183:LEU:HB2	2.01	0.59
34:BN:16:ILE:HG23	34:BN:54:VAL:HG22	1.83	0.59
34:BN:62:VAL:HG22	34:BN:66:LYS:CB	2.32	0.59
51:B4:64:LYS:O	51:B4:65:CYS:SG	2.60	0.59
1:CA:562:C:O2'	12:CL:15:ARG:HB3	2.02	0.59
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.01	0.59
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.37	0.59
5:CE:41:VAL:CG2	5:CE:113:ALA:HA	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:19:LEU:HD23	9:CI:61:ALA:HA	1.83	0.59
13:CM:3:ARG:CB	51:D4:34:GLU:HG2	2.32	0.59
20:CT:56:MET:CG	20:CT:84:LEU:CD1	2.55	0.59
26:DB:15:A:H1'	26:DB:110:G:C5	2.36	0.59
28:DD:112:GLN:HB2	28:DD:115:GLN:HE21	1.67	0.59
28:DD:118:VAL:HG22	28:DD:119:ALA:N	2.17	0.59
30:DF:102:PRO:O	30:DF:106:ARG:HG2	2.01	0.59
32:DH:19:VAL:HG12	32:DH:20:ALA:H	1.64	0.59
32:DH:98:LEU:HD22	32:DH:125:VAL:HG23	1.83	0.59
33:DI:17:GLN:O	33:DI:18:VAL:HB	2.02	0.59
44:DX:63:LYS:CE	44:DX:72:LYS:HE3	2.26	0.59
45:DY:47:LYS:HA	45:DY:60:PHE:HD1	1.67	0.59
50:D3:4:LEU:HD12	50:D3:39:ASP:OD1	2.03	0.59
52:D5:37:LYS:HG3	52:D5:38:ALA:N	2.17	0.59
53:D6:35:GLU:HB3	53:D6:51:GLU:CG	2.30	0.59
1:AA:1065:U:OP2	1:AA:1190:G:N2	2.35	0.59
5:AE:81:GLU:HG2	5:AE:90:VAL:CG1	2.32	0.59
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.67	0.59
13:AM:35:GLU:HG3	13:AM:36:LYS:H	1.65	0.59
20:AT:81:LYS:O	20:AT:85:MET:N	2.30	0.59
25:BA:668:G:C5	25:BA:670:A:N7	2.71	0.59
25:BA:832:G:N2	36:BP:53:GLY:HA3	2.16	0.59
25:BA:1187:G:H5"	42:BV:81:TYR:CE2	2.38	0.59
25:BA:2712:U:HO2'	25:BA:2712(A):A:P	2.25	0.59
28:BD:245:PRO:HB2	28:BD:246:PRO:HD2	1.83	0.59
29:BE:3:GLY:O	29:BE:4:ILE:HB	2.00	0.59
29:BE:101:ARG:NH2	29:BE:171:GLU:HB2	2.16	0.59
31:BG:43:LEU:CD2	31:BG:88:ILE:HD11	2.32	0.59
42:BV:39:LEU:HA	42:BV:47:VAL:HG11	1.83	0.59
45:BY:15:VAL:HG11	45:BY:20:TYR:O	2.02	0.59
48:B1:3:LYS:HG3	48:B1:4:VAL:N	2.16	0.59
1:CA:1054:C:OP2	1:CA:1054:C:H4'	2.01	0.59
8:CH:21:LYS:O	8:CH:63:LEU:HD23	2.01	0.59
10:CJ:54:PHE:CE1	10:CJ:55:LYS:HE3	2.37	0.59
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.84	0.59
19:CS:63:THR:HG22	19:CS:66:MET:HE2	1.79	0.59
19:CS:63:THR:CG2	19:CS:66:MET:CE	2.74	0.59
28:DD:26:LYS:HD2	28:DD:113:VAL:HG11	1.84	0.59
31:DG:67:LYS:O	31:DG:67:LYS:HD2	2.02	0.59
38:DR:9:LYS:HG2	38:DR:9:LYS:O	2.02	0.59
45:DY:53:PRO:O	45:DY:54:LYS:C	2.39	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:59:A:H3'	1:AA:331:G:H22	1.68	0.59
6:AF:60:PHE:CZ	18:AR:78:LEU:HD21	2.37	0.59
12:AL:6:THR:H	12:AL:9:GLN:HE21	1.49	0.59
18:AR:50:ILE:HD11	18:AR:70:ILE:HG21	1.82	0.59
20:AT:93:GLU:HG2	20:AT:93:GLU:O	2.01	0.59
23:AW:16:U:H3'	23:AW:17:C:C5'	2.32	0.59
25:BA:226:G:HO2'	25:BA:227:A:H8	1.49	0.59
25:BA:2343:C:H2'	25:BA:2343:C:O2	2.02	0.59
33:BI:72:LEU:HD13	33:BI:72:LEU:C	2.22	0.59
34:BN:99:LEU:O	34:BN:103:VAL:HG23	2.03	0.59
37:BQ:16:ARG:HG2	37:BQ:18:LYS:CD	2.32	0.59
38:BR:104:ARG:HH11	38:BR:104:ARG:HB2	1.66	0.59
39:BS:17:ARG:HA	39:BS:20:ARG:NH1	2.17	0.59
43:BW:83:LYS:O	43:BW:84:ARG:HD3	2.02	0.59
44:BX:30:VAL:HG23	44:BX:31:HIS:O	2.02	0.59
45:BY:14:LEU:CG	45:BY:15:VAL:N	2.65	0.59
53:B6:19:ARG:HG2	53:B6:20:ASN:H	1.67	0.59
53:B6:32:ASN:C	53:B6:33:LYS:HG2	2.22	0.59
1:CA:49:U:C4	1:CA:364:A:N6	2.71	0.59
1:CA:624:C:H2'	1:CA:625:G:C8	2.36	0.59
1:CA:686:U:H5'	1:CA:686:U:H6	1.68	0.59
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.84	0.59
2:CB:109:SER:HA	2:CB:112:VAL:HG23	1.84	0.59
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.01	0.59
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.84	0.59
22:CV:3:C:N4	22:CV:71:G:H1	1.99	0.59
25:DA:443:A:C5	30:DF:45:ARG:HD2	2.37	0.59
25:DA:532:A:OP1	25:DA:561:G:N2	2.34	0.59
25:DA:2347:C:H4'	53:D6:39:TYR:HE1	1.66	0.59
25:DA:2477:C:C4	56:D9:4:ARG:NH1	2.71	0.59
30:DF:9:ILE:HD12	30:DF:123:LEU:CD2	2.32	0.59
30:DF:155:LEU:CD1	30:DF:174:VAL:HG22	2.33	0.59
31:DG:38:VAL:HG22	31:DG:93:THR:HG23	1.84	0.59
32:DH:42:ARG:HH11	32:DH:42:ARG:HG2	1.67	0.59
34:DN:24:GLY:HA2	34:DN:106:MET:HE1	1.84	0.59
40:DT:78:LEU:C	40:DT:79:HIS:ND1	2.56	0.59
40:DT:93:ARG:NH1	40:DT:93:ARG:HG3	2.18	0.59
41:DU:92:ARG:CZ	42:DV:11:GLN:CB	2.69	0.59
42:DV:41:GLY:N	42:DV:46:VAL:HG13	2.17	0.59
45:DY:47:LYS:C	45:DY:49:VAL:H	2.05	0.59
20:AT:89:ARG:NH2	20:AT:104:LEU:HD21	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:56:U:C4	22:AV:58:A:OP2	2.56	0.59
25:BA:8:A:H2'	25:BA:9:U:H6	1.67	0.59
29:BE:71:GLY:O	29:BE:72:VAL:C	2.40	0.59
29:BE:86:PRO:O	29:BE:88:GLY:N	2.35	0.59
31:BG:141:PHE:O	31:BG:144:ILE:CG2	2.50	0.59
34:BN:62:VAL:CG2	34:BN:66:LYS:CB	2.80	0.59
35:BO:7:TYR:OH	35:BO:44:LYS:HD2	2.02	0.59
40:BT:35:LYS:O	40:BT:37:GLY:N	2.35	0.59
40:BT:80:SER:CB	40:BT:81:PRO:HD3	2.31	0.59
42:BV:38:LEU:O	42:BV:39:LEU:HD13	2.03	0.59
55:B8:5:LYS:O	55:B8:61:LEU:HD11	2.03	0.59
55:B8:6:THR:HB	55:B8:63:PRO:HG3	1.83	0.59
5:CE:146:ALA:HB1	5:CE:150:ARG:HH22	1.67	0.59
25:DA:458:G:H1'	25:DA:459:U:H5	1.66	0.59
27:DC:78:ALA:CB	27:DC:82:LYS:HB2	2.33	0.59
27:DC:100:ILE:HG22	27:DC:101:GLN:HG3	1.85	0.59
31:DG:161:THR:HG22	31:DG:162:THR:N	2.17	0.59
33:DI:2:LYS:HB3	33:DI:20:ASP:HB3	1.83	0.59
38:DR:45:ARG:HG3	38:DR:46:GLY:N	2.16	0.59
51:D4:36:CYS:SG	51:D4:37:SER:N	2.75	0.59
53:D6:41:PRO:HD3	53:D6:46:HIS:CA	2.33	0.59
1:AA:575:G:H4'	1:AA:576:G:O5'	2.01	0.59
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.85	0.59
1:AA:1378:C:O2	7:AG:76:ARG:NH2	2.35	0.59
6:AF:6:VAL:HG13	6:AF:90:VAL:HG22	1.84	0.59
8:AH:2:LEU:C	8:AH:2:LEU:HD13	2.22	0.59
10:AJ:78:ASN:OD1	10:AJ:80:LYS:HB2	2.03	0.59
11:AK:33:THR:OG1	11:AK:37:GLY:HA2	2.02	0.59
19:AS:9:VAL:CG1	19:AS:11:VAL:HG11	2.17	0.59
25:BA:50:U:H4'	25:BA:51:G:OP2	2.03	0.59
25:BA:997:G:OP1	41:BU:93:LYS:HD3	2.03	0.59
25:BA:2406:U:H5"	25:BA:2408:U:OP2	2.03	0.59
25:BA:2866:U:C4'	25:BA:2867:G:OP1	2.49	0.59
29:BE:31:CYS:HB3	29:BE:49:LEU:HB3	1.84	0.59
32:BH:156:ALA:HB3	32:BH:159:GLU:HB3	1.85	0.59
34:BN:58:ASP:O	34:BN:60:ILE:N	2.36	0.59
35:BO:104:ARG:CZ	35:BO:104:ARG:HB3	2.32	0.59
39:BS:56:LEU:O	39:BS:57:LYS:HB2	2.01	0.59
40:BT:55:ASN:N	40:BT:59:THR:HB	2.17	0.59
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.02	0.59
1:CA:1286:A:H2'	1:CA:1287:A:C4'	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:92:VAL:HG12	4:CD:96:LEU:HD11	1.83	0.59
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.84	0.59
17:CQ:70:ARG:C	17:CQ:71:PHE:HD2	2.06	0.59
17:CQ:76:LEU:HD11	17:CQ:78:GLU:O	2.01	0.59
18:CR:43:PHE:O	18:CR:44:LEU:HD23	2.03	0.59
25:DA:84:A:C5'	45:DY:8:LYS:CD	2.81	0.59
25:DA:1929:G:H4'	25:DA:1930:G:OP1	2.03	0.59
25:DA:2287:A:OP1	53:D6:31:PRO:HG2	2.02	0.59
25:DA:2505:G:O2'	25:DA:2506:U:H5'	2.03	0.59
25:DA:2725:A:N6	25:DA:2727:G:C4	2.71	0.59
27:DC:41:VAL:HG23	27:DC:178:ALA:HB3	1.84	0.59
31:DG:10:LYS:O	31:DG:15:VAL:HG23	2.02	0.59
32:DH:24:VAL:O	32:DH:24:VAL:HG23	2.02	0.59
34:DN:67:LEU:HD12	34:DN:67:LEU:N	2.17	0.59
44:DX:35:THR:HB	44:DX:38:GLU:H	1.67	0.59
44:DX:71:GLY:C	44:DX:72:LYS:HD2	2.22	0.59
47:D0:3:HIS:ND1	47:D0:3:HIS:N	2.51	0.59
47:D0:49:LYS:H	47:D0:80:HIS:HB3	1.67	0.59
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.35	0.59
4:AD:30:LYS:HA	4:AD:35:ARG:HD2	1.84	0.59
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.67	0.59
23:AW:43:C:C2'	23:AW:44:G:H5'	2.33	0.59
25:BA:2563:U:O2'	35:BO:28:SER:HB3	2.02	0.59
28:BD:44:ASN:HB3	28:BD:49:ILE:CA	2.26	0.59
28:BD:147:LEU:HD13	28:BD:155:LEU:HD11	1.83	0.59
37:BQ:141:GLN:CD	46:BZ:72:ARG:HD3	2.23	0.59
38:BR:45:ARG:HG3	38:BR:46:GLY:H	1.68	0.59
40:BT:31:SER:HB3	40:BT:43:GLN:N	2.18	0.59
45:BY:54:LYS:O	45:BY:54:LYS:HG2	2.01	0.59
45:BY:66:PRO:O	45:BY:67:LEU:CD2	2.50	0.59
47:B0:49:LYS:O	47:B0:50:ASN:HB2	2.02	0.59
1:CA:243:A:N6	1:CA:246:A:H62	2.00	0.59
2:CB:18:GLY:HA2	2:CB:42:ILE:HG22	1.85	0.59
11:CK:92:GLU:HG3	11:CK:96:ARG:HD3	1.83	0.59
16:CP:2:VAL:HG22	16:CP:64:ALA:CB	2.33	0.59
20:CT:22:ARG:O	20:CT:26:ASN:CG	2.40	0.59
21:CU:5:ASP:HB3	21:CU:8:THR:CG2	2.33	0.59
22:CV:54:G:O2'	22:CV:55:U:P	2.60	0.59
23:CW:34:G:C5	24:CX:14:A:N6	2.71	0.59
25:DA:614(A):U:O2'	25:DA:614(B):G:P	2.61	0.59
25:DA:1012:U:O4	34:DN:28:THR:HG21	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:184:VAL:HG12	29:DE:185:LYS:H	1.67	0.59
30:DF:126:VAL:O	30:DF:195:ASP:HA	2.03	0.59
32:DH:152:ARG:HE	32:DH:153:LYS:HE3	1.65	0.59
45:DY:81:LYS:NZ	45:DY:98:VAL:HG11	2.17	0.59
53:D6:16:CYS:SG	53:D6:47:THR:CG2	2.91	0.59
1:AA:242:C:C2'	1:AA:243:A:O5'	2.51	0.59
1:AA:538:G:P	12:AL:115:LYS:HG3	2.43	0.59
1:AA:1279:A:P	1:AA:1279:A:C2	2.96	0.59
3:AC:66:VAL:HG12	3:AC:66:VAL:O	2.03	0.59
5:AE:11:ILE:HD12	5:AE:31:LEU:CD1	2.32	0.59
7:AG:113:GLU:HG3	7:AG:119:ARG:HG2	1.84	0.59
9:AI:18:PHE:HB2	9:AI:62:TYR:HB3	1.84	0.59
22:AV:53:G:O2'	22:AV:54:G:C5'	2.50	0.59
25:BA:331:A:N6	25:BA:1210:A:OP2	2.36	0.59
25:BA:805:G:H5'	25:BA:806:C:H5	1.66	0.59
25:BA:2447:G:C4	25:BA:2501:C:C4	2.91	0.59
25:BA:2520:C:O5'	25:BA:2520:C:H6	1.86	0.59
28:BD:53:PHE:CE2	28:BD:220:HIS:CD2	2.90	0.59
29:BE:12:THR:O	29:BE:23:VAL:HG22	2.02	0.59
36:BP:14:LYS:O	36:BP:15:ARG:C	2.39	0.59
37:BQ:47:ILE:HG22	37:BQ:48:GLU:N	2.17	0.59
38:BR:81:ASP:O	38:BR:82:GLU:HB2	2.02	0.59
40:BT:113:LYS:C	40:BT:114:LEU:HD23	2.23	0.59
52:B5:56:LYS:HG3	52:B5:59:GLU:HG3	1.84	0.59
1:CA:528:C:H41	12:CL:49:ASN:CG	2.06	0.59
1:CA:1211:U:H4'	1:CA:1212:U:OP1	2.02	0.59
2:CB:57:PHE:O	2:CB:61:LEU:HB3	2.03	0.59
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.03	0.59
6:CF:70:ASP:N	6:CF:70:ASP:OD1	2.34	0.59
13:CM:3:ARG:NE	13:CM:7:VAL:HG13	2.17	0.59
13:CM:12:ASN:HA	13:CM:46:LYS:HB2	1.85	0.59
25:DA:301:G:OP1	25:DA:301:G:H4'	2.03	0.59
25:DA:800:A:H4'	25:DA:801:G:O5'	2.03	0.59
25:DA:914:C:H2'	25:DA:915:C:O5'	2.03	0.59
25:DA:1648:C:N4	25:DA:2010:G:N1	2.50	0.59
25:DA:2285:C:OP2	53:D6:27:LYS:HD2	2.01	0.59
25:DA:2751:G:H8	25:DA:2751:G:P	2.25	0.59
26:DB:66:A:C6	26:DB:108:U:C2	2.91	0.59
28:DD:101:GLU:OE1	28:DD:103:ARG:HD3	2.02	0.59
28:DD:145:VAL:HG12	28:DD:146:GLU:O	2.03	0.59
29:DE:137:HIS:HB3	29:DE:138:PRO:HD2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:3:VAL:O	33:DI:18:VAL:HA	2.03	0.59
33:DI:57:ARG:HB2	33:DI:57:ARG:HH11	1.68	0.59
33:DI:139:GLN:HE21	33:DI:139:GLN:C	2.05	0.59
40:DT:93:ARG:HG3	40:DT:93:ARG:HH11	1.68	0.59
44:DX:63:LYS:HB3	44:DX:72:LYS:HG3	1.84	0.59
1:AA:1199:U:H4'	10:AJ:54:PHE:CE2	2.37	0.59
1:AA:1301:U:O4	1:AA:1303:C:H1'	2.03	0.59
15:AO:82:ILE:O	15:AO:82:ILE:HD13	2.02	0.59
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.17	0.59
18:AR:82:THR:O	18:AR:83:GLU:HG2	2.03	0.59
25:BA:1963:U:O2'	25:BA:1964:G:OP1	2.20	0.59
29:BE:46:ALA:HA	29:BE:82:ARG:O	2.03	0.59
30:BF:7:TYR:CE2	30:BF:10:PRO:HG3	2.37	0.59
31:BG:106:LEU:HA	31:BG:110:ALA:HB3	1.84	0.59
32:BH:107:VAL:O	32:BH:109:PHE:CD1	2.55	0.59
41:BU:12:ARG:C	41:BU:14:HIS:N	2.56	0.59
41:BU:98:LEU:O	41:BU:101:ARG:O	2.21	0.59
45:BY:17:SER:HA	45:BY:71:LYS:HD2	1.85	0.59
46:BZ:3:TYR:N	46:BZ:3:TYR:HD1	1.99	0.59
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HD2	1.83	0.59
11:CK:21:ILE:CB	11:CK:30:VAL:HG12	2.32	0.59
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.03	0.59
18:CR:85:LEU:HD12	18:CR:86:VAL:N	2.17	0.59
25:DA:2056:G:N2	52:D5:4:HIS:O	2.36	0.59
25:DA:2172:U:H4'	25:DA:2173:A:OP2	1.99	0.59
26:DB:109:C:OP2	26:DB:109:C:H6	1.84	0.59
31:DG:34:LEU:HD13	31:DG:34:LEU:O	2.03	0.59
35:DO:53:LYS:N	35:DO:53:LYS:HD2	2.18	0.59
39:DS:83:LYS:HG2	39:DS:109:GLY:N	2.17	0.59
41:DU:92:ARG:HG3	42:DV:11:GLN:OE1	2.02	0.59
41:DU:95:LEU:CD1	42:DV:4:ILE:HG23	2.31	0.59
44:DX:30:VAL:HG21	44:DX:39:ILE:HD11	1.84	0.59
50:D3:15:TYR:O	50:D3:20:LYS:HE2	2.03	0.59
51:D4:20:ASN:HD22	51:D4:21:VAL:H	1.48	0.59
1:AA:301:G:H2'	1:AA:302:G:H8	1.68	0.59
2:AB:204:ASN:HD21	2:AB:206:ASP:H	1.49	0.59
4:AD:2:GLY:O	4:AD:4:TYR:N	2.36	0.59
9:AI:95:LYS:HD3	9:AI:96:LEU:H	1.68	0.59
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.38	0.59
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.02	0.59
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:71:A:H62	25:BA:114:U:H1'	1.68	0.59
25:BA:2078:C:C2	25:BA:2079:U:C5	2.91	0.59
26:BB:14:U:C4'	26:BB:15:A:OP2	2.48	0.59
28:BD:6:PHE:HE1	28:BD:18:VAL:HG22	1.68	0.59
28:BD:267:SER:HA	28:BD:270:ILE:HD11	1.85	0.59
28:BD:270:ILE:C	28:BD:271:ILE:HG13	2.24	0.59
29:BE:132:HIS:CD2	29:BE:135:HIS:HE1	2.20	0.59
31:BG:113:ARG:NH1	51:B4:60:GLU:HB2	2.18	0.59
32:BH:97:ARG:O	32:BH:125:VAL:HG21	2.03	0.59
32:BH:109:PHE:CD1	32:BH:109:PHE:N	2.71	0.59
34:BN:40:PRO:HG3	41:BU:68:ALA:HB2	1.83	0.59
48:B1:34:THR:HG22	48:B1:34:THR:O	2.02	0.59
51:B4:44:CYS:SG	51:B4:64:LYS:HB2	2.43	0.59
1:CA:66:G:H4'	1:CA:173:U:C4	2.38	0.59
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.06	0.59
4:CD:206:PHE:CE2	4:CD:207:TYR:HE2	2.21	0.59
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.70	0.59
10:CJ:5:ARG:HD2	10:CJ:71:LEU:HD11	1.83	0.59
15:CO:15:PHE:CE2	15:CO:84:LYS:HD2	2.38	0.59
16:CP:70:ALA:O	16:CP:74:LEU:HD12	2.02	0.59
20:CT:29:LYS:CD	20:CT:66:ALA:HA	2.33	0.59
20:CT:53:LEU:N	20:CT:53:LEU:CD1	2.63	0.59
28:DD:210:GLY:O	28:DD:211:ARG:HB3	2.02	0.59
29:DE:26:ILE:HG22	29:DE:27:LEU:N	2.18	0.59
32:DH:60:ARG:HH11	32:DH:60:ARG:HG2	1.68	0.59
33:DI:52:ARG:HH11	33:DI:52:ARG:CB	2.15	0.59
33:DI:57:ARG:HA	33:DI:60:GLU:HB3	1.84	0.59
33:DI:95:LYS:CA	33:DI:111:PRO:HG3	2.27	0.59
33:DI:142:VAL:O	33:DI:142:VAL:HG23	2.03	0.59
37:DQ:45:GLN:CD	37:DQ:45:GLN:H	2.05	0.59
40:DT:89:VAL:CG1	40:DT:91:ARG:NE	2.65	0.59
41:DU:61:TRP:CH2	41:DU:94:ASN:HB2	2.37	0.59
42:DV:49:THR:OG1	42:DV:50:PRO:CD	2.51	0.59
45:DY:54:LYS:O	45:DY:55:TYR:HB2	2.02	0.59
2:AB:103:THR:OG1	2:AB:176:GLU:HG3	2.03	0.58
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.15	0.58
3:AC:70:VAL:C	3:AC:106:VAL:HG23	2.23	0.58
3:AC:172:ARG:O	3:AC:173:VAL:CG2	2.51	0.58
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.18	0.58
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.84	0.58
28:BD:43:ARG:NH1	28:BD:44:ASN:ND2	2.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:132:VAL:HG22	30:BF:133:ASN:H	1.67	0.58
36:BP:21:ARG:O	36:BP:28:GLY:HA2	2.03	0.58
40:BT:29:ARG:HG2	40:BT:85:LYS:O	2.03	0.58
40:BT:55:ASN:H	40:BT:59:THR:HB	1.67	0.58
43:BW:9:TYR:N	43:BW:9:TYR:CD2	2.68	0.58
45:BY:84:ARG:HH12	45:BY:97:ARG:HD2	1.68	0.58
45:BY:99:CYS:O	45:BY:100:ALA:HB2	2.03	0.58
46:BZ:61:LEU:HB2	46:BZ:65:GLN:HB2	1.84	0.58
49:B2:5:GLU:O	49:B2:8:LYS:HB2	2.01	0.58
52:B5:57:VAL:HG23	52:B5:58:LEU:H	1.68	0.58
53:B6:10:LEU:CD1	55:B8:34:TRP:CD1	2.85	0.58
55:B8:50:LEU:C	55:B8:53:PRO:CD	2.70	0.58
1:CA:329:A:H4'	1:CA:330:C:OP1	2.02	0.58
1:CA:686:U:O2'	1:CA:687:A:H5"	2.02	0.58
1:CA:872:A:H2'	1:CA:872:A:N3	2.18	0.58
1:CA:877:C:H5"	8:CH:88:LYS:HD3	1.85	0.58
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.85	0.58
7:CG:27:ILE:HD12	7:CG:40:ALA:HA	1.84	0.58
13:CM:116:THR:CG2	13:CM:117:VAL:H	2.15	0.58
25:DA:83:G:N2	25:DA:84:A:N6	2.51	0.58
28:DD:33:LEU:O	28:DD:35:LYS:HG2	2.03	0.58
28:DD:94:LEU:HD22	28:DD:94:LEU:C	2.22	0.58
37:DQ:51:ARG:HH11	37:DQ:51:ARG:HG2	1.65	0.58
38:DR:1:MET:O	38:DR:2:ARG:HB2	2.02	0.58
39:DS:107:GLU:H	39:DS:110:LEU:HD12	1.64	0.58
44:DX:35:THR:O	44:DX:39:ILE:HG12	2.03	0.58
52:D5:20:ARG:HA	52:D5:23:HIS:ND1	2.18	0.58
1:AA:243:A:H4'	1:AA:244:U:C5'	2.32	0.58
1:AA:406:G:H21	4:AD:119:GLN:HE22	1.51	0.58
1:AA:792:A:C5	1:AA:794:A:N6	2.71	0.58
6:AF:45:LEU:O	6:AF:46:ARG:HG3	2.03	0.58
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.01	0.58
12:AL:38:THR:HG23	12:AL:57:LYS:O	2.03	0.58
25:BA:890:A:N6	25:BA:892:G:O6	2.36	0.58
27:BC:41:VAL:O	27:BC:178:ALA:HB3	2.03	0.58
28:BD:105:ILE:HD12	28:BD:106:ILE:H	1.68	0.58
29:BE:110:GLY:O	38:BR:2:ARG:NE	2.37	0.58
31:BG:107:LEU:HD23	31:BG:111:LEU:HD12	1.84	0.58
31:BG:152:LEU:HG	31:BG:153:ARG:N	2.18	0.58
36:BP:75:ILE:H	36:BP:75:ILE:CD1	1.82	0.58
41:BU:106:PHE:O	41:BU:109:LEU:HB2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:18:ARG:NH1	43:BW:76:VAL:O	2.35	0.58
55:B8:43:GLN:C	55:B8:44:LYS:HD2	2.23	0.58
5:CE:33:VAL:HG22	5:CE:43:LEU:HD13	1.85	0.58
9:CI:4:TYR:N	9:CI:4:TYR:HD1	2.00	0.58
17:CQ:5:VAL:HG13	17:CQ:59:ILE:O	2.03	0.58
27:DC:76:ALA:C	27:DC:78:ALA:H	2.07	0.58
30:DF:184:TYR:CE2	30:DF:188:ARG:HD2	2.38	0.58
42:DV:43:GLU:OE2	42:DV:43:GLU:HA	2.03	0.58
1:AA:952:U:H5'	1:AA:972:C:H41	1.68	0.58
3:AC:21:ARG:C	3:AC:22:TRP:CD1	2.77	0.58
11:AK:124:LYS:HB3	11:AK:125:PHE:CD1	2.38	0.58
17:AQ:74:LEU:HD13	17:AQ:75:ARG:HG2	1.85	0.58
20:AT:30:LYS:HD2	20:AT:34:LYS:HE3	1.85	0.58
25:BA:1024:G:H3'	25:BA:1025:G:H5"	1.84	0.58
25:BA:1504:C:HO2'	25:BA:1505:C:H5'	1.65	0.58
25:BA:1966:A:H2'	25:BA:2592:G:O2'	2.02	0.58
40:BT:48:ILE:HG22	40:BT:49:VAL:O	2.04	0.58
49:B2:3:LEU:O	49:B2:3:LEU:HD23	2.04	0.58
50:B3:13:ILE:HG22	50:B3:13:ILE:O	2.01	0.58
2:CB:118:LEU:HB2	2:CB:142:LEU:HD13	1.86	0.58
9:CI:58:HIS:CB	9:CI:59:PHE:HE1	2.14	0.58
25:DA:1212:G:O2'	25:DA:1236:G:N2	2.36	0.58
25:DA:1722:A:C2	25:DA:1740:G:H2'	2.38	0.58
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.67	0.58
28:DD:27:THR:CG2	28:DD:83:GLU:HG2	2.34	0.58
28:DD:27:THR:HG21	28:DD:83:GLU:HG2	1.85	0.58
30:DF:195:ASP:O	30:DF:197:ASP:O	2.21	0.58
30:DF:197:ASP:O	30:DF:198:ALA:HB3	2.03	0.58
33:DI:11:ASN:O	33:DI:12:LEU:CB	2.51	0.58
34:DN:48:MET:HE3	34:DN:48:MET:H	1.68	0.58
42:DV:44:LYS:C	42:DV:46:VAL:H	2.06	0.58
1:AA:247:G:OP2	17:AQ:100:LYS:N	2.37	0.58
1:AA:985:C:H2'	1:AA:986:A:H8	1.67	0.58
3:AC:52:LEU:H	3:AC:52:LEU:HD23	1.68	0.58
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.33	0.58
11:AK:111:ASP:OD2	18:AR:84:LYS:HE3	2.04	0.58
12:AL:11:VAL:HG12	12:AL:12:ARG:N	2.18	0.58
16:AP:70:ALA:O	16:AP:74:LEU:HD12	2.03	0.58
25:BA:434:U:H2'	25:BA:436:C:N4	2.18	0.58
25:BA:1434:A:H61	25:BA:1558:A:N6	2.02	0.58
28:BD:53:PHE:CD2	28:BD:220:HIS:CD2	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:125:ILE:N	28:BD:125:ILE:HD13	2.19	0.58
30:BF:46:ARG:CG	30:BF:46:ARG:NH1	2.66	0.58
30:BF:177:ALA:HB1	30:BF:178:PRO:HD2	1.86	0.58
31:BG:42:GLY:C	31:BG:43:LEU:HD13	2.23	0.58
36:BP:86:LYS:HG3	36:BP:87:ASP:N	2.17	0.58
39:BS:89:ARG:HD3	39:BS:92:TYR:CA	2.33	0.58
40:BT:67:SER:O	40:BT:68:TYR:HB2	2.03	0.58
41:BU:115:ALA:C	41:BU:117:GLN:H	2.06	0.58
45:BY:28:LYS:HB2	45:BY:37:VAL:HB	0.69	0.58
1:CA:61:G:C6	1:CA:107:G:C2	2.90	0.58
1:CA:1295:G:O2'	13:CM:14:ARG:NH1	2.36	0.58
5:CE:53:LEU:H	5:CE:53:LEU:HD12	1.69	0.58
5:CE:112:LEU:O	5:CE:113:ALA:C	2.41	0.58
17:CQ:78:GLU:OE1	17:CQ:81:ARG:HD2	2.02	0.58
25:DA:271(D):G:H1	25:DA:271(T):C:H42	1.51	0.58
25:DA:1819:A:OP1	28:DD:158:ALA:HB2	2.02	0.58
36:DP:29:LYS:HD2	36:DP:30:THR:HG23	1.84	0.58
39:DS:108:GLY:O	39:DS:110:LEU:N	2.36	0.58
46:DZ:25:PRO:HA	46:DZ:38:TYR:HB2	1.86	0.58
1:AA:242:C:H2'	1:AA:243:A:O5'	2.03	0.58
1:AA:448:A:P	1:AA:485:G:H22	2.26	0.58
1:AA:872:A:O2'	1:AA:873:A:H3'	2.04	0.58
1:AA:992:U:O2'	1:AA:993:G:H5"	2.03	0.58
2:AB:28:PHE:CE2	2:AB:31:TYR:HB2	2.39	0.58
7:AG:71:PRO:O	7:AG:91:VAL:HG21	2.04	0.58
7:AG:156:TRP:OXT	7:AG:156:TRP:CG	2.56	0.58
14:AN:26:ARG:HG3	14:AN:27:CYS:N	2.19	0.58
19:AS:9:VAL:C	19:AS:10:PHE:CD1	2.76	0.58
20:AT:43:LEU:CB	20:AT:52:ALA:HB2	2.33	0.58
25:BA:560:C:H5'	41:BU:52:ARG:HH22	1.67	0.58
29:BE:103:ASP:OD1	29:BE:201:THR:HA	2.03	0.58
31:BG:10:LYS:O	31:BG:15:VAL:HG23	2.04	0.58
32:BH:125:VAL:HG22	32:BH:131:VAL:HG22	1.85	0.58
34:BN:14:VAL:HG13	34:BN:137:LYS:CG	2.27	0.58
34:BN:32:THR:O	34:BN:35:ARG:O	2.21	0.58
36:BP:124:LYS:HZ2	36:BP:143:GLY:HA3	1.67	0.58
39:BS:61:ASN:O	39:BS:62:LYS:HG2	2.03	0.58
45:BY:67:LEU:CD1	45:BY:71:LYS:HB2	2.32	0.58
55:B8:30:ARG:HD3	55:B8:30:ARG:C	2.20	0.58
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.69	0.58
1:CA:243:A:N6	1:CA:246:A:N6	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:344:A:H4'	1:CA:345:C:OP1	2.04	0.58
1:CA:818:G:O2'	1:CA:820:U:O4	2.22	0.58
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.04	0.58
3:CC:58:GLU:N	3:CC:65:ALA:HB3	2.15	0.58
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.84	0.58
10:CJ:30:SER:HB2	10:CJ:81:THR:N	2.18	0.58
19:CS:53:ASN:OD1	19:CS:55:LYS:N	2.34	0.58
22:CV:3:C:H2'	22:CV:3:C:O2	2.03	0.58
25:DA:1707:G:H1	25:DA:1751:C:H42	1.49	0.58
25:DA:2311:A:H1'	31:DG:82:LEU:CD1	2.33	0.58
28:DD:129:ASN:O	28:DD:193:VAL:HG12	2.03	0.58
32:DH:106:THR:HG22	32:DH:112:PRO:CB	2.30	0.58
38:DR:2:ARG:HA	38:DR:5:LYS:HD2	1.84	0.58
40:DT:113:LYS:O	40:DT:114:LEU:HD23	2.03	0.58
43:DW:88:ARG:HB2	43:DW:92:ARG:HB3	1.85	0.58
50:D3:35:ARG:HH11	50:D3:35:ARG:HG3	1.69	0.58
56:D9:24:TYR:O	56:D9:25:VAL:HG23	2.03	0.58
1:AA:1226:C:HO2'	1:AA:1227:A:H5'	1.67	0.58
1:AA:1363(A):A:H4'	1:AA:1364:U:O5'	2.02	0.58
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.86	0.58
2:AB:96:ARG:HD2	2:AB:96:ARG:N	2.16	0.58
8:AH:104:ARG:CZ	8:AH:138:TRP:CH2	2.87	0.58
12:AL:69:TYR:HE2	12:AL:71:PRO:HA	1.68	0.58
19:AS:9:VAL:CG1	19:AS:9:VAL:O	2.51	0.58
25:BA:84:A:N1	25:BA:98:G:O2'	2.29	0.58
30:BF:66:PRO:O	30:BF:67:GLN:HG2	2.02	0.58
31:BG:39:ILE:HB	31:BG:157:ILE:HG22	1.83	0.58
31:BG:129:GLY:O	31:BG:161:THR:HB	2.03	0.58
35:BO:24:VAL:HG22	35:BO:24:VAL:O	2.02	0.58
38:BR:9:LYS:O	38:BR:10:LEU:HG	2.02	0.58
40:BT:28:VAL:CG2	40:BT:46:GLU:HA	2.33	0.58
53:B6:12:GLU:HB2	53:B6:23:THR:N	2.15	0.58
1:CA:429:U:HO2'	1:CA:430:A:P	2.24	0.58
1:CA:1492:A:N6	1:CA:1493:A:H61	2.02	0.58
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.62	0.58
8:CH:44:PHE:O	8:CH:45:ILE:HG23	2.04	0.58
9:CI:8:GLY:HA2	9:CI:79:LEU:HD12	1.85	0.58
13:CM:14:ARG:N	13:CM:44:ARG:HD2	2.19	0.58
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.43	0.58
17:CQ:21:VAL:HG11	17:CQ:59:ILE:HD11	1.84	0.58
25:DA:603:A:O2'	25:DA:604:G:O5'	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:767:U:H2'	25:DA:768:G:H8	1.68	0.58
25:DA:1342:A:C6	25:DA:1397:U:C5	2.91	0.58
25:DA:2092:U:H4'	25:DA:2093:G:O5'	2.04	0.58
29:DE:116:VAL:CG2	29:DE:122:PHE:CG	2.87	0.58
30:DF:63:LYS:HE2	30:DF:67:GLN:HB3	1.86	0.58
33:DI:47:LEU:HA	33:DI:50:ARG:HD3	1.86	0.58
36:DP:59:LEU:CA	36:DP:61:ARG:CZ	2.66	0.58
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CE2	2.39	0.58
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.04	0.58
47:D0:40:GLN:HE21	47:D0:43:THR:HA	1.67	0.58
1:AA:76:C:N4	1:AA:93:G:H1	2.01	0.58
1:AA:839:U:O2	1:AA:839:U:C2'	2.50	0.58
1:AA:1405:G:OP2	58:AA:7111:PAR:O34	2.21	0.58
2:AB:150:SER:O	2:AB:153:ARG:HG3	2.03	0.58
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.18	0.58
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.38	0.58
6:AF:58:GLY:O	6:AF:60:PHE:CD1	2.56	0.58
8:AH:39:LEU:O	8:AH:44:PHE:HB2	2.03	0.58
9:AI:15:ALA:CB	9:AI:65:VAL:HG23	2.30	0.58
9:AI:25:LYS:O	9:AI:25:LYS:HG3	2.02	0.58
13:AM:86:CYS:O	13:AM:89:GLY:N	2.35	0.58
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.03	0.58
18:AR:65:ILE:O	18:AR:69:THR:HG23	2.03	0.58
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.39	0.58
25:BA:49:A:H1'	25:BA:51:G:C4	2.39	0.58
25:BA:2426:A:H4'	25:BA:2427:C:OP2	2.02	0.58
28:BD:268:ARG:H	28:BD:270:ILE:HD11	1.68	0.58
40:BT:31:SER:CB	40:BT:43:GLN:N	2.64	0.58
42:BV:39:LEU:O	42:BV:40:LEU:HB2	2.03	0.58
44:BX:84:ALA:HB3	44:BX:87:GLN:OE1	2.04	0.58
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.86	0.58
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.19	0.58
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.02	0.58
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.86	0.58
22:CV:20:G:H3'	22:CV:21:U:C2	2.38	0.58
25:DA:9272:G:H5'	25:DA:9273:G:OP2	2.04	0.58
25:DA:483:A:H4'	45:DY:49:VAL:CA	2.31	0.58
25:DA:819:A:N6	25:DA:1189:A:H1'	2.18	0.58
25:DA:1251:C:O2'	25:DA:1252:G:H3'	2.03	0.58
25:DA:2646:C:OP2	25:DA:2732:G:O2'	2.20	0.58
41:DU:101:ARG:C	41:DU:102:GLU:HG2	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:37:VAL:O	42:DV:37:VAL:HG23	2.03	0.58
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.18	0.58
45:DY:50:ARG:HB3	45:DY:53:PRO:CD	2.32	0.58
1:AA:1225:A:O2'	19:AS:78:ARG:HD3	2.03	0.58
2:AB:75:LYS:O	2:AB:75:LYS:CD	2.47	0.58
3:AC:44:GLU:HA	3:AC:52:LEU:HD11	1.86	0.58
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.85	0.58
4:AD:8:VAL:CG1	4:AD:21:LEU:HD13	2.34	0.58
8:AH:18:ARG:HA	8:AH:78:GLN:HE22	1.68	0.58
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.65	0.58
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HA	2.33	0.58
14:AN:23:ARG:O	14:AN:23:ARG:HG3	2.04	0.58
15:AO:61:GLY:O	15:AO:65:ARG:HD3	2.04	0.58
15:AO:65:ARG:HH11	15:AO:65:ARG:CG	2.16	0.58
22:AV:16:C:O2'	22:AV:62:C:OP1	2.22	0.58
25:BA:1541:G:O6	25:BA:1542:A:N6	2.37	0.58
26:BB:52:A:N6	39:BS:33:LYS:HE2	2.19	0.58
29:BE:173:VAL:HG12	29:BE:174:ASP:H	1.68	0.58
30:BF:32:LEU:HD13	30:BF:112:MET:HE1	1.85	0.58
30:BF:124:LEU:C	30:BF:124:LEU:HD12	2.24	0.58
31:BG:39:ILE:HD13	31:BG:157:ILE:CG2	2.33	0.58
31:BG:64:THR:HG23	31:BG:65:GLY:N	2.18	0.58
31:BG:133:LEU:HG	31:BG:157:ILE:HG13	1.85	0.58
36:BP:85:LEU:CA	36:BP:88:LEU:HB3	2.32	0.58
43:BW:60:ASN:O	43:BW:61:ASN:ND2	2.36	0.58
49:B2:70:GLN:HG2	49:B2:71:ASN:N	2.18	0.58
1:CA:1157:A:H1'	1:CA:1181:G:N2	2.18	0.58
9:CI:9:ARG:HG2	9:CI:104:ARG:NH1	2.18	0.58
12:CL:27:LEU:HG	12:CL:62:SER:HB2	1.85	0.58
16:CP:53:VAL:O	16:CP:57:ARG:HG2	2.04	0.58
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.03	0.58
25:DA:483:A:C4'	45:DY:49:VAL:HG13	2.33	0.58
25:DA:579:G:O2'	25:DA:2019:A:OP1	2.22	0.58
25:DA:708:C:H42	25:DA:723:G:H1	1.52	0.58
31:DG:106:LEU:HA	31:DG:110:ALA:HB3	1.85	0.58
40:DT:65:LYS:NZ	40:DT:66:VAL:N	2.48	0.58
41:DU:83:LEU:CD1	41:DU:113:ALA:HB2	2.33	0.58
46:DZ:18:LEU:HB3	46:DZ:23:LYS:HB2	1.84	0.58
46:DZ:39:VAL:HG21	46:DZ:44:PHE:CD2	2.38	0.58
1:AA:652:U:H1'	1:AA:653:A:H2	1.69	0.58
1:AA:802:A:H3'	1:AA:803:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1224:G:C6	1:AA:1322:C:H1'	2.38	0.58
5:AE:105:VAL:HG12	5:AE:106:PRO:HD3	1.84	0.58
6:AF:91:VAL:HG13	18:AR:72:ARG:NH1	2.19	0.58
8:AH:35:ILE:HG23	8:AH:111:ILE:HD13	1.86	0.58
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.04	0.58
20:AT:64:ASP:O	20:AT:67:ALA:HB3	2.04	0.58
22:AV:64:G:C2	22:AV:65:G:C8	2.91	0.58
25:BA:221:A:C4	25:BA:266:G:N7	2.72	0.58
25:BA:2330:G:H4'	47:B0:44:ARG:HH12	1.68	0.58
25:BA:2680:C:H5'	29:BE:189:PRO:HA	1.85	0.58
26:BB:66:A:N6	26:BB:108:U:C6	2.72	0.58
29:BE:201:THR:OG1	29:BE:202:LYS:N	2.37	0.58
30:BF:199:TRP:CZ3	30:BF:203:GLN:HG2	2.39	0.58
33:BI:110:ASP:N	33:BI:130:TYR:OH	2.33	0.58
44:BX:55:ASN:HB2	44:BX:80:ILE:CD1	2.33	0.58
45:BY:67:LEU:HG	45:BY:68:HIS:N	2.19	0.58
1:CA:274:A:O2'	1:CA:275:G:C5'	2.51	0.58
1:CA:1223:C:P	19:CS:78:ARG:HH21	2.27	0.58
3:CC:116:VAL:O	3:CC:119:ARG:HB3	2.04	0.58
6:CF:44:GLY:HA2	6:CF:59:TYR:CE2	2.38	0.58
10:CJ:24:VAL:O	10:CJ:28:ARG:HG3	2.03	0.58
13:CM:97:PRO:HA	13:CM:110:ARG:HD3	1.84	0.58
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.25	0.58
22:CV:42:C:H2'	22:CV:43:G:O5'	2.04	0.58
25:DA:774:A:H2	25:DA:787:U:HO2'	1.51	0.58
25:DA:1721:G:N1	25:DA:1739:U:OP2	2.37	0.58
25:DA:2134:A:N6	25:DA:2157:G:H1'	2.19	0.58
29:DE:63:LEU:HD23	29:DE:65:GLY:N	2.19	0.58
32:DH:92:ILE:HD12	32:DH:92:ILE:N	2.13	0.58
33:DI:21:VAL:HG21	33:DI:25:TYR:CD1	2.39	0.58
37:DQ:85:LYS:HG3	47:D0:7:LEU:HD13	1.85	0.58
39:DS:110:LEU:O	39:DS:112:PHE:CD1	2.57	0.58
49:D2:63:VAL:O	49:D2:66:GLU:HG2	2.04	0.58
50:D3:4:LEU:HD21	50:D3:56:VAL:CG1	2.33	0.58
1:AA:60:A:HO2'	1:AA:61:G:P	2.27	0.58
1:AA:972:C:O2'	1:AA:973:G:H5'	2.04	0.58
1:AA:1206:G:H4'	3:AC:192:THR:O	2.03	0.58
2:AB:96:ARG:HH12	2:AB:147:LYS:HE2	1.69	0.58
5:AE:43:LEU:HD12	5:AE:44:GLY:H	1.69	0.58
7:AG:14:PRO:CD	7:AG:21:VAL:HG12	2.34	0.58
8:AH:35:ILE:HG22	8:AH:39:LEU:HD21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.72	0.58
25:BA:94(A):G:H21	49:B2:47:ASN:HD22	1.51	0.58
25:BA:994:C:H3'	41:BU:54:LYS:HE3	1.86	0.58
25:BA:1827:C:O4'	25:BA:1970:A:O2'	2.22	0.58
25:BA:2503:A:H5'	25:BA:2503:A:N3	2.18	0.58
27:BC:196:LEU:C	27:BC:198:ALA:N	2.54	0.58
28:BD:69:ARG:HH22	28:BD:192:THR:CB	2.17	0.58
31:BG:115:ARG:NH1	31:BG:136:ARG:HD3	2.18	0.58
33:BI:88:ILE:HG12	33:BI:122:GLU:H	1.69	0.58
34:BN:46:VAL:O	34:BN:47:ALA:CB	2.51	0.58
37:BQ:27:VAL:HG23	37:BQ:137:TYR:CE1	2.39	0.58
37:BQ:78:PRO:HB2	37:BQ:81:VAL:HG11	1.86	0.58
43:BW:59:VAL:CG1	43:BW:60:ASN:N	2.67	0.58
45:BY:20:TYR:HE1	45:BY:42:VAL:HA	1.69	0.58
1:CA:250:A:O2'	1:CA:251:G:P	2.62	0.58
1:CA:547:A:H4'	1:CA:548:G:O5'	2.04	0.58
1:CA:925:G:O2'	1:CA:927:G:OP1	2.21	0.58
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.69	0.58
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.19	0.58
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.06	0.58
13:CM:11:ARG:HH11	13:CM:11:ARG:HB3	1.69	0.58
14:CN:24:CYS:HB2	14:CN:40:CYS:HB3	1.85	0.58
15:CO:25:THR:O	15:CO:28:GLN:N	2.36	0.58
20:CT:75:ASN:O	20:CT:79:ARG:N	2.36	0.58
25:DA:614:U:O2	25:DA:614:U:C5'	2.51	0.58
25:DA:1542:A:O2'	25:DA:1543:C:O5'	2.22	0.58
25:DA:2377:A:H4'	39:DS:112:PHE:HA	1.86	0.58
25:DA:2879:C:H5'	25:DA:2880:C:OP1	2.04	0.58
28:DD:16:MET:HG3	28:DD:206:LEU:O	2.04	0.58
34:DN:43:THR:HB	34:DN:46:VAL:HG12	1.86	0.58
37:DQ:55:VAL:O	37:DQ:59:ARG:HA	2.03	0.58
41:DU:57:PHE:C	41:DU:59:ARG:N	2.55	0.58
41:DU:79:PHE:CE2	41:DU:83:LEU:CD2	2.86	0.58
44:DX:12:VAL:HG22	44:DX:17:ALA:CB	2.33	0.58
46:DZ:57:ILE:HG22	46:DZ:58:VAL:N	2.18	0.58
52:D5:48:GLU:HA	52:D5:57:VAL:HG22	1.86	0.58
1:AA:241:C:C2'	1:AA:242:C:H5'	2.33	0.57
1:AA:243:A:C6	1:AA:281:G:N3	2.72	0.57
1:AA:533:A:C4'	1:AA:534:U:OP1	2.52	0.57
5:AE:138:ALA:O	5:AE:141:GLN:HB2	2.03	0.57
20:AT:18:GLN:O	20:AT:19:SER:C	2.42	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:3:C:C2'	22:AV:4:G:H5'	2.33	0.57
25:BA:181:A:N1	25:BA:435:C:C5	2.72	0.57
25:BA:574:C:N4	25:BA:2034:U:OP2	2.36	0.57
25:BA:2526:G:H21	56:B9:2:LYS:HG3	1.67	0.57
28:BD:201:HIS:O	28:BD:203:ASN:N	2.36	0.57
29:BE:176:ILE:HG22	29:BE:179:GLU:H	1.67	0.57
41:BU:83:LEU:HG	41:BU:88:ILE:HG13	1.84	0.57
46:BZ:53:ILE:HG23	46:BZ:71:VAL:HB	1.86	0.57
46:BZ:116:VAL:O	46:BZ:175:VAL:HG22	2.04	0.57
48:B1:52:ARG:NH2	48:B1:53:VAL:HA	2.19	0.57
1:CA:46:G:H2'	1:CA:366:C:N4	2.19	0.57
1:CA:751:U:H2'	1:CA:752:G:H5'	1.85	0.57
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.18	0.57
8:CH:97:VAL:HG23	8:CH:129:VAL:O	2.03	0.57
20:CT:40:ALA:CA	20:CT:55:ILE:HG21	2.34	0.57
25:DA:265:A:C8	25:DA:266:G:H1'	2.39	0.57
25:DA:1496:A:H8	25:DA:1577:C:HO2'	1.52	0.57
25:DA:2001:A:C5'	25:DA:2689:U:H2'	2.34	0.57
28:DD:145:VAL:HB	28:DD:155:LEU:HB2	1.85	0.57
37:DQ:34:LEU:HD11	37:DQ:129:THR:CB	2.33	0.57
39:DS:89:ARG:O	39:DS:89:ARG:HG3	2.04	0.57
46:DZ:151:HIS:CB	46:DZ:170:THR:HA	2.33	0.57
1:AA:652:U:H1'	1:AA:653:A:C2	2.39	0.57
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.86	0.57
13:AM:102:ARG:HH11	13:AM:102:ARG:HG3	1.67	0.57
13:AM:108:ARG:HG3	13:AM:108:ARG:NH1	2.09	0.57
25:BA:1721:G:OP2	25:BA:1721:G:N2	2.30	0.57
31:BG:47:LYS:N	31:BG:51:ARG:HG3	2.19	0.57
40:BT:26:ASP:OD2	40:BT:26:ASP:C	2.43	0.57
41:BU:92:ARG:HD2	42:BV:11:GLN:NE2	2.18	0.57
1:CA:129(A):G:H5"	1:CA:130:A:OP1	2.04	0.57
2:CB:114:ARG:O	2:CB:114:ARG:HG3	2.04	0.57
3:CC:20:SER:CB	3:CC:40:ARG:HH22	2.09	0.57
5:CE:76:ILE:CD1	5:CE:142:LEU:HD21	2.32	0.57
8:CH:84:ARG:O	8:CH:135:CYS:HB2	2.04	0.57
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.86	0.57
12:CL:84:LEU:HG	12:CL:105:TYR:CE1	2.36	0.57
23:CW:3:C:H2'	23:CW:4:C:C6	2.39	0.57
23:CY:37:A:O2'	25:DA:1913:A:N1	2.37	0.57
25:DA:215:G:H4'	25:DA:216:A:O5'	2.02	0.57
25:DA:483:A:C4'	45:DY:49:VAL:HA	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:13:A:O2'	26:DB:14:U:H5'	2.04	0.57
33:DI:38:LEU:H	33:DI:38:LEU:CD1	2.04	0.57
33:DI:144:VAL:HG22	33:DI:145:VAL:N	2.18	0.57
36:DP:84:ASN:CG	36:DP:116:GLY:HA3	2.25	0.57
36:DP:86:LYS:HG3	36:DP:87:ASP:N	2.17	0.57
38:DR:77:ARG:O	38:DR:79:LEU:N	2.37	0.57
40:DT:35:LYS:O	40:DT:36:GLU:HB3	2.05	0.57
42:DV:41:GLY:H	42:DV:46:VAL:HG13	1.69	0.57
52:D5:35:GLU:O	52:D5:36:CYS:HB2	2.04	0.57
1:AA:47:C:H4'	1:AA:48:C:O5'	2.04	0.57
9:AI:95:LYS:HZ3	9:AI:96:LEU:HD13	1.69	0.57
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.67	0.57
12:AL:112:ASP:O	12:AL:113:ARG:C	2.41	0.57
13:AM:40:ASN:HB3	13:AM:43:THR:CG2	2.33	0.57
22:AV:55:U:HO2'	22:AV:56:U:H5'	1.66	0.57
25:BA:614(A):U:H2'	25:BA:614(B):G:OP1	2.03	0.57
25:BA:684:G:O2'	25:BA:788:A:N7	2.37	0.57
25:BA:2345:G:O2'	25:BA:2382:G:O4'	2.22	0.57
32:BH:156:ALA:C	32:BH:158:HIS:N	2.58	0.57
33:BI:79:ILE:CG1	33:BI:140:LEU:HD11	2.34	0.57
34:BN:27:ALA:HA	34:BN:30:ILE:HG13	1.87	0.57
46:BZ:40:ASP:HB3	46:BZ:43:GLU:HB2	1.85	0.57
46:BZ:52:SER:O	46:BZ:53:ILE:HG23	2.03	0.57
1:CA:251:G:O4'	1:CA:252:U:H6	1.86	0.57
1:CA:429:U:C4'	1:CA:430:A:O5'	2.52	0.57
1:CA:1067:A:C4'	1:CA:1068:G:O5'	2.43	0.57
1:CA:1491:G:N7	58:CA:1741:PAR:O53	2.34	0.57
2:CB:16:HIS:HB3	2:CB:210:SER:OG	2.04	0.57
4:CD:19:LEU:HB3	4:CD:21:LEU:CD1	2.34	0.57
6:CF:6:VAL:O	6:CF:62:TRP:HA	2.04	0.57
12:CL:69:TYR:HB2	12:CL:90:VAL:CG2	2.34	0.57
13:CM:87:TYR:HA	13:CM:90:LEU:HG	1.86	0.57
14:CN:6:LEU:HD13	14:CN:23:ARG:HH22	1.69	0.57
20:CT:29:LYS:CG	20:CT:66:ALA:HB2	2.33	0.57
20:CT:81:LYS:O	20:CT:85:MET:SD	2.63	0.57
22:CV:54:G:N3	22:CV:55:U:C6	2.71	0.57
23:CW:55:U:C5	23:CW:57:G:H5'	2.39	0.57
25:DA:301:G:H1	25:DA:316:C:H42	1.53	0.57
25:DA:811:U:C4	36:DP:21:ARG:NH2	2.73	0.57
25:DA:1329:U:H5"	25:DA:1330:C:H5	1.67	0.57
25:DA:1396:U:H5"	25:DA:1397:U:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:242:ARG:N	28:DD:242:ARG:HD2	2.18	0.57
29:DE:48:GLN:HG2	29:DE:48:GLN:O	2.04	0.57
32:DH:143:GLN:C	32:DH:143:GLN:HE21	2.08	0.57
39:DS:101:LEU:HD13	39:DS:101:LEU:O	2.04	0.57
41:DU:103:PRO:O	41:DU:104:GLN:C	2.41	0.57
52:D5:41:PRO:HG2	52:D5:44:THR:HG21	1.86	0.57
55:D8:52:LYS:N	55:D8:53:PRO:CD	2.65	0.57
1:AA:1306:A:N6	1:AA:1331:G:O2'	2.37	0.57
1:AA:1422:G:O2'	35:BO:49:ARG:NH2	2.37	0.57
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG21	1.87	0.57
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.43	0.57
15:AO:16:ALA:CB	15:AO:21:ASP:HB3	2.33	0.57
25:BA:249:C:OP2	25:BA:2394:C:O2'	2.21	0.57
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.40	0.57
26:BB:107:G:O2'	26:BB:108:U:H5'	2.04	0.57
28:BD:71:ASP:N	28:BD:71:ASP:OD1	2.36	0.57
35:BO:115:VAL:O	35:BO:117:LEU:N	2.37	0.57
36:BP:19:VAL:CG2	36:BP:21:ARG:HD2	2.34	0.57
36:BP:106:LEU:O	36:BP:107:LYS:HB2	2.05	0.57
42:BV:34:GLU:HG2	42:BV:56:SER:HB2	1.85	0.57
53:B6:10:LEU:HD12	55:B8:34:TRP:CD1	2.40	0.57
1:CA:657:G:N2	1:CA:749:C:O2	2.30	0.57
3:CC:14:ILE:O	3:CC:15:THR:C	2.43	0.57
3:CC:59:ARG:HG2	3:CC:63:ASN:O	2.03	0.57
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.12	0.57
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.19	0.57
10:CJ:43:ARG:O	10:CJ:67:THR:HG23	2.03	0.57
23:CW:21:A:N6	23:CW:46:G:N3	2.52	0.57
25:DA:974:G:O2'	25:DA:975(A):G:N7	2.30	0.57
33:DI:77:LEU:HD13	33:DI:78:THR:N	2.18	0.57
34:DN:43:THR:HB	34:DN:46:VAL:CG1	2.34	0.57
44:DX:47:PHE:N	44:DX:47:PHE:CD1	2.71	0.57
48:D1:12:PRO:HB3	48:D1:43:TYR:CD2	2.39	0.57
51:D4:34:GLU:O	51:D4:35:VAL:HB	2.04	0.57
53:D6:41:PRO:CD	53:D6:46:HIS:C	2.73	0.57
1:AA:1029:C:O2'	1:AA:1032:G:N2	2.29	0.57
2:AB:71:VAL:HA	2:AB:93:VAL:CG2	2.33	0.57
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.03	0.57
7:AG:15:ASP:HB3	7:AG:24:THR:CG2	2.35	0.57
15:AO:17:ARG:HD3	15:AO:26:GLU:CG	2.34	0.57
23:AW:25:C:H2'	23:AW:26:A:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:333:G:C6	25:BA:334:C:C4	2.92	0.57
25:BA:1203:G:O6	25:BA:1204:A:N6	2.37	0.57
25:BA:2847:U:C5	25:BA:2848:G:C5	2.92	0.57
29:BE:67:PHE:O	29:BE:70:ALA:HB2	2.03	0.57
30:BF:72:ARG:NH1	30:BF:72:ARG:HB3	2.19	0.57
30:BF:108:LYS:HB3	30:BF:112:MET:CE	2.35	0.57
31:BG:110:ALA:HA	31:BG:140:ILE:CG2	2.34	0.57
40:BT:83:ILE:CD1	40:BT:84:GLN:HG3	2.34	0.57
42:BV:38:LEU:O	42:BV:52:VAL:HG12	2.03	0.57
42:BV:46:VAL:HG22	42:BV:47:VAL:H	1.69	0.57
45:BY:48:ALA:C	45:BY:50:ARG:H	2.07	0.57
48:B1:52:ARG:HH11	48:B1:74:VAL:HG12	1.68	0.57
1:CA:470:C:H5"	1:CA:471:G:OP2	2.04	0.57
1:CA:737:A:H2'	1:CA:738:C:C6	2.39	0.57
10:CJ:12:ASP:OD1	10:CJ:15:THR:HG23	2.04	0.57
13:CM:11:ARG:HH11	13:CM:11:ARG:CB	2.16	0.57
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.86	0.57
25:DA:791:C:H4'	25:DA:792:G:OP1	2.05	0.57
25:DA:1694:C:OP2	25:DA:1694:C:C6	2.56	0.57
25:DA:1818:U:O2'	28:DD:157:ARG:HG3	2.03	0.57
25:DA:2198:A:O2'	25:DA:2199:A:O4'	2.22	0.57
26:DB:22:U:H3	26:DB:61:G:H1	1.52	0.57
30:DF:124:LEU:HG	30:DF:126:VAL:CG1	2.34	0.57
31:DG:137:GLU:HB3	31:DG:152:LEU:HD13	1.86	0.57
34:DN:87:LEU:O	34:DN:90:MET:HB2	2.05	0.57
36:DP:106:LEU:O	36:DP:107:LYS:HB2	2.05	0.57
37:DQ:16:ARG:C	37:DQ:17:LEU:HD23	2.25	0.57
40:DT:67:SER:O	40:DT:68:TYR:HB2	2.04	0.57
3:AC:44:GLU:HG2	3:AC:52:LEU:HD11	1.85	0.57
4:AD:61:LYS:HD2	4:AD:206:PHE:CE2	2.40	0.57
9:AI:125:TYR:HD2	9:AI:126:SER:H	1.53	0.57
10:AJ:44:VAL:HG12	10:AJ:45:ARG:N	2.17	0.57
25:BA:390:A:C6	36:BP:71:VAL:HG11	2.39	0.57
25:BA:865:C:C5'	25:BA:866:A:OP1	2.53	0.57
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.40	0.57
25:BA:1819:A:H4'	25:BA:1820:U:O5'	2.04	0.57
25:BA:2346:A:O2'	25:BA:2347:C:OP2	2.22	0.57
25:BA:2577:A:H5"	25:BA:2578:G:H5'	1.86	0.57
28:BD:248:SER:C	28:BD:250:TRP:H	2.07	0.57
29:BE:176:ILE:HG22	29:BE:178:GLU:HB3	1.85	0.57
31:BG:86:MET:HG3	31:BG:87:PRO:HD3	1.82	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:35:VAL:HG11	32:BH:72:ILE:HG13	1.87	0.57
32:BH:84:SER:O	32:BH:85:LYS:HB3	2.04	0.57
33:BI:56:LYS:HG3	33:BI:57:ARG:N	2.19	0.57
36:BP:94:GLU:O	36:BP:96:THR:HG23	2.05	0.57
43:BW:12:ILE:HD13	43:BW:46:PHE:CD2	2.39	0.57
44:BX:65:ARG:HH11	44:BX:65:ARG:HG2	1.69	0.57
1:CA:173:U:H1'	1:CA:197:A:C5	2.39	0.57
1:CA:458:C:H2'	1:CA:460:G:H8	1.69	0.57
1:CA:656:C:H4'	15:CO:62:GLN:HE22	1.70	0.57
1:CA:686:U:O2'	1:CA:687:A:P	2.62	0.57
3:CC:29:TYR:HA	3:CC:32:LEU:HB2	1.84	0.57
23:CY:36:A:C8	23:CY:36:A:C3'	2.87	0.57
25:DA:788:A:OP1	25:DA:791:C:N4	2.35	0.57
27:DC:196:LEU:C	27:DC:198:ALA:H	2.08	0.57
28:DD:133:LEU:HD22	28:DD:165:ILE:HD11	1.86	0.57
28:DD:147:LEU:HD13	28:DD:155:LEU:HD11	1.85	0.57
30:DF:110:LEU:HD11	30:DF:181:LEU:CD1	2.35	0.57
32:DH:37:VAL:CG1	32:DH:38:SER:H	2.16	0.57
32:DH:50:VAL:HG22	32:DH:50:VAL:O	2.05	0.57
41:DU:17:ILE:HG23	41:DU:39:LEU:HD12	1.86	0.57
45:DY:77:PRO:O	45:DY:78:ALA:HB2	2.05	0.57
46:DZ:81:ARG:O	46:DZ:81:ARG:HG3	2.03	0.57
46:DZ:102:LEU:O	46:DZ:103:ARG:HG2	2.04	0.57
52:D5:32:PRO:O	52:D5:33:CYS:CB	2.52	0.57
1:AA:79:G:N2	1:AA:91:C:H41	2.03	0.57
1:AA:411:A:C4	1:AA:413:G:H1'	2.40	0.57
1:AA:1191:A:OP1	3:AC:3:ASN:ND2	2.34	0.57
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.38	0.57
13:AM:102:ARG:HG3	13:AM:102:ARG:NH1	2.19	0.57
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.05	0.57
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.19	0.57
22:AV:48:U:H3'	22:AV:49:C:C5'	2.35	0.57
25:BA:242:G:N2	25:BA:254:G:N7	2.52	0.57
25:BA:242:G:N3	25:BA:254:G:C6	2.73	0.57
25:BA:727:A:C6	25:BA:728:G:C6	2.93	0.57
25:BA:2222:G:H5"	28:BD:186:HIS:CD2	2.40	0.57
25:BA:2318:G:H3'	25:BA:2318:G:N3	2.19	0.57
27:BC:77:ILE:O	27:BC:77:ILE:HG23	2.03	0.57
27:BC:122:ALA:HB1	27:BC:129:ARG:CB	2.34	0.57
30:BF:7:TYR:HB3	30:BF:16:GLY:N	2.20	0.57
30:BF:9:ILE:HG12	30:BF:14:PRO:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:107:LYS:HE3	30:BF:205:ARG:O	2.04	0.57
31:BG:72:ARG:CG	31:BG:86:MET:CA	2.80	0.57
35:BO:48:PRO:HB3	35:BO:49:ARG:HH11	1.68	0.57
41:BU:101:ARG:O	41:BU:102:GLU:HG2	2.05	0.57
46:BZ:158:PRO:HB2	46:BZ:159:PRO:CD	2.34	0.57
49:B2:16:LEU:O	49:B2:20:GLU:HB3	2.05	0.57
51:B4:42:CYS:SG	51:B4:62:CYS:HB3	2.45	0.57
1:CA:351:G:H4'	1:CA:352:C:OP1	2.03	0.57
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.69	0.57
2:CB:210:SER:O	2:CB:214:ILE:HB	2.04	0.57
10:CJ:47:PHE:CZ	14:CN:37:PHE:CZ	2.93	0.57
12:CL:10:LEU:HB3	17:CQ:32:TYR:CE2	2.39	0.57
14:CN:24:CYS:N	14:CN:33:VAL:HG11	2.19	0.57
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.87	0.57
25:DA:660:G:O3'	30:DF:38:ARG:NH2	2.37	0.57
25:DA:2330:G:O2'	47:D0:41:ARG:HB2	2.05	0.57
30:DF:174:VAL:HG22	30:DF:174:VAL:O	2.03	0.57
32:DH:12:PRO:HG3	32:DH:48:GLY:O	2.05	0.57
32:DH:169:VAL:HG22	32:DH:170:ARG:H	1.69	0.57
32:DH:169:VAL:HG22	32:DH:170:ARG:N	2.18	0.57
35:DO:26:LYS:HB2	35:DO:30:ALA:HB2	1.87	0.57
35:DO:87:ILE:HG21	35:DO:91:LEU:HD13	1.85	0.57
36:DP:94:GLU:O	36:DP:96:THR:HG23	2.05	0.57
38:DR:63:ARG:NH1	38:DR:80:PHE:HD2	2.03	0.57
41:DU:34:LYS:HA	41:DU:34:LYS:HE2	1.87	0.57
41:DU:57:PHE:C	41:DU:59:ARG:H	2.08	0.57
42:DV:76:LYS:HB2	42:DV:81:TYR:HB3	1.84	0.57
46:DZ:82:ARG:CG	46:DZ:83:PRO:HD2	2.30	0.57
55:D8:33:ASN:HA	55:D8:36:LYS:HD2	1.86	0.57
1:AA:1049:U:N1	1:AA:1201:A:C8	2.73	0.57
2:AB:108:ILE:HG22	2:AB:152:PHE:CE1	2.40	0.57
6:AF:22:GLU:OE2	6:AF:82:ARG:HG3	2.04	0.57
8:AH:103:VAL:HB	8:AH:108:GLY:HA3	1.86	0.57
9:AI:2:GLU:N	9:AI:88:TYR:HH	2.02	0.57
25:BA:242:G:C2	25:BA:254:G:C5	2.93	0.57
25:BA:2078:C:N3	25:BA:2079:U:C4	2.72	0.57
28:BD:11:PRO:O	28:BD:12:SER:OG	2.19	0.57
28:BD:43:ARG:HD2	28:BD:44:ASN:OD1	2.05	0.57
28:BD:83:GLU:O	28:BD:92:ILE:HD13	2.04	0.57
31:BG:20:ILE:O	31:BG:24:GLY:N	2.38	0.57
31:BG:150:ASP:O	31:BG:151:ALA:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:91:LEU:HA	34:BN:95:PRO:HB3	1.87	0.57
36:BP:19:VAL:HG21	36:BP:21:ARG:HD2	1.87	0.57
37:BQ:55:VAL:HG12	37:BQ:64:ILE:HD12	1.87	0.57
38:BR:12:ARG:O	38:BR:17:ARG:NH2	2.38	0.57
40:BT:66:VAL:HA	40:BT:71:GLY:HA2	1.85	0.57
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.19	0.57
45:BY:13:VAL:HG21	45:BY:28:LYS:HD3	1.86	0.57
45:BY:19:LYS:HB2	45:BY:19:LYS:NZ	2.19	0.57
45:BY:55:TYR:CB	45:BY:56:PRO:CD	2.76	0.57
49:B2:37:PHE:O	49:B2:41:ILE:HG12	2.05	0.57
1:CA:251:G:C4’	1:CA:252:U:O5’	2.46	0.57
1:CA:428:G:HO2’	1:CA:429:U:P	2.28	0.57
1:CA:484:G:O2’	1:CA:485:G:P	2.63	0.57
2:CB:167:PRO:HG2	2:CB:192:SER:CB	2.34	0.57
4:CD:96:LEU:HD12	4:CD:96:LEU:H	1.69	0.57
7:CG:23:VAL:CG1	7:CG:43:PHE:CE2	2.84	0.57
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.36	0.57
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.70	0.57
19:CS:9:VAL:HG12	19:CS:11:VAL:HG12	1.87	0.57
20:CT:98:PRO:C	20:CT:100:ILE:H	2.07	0.57
25:DA:670:A:H5’	36:DP:42:SER:OG	2.04	0.57
25:DA:1697:G:H3’	25:DA:1698:A:H5’	1.83	0.57
32:DH:28:GLY:HA3	32:DH:79:VAL:HB	1.85	0.57
33:DI:78:THR:O	33:DI:79:ILE:HG12	2.04	0.57
38:DR:17:ARG:O	38:DR:20:LEU:HB3	2.04	0.57
45:DY:75:ILE:HD13	45:DY:75:ILE:C	2.24	0.57
45:DY:88:LYS:C	45:DY:90:LEU:H	2.07	0.57
49:D2:13:ALA:C	49:D2:15:LYS:H	2.08	0.57
52:D5:56:LYS:HB3	52:D5:56:LYS:NZ	2.18	0.57
1:AA:448:A:OP2	1:AA:485:G:N2	2.30	0.57
1:AA:1321:C:H4’	13:AM:87:TYR:CZ	2.40	0.57
2:AB:30:ARG:HH21	2:AB:194:PRO:HB2	1.69	0.57
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.87	0.57
3:AC:27:LYS:O	3:AC:28:GLN:HG3	2.04	0.57
16:AP:1:MET:HG2	16:AP:2:VAL:N	2.20	0.57
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.86	0.57
25:BA:581:C:P	41:BU:33:ARG:HG3	2.45	0.57
25:BA:892:G:O2’	25:BA:893:C:H5’	2.04	0.57
25:BA:1820:U:C5’	25:BA:1821:A:OP2	2.53	0.57
32:BH:109:PHE:CE1	32:BH:152:ARG:CZ	2.82	0.57
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:141:GLN:OE1	46:BZ:72:ARG:HA	2.04	0.57
38:BR:28:LEU:HD23	38:BR:34:ILE:HG12	1.85	0.57
40:BT:15:VAL:HA	40:BT:79:HIS:HD2	1.70	0.57
41:BU:25:TRP:HD1	41:BU:26:GLY:N	2.01	0.57
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	2.20	0.57
1:CA:946:A:H2'	1:CA:947:G:C8	2.40	0.57
3:CC:47:LEU:HG	3:CC:50:ALA:HB3	1.87	0.57
5:CE:148:VAL:HG21	8:CH:107:LEU:CD2	2.33	0.57
10:CJ:32:ALA:HB3	10:CJ:76:ASN:HB3	1.85	0.57
12:CL:50:SER:O	12:CL:51:ALA:HB2	2.05	0.57
25:DA:9272:G:C5'	25:DA:9273:G:OP2	2.52	0.57
25:DA:695:G:H4'	25:DA:1380:G:H5'	1.87	0.57
25:DA:790:C:OP1	25:DA:1781:C:N4	2.38	0.57
25:DA:1416:G:HO2'	25:DA:1417:C:H6	1.52	0.57
25:DA:1819:A:C4'	25:DA:1820:U:OP2	2.53	0.57
25:DA:1826:G:H4'	28:DD:242:ARG:NH2	2.19	0.57
25:DA:2347:C:H4'	53:D6:39:TYR:CE1	2.40	0.57
29:DE:47:VAL:HG12	29:DE:49:LEU:HD12	1.86	0.57
32:DH:152:ARG:HG3	32:DH:153:LYS:HE3	1.84	0.57
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.15	0.57
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	2.05	0.57
41:DU:91:ASP:OD2	41:DU:96:ALA:CB	2.53	0.57
50:D3:8:LEU:HA	50:D3:54:VAL:HG22	1.87	0.57
2:AB:98:LEU:N	2:AB:98:LEU:HD23	2.20	0.57
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.86	0.57
9:AI:16:ARG:CZ	9:AI:64:THR:HG21	2.33	0.57
11:AK:34:ASP:O	11:AK:36:ASP:N	2.38	0.57
25:BA:125:G:C4'	25:BA:126:A:OP2	2.53	0.57
25:BA:435:C:H2'	25:BA:436:C:H5'	1.85	0.57
25:BA:775:G:H4'	25:BA:776:G:O5'	2.04	0.57
25:BA:1301:A:O2'	25:BA:1302:A:P	2.63	0.57
25:BA:2780:G:OP2	34:BN:118:LYS:HD3	2.05	0.57
30:BF:124:LEU:HD12	30:BF:125:LEU:N	2.20	0.57
31:BG:102:PHE:HE2	31:BG:141:PHE:HE1	1.50	0.57
36:BP:59:LEU:HD11	55:B8:13:ARG:NH2	2.20	0.57
1:CA:708:C:OP1	11:CK:85:ARG:NH2	2.29	0.57
1:CA:1442(B):A:H5"	40:DT:122:ASP:OD1	2.04	0.57
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.68	0.57
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.04	0.57
20:CT:22:ARG:O	20:CT:26:ASN:ND2	2.38	0.57
20:CT:37:SER:O	20:CT:41:ILE:HG12	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:34:G:C6	24:CX:14:A:N1	2.72	0.57
25:DA:1820:U:O2'	25:DA:1821:A:P	2.63	0.57
32:DH:40:GLU:O	32:DH:41:MET:HB2	2.05	0.57
34:DN:42:TRP:HA	34:DN:42:TRP:CE3	2.40	0.57
35:DO:111:PHE:O	35:DO:115:VAL:HG23	2.05	0.57
36:DP:147:LEU:HD23	36:DP:148:LEU:O	2.05	0.57
41:DU:104:GLN:HE22	41:DU:105:VAL:H	1.50	0.57
42:DV:35:LEU:HD22	42:DV:35:LEU:N	2.12	0.57
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.53	0.56
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.40	0.56
2:AB:11:LEU:CD1	2:AB:217:ARG:HH21	2.17	0.56
3:AC:18:TRP:HE1	14:AN:55:GLY:N	2.03	0.56
7:AG:40:ALA:HB1	9:AI:41:VAL:HG11	1.86	0.56
20:AT:97:ALA:O	20:AT:99:LEU:N	2.34	0.56
21:AU:18:TYR:HD1	21:AU:24:ARG:CZ	2.18	0.56
22:AV:18:U:C4'	22:AV:19:G:OP2	2.41	0.56
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	2.04	0.56
25:BA:2614:A:H5"	25:BA:2615:U:OP1	2.05	0.56
28:BD:131:LEU:HB2	28:BD:136:ILE:HD11	1.87	0.56
28:BD:223:GLY:O	28:BD:226:MET:HB2	2.05	0.56
29:BE:101:ARG:HD3	29:BE:169:ASN:OD1	2.04	0.56
30:BF:64:ILE:CG2	30:BF:65:TRP:CG	2.82	0.56
34:BN:62:VAL:CG1	34:BN:66:LYS:HB2	2.34	0.56
34:BN:67:LEU:HA	34:BN:87:LEU:HB3	1.87	0.56
38:BR:11:ASN:O	38:BR:12:ARG:HG3	2.05	0.56
1:CA:66:G:H5'	1:CA:173:U:O4	2.04	0.56
4:CD:101:LEU:O	4:CD:104:VAL:N	2.38	0.56
4:CD:148:VAL:HG12	4:CD:149:ALA:O	2.05	0.56
10:CJ:49:VAL:HG22	10:CJ:50:ILE:H	1.70	0.56
12:CL:39:VAL:HG12	12:CL:40:VAL:N	2.18	0.56
13:CM:88:ARG:HB3	13:CM:88:ARG:NH1	2.04	0.56
17:CQ:67:LYS:CA	17:CQ:70:ARG:HH12	2.10	0.56
19:CS:28:LYS:HD2	19:CS:29:ARG:CZ	2.35	0.56
20:CT:84:LEU:CD1	20:CT:84:LEU:O	2.52	0.56
23:CW:31:A:C2	23:CW:40:C:C2	2.94	0.56
25:DA:1251:C:H4'	25:DA:1252:G:OP1	2.03	0.56
25:DA:1455:G:O6	25:DA:2705:A:C2	2.58	0.56
28:DD:27:THR:HG21	28:DD:81:ALA:HB1	1.86	0.56
29:DE:111:ARG:CA	38:DR:1:MET:SD	2.93	0.56
30:DF:132:VAL:O	30:DF:133:ASN:C	2.44	0.56
32:DH:13:LYS:HE2	32:DH:13:LYS:CA	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:40:THR:O	33:DI:44:LEU:HB2	2.04	0.56
43:DW:40:ASN:O	43:DW:41:LYS:HG2	2.04	0.56
48:D1:3:LYS:O	48:D1:12:PRO:HD3	2.04	0.56
1:AA:401:C:H2'	1:AA:402:G:C8	2.40	0.56
4:AD:98:GLU:OE2	4:AD:103:ASN:ND2	2.36	0.56
4:AD:127:THR:OG1	4:AD:147:ALA:HB3	2.05	0.56
12:AL:59:ARG:HD3	12:AL:65:GLU:OE1	2.05	0.56
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.85	0.56
17:AQ:3:LYS:HG2	17:AQ:60:ILE:HD11	1.87	0.56
25:BA:1012:U:C4	34:BN:25:ARG:HD3	2.40	0.56
25:BA:1639:U:H2'	25:BA:1640:C:H5"	1.87	0.56
25:BA:1653:G:OP1	25:BA:2822:G:N1	2.30	0.56
25:BA:1791:A:N6	25:BA:1828:G:O2'	2.34	0.56
25:BA:2000:G:O2'	25:BA:2689:U:H5	1.86	0.56
25:BA:2145:C:H4'	25:BA:2146:C:OP2	2.04	0.56
28:BD:31:LYS:NZ	28:BD:102:LYS:NZ	2.53	0.56
30:BF:114:VAL:HG21	30:BF:202:PHE:CZ	2.40	0.56
30:BF:164:ARG:HG3	30:BF:175:THR:OG1	2.05	0.56
32:BH:87:LEU:HD23	32:BH:164:TYR:HA	1.87	0.56
39:BS:46:VAL:CG1	39:BS:47:THR:N	2.67	0.56
41:BU:62:ILE:HG22	41:BU:63:VAL:N	2.19	0.56
42:BV:3:ALA:HB1	42:BV:38:LEU:HD21	1.86	0.56
46:BZ:96:VAL:HG12	46:BZ:97:GLU:N	2.19	0.56
46:BZ:158:PRO:HB2	46:BZ:159:PRO:HD2	1.86	0.56
2:CB:16:HIS:NE2	2:CB:213:LEU:HD13	2.20	0.56
2:CB:31:TYR:CD2	2:CB:31:TYR:N	2.72	0.56
11:CK:95:ILE:HG22	11:CK:96:ARG:N	2.19	0.56
14:CN:4:LYS:O	14:CN:7:ILE:HG12	2.05	0.56
16:CP:8:ARG:C	16:CP:9:PHE:CD2	2.73	0.56
25:DA:1190:G:OP1	36:DP:30:THR:OG1	2.12	0.56
25:DA:1819:A:C4'	25:DA:1820:U:H5'	2.31	0.56
34:DN:18:ALA:HB1	34:DN:21:LYS:CB	2.35	0.56
36:DP:46:LYS:HG2	36:DP:51:PHE:CD2	2.40	0.56
36:DP:111:ARG:HG3	36:DP:128:HIS:ND1	2.20	0.56
45:DY:94:LYS:HD2	45:DY:101:LYS:HZ3	1.70	0.56
47:D0:53:MET:HA	47:D0:58:THR:O	2.05	0.56
48:D1:64:ALA:HA	48:D1:67:ILE:HG13	1.87	0.56
50:D3:8:LEU:C	50:D3:8:LEU:HD13	2.24	0.56
1:AA:428:G:O2'	1:AA:429:U:OP2	2.24	0.56
1:AA:453:A:C5	1:AA:454:C:C4	2.93	0.56
1:AA:529:G:H4'	1:AA:533:A:C2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1275:A:C2'	1:AA:1276:G:H8	2.14	0.56
2:AB:210:SER:O	2:AB:214:ILE:HG12	2.05	0.56
3:AC:138:VAL:HG22	3:AC:151:VAL:HG23	1.86	0.56
7:AG:118:VAL:CG2	7:AG:119:ARG:N	2.69	0.56
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.86	0.56
17:AQ:56:VAL:HB	17:AQ:78:GLU:CG	2.35	0.56
19:AS:28:LYS:HD2	19:AS:29:ARG:CZ	2.35	0.56
23:AW:16:U:C3'	23:AW:17:C:H5'	2.36	0.56
25:BA:581:C:OP1	41:BU:33:ARG:CG	2.53	0.56
25:BA:746:A:C6	25:BA:2611:U:H5"	2.40	0.56
25:BA:1452:A:N6	25:BA:2703:C:H41	1.99	0.56
25:BA:1819:A:O2'	25:BA:1820:U:OP2	2.22	0.56
25:BA:1837:C:H2'	25:BA:1838:C:H5"	1.88	0.56
27:BC:49:ILE:HG22	27:BC:50:ASP:OD1	2.05	0.56
28:BD:13:ARG:CA	28:BD:16:MET:HE3	2.35	0.56
28:BD:43:ARG:HH11	28:BD:44:ASN:ND2	2.03	0.56
29:BE:119:ARG:HD2	29:BE:120:TRP:NE1	2.20	0.56
30:BF:7:TYR:CZ	30:BF:10:PRO:HG3	2.40	0.56
31:BG:116:ASP:O	31:BG:117:PHE:CB	2.53	0.56
36:BP:46:LYS:HG2	36:BP:51:PHE:CD2	2.40	0.56
37:BQ:29:PHE:HD2	37:BQ:65:PHE:HE1	1.53	0.56
38:BR:103:ARG:HB2	38:BR:109:ALA:C	2.25	0.56
39:BS:26:LEU:HD13	39:BS:87:PHE:HD1	1.70	0.56
40:BT:16:ARG:NH1	40:BT:18:ASP:OD2	2.39	0.56
40:BT:29:ARG:HG3	40:BT:85:LYS:HA	0.68	0.56
41:BU:92:ARG:HH11	41:BU:92:ARG:HG2	1.71	0.56
41:BU:108:GLU:O	41:BU:111:GLU:HB2	2.05	0.56
42:BV:38:LEU:HD23	42:BV:39:LEU:N	2.21	0.56
47:B0:10:THR:HG22	47:B0:12:ASN:HB2	1.88	0.56
47:B0:25:ARG:HD2	47:B0:29:GLN:NE2	2.20	0.56
48:B1:52:ARG:CG	48:B1:53:VAL:H	2.18	0.56
49:B2:70:GLN:HG2	49:B2:71:ASN:H	1.71	0.56
52:B5:20:ARG:HA	52:B5:23:HIS:ND1	2.20	0.56
1:CA:706:A:H1'	11:CK:29:ILE:HD11	1.87	0.56
1:CA:968:A:H5"	1:CA:969:A:OP2	2.04	0.56
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.38	0.56
2:CB:25:ASN:ND2	2:CB:193:ASP:HB3	2.21	0.56
2:CB:171:ALA:O	2:CB:172:ILE:C	2.42	0.56
3:CC:64:VAL:HG22	3:CC:97:LYS:HZ2	1.69	0.56
4:CD:189:PRO:HB2	4:CD:194:LEU:CD2	2.35	0.56
5:CE:131:ILE:O	5:CE:134:ALA:HB3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:8:GLY:HA2	9:CI:79:LEU:CD1	2.35	0.56
9:CI:19:LEU:HD22	9:CI:59:PHE:HB2	1.76	0.56
10:CJ:49:VAL:C	10:CJ:50:ILE:HD13	2.25	0.56
13:CM:116:THR:O	13:CM:117:VAL:CG1	2.54	0.56
13:CM:121:LYS:O	13:CM:122:LYS:HB2	2.06	0.56
20:CT:53:LEU:HD13	20:CT:53:LEU:H	1.68	0.56
23:CW:38:A:H2'	23:CW:39:U:H5"	1.88	0.56
23:CY:29:G:N2	23:CY:30:G:H1'	2.20	0.56
25:DA:51:G:O2'	25:DA:119:A:N1	2.35	0.56
25:DA:265:A:H61	25:DA:428:A:H1'	1.69	0.56
25:DA:568:U:P	25:DA:945:A:H61	2.28	0.56
29:DE:16:ARG:O	29:DE:17:ASP:HB3	2.04	0.56
29:DE:91:VAL:HG13	29:DE:95:ILE:HG12	1.88	0.56
29:DE:101:ARG:HB2	29:DE:201:THR:CG2	2.36	0.56
30:DF:9:ILE:HG23	30:DF:20:LEU:O	2.05	0.56
30:DF:206:ILE:HD12	30:DF:207:GLY:N	2.21	0.56
31:DG:22:ARG:HH12	31:DG:175:LEU:HD21	1.70	0.56
31:DG:88:ILE:C	31:DG:88:ILE:HD13	2.25	0.56
32:DH:154:PRO:HD3	32:DH:161:GLY:CA	2.35	0.56
33:DI:76:THR:HG22	33:DI:77:LEU:N	2.19	0.56
36:DP:105:LEU:O	36:DP:106:LEU:HB2	2.05	0.56
37:DQ:54:MET:HB3	37:DQ:64:ILE:CD1	2.30	0.56
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.35	0.56
42:DV:49:THR:HB	42:DV:50:PRO:HD2	1.84	0.56
46:DZ:37:VAL:O	46:DZ:38:TYR:HB3	2.03	0.56
47:D0:25:ARG:HD2	47:D0:29:GLN:HE22	1.68	0.56
48:D1:14:VAL:HG12	48:D1:14:VAL:O	2.05	0.56
1:AA:6:G:H2'	5:AE:119:LEU:HD11	1.88	0.56
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.41	0.56
6:AF:7:ASN:OD1	6:AF:7:ASN:N	2.36	0.56
8:AH:127:LEU:HB3	8:AH:129:VAL:HG13	1.87	0.56
15:AO:17:ARG:HG2	15:AO:21:ASP:OD1	2.06	0.56
17:AQ:78:GLU:OE1	17:AQ:81:ARG:HD2	2.05	0.56
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.04	0.56
23:AW:39:U:O2	23:AW:39:U:H3'	2.05	0.56
25:BA:34:C:C2'	25:BA:35:G:O5'	2.51	0.56
25:BA:221:A:C8	25:BA:266:G:C6	2.93	0.56
25:BA:660:G:H21	36:BP:12:ALA:HA	1.69	0.56
25:BA:1668:A:H61	25:BA:1676:A:H61	1.54	0.56
26:BB:14:U:H3'	26:BB:14:U:H6	1.69	0.56
28:BD:127:VAL:HA	28:BD:193:VAL:HG22	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:3:GLY:HA3	29:BE:81:ILE:HD12	1.88	0.56
29:BE:116:VAL:HG23	29:BE:120:TRP:HD1	1.70	0.56
30:BF:9:ILE:HG23	30:BF:11:VAL:O	2.06	0.56
38:BR:37:THR:HG21	38:BR:40:LYS:HE3	1.87	0.56
41:BU:82:GLY:O	41:BU:86:ALA:N	2.27	0.56
45:BY:74:PRO:O	45:BY:75:ILE:HB	2.05	0.56
50:B3:4:LEU:HD12	50:B3:39:ASP:HB2	1.88	0.56
53:B6:11:LEU:HG	53:B6:26:ASN:HD22	1.69	0.56
1:CA:31:G:H2'	1:CA:48:C:N4	2.20	0.56
1:CA:265:G:H4'	17:CQ:66:SER:HA	1.86	0.56
2:CB:68:ILE:CD1	2:CB:161:ALA:HB3	2.36	0.56
5:CE:11:ILE:HD11	5:CE:31:LEU:HD12	1.88	0.56
7:CG:153:HIS:HE1	11:CK:57:THR:HG23	1.71	0.56
8:CH:2:LEU:HD13	8:CH:3:THR:N	2.20	0.56
8:CH:39:LEU:HD13	8:CH:111:ILE:HD11	1.86	0.56
9:CI:2:GLU:HG2	9:CI:2:GLU:O	2.04	0.56
9:CI:126:SER:O	9:CI:127:LYS:CB	2.51	0.56
10:CJ:33:GLN:H	10:CJ:75:ILE:HG12	1.69	0.56
13:CM:23:TYR:CE1	13:CM:70:LEU:HD12	2.40	0.56
20:CT:97:ALA:O	20:CT:99:LEU:HG	2.05	0.56
22:CV:35:C:H2'	22:CV:36:A:H8	1.70	0.56
23:CW:14:A:N3	23:CW:14:A:H2'	2.18	0.56
25:DA:28:A:N6	25:DA:512:G:H1'	2.20	0.56
25:DA:1694:C:H4'	25:DA:1695:G:N3	2.19	0.56
25:DA:1854:A:H62	25:DA:1888:G:H8	1.54	0.56
30:DF:65:TRP:HZ3	30:DF:73:ALA:O	1.88	0.56
30:DF:153:SER:OG	30:DF:189:THR:HA	2.04	0.56
32:DH:94:TYR:CD2	32:DH:107:VAL:HG12	2.41	0.56
32:DH:152:ARG:O	32:DH:153:LYS:CD	2.51	0.56
38:DR:17:ARG:HH11	38:DR:17:ARG:CG	2.13	0.56
46:DZ:136:PHE:O	46:DZ:137:ILE:HD13	2.05	0.56
46:DZ:166:SER:HB2	46:DZ:168:GLU:N	2.19	0.56
8:AH:95:VAL:HB	8:AH:99:GLU:CB	2.35	0.56
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.86	0.56
11:AK:32:ILE:HG12	11:AK:41:THR:O	2.06	0.56
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	2.06	0.56
22:AV:34:U:C2	22:AV:36:A:H5"	2.41	0.56
22:AV:38:A:N1	24:AX:16:A:C6	2.74	0.56
25:BA:893:C:H6	25:BA:893:C:O5'	1.89	0.56
25:BA:1819:A:H1'	25:BA:1821:A:C5	2.41	0.56
25:BA:2443:C:H2'	25:BA:2444:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:111:ARG:C	38:BR:2:ARG:HG3	2.26	0.56
30:BF:20:LEU:C	30:BF:24:LEU:HD23	2.26	0.56
34:BN:66:LYS:O	34:BN:70:LYS:HB3	2.05	0.56
41:BU:58:ARG:O	41:BU:62:ILE:HD13	2.05	0.56
45:BY:7:VAL:HB	45:BY:8:LYS:HZ2	1.70	0.56
1:CA:263:A:OP2	20:CT:79:ARG:NH1	2.38	0.56
1:CA:607:A:C2	16:CP:31:LYS:HG3	2.40	0.56
3:CC:54:ARG:NH1	3:CC:56:ASP:OD1	2.38	0.56
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.05	0.56
10:CJ:50:ILE:HG12	14:CN:41:ARG:HD3	1.88	0.56
13:CM:82:MET:O	13:CM:84:ILE:N	2.37	0.56
13:CM:126:LYS:O	13:CM:126:LYS:CG	2.53	0.56
19:CS:10:PHE:CZ	19:CS:70:LYS:HE2	2.40	0.56
25:DA:458:G:O3'	25:DA:459:U:H6	1.88	0.56
25:DA:1110:G:H2'	25:DA:1111:A:H8	1.69	0.56
25:DA:1615:C:OP2	25:DA:1617:C:N4	2.37	0.56
25:DA:1756:G:H4'	25:DA:1758:G:O4'	2.06	0.56
25:DA:1952:A:C5	35:DO:22:ILE:HD12	2.41	0.56
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.69	0.56
28:DD:44:ASN:CB	28:DD:48:ARG:O	2.53	0.56
30:DF:127:GLU:HA	30:DF:127:GLU:OE1	2.05	0.56
35:DO:4:PRO:O	35:DO:5:GLN:HB2	2.06	0.56
42:DV:55:ALA:HB2	42:DV:101:GLY:OXT	2.05	0.56
43:DW:76:VAL:HG22	43:DW:102:HIS:O	2.06	0.56
45:DY:73:ARG:NH2	45:DY:82:PRO:HD3	2.20	0.56
46:DZ:99:TYR:CD2	46:DZ:99:TYR:N	2.71	0.56
50:D3:29:ARG:HB2	50:D3:33:GLN:HE22	1.70	0.56
55:D8:50:LEU:C	55:D8:53:PRO:HD2	2.25	0.56
1:AA:652:U:C4	1:AA:752:G:N3	2.73	0.56
1:AA:1050:G:H2'	1:AA:1050:G:N3	2.19	0.56
1:AA:1370:G:H5"	9:AI:12:GLU:HG3	1.88	0.56
2:AB:71:VAL:HG22	2:AB:93:VAL:CG2	2.35	0.56
3:AC:16:ARG:HH11	3:AC:16:ARG:CB	2.19	0.56
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	2.06	0.56
10:AJ:22:LYS:NZ	10:AJ:23:ILE:HG23	2.20	0.56
12:AL:41:ARG:HD2	12:AL:43:VAL:HG12	1.88	0.56
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.04	0.56
21:AU:18:TYR:CD1	21:AU:24:ARG:CZ	2.89	0.56
23:AW:38:A:H3'	23:AW:39:U:H5'	1.88	0.56
25:BA:6:A:O2'	34:BN:130:HIS:HB3	2.05	0.56
25:BA:528:A:C2	25:BA:2042:A:H2'	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2127:G:C5	25:BA:2162:G:N2	2.73	0.56
25:BA:2458:G:C4	25:BA:2490:G:N1	2.73	0.56
29:BE:110:GLY:HA3	29:BE:162:ALA:HB2	1.88	0.56
30:BF:51:THR:CG2	30:BF:92:PRO:N	2.67	0.56
32:BH:71:LEU:O	32:BH:74:ASN:HB2	2.06	0.56
32:BH:72:ILE:O	32:BH:76:VAL:HG23	2.05	0.56
33:BI:5:LEU:C	33:BI:6:LEU:HD23	2.25	0.56
35:BO:24:VAL:HA	35:BO:39:ILE:HG22	1.87	0.56
36:BP:65:ARG:NH1	55:B8:15:LYS:HB2	2.18	0.56
36:BP:84:ASN:CG	36:BP:116:GLY:HA3	2.25	0.56
36:BP:111:ARG:HG3	36:BP:128:HIS:ND1	2.20	0.56
39:BS:13:ARG:HG3	39:BS:13:ARG:NH1	2.20	0.56
42:BV:46:VAL:O	42:BV:47:VAL:HG13	2.06	0.56
47:B0:51:VAL:HG21	47:B0:79:VAL:O	2.06	0.56
1:CA:411:A:C5	1:CA:413:G:H1’	2.41	0.56
1:CA:873:A:H8	1:CA:873:A:O5’	1.89	0.56
2:CB:86:GLU:C	2:CB:88:ALA:H	2.08	0.56
10:CJ:47:PHE:CZ	14:CN:37:PHE:CE2	2.94	0.56
12:CL:18:VAL:HG23	12:CL:19:ARG:N	2.21	0.56
22:CV:30:G:C2’	22:CV:31:G:O5’	2.54	0.56
22:CV:65:G:H2’	22:CV:66:C:O4’	2.06	0.56
23:CW:21:A:N6	23:CW:46:G:C4	2.74	0.56
25:DA:13:A:H61	25:DA:525:U:H3’	1.69	0.56
25:DA:529:A:H5’	25:DA:530:G:OP1	2.05	0.56
25:DA:1212:G:H1’	25:DA:1237:A:H62	1.70	0.56
25:DA:1992:G:H5’	25:DA:1994:C:H41	1.70	0.56
25:DA:2090:G:H21	48:D1:45:ASN:ND2	1.99	0.56
29:DE:111:ARG:HE	29:DE:160:TYR:HE1	1.51	0.56
30:DF:133:ASN:O	30:DF:134:GLY:C	2.43	0.56
31:DG:96:ARG:HH11	31:DG:96:ARG:HG3	1.70	0.56
36:DP:59:LEU:C	36:DP:61:ARG:NH1	2.59	0.56
38:DR:86:ARG:HB3	38:DR:118:GLU:OE2	2.06	0.56
44:DX:25:LYS:HD2	44:DX:82:GLN:OE1	2.05	0.56
1:AA:1126:U:H6	1:AA:1126:U:OP1	1.87	0.56
1:AA:1128:C:H4’	9:AI:16:ARG:HH12	1.70	0.56
1:AA:1157:A:C4’	1:AA:1158:C:O5’	2.52	0.56
3:AC:139:GLN:O	3:AC:143:GLU:HB2	2.05	0.56
4:AD:8:VAL:O	4:AD:11:LEU:HD23	2.04	0.56
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.88	0.56
11:AK:126:ARG:C	11:AK:128:ALA:N	2.59	0.56
22:AV:63:C:H2’	22:AV:64:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AY:29:G:H2'	23:AY:29:G:N3	2.21	0.56
25:BA:1268:A:H2'	25:BA:1269:A:O4'	2.06	0.56
25:BA:1451:C:H4'	25:BA:1452:A:O5'	2.06	0.56
25:BA:1820:U:H5"	25:BA:1821:A:OP2	2.06	0.56
25:BA:2751:G:H4'	25:BA:2752:C:OP1	2.05	0.56
26:BB:34:U:H5"	26:BB:35:U:OP1	2.05	0.56
28:BD:155:LEU:HD23	28:BD:177:LEU:HD22	1.86	0.56
28:BD:226:MET:O	28:BD:234:GLY:CA	2.54	0.56
29:BE:179:GLU:O	29:BE:180:ASN:HB2	2.06	0.56
36:BP:46:LYS:HG2	36:BP:51:PHE:CE2	2.41	0.56
40:BT:13:ARG:HA	40:BT:13:ARG:CZ	2.36	0.56
40:BT:117:ASP:OD2	40:BT:120:ARG:NE	2.38	0.56
43:BW:8:ARG:HH11	43:BW:8:ARG:HB3	1.71	0.56
43:BW:82:LEU:HB3	43:BW:84:ARG:NH1	2.19	0.56
45:BY:55:TYR:HD1	45:BY:56:PRO:HG2	1.69	0.56
48:B1:89:GLU:HA	48:B1:92:LYS:HB3	1.88	0.56
1:CA:365:U:O2'	1:CA:366:C:C5	2.58	0.56
1:CA:817:C:H4'	1:CA:818:G:O5'	2.03	0.56
3:CC:31:HIS:ND1	3:CC:31:HIS:N	2.53	0.56
15:CO:82:ILE:HG22	15:CO:83:GLU:N	2.21	0.56
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.39	0.56
25:DA:483:A:H4'	45:DY:49:VAL:CG1	2.35	0.56
25:DA:2126:A:H4'	25:DA:2127:G:O5'	2.05	0.56
25:DA:2267:A:H5"	25:DA:2268:A:H5'	1.87	0.56
25:DA:2282:G:O2'	25:DA:2283:C:OP2	2.19	0.56
30:DF:168:ARG:HG3	30:DF:175:THR:HG21	1.87	0.56
32:DH:151:ILE:C	32:DH:152:ARG:O	2.42	0.56
34:DN:126:PRO:O	34:DN:127:ASP:HB2	2.05	0.56
36:DP:127:ALA:O	36:DP:147:LEU:HA	2.06	0.56
43:DW:68:ARG:HH22	43:DW:112:GLY:HA2	1.71	0.56
45:DY:43:ASN:HB3	45:DY:64:GLU:HA	1.88	0.56
46:DZ:17:ALA:O	46:DZ:20:ARG:HB2	2.05	0.56
46:DZ:61:LEU:HD12	46:DZ:65:GLN:NE2	2.21	0.56
48:D1:64:ALA:C	48:D1:66:HIS:H	2.09	0.56
50:D3:8:LEU:HD12	50:D3:31:LEU:HA	1.88	0.56
1:AA:243:A:C4'	1:AA:244:U:O5'	2.43	0.56
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.05	0.56
2:AB:221:LEU:O	2:AB:224:GLN:N	2.37	0.56
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.88	0.56
5:AE:150:ARG:CZ	5:AE:150:ARG:HB2	2.35	0.56
9:AI:5:TYR:HE2	9:AI:16:ARG:HB3	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.35	0.56
20:AT:36:LEU:HD23	20:AT:36:LEU:N	2.21	0.56
23:AW:14:A:C6	23:AW:15:G:H1'	2.40	0.56
23:AW:37:A:H2'	23:AW:38:A:O4'	2.06	0.56
25:BA:74:A:OP2	25:BA:74:A:C2	2.59	0.56
25:BA:182:A:N3	25:BA:433:C:O2'	2.32	0.56
25:BA:215:G:H4'	25:BA:216:A:O5'	2.04	0.56
25:BA:534:U:HO2'	41:BU:49:HIS:CG	2.22	0.56
25:BA:1523:U:H2'	25:BA:1524:G:C8	2.40	0.56
25:BA:1680:U:O2'	25:BA:1763:G:N7	2.31	0.56
28:BD:26:LYS:CE	28:BD:82:ILE:H	2.19	0.56
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.41	0.56
41:BU:7:GLY:O	41:BU:8:VAL:HG23	2.06	0.56
43:BW:33:ARG:O	43:BW:37:ARG:HB2	2.05	0.56
1:CA:49:U:O4	1:CA:364:A:N7	2.39	0.56
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.05	0.56
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.87	0.56
5:CE:98:THR:CG2	5:CE:99:GLY:O	2.51	0.56
5:CE:126:ARG:CG	5:CE:126:ARG:NH1	2.68	0.56
15:CO:82:ILE:CG2	15:CO:83:GLU:N	2.69	0.56
25:DA:1818:U:H2'	28:DD:157:ARG:HG3	1.86	0.56
28:DD:25:THR:O	28:DD:26:LYS:HG2	2.05	0.56
30:DF:31:HIS:CB	36:DP:9:ASN:HD21	2.16	0.56
36:DP:46:LYS:HG2	36:DP:51:PHE:CE2	2.41	0.56
36:DP:85:LEU:H	36:DP:85:LEU:CD2	2.19	0.56
37:DQ:137:TYR:CZ	46:DZ:81:ARG:NH2	2.65	0.56
40:DT:16:ARG:HH12	40:DT:19:LEU:HG	1.71	0.56
43:DW:64:MET:O	43:DW:65:LEU:CB	2.54	0.56
44:DX:24:GLY:O	44:DX:82:GLN:HA	2.06	0.56
46:DZ:61:LEU:HB3	46:DZ:62:PRO:HD2	1.88	0.56
53:D6:9:LEU:HD23	53:D6:9:LEU:C	2.26	0.56
1:AA:738:C:C5'	6:AF:69:GLU:HB2	2.22	0.56
1:AA:1251:A:O2'	1:AA:1252:A:O4'	2.23	0.56
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	1.88	0.56
3:AC:79:ARG:CZ	11:CK:100:ALA:HB2	2.36	0.56
18:AR:36:ASN:O	18:AR:37:VAL:C	2.43	0.56
18:AR:58:LEU:H	18:AR:58:LEU:HD12	1.69	0.56
20:AT:27:LYS:HD3	20:AT:27:LYS:C	2.26	0.56
22:AV:17:C:H3'	22:AV:18:U:H5'	1.87	0.56
25:BA:448:U:C2'	30:BF:84:VAL:HG13	2.36	0.56
25:BA:481:G:OP2	45:BY:47:LYS:HG3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:78:ILE:HD13	30:BF:78:ILE:H	1.69	0.56
31:BG:165:THR:OG1	31:BG:168:GLU:HB2	2.05	0.56
36:BP:52:GLU:OE1	36:BP:55:ARG:HD2	2.05	0.56
42:BV:49:THR:HB	42:BV:50:PRO:CD	2.34	0.56
49:B2:44:LEU:O	49:B2:45:SER:HB2	2.05	0.56
1:CA:1112:C:H1'	3:CC:179:ARG:HD3	1.87	0.56
2:CB:28:PHE:CD1	2:CB:190:THR:HA	2.41	0.56
15:CO:66:LEU:H	15:CO:66:LEU:HD12	1.71	0.56
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	2.04	0.56
25:DA:389:G:H22	36:DP:72:PRO:HD3	1.71	0.56
25:DA:2286:A:H61	53:D6:24:GLU:CB	2.16	0.56
25:DA:2702:U:OP1	25:DA:2702:U:H6	1.89	0.56
26:DB:13:A:O2'	26:DB:14:U:C5'	2.54	0.56
27:DC:41:VAL:HG12	27:DC:213:TYR:HA	1.88	0.56
27:DC:51:PRO:HB2	27:DC:203:GLY:O	2.05	0.56
30:DF:175:THR:O	30:DF:176:LEU:HB2	2.05	0.56
31:DG:67:LYS:HE2	51:D4:6:HIS:NE2	2.19	0.56
32:DH:17:VAL:HG12	32:DH:17:VAL:O	2.05	0.56
33:DI:125:GLU:OE1	33:DI:141:LYS:HA	2.05	0.56
40:DT:88:ILE:CG2	40:DT:89:VAL:HG23	2.29	0.56
42:DV:35:LEU:C	42:DV:37:VAL:N	2.59	0.56
42:DV:38:LEU:O	42:DV:51:VAL:HA	2.05	0.56
46:DZ:170:THR:HG22	46:DZ:171:ILE:H	1.70	0.56
47:D0:48:GLY:HA3	47:D0:80:HIS:ND1	2.21	0.56
48:D1:45:ASN:HD21	48:D1:47:GLN:HE21	1.50	0.56
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.39	0.56
1:AA:982:U:O5'	1:AA:982:U:C6	2.49	0.56
1:AA:1015:A:N3	1:AA:1218:C:O2'	2.36	0.56
1:AA:1380:U:H5"	1:AA:1381:U:OP1	2.06	0.56
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.21	0.56
6:AF:45:LEU:O	6:AF:46:ARG:CG	2.53	0.56
7:AG:26:PHE:HB2	7:AG:62:PHE:HZ	1.70	0.56
10:AJ:13:HIS:HE1	10:AJ:14:LYS:HE3	1.70	0.56
10:AJ:67:THR:O	10:AJ:67:THR:HG23	2.06	0.56
12:AL:6:THR:N	12:AL:9:GLN:HE21	2.03	0.56
12:AL:7:ILE:C	12:AL:9:GLN:H	2.09	0.56
13:AM:25:ILE:N	13:AM:25:ILE:CD1	2.68	0.56
22:AV:40:C:H2'	22:AV:41:C:H6	1.69	0.56
24:AX:13:A:H3'	24:AX:14:A:H5"	1.86	0.56
25:BA:221:A:C5	25:BA:266:G:C5	2.94	0.56
25:BA:489:G:N7	43:BW:49:LYS:NZ	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:670:A:C8	25:BA:670:A:OP2	2.59	0.56
25:BA:1171:G:H3'	25:BA:1173:G:H4'	1.88	0.56
25:BA:2168:G:H22	25:BA:2171:A:P	2.28	0.56
27:BC:187:ASP:C	27:BC:189:ILE:H	2.09	0.56
28:BD:45:ASN:O	28:BD:46:GLN:HG3	2.05	0.56
32:BH:61:HIS:HA	32:BH:64:LEU:HD12	1.87	0.56
33:BI:38:LEU:H	33:BI:38:LEU:CD1	2.01	0.56
34:BN:3:THR:HG22	34:BN:5:VAL:CG1	2.35	0.56
36:BP:85:LEU:H	36:BP:85:LEU:CD2	2.19	0.56
43:BW:4:LYS:CE	43:BW:6:ILE:HD12	2.33	0.56
50:B3:48:GLU:O	50:B3:51:ALA:HB2	2.06	0.56
1:CA:828:A:H62	1:CA:858:G:H21	1.54	0.56
1:CA:1144:G:C2	1:CA:1145:C:O2	2.59	0.56
2:CB:28:PHE:O	2:CB:28:PHE:CG	2.58	0.56
2:CB:98:LEU:HD23	2:CB:98:LEU:N	2.21	0.56
2:CB:155:LEU:HG	2:CB:159:PRO:HG3	1.88	0.56
16:CP:19:ILE:HB	16:CP:37:GLY:CA	2.36	0.56
18:CR:59:SER:N	18:CR:62:GLU:HB2	2.21	0.56
23:CW:57:G:H2'	23:CW:58:A:C5'	2.35	0.56
23:CY:28:G:C4	23:CY:29:G:N7	2.74	0.56
25:DA:34:C:N4	25:DA:454:A:O2'	2.38	0.56
25:DA:890:A:N6	25:DA:892:G:O6	2.39	0.56
25:DA:1342:A:C5	25:DA:1397:U:C6	2.94	0.56
25:DA:1902:C:C5'	28:DD:246:PRO:HD3	2.36	0.56
25:DA:2171:A:C4'	25:DA:2172:U:OP1	2.43	0.56
25:DA:2667:C:H1'	32:DH:109:PHE:HD2	1.71	0.56
26:DB:66:A:N6	26:DB:108:U:C6	2.74	0.56
27:DC:77:ILE:HD11	27:DC:100:ILE:HD11	1.88	0.56
32:DH:153:LYS:HG3	32:DH:161:GLY:HA3	1.88	0.56
33:DI:77:LEU:CD1	33:DI:78:THR:N	2.69	0.56
37:DQ:51:ARG:O	37:DQ:55:VAL:HG12	2.05	0.56
40:DT:36:GLU:CD	40:DT:38:ASN:ND2	2.55	0.56
40:DT:42:ILE:HD12	40:DT:42:ILE:N	2.14	0.56
44:DX:60:ARG:HH22	54:D7:47:ARG:NE	2.03	0.56
55:D8:51:ALA:HA	55:D8:54:GLU:CD	2.25	0.56
1:AA:279:A:H1'	1:AA:281:G:C6	2.41	0.55
1:AA:1300:G:O2'	1:AA:1301:U:P	2.63	0.55
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.87	0.55
11:AK:20:TYR:O	11:AK:30:VAL:HG12	2.06	0.55
24:AX:22:A:H2'	24:AX:22:A:N3	2.20	0.55
25:BA:866:A:C6	25:BA:914:C:C6	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.70	0.55
25:BA:1719:G:C2'	25:BA:1720:U:H5'	2.36	0.55
25:BA:1902:C:O2'	28:BD:244:ARG:CG	2.54	0.55
27:BC:21:THR:HG21	27:BC:191:ALA:CB	2.36	0.55
28:BD:81:ALA:HA	28:BD:113:VAL:HG13	1.88	0.55
30:BF:1:MET:SD	30:BF:26:ALA:HA	2.46	0.55
33:BI:114:LEU:O	33:BI:115:ALA:HB3	2.06	0.55
35:BO:80:ASP:H	40:BT:70:VAL:CG1	2.19	0.55
36:BP:128:HIS:O	36:BP:147:LEU:HB3	2.06	0.55
38:BR:37:THR:HG23	38:BR:40:LYS:HB2	1.86	0.55
46:BZ:135:GLU:O	46:BZ:136:PHE:HB3	2.06	0.55
47:B0:53:MET:O	47:B0:53:MET:HG3	2.06	0.55
51:B4:56:GLU:O	51:B4:57:ILE:HD13	2.06	0.55
51:B4:57:ILE:HG22	51:B4:57:ILE:O	2.05	0.55
1:CA:871:U:H4'	1:CA:872:A:OP1	2.05	0.55
2:CB:31:TYR:HD1	2:CB:202:PRO:HB3	1.69	0.55
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.06	0.55
3:CC:173:VAL:HG12	3:CC:175:LEU:HG	1.88	0.55
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.21	0.55
4:CD:176:LEU:CD1	4:CD:177:ASP:H	2.12	0.55
9:CI:17:VAL:HG21	9:CI:81:ILE:HD13	1.88	0.55
12:CL:27:LEU:HD22	12:CL:27:LEU:N	2.21	0.55
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.06	0.55
22:CV:2:G:H2'	22:CV:3:C:H6	1.71	0.55
22:CV:30:G:O6	22:CV:43:G:C6	2.59	0.55
22:CV:30:G:H2'	22:CV:31:G:O5'	2.06	0.55
29:DE:176:ILE:HG23	29:DE:178:GLU:HB3	1.87	0.55
36:DP:85:LEU:CA	36:DP:88:LEU:HB3	2.32	0.55
47:D0:53:MET:CB	47:D0:59:LEU:HD23	2.29	0.55
50:D3:6:VAL:HG12	50:D3:56:VAL:HG13	1.88	0.55
50:D3:23:LEU:HD12	50:D3:23:LEU:N	2.20	0.55
53:D6:13:CYS:HB2	53:D6:22:ALA:HB3	1.88	0.55
55:D8:6:THR:HB	55:D8:63:PRO:HG3	1.87	0.55
1:AA:9:G:H5"	5:AE:122:GLU:OE1	2.06	0.55
1:AA:939:G:H5"	7:AG:102:ARG:NH1	2.21	0.55
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.06	0.55
1:AA:1201:A:C4'	1:AA:1202:G:O5'	2.36	0.55
1:AA:1251:A:O2'	1:AA:1369:C:O2'	2.21	0.55
2:AB:78:GLN:HG2	2:AB:94:ASN:HD22	1.71	0.55
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.06	0.55
6:AF:91:VAL:CG1	18:AR:72:ARG:HH11	2.14	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:21:LYS:N	8:AH:65:TYR:OH	2.39	0.55
10:AJ:22:LYS:HE3	10:AJ:23:ILE:HG12	1.88	0.55
17:AQ:33:GLY:O	17:AQ:34:LYS:O	2.24	0.55
25:BA:32:C:C2'	25:BA:33:U:H5'	2.35	0.55
25:BA:196:A:H5"	36:BP:46:LYS:HE3	1.89	0.55
25:BA:322:A:C5'	25:BA:323:G:OP2	2.53	0.55
25:BA:631:A:OP1	36:BP:64:LYS:HE2	2.07	0.55
25:BA:956:G:OP2	37:BQ:14:ARG:NH2	2.33	0.55
25:BA:2136:C:H41	25:BA:2156:G:H21	1.53	0.55
25:BA:2712:U:C2'	25:BA:2713:A:H5"	2.36	0.55
27:BC:68:LEU:HB3	27:BC:70:LYS:HE2	1.88	0.55
28:BD:8:PRO:HB3	28:BD:14:ARG:HB2	1.86	0.55
28:BD:165:ILE:HG22	28:BD:167:GLY:H	1.72	0.55
32:BH:149:ARG:HD3	32:BH:164:TYR:CD1	2.41	0.55
35:BO:119:PRO:O	35:BO:120:GLU:HB2	2.06	0.55
40:BT:77:PRO:O	40:BT:78:LEU:CB	2.53	0.55
45:BY:20:TYR:CE1	45:BY:42:VAL:HA	2.41	0.55
1:CA:566:G:OP1	1:CA:566:G:C8	2.45	0.55
1:CA:1051:C:C4	1:CA:1052:U:O4	2.59	0.55
1:CA:1064:G:OP1	1:CA:1386:G:H4'	2.06	0.55
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.20	0.55
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.40	0.55
2:CB:220:ASP:O	2:CB:223:ILE:HG12	2.06	0.55
3:CC:7:PRO:O	3:CC:11:ARG:HG2	2.06	0.55
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.41	0.55
9:CI:29:ASN:OD1	9:CI:64:THR:HA	2.07	0.55
19:CS:16:LEU:HD11	19:CS:41:VAL:HG21	1.87	0.55
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.20	0.55
20:CT:82:SER:O	20:CT:83:ARG:C	2.44	0.55
25:DA:1428:C:N4	25:DA:1570:A:OP2	2.30	0.55
25:DA:2055:C:OP1	52:D5:8:LYS:NZ	2.38	0.55
29:DE:65:GLY:HA2	29:DE:70:ALA:CB	2.37	0.55
30:DF:29:ASN:HB3	30:DF:112:MET:HE1	1.88	0.55
31:DG:180:PHE:C	31:DG:182:LYS:N	2.60	0.55
32:DH:118:PRO:HG2	32:DH:121:ILE:HD12	1.88	0.55
33:DI:76:THR:HG22	33:DI:77:LEU:HD12	1.87	0.55
36:DP:128:HIS:O	36:DP:147:LEU:HB3	2.06	0.55
40:DT:3:ARG:HB3	40:DT:6:LEU:HB2	1.87	0.55
43:DW:92:ARG:HG2	43:DW:92:ARG:NH1	2.20	0.55
43:DW:111:HIS:CD2	43:DW:112:GLY:H	2.24	0.55
46:DZ:118:GLN:HG2	46:DZ:119:GLU:N	2.17	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:401:C:H2'	1:AA:402:G:H8	1.71	0.55
1:AA:914:A:C4	1:AA:915:A:C8	2.94	0.55
1:AA:1130:A:O2'	9:AI:3:GLN:NE2	2.40	0.55
11:AK:34:ASP:O	11:AK:37:GLY:N	2.39	0.55
12:AL:83:VAL:HG22	12:AL:100:ILE:HG23	1.86	0.55
23:AW:39:U:C2'	23:AW:40:C:H5'	2.36	0.55
24:AX:13:A:N3	24:AX:13:A:C3'	2.64	0.55
25:BA:481:G:P	45:BY:47:LYS:HE3	2.47	0.55
25:BA:1131:G:O2'	34:BN:82:LEU:HD13	2.06	0.55
25:BA:1288:U:OP1	25:BA:1289:C:N4	2.38	0.55
25:BA:1407:C:H42	25:BA:1595:G:H1	1.53	0.55
25:BA:2000:G:O2'	25:BA:2689:U:C5	2.54	0.55
28:BD:92:ILE:HD13	28:BD:92:ILE:H	1.71	0.55
34:BN:123:TYR:HE1	34:BN:130:HIS:NE2	1.96	0.55
35:BO:111:PHE:O	35:BO:115:VAL:HG23	2.06	0.55
36:BP:105:LEU:O	36:BP:106:LEU:HB2	2.05	0.55
37:BQ:29:PHE:HB3	37:BQ:65:PHE:CE1	2.41	0.55
37:BQ:59:ARG:O	37:BQ:60:ARG:HB2	2.06	0.55
38:BR:5:LYS:O	38:BR:6:SER:CB	2.53	0.55
39:BS:67:ARG:HH12	39:BS:98:VAL:HG13	1.71	0.55
40:BT:89:VAL:CG1	40:BT:91:ARG:HE	2.19	0.55
42:BV:19:LYS:HG3	42:BV:20:LEU:C	2.26	0.55
43:BW:5:ALA:O	43:BW:6:ILE:CG1	2.54	0.55
52:B5:40:LYS:HB2	52:B5:41:PRO:HD2	1.88	0.55
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.05	0.55
2:CB:136:VAL:HA	2:CB:139:LYS:HB2	1.88	0.55
13:CM:65:LYS:HB2	13:CM:69:GLU:CB	2.36	0.55
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.39	0.55
25:DA:27:G:H1'	25:DA:513:A:H62	1.71	0.55
25:DA:1162:G:O3'	42:DV:24:LYS:NZ	2.38	0.55
25:DA:1273:U:O2'	25:DA:1275:A:OP1	2.24	0.55
28:DD:68:LYS:HB2	28:DD:70:TRP:CZ2	2.40	0.55
28:DD:177:LEU:HD11	28:DD:183:ARG:HB2	1.88	0.55
28:DD:224:ALA:O	28:DD:225:ALA:HB2	2.06	0.55
32:DH:136:ILE:HD12	32:DH:136:ILE:N	2.21	0.55
35:DO:20:MET:HG2	35:DO:21:CYS:N	2.22	0.55
39:DS:3:ARG:HG2	39:DS:4:LEU:H	1.70	0.55
40:DT:36:GLU:HG2	40:DT:36:GLU:O	2.05	0.55
42:DV:16:PRO:HA	42:DV:96:ILE:HG22	1.89	0.55
42:DV:66:ARG:HH11	42:DV:66:ARG:CB	2.19	0.55
43:DW:6:ILE:HG13	43:DW:104:THR:HG23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:33:LYS:HG3	45:DY:34:LYS:H	1.71	0.55
45:DY:81:LYS:HB3	45:DY:97:ARG:CD	2.36	0.55
47:D0:41:ARG:HD2	47:D0:41:ARG:N	2.19	0.55
53:D6:20:ASN:HD22	53:D6:21:TYR:H	1.52	0.55
1:AA:1205:U:H5"	3:AC:190:ARG:NH2	2.21	0.55
12:AL:27:LEU:HD11	12:AL:64:TYR:CE1	2.41	0.55
22:AV:16:C:O2'	22:AV:17:C:H5'	2.07	0.55
25:BA:642:G:H21	25:BA:646:A:H2	1.53	0.55
25:BA:873:G:H1	25:BA:904:C:H42	1.55	0.55
25:BA:1204:A:O2'	25:BA:1205:U:O5'	2.23	0.55
25:BA:1340:U:O2	25:BA:1602:U:H5"	2.05	0.55
25:BA:2468:G:O2'	25:BA:2469:A:H8	1.88	0.55
28:BD:72:LYS:NZ	28:BD:99:ASP:OD1	2.28	0.55
33:BI:5:LEU:CD1	33:BI:19:VAL:HG12	2.31	0.55
37:BQ:10:ARG:HH11	37:BQ:10:ARG:HG3	1.67	0.55
37:BQ:54:MET:HB3	37:BQ:64:ILE:HD11	1.88	0.55
38:BR:2:ARG:CZ	38:BR:5:LYS:HE2	2.37	0.55
41:BU:28:ARG:HA	41:BU:34:LYS:HB3	1.89	0.55
50:B3:50:VAL:O	50:B3:53:LEU:HD12	2.05	0.55
1:CA:484:G:H5'	1:CA:486:U:O4'	2.05	0.55
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.88	0.55
4:CD:101:LEU:HD11	4:CD:105:VAL:HG23	1.89	0.55
9:CI:55:ALA:HB2	9:CI:58:HIS:ND1	2.22	0.55
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.44	0.55
12:CL:27:LEU:HD23	12:CL:62:SER:OG	2.06	0.55
13:CM:108:ARG:HH11	13:CM:108:ARG:HA	1.69	0.55
16:CP:18:ARG:O	16:CP:20:VAL:HG12	2.06	0.55
20:CT:45:GLN:C	20:CT:47:GLY:N	2.59	0.55
25:DA:13:A:H2	25:DA:14:A:N6	2.03	0.55
25:DA:1779:U:H5	25:DA:1784:A:N7	2.05	0.55
25:DA:1818:U:C2'	28:DD:157:ARG:HG3	2.36	0.55
33:DI:86:THR:HG22	33:DI:86:THR:O	2.07	0.55
34:DN:47:ALA:HB2	34:DN:112:LEU:HD11	1.87	0.55
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	1.86	0.55
40:DT:64:ARG:HD2	40:DT:73:GLU:CG	2.37	0.55
42:DV:91:TYR:CD1	42:DV:91:TYR:C	2.80	0.55
54:D7:1:MET:O	54:D7:2:LYS:C	2.45	0.55
1:AA:60:A:C4'	1:AA:61:G:O5'	2.30	0.55
1:AA:1299:A:C5	1:AA:1301:U:C2	2.95	0.55
2:AB:78:GLN:O	2:AB:94:ASN:ND2	2.32	0.55
4:AD:206:PHE:O	4:AD:207:TYR:HD2	1.90	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:93:PRO:HG2	8:AH:105:ARG:HE	1.69	0.55
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.36	0.55
9:AI:4:TYR:N	9:AI:4:TYR:CD1	2.73	0.55
10:AJ:38:ILE:CD1	10:AJ:71:LEU:HD23	2.22	0.55
15:AO:10:LYS:O	15:AO:14:GLU:HB3	2.06	0.55
22:AV:20:G:C2	22:AV:58:A:N3	2.74	0.55
25:BA:2282:G:O2'	25:BA:2390:U:O4	2.22	0.55
28:BD:25:THR:O	28:BD:27:THR:N	2.33	0.55
30:BF:93:LYS:HB3	30:BF:94:PRO:HD2	1.89	0.55
34:BN:133:GLN:HG2	34:BN:135:PRO:HD3	1.89	0.55
40:BT:28:VAL:HG13	40:BT:45:PHE:C	2.25	0.55
45:BY:2:ARG:N	45:BY:4:LYS:HG2	2.22	0.55
45:BY:42:VAL:HB	45:BY:65:ALA:CB	2.29	0.55
53:B6:17:LYS:HB3	53:B6:18:ARG:NH1	2.22	0.55
55:B8:63:PRO:HB2	55:B8:64:TYR:HD1	1.71	0.55
1:CA:8:A:O2'	5:CE:103:GLY:HA2	2.07	0.55
2:CB:80:ILE:HD13	2:CB:212:GLN:HA	1.89	0.55
4:CD:80:GLU:C	4:CD:82:ALA:H	2.09	0.55
7:CG:150:ALA:O	11:CK:57:THR:HG21	2.06	0.55
13:CM:40:ASN:HD21	13:CM:42:ALA:HB3	1.72	0.55
15:CO:23:GLY:O	15:CO:27:VAL:HB	2.07	0.55
22:CV:40:C:H2'	22:CV:41:C:C6	2.41	0.55
23:CW:39:U:OP1	23:CW:39:U:H4'	2.05	0.55
25:DA:1465:G:O4'	25:DA:1528:A:H8	1.89	0.55
25:DA:1558:A:HO2'	25:DA:1559:G:P	2.29	0.55
25:DA:1693:U:OP2	25:DA:1694:C:C4	2.59	0.55
28:DD:45:ASN:CG	28:DD:46:GLN:N	2.59	0.55
33:DI:76:THR:HG22	33:DI:77:LEU:H	1.71	0.55
34:DN:43:THR:O	34:DN:46:VAL:HG12	2.05	0.55
34:DN:128:HIS:O	34:DN:130:HIS:N	2.39	0.55
36:DP:98:GLU:HG3	36:DP:99:LEU:N	2.22	0.55
36:DP:112:LEU:HD22	36:DP:113:LYS:H	1.71	0.55
39:DS:18:ILE:C	39:DS:19:LYS:O	2.43	0.55
40:DT:36:GLU:CG	40:DT:38:ASN:HD21	2.18	0.55
42:DV:1:MET:CG	42:DV:1:MET:CE	2.83	0.55
45:DY:19:LYS:O	45:DY:20:TYR:CG	2.60	0.55
55:D8:61:LEU:N	55:D8:63:PRO:HD2	2.22	0.55
1:AA:656:C:H4'	15:AO:62:GLN:NE2	2.22	0.55
12:AL:7:ILE:O	12:AL:9:GLN:N	2.40	0.55
23:AW:51:U:H2'	23:AW:52:G:C8	2.42	0.55
25:BA:2437:U:O2'	25:BA:2438:U:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.06	0.55
27:BC:82:LYS:O	27:BC:86:ALA:HB3	2.06	0.55
28:BD:201:HIS:C	28:BD:203:ASN:H	2.10	0.55
30:BF:139:PHE:HB2	30:BF:166:ALA:HB1	1.89	0.55
31:BG:128:ARG:C	31:BG:130:ASN:N	2.59	0.55
34:BN:31:ALA:O	34:BN:34:LEU:HB2	2.07	0.55
36:BP:6:LEU:O	36:BP:7:ARG:HG2	2.06	0.55
36:BP:124:LYS:HA	36:BP:143:GLY:O	2.06	0.55
41:BU:61:TRP:CD2	41:BU:94:ASN:HA	2.40	0.55
43:BW:100:THR:O	43:BW:100:THR:CG2	2.49	0.55
45:BY:14:LEU:HG	45:BY:15:VAL:N	2.22	0.55
45:BY:17:SER:HB2	45:BY:71:LYS:CE	2.37	0.55
1:CA:280:C:C2	17:CQ:38:ARG:HG3	2.42	0.55
1:CA:528:C:H5'	1:CA:535:A:N6	2.21	0.55
1:CA:748:C:O4'	1:CA:749:C:H5	1.89	0.55
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.71	0.55
13:CM:5:ALA:O	13:CM:7:VAL:N	2.39	0.55
16:CP:19:ILE:HG22	16:CP:36:ILE:CG1	2.34	0.55
16:CP:58:TYR:O	16:CP:61:SER:N	2.40	0.55
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.22	0.55
19:CS:9:VAL:O	19:CS:11:VAL:N	2.40	0.55
25:DA:527:C:H4'	25:DA:528:A:O5'	2.07	0.55
25:DA:729:G:C5	28:DD:208:LYS:HB2	2.41	0.55
25:DA:1798:U:H5"	28:DD:260:ARG:HB3	1.87	0.55
25:DA:1858:G:O2'	25:DA:1884:A:N6	2.39	0.55
28:DD:130:ALA:C	28:DD:131:LEU:HD12	2.26	0.55
29:DE:119:ARG:HD2	29:DE:120:TRP:NE1	2.22	0.55
30:DF:114:VAL:HG21	30:DF:202:PHE:CZ	2.41	0.55
33:DI:10:GLU:O	33:DI:11:ASN:HB3	2.06	0.55
36:DP:88:LEU:HD11	36:DP:95:VAL:CG2	2.36	0.55
40:DT:13:ARG:NE	40:DT:13:ARG:CA	2.66	0.55
41:DU:90:VAL:HA	42:DV:11:GLN:HE22	1.71	0.55
45:DY:90:LEU:N	45:DY:90:LEU:HD22	2.22	0.55
50:D3:52:HIS:ND1	50:D3:53:LEU:HG	2.21	0.55
53:D6:36:LEU:O	53:D6:37:ARG:HG3	2.07	0.55
56:D9:19:ARG:O	56:D9:24:TYR:HE1	1.89	0.55
1:AA:281:G:H8	1:AA:281:G:OP2	1.89	0.55
1:AA:297:G:N2	1:AA:300:A:OP2	2.35	0.55
1:AA:974:A:OP1	14:AN:31:ARG:HD3	2.06	0.55
1:AA:1201:A:H4'	1:AA:1202:G:C5'	2.35	0.55
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:8:ILE:CD1	6:AF:26:ILE:HD13	2.33	0.55
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.07	0.55
12:AL:6:THR:CG2	12:AL:9:GLN:HG3	2.29	0.55
23:AW:38:A:C2'	23:AW:39:U:H5"	2.37	0.55
25:BA:644:A:H4'	25:BA:645:C:C5	2.42	0.55
28:BD:65:ILE:HD13	28:BD:65:ILE:O	2.07	0.55
28:BD:241:PRO:O	28:BD:242:ARG:C	2.42	0.55
29:BE:77:ILE:CG2	29:BE:78:LEU:HG	2.34	0.55
31:BG:125:PHE:HB2	31:BG:166:ASP:OD2	2.06	0.55
38:BR:53:HIS:HB2	38:BR:94:TYR:HE1	1.71	0.55
39:BS:42:ASP:O	39:BS:43:GLU:HB2	2.07	0.55
40:BT:26:ASP:HB2	40:BT:48:ILE:HG13	1.88	0.55
40:BT:90:GLN:NE2	40:BT:124:ASP:OD2	2.39	0.55
44:BX:12:VAL:HG12	44:BX:27:THR:HG23	1.87	0.55
46:BZ:24:LEU:HB3	46:BZ:41:LEU:HG	1.89	0.55
55:B8:50:LEU:HA	55:B8:53:PRO:HG3	1.87	0.55
7:CG:111:ARG:HG2	7:CG:113:GLU:OE2	2.07	0.55
7:CG:113:GLU:O	7:CG:119:ARG:HD3	2.06	0.55
11:CK:69:ALA:O	11:CK:70:LYS:C	2.45	0.55
16:CP:53:VAL:HG13	16:CP:79:VAL:HG22	1.87	0.55
23:CW:21:A:H62	23:CW:46:G:H1'	1.72	0.55
25:DA:99:U:H4'	25:DA:102:G:H1'	1.89	0.55
25:DA:604:G:C5	25:DA:605:C:C4	2.95	0.55
25:DA:1943:U:H4'	25:DA:1944:U:O5'	2.05	0.55
25:DA:2884:U:H1'	52:D5:52:TYR:OH	2.06	0.55
33:DI:71:ILE:HD13	33:DI:71:ILE:O	2.07	0.55
35:DO:77:ILE:HD11	40:DT:72:VAL:CG1	2.37	0.55
36:DP:124:LYS:HA	36:DP:143:GLY:O	2.06	0.55
39:DS:46:VAL:HG12	39:DS:47:THR:N	2.22	0.55
40:DT:96:ARG:HH11	40:DT:96:ARG:HG2	1.71	0.55
45:DY:42:VAL:HG12	45:DY:65:ALA:HB3	1.88	0.55
46:DZ:33:LEU:HD12	46:DZ:34:ASN:H	1.71	0.55
46:DZ:134:PRO:HB3	46:DZ:137:ILE:HD11	1.88	0.55
46:DZ:150:LEU:CD2	46:DZ:171:ILE:HD12	2.37	0.55
47:D0:9:SER:OG	47:D0:10:THR:N	2.40	0.55
1:AA:927:G:OP2	1:AA:1503:A:N7	2.39	0.55
1:AA:949:A:N3	1:AA:971:G:O6	2.40	0.55
1:AA:950:U:H2'	1:AA:951:G:H8	1.71	0.55
7:AG:15:ASP:CB	7:AG:24:THR:HG22	2.36	0.55
8:AH:112:LEU:CD2	8:AH:133:LEU:HA	2.37	0.55
9:AI:17:VAL:HA	9:AI:63:ILE:HG12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:84:LEU:HD22	12:AL:85:ILE:H	1.72	0.55
17:AQ:97:SER:C	17:AQ:98:LEU:HD23	2.27	0.55
19:AS:29:ARG:NH1	19:AS:30:LEU:HB2	2.21	0.55
22:AV:52:C:H2'	22:AV:53:G:O5'	2.07	0.55
25:BA:195:A:OP1	36:BP:46:LYS:HE2	2.06	0.55
25:BA:332:A:C4'	25:BA:333:G:OP1	2.50	0.55
25:BA:1126:A:H4'	25:BA:1127:A:O5'	2.06	0.55
25:BA:2318:G:H2'	25:BA:2319:G:OP1	2.07	0.55
29:BE:47:VAL:HG12	29:BE:49:LEU:HD12	1.88	0.55
34:BN:22:THR:HB	34:BN:25:ARG:HB2	1.89	0.55
36:BP:59:LEU:CG	55:B8:13:ARG:NH2	2.70	0.55
36:BP:71:VAL:CG2	36:BP:72:PRO:HD3	2.36	0.55
39:BS:67:ARG:HG2	39:BS:67:ARG:NH1	2.22	0.55
43:BW:5:ALA:O	43:BW:6:ILE:HB	2.07	0.55
46:BZ:10:ARG:NH2	46:BZ:26:GLY:H	2.04	0.55
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.39	0.55
1:CA:748:C:O4'	1:CA:749:C:C5	2.59	0.55
3:CC:101:LEU:HD23	3:CC:102:ASN:N	2.22	0.55
5:CE:142:LEU:O	5:CE:143:ARG:HG2	2.07	0.55
10:CJ:61:GLU:OE2	14:CN:45:ARG:NH1	2.40	0.55
12:CL:21:LYS:N	12:CL:21:LYS:CD	2.70	0.55
14:CN:39:LEU:HD11	14:CN:47:LEU:HD12	1.89	0.55
16:CP:23:ASP:HB3	16:CP:26:ARG:HG3	1.88	0.55
23:CW:6:G:N2	23:CW:68:C:N3	2.54	0.55
23:CW:34:G:C6	24:CX:14:A:C6	2.95	0.55
25:DA:414:C:O2	25:DA:1864:U:O2'	2.24	0.55
25:DA:2336:A:H61	47:D0:43:THR:CG2	2.19	0.55
27:DC:77:ILE:O	27:DC:77:ILE:HG23	2.06	0.55
34:DN:57:ALA:O	34:DN:58:ASP:O	2.25	0.55
36:DP:48:PRO:O	36:DP:51:PHE:N	2.39	0.55
42:DV:3:ALA:O	42:DV:4:ILE:HD13	2.06	0.55
44:DX:60:ARG:NH2	54:D7:47:ARG:NH2	2.53	0.55
46:DZ:19:ARG:NH1	46:DZ:84:GLU:HA	2.22	0.55
46:DZ:154:ASP:C	46:DZ:155:LEU:HD12	2.26	0.55
1:AA:523:A:H61	12:AL:92:ASP:HB2	1.71	0.55
1:AA:792:A:C4	1:AA:794:A:C5	2.95	0.55
1:AA:1265:G:C6	1:AA:1266:G:C6	2.94	0.55
3:AC:153:VAL:HG22	3:AC:198:VAL:CG1	2.37	0.55
3:AC:184:TYR:HE1	3:AC:199:LYS:HB3	1.71	0.55
7:AG:15:ASP:HB3	7:AG:24:THR:HG23	1.88	0.55
7:AG:41:ARG:C	7:AG:45:ASP:HB2	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:17:LYS:NZ	12:AL:18:VAL:HG22	2.21	0.55
16:AP:11:SER:HB2	16:AP:14:ASN:HB3	1.88	0.55
25:BA:627:A:H62	36:BP:116:GLY:HA2	1.72	0.55
25:BA:1012:U:O4	34:BN:28:THR:HG21	2.06	0.55
25:BA:1311:G:O6	54:B7:9:ARG:NH2	2.39	0.55
25:BA:2282:G:H4'	25:BA:2283:C:O5'	2.06	0.55
47:B0:23:VAL:HG13	47:B0:38:VAL:HG22	1.88	0.55
47:B0:53:MET:HA	47:B0:58:THR:O	2.07	0.55
55:B8:30:ARG:HA	55:B8:30:ARG:NE	2.21	0.55
1:CA:197:A:H4'	1:CA:198:G:O5'	2.06	0.55
1:CA:461:A:N6	1:CA:471:G:C6	2.75	0.55
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.07	0.55
4:CD:25:ARG:HH12	4:CD:30:LYS:HB2	1.72	0.55
4:CD:138:TYR:CD2	4:CD:139:ARG:N	2.75	0.55
6:CF:72:VAL:CG1	6:CF:73:ASN:N	2.69	0.55
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.71	0.55
13:CM:92:HIS:HA	13:CM:110:ARG:NH2	2.22	0.55
17:CQ:67:LYS:CA	17:CQ:70:ARG:NH1	2.69	0.55
19:CS:44:MET:HA	19:CS:44:MET:CE	2.37	0.55
25:DA:8:A:H2'	25:DA:9:U:C6	2.42	0.55
25:DA:481:G:HO2'	25:DA:482:A:P	2.30	0.55
25:DA:918:A:N3	26:DB:80:U:O2'	2.37	0.55
28:DD:155:LEU:HD12	28:DD:155:LEU:N	2.22	0.55
31:DG:77:ILE:CG2	31:DG:80:PHE:H	2.20	0.55
31:DG:126:ASP:OD1	31:DG:130:ASN:HB2	2.06	0.55
32:DH:20:ALA:CB	32:DH:21:PRO:HD2	2.34	0.55
34:DN:26:LEU:CG	34:DN:30:ILE:HD11	2.36	0.55
36:DP:52:GLU:OE1	36:DP:55:ARG:NH2	2.36	0.55
36:DP:71:VAL:CG2	36:DP:72:PRO:HD3	2.36	0.55
39:DS:27:SER:HA	39:DS:88:ASP:CB	2.37	0.55
40:DT:102:ILE:HB	40:DT:110:ILE:HD11	1.88	0.55
41:DU:12:ARG:HA	41:DU:15:LYS:HD2	1.88	0.55
42:DV:76:LYS:HB3	42:DV:79:VAL:HG11	1.88	0.55
46:DZ:166:SER:H	46:DZ:167:PRO:HA	1.71	0.55
55:D8:60:LEU:O	55:D8:63:PRO:O	2.25	0.55
1:AA:1057:G:H5"	3:AC:154:SER:HB2	1.89	0.55
2:AB:166:ASP:OD1	2:AB:169:LYS:HB2	2.07	0.55
5:AE:64:ARG:HA	5:AE:64:ARG:HE	1.72	0.55
6:AF:49:ALA:HB1	18:AR:80:PRO:HB3	1.89	0.55
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.07	0.55
11:AK:41:THR:HG22	11:AK:42:TRP:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:16:ASP:N	13:AM:16:ASP:OD2	2.40	0.55
22:AV:35:C:H42	24:AX:18:G:H1	1.55	0.55
22:AV:54:G:O2'	22:AV:55:U:P	2.64	0.55
25:BA:271(L):U:H4'	25:BA:271(M):G:C5	2.42	0.55
25:BA:448:U:O3'	30:BF:84:VAL:HG12	2.07	0.55
25:BA:1490:A:H5'	25:BA:1491:G:OP2	2.06	0.55
25:BA:1965:C:C4	25:BA:1966:A:C6	2.95	0.55
25:BA:2078:C:C4	25:BA:2079:U:O4	2.59	0.55
25:BA:2832:U:H1'	25:BA:2834:G:C4	2.42	0.55
26:BB:83:G:H5"	50:B3:52:HIS:CD2	2.42	0.55
32:BH:47:GLU:HG2	32:BH:48:GLY:H	1.71	0.55
32:BH:151:ILE:O	32:BH:152:ARG:HG2	2.07	0.55
35:BO:80:ASP:HB2	40:BT:70:VAL:HG13	1.89	0.55
36:BP:57:THR:C	36:BP:59:LEU:N	2.59	0.55
37:BQ:29:PHE:HD2	37:BQ:65:PHE:CE1	2.25	0.55
40:BT:32:TYR:CG	40:BT:81:PRO:HB2	2.42	0.55
42:BV:65:GLY:CA	42:BV:91:TYR:HE1	2.19	0.55
44:BX:24:GLY:O	44:BX:82:GLN:HA	2.07	0.55
45:BY:8:LYS:CE	45:BY:72:VAL:O	2.55	0.55
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.22	0.55
51:B4:40:ILE:HA	51:B4:57:ILE:HB	1.88	0.55
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.55	0.55
8:CH:97:VAL:O	8:CH:100:ILE:HG13	2.07	0.55
11:CK:67:ASP:OD2	11:CK:71:LYS:HE3	2.07	0.55
13:CM:90:LEU:C	13:CM:90:LEU:HD12	2.26	0.55
13:CM:124:PRO:O	22:CV:31:G:N7	2.40	0.55
25:DA:896:A:H2	46:DZ:113:ALA:HB3	1.69	0.55
25:DA:1451:C:O2'	25:DA:1457:A:N6	2.40	0.55
28:DD:211:ARG:HA	28:DD:214:TRP:CD2	2.42	0.55
29:DE:39:PRO:HA	29:DE:43:GLY:HA2	1.87	0.55
33:DI:52:ARG:NH1	33:DI:52:ARG:HB3	2.21	0.55
33:DI:53:ALA:O	33:DI:57:ARG:HG3	2.07	0.55
44:DX:28:PHE:CE2	44:DX:92:LEU:HD11	2.42	0.55
46:DZ:48:PHE:O	46:DZ:50:GLN:N	2.40	0.55
1:AA:1029:C:H1'	1:AA:1033:G:H1	1.71	0.54
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.07	0.54
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.71	0.54
14:AN:15:LYS:HE3	14:AN:16:PHE:CE2	2.42	0.54
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.07	0.54
25:BA:242:G:N7	55:B8:5:LYS:HG2	2.22	0.54
25:BA:311:A:C8	25:BA:311:A:OP1	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:414:C:O2	25:BA:1864:U:O2'	2.23	0.54
25:BA:448:U:C2'	30:BF:84:VAL:CG1	2.84	0.54
25:BA:668:G:C5	25:BA:670:A:C8	2.94	0.54
25:BA:800:A:H4'	25:BA:801:G:O5'	2.07	0.54
25:BA:2468:G:HO2'	25:BA:2469:A:H8	1.54	0.54
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.42	0.54
26:BB:13:A:HO2'	26:BB:15:A:P	2.30	0.54
31:BG:128:ARG:O	31:BG:130:ASN:N	2.36	0.54
31:BG:138:GLN:O	31:BG:138:GLN:HG2	2.07	0.54
35:BO:7:TYR:C	35:BO:8:LEU:HD22	2.27	0.54
36:BP:56:SER:O	36:BP:57:THR:CG2	2.54	0.54
36:BP:147:LEU:HD23	36:BP:148:LEU:O	2.05	0.54
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HG2	1.89	0.54
39:BS:24:LEU:CB	39:BS:85:VAL:HG12	2.25	0.54
42:BV:65:GLY:O	42:BV:90:PRO:HA	2.07	0.54
50:B3:26:LEU:HD21	50:B3:46:ASN:CB	2.36	0.54
1:CA:243:A:H4'	1:CA:244:U:O5'	2.07	0.54
1:CA:274:A:C4'	1:CA:275:G:O5'	2.53	0.54
2:CB:60:ASP:O	2:CB:64:ARG:HG2	2.07	0.54
2:CB:68:ILE:HG22	2:CB:70:PHE:CE1	2.42	0.54
2:CB:238:LEU:HD23	2:CB:238:LEU:H	1.72	0.54
3:CC:22:TRP:HB3	3:CC:59:ARG:HB2	1.87	0.54
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.06	0.54
3:CC:97:LYS:O	3:CC:99:VAL:HG13	2.06	0.54
11:CK:82:VAL:CG1	11:CK:108:ILE:HG12	2.37	0.54
20:CT:45:GLN:C	20:CT:47:GLY:H	2.11	0.54
25:DA:82:G:C5	25:DA:83:G:C6	2.94	0.54
25:DA:298:G:H1'	25:DA:340:A:H61	1.71	0.54
25:DA:767:U:H2'	25:DA:768:G:C8	2.42	0.54
25:DA:1497:U:O2	25:DA:1497:U:C2'	2.54	0.54
25:DA:1799:G:O2'	25:DA:1800:C:P	2.65	0.54
25:DA:2406:U:N3	36:DP:72:PRO:HG2	2.22	0.54
32:DH:154:PRO:HG3	32:DH:163:TYR:CD1	2.42	0.54
36:DP:55:ARG:O	36:DP:56:SER:C	2.45	0.54
36:DP:114:ILE:O	36:DP:114:ILE:HG13	2.07	0.54
38:DR:106:GLY:O	38:DR:107:ASP:HB3	2.08	0.54
40:DT:48:ILE:H	40:DT:48:ILE:HD12	1.72	0.54
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.07	0.54
44:DX:47:PHE:N	44:DX:47:PHE:HD1	2.05	0.54
46:DZ:134:PRO:CB	46:DZ:137:ILE:HD11	2.37	0.54
53:D6:15:GLU:O	53:D6:15:GLU:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:19:ARG:CG	53:D6:20:ASN:N	2.69	0.54
54:D7:41:ARG:HD3	54:D7:45:ALA:CB	2.37	0.54
55:D8:4:MET:SD	55:D8:61:LEU:CD2	2.94	0.54
1:AA:17:U:H2'	1:AA:18:C:C6	2.43	0.54
1:AA:1049:U:C1'	1:AA:1201:A:C5	2.72	0.54
2:AB:42:ILE:HD13	2:AB:203:GLY:CA	2.36	0.54
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	1.89	0.54
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.35	0.54
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.42	0.54
23:AW:34:G:N7	24:AX:14:A:C6	2.76	0.54
25:BA:448:U:HO2'	30:BF:84:VAL:HG13	1.68	0.54
25:BA:1657:C:H5"	29:BE:133:LYS:O	2.08	0.54
25:BA:1964:G:O2'	25:BA:1965:C:OP1	2.23	0.54
25:BA:2449:U:C5'	25:BA:2450:A:OP1	2.55	0.54
29:BE:53:PRO:HB2	29:BE:54:GLN:HG2	1.89	0.54
29:BE:201:THR:HG23	29:BE:202:LYS:N	2.22	0.54
31:BG:76:SER:C	31:BG:77:ILE:HD13	2.28	0.54
31:BG:106:LEU:HA	31:BG:110:ALA:CB	2.37	0.54
32:BH:85:LYS:CD	32:BH:133:VAL:HB	2.36	0.54
32:BH:158:HIS:O	32:BH:159:GLU:HB2	2.07	0.54
34:BN:123:TYR:HH	34:BN:130:HIS:HE2	1.52	0.54
36:BP:56:SER:O	36:BP:57:THR:HG22	2.07	0.54
37:BQ:35:VAL:HB	37:BQ:102:VAL:HG22	1.88	0.54
42:BV:22:VAL:O	42:BV:23:GLU:CB	2.56	0.54
46:BZ:5:LEU:CD2	46:BZ:43:GLU:HB3	2.13	0.54
1:CA:1504:G:H4'	1:CA:1505:G:OP2	2.08	0.54
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.24	0.54
2:CB:239:VAL:O	2:CB:241:GLU:N	2.40	0.54
7:CG:60:LYS:HA	7:CG:60:LYS:HZ3	1.71	0.54
13:CM:2:ALA:O	13:CM:10:PRO:HD2	2.06	0.54
18:CR:86:VAL:HG12	18:CR:87:ARG:CD	2.34	0.54
19:CS:16:LEU:O	19:CS:17:GLU:C	2.45	0.54
23:CY:27:G:C2	23:CY:43:C:N4	2.75	0.54
25:DA:434:U:HO2'	25:DA:435:C:H5	1.55	0.54
25:DA:1231:G:H2'	25:DA:1232:G:H8	1.72	0.54
25:DA:2122:U:H2'	25:DA:2123:G:C8	2.43	0.54
25:DA:2208:A:H1'	25:DA:2219:G:C4	2.42	0.54
30:DF:129:PHE:CD2	30:DF:163:VAL:HG21	2.42	0.54
42:DV:49:THR:CB	42:DV:50:PRO:CD	2.86	0.54
46:DZ:11:GLU:OE2	46:DZ:13:GLU:HG2	2.06	0.54
46:DZ:102:LEU:HD22	46:DZ:139:VAL:HG22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:3:LYS:HG2	48:D1:4:VAL:HG12	1.88	0.54
50:D3:8:LEU:HD11	50:D3:31:LEU:HD23	1.89	0.54
55:D8:16:ILE:HD12	55:D8:57:ARG:HG2	1.89	0.54
4:AD:12:CYS:HB2	4:AD:19:LEU:H	1.72	0.54
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.87	0.54
9:AI:17:VAL:CG1	9:AI:81:ILE:HD13	2.36	0.54
17:AQ:73:VAL:HG12	17:AQ:74:LEU:N	2.23	0.54
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.72	0.54
20:AT:25:ARG:HH11	20:AT:25:ARG:CG	2.19	0.54
25:BA:614(A):U:O5'	25:BA:614(A):U:H6	1.90	0.54
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.42	0.54
25:BA:2811:G:H5'	29:BE:60:ASN:HD22	1.73	0.54
28:BD:96:HIS:ND1	28:BD:102:LYS:HD3	2.21	0.54
30:BF:22:ALA:HB1	30:BF:26:ALA:CB	2.37	0.54
31:BG:9:ARG:O	31:BG:12:TYR:N	2.41	0.54
31:BG:20:ILE:O	31:BG:24:GLY:HA2	2.08	0.54
31:BG:117:PHE:CE1	31:BG:119:GLY:N	2.76	0.54
35:BO:64:ARG:NH1	35:BO:81:ASP:OD2	2.41	0.54
36:BP:127:ALA:O	36:BP:147:LEU:HA	2.06	0.54
42:BV:72:VAL:CG2	42:BV:85:LYS:HB3	2.23	0.54
1:CA:407:G:H5'	4:CD:3:ARG:HH12	1.72	0.54
1:CA:913:A:O2'	1:CA:914:A:P	2.65	0.54
4:CD:133:VAL:HG11	4:CD:138:TYR:CD1	2.42	0.54
8:CH:91:ARG:CG	8:CH:91:ARG:NH1	2.60	0.54
9:CI:53:VAL:HB	9:CI:92:TYR:CE2	2.42	0.54
11:CK:124:LYS:HB3	11:CK:125:PHE:CE1	2.41	0.54
23:CW:4:C:H6	23:CW:4:C:O5'	1.89	0.54
25:DA:848:G:H2'	25:DA:849:A:C8	2.43	0.54
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.56	0.54
25:DA:1721:G:C6	25:DA:1739:U:OP2	2.60	0.54
25:DA:1801:G:OP2	28:DD:154:LYS:HE2	2.08	0.54
25:DA:2702:U:OP1	25:DA:2702:U:C6	2.61	0.54
26:DB:14:U:C4'	26:DB:15:A:OP2	2.55	0.54
33:DI:116:LEU:O	33:DI:116:LEU:HG	2.08	0.54
41:DU:46:ALA:O	41:DU:50:ARG:HG3	2.08	0.54
43:DW:65:LEU:HD22	43:DW:68:ARG:H	1.72	0.54
1:AA:191:G:H1'	20:AT:105:SER:HB2	1.89	0.54
1:AA:992:U:O2'	1:AA:993:G:P	2.66	0.54
1:AA:1490:C:OP2	58:AA:7111:PAR:N64	2.40	0.54
3:AC:22:TRP:CH2	3:AC:32:LEU:HB3	2.43	0.54
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.22	0.54
25:BA:479:A:O2'	25:BA:481:G:H5'	2.07	0.54
25:BA:520:G:H2'	25:BA:521:G:H8	1.72	0.54
25:BA:1912:A:C2	25:BA:1919:A:C6	2.95	0.54
25:BA:2473:U:O2	25:BA:2473:U:C2'	2.55	0.54
25:BA:2615:U:C2	52:B5:7:PRO:HA	2.42	0.54
25:BA:2716:U:H2'	25:BA:2717:G:C8	2.42	0.54
28:BD:11:PRO:C	28:BD:13:ARG:N	2.61	0.54
31:BG:2:PRO:HG2	51:B4:51:TYR:CZ	2.41	0.54
34:BN:91:LEU:O	34:BN:95:PRO:HB3	2.08	0.54
36:BP:88:LEU:HD11	36:BP:95:VAL:CG2	2.36	0.54
40:BT:30:VAL:CG1	40:BT:31:SER:H	2.18	0.54
43:BW:4:LYS:NZ	43:BW:6:ILE:CD1	2.71	0.54
48:B1:48:LYS:NZ	48:B1:61:ARG:HG3	2.22	0.54
55:B8:40:GLU:O	55:B8:44:LYS:HE3	2.07	0.54
1:CA:854:G:H3'	1:CA:871:U:O4	2.08	0.54
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.88	0.54
8:CH:121:ASP:HB2	8:CH:125:ARG:NH2	2.22	0.54
9:CI:81:ILE:O	9:CI:85:LEU:HG	2.07	0.54
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	2.08	0.54
15:CO:79:ARG:O	15:CO:83:GLU:HB2	2.06	0.54
19:CS:45:VAL:HA	19:CS:62:ILE:CG2	2.37	0.54
20:CT:53:LEU:CD2	20:CT:100:ILE:CB	2.85	0.54
25:DA:604:G:OP2	36:DP:90:ARG:NH2	2.41	0.54
25:DA:686:G:O6	54:D7:12:ARG:HG3	2.08	0.54
29:DE:57:LYS:HB3	29:DE:57:LYS:HZ3	1.71	0.54
29:DE:69:LYS:HD3	29:DE:89:ASP:HA	1.90	0.54
33:DI:88:ILE:HB	33:DI:90:GLY:O	2.08	0.54
35:DO:104:ARG:NH2	40:DT:43:GLN:HE22	2.06	0.54
36:DP:59:LEU:O	36:DP:59:LEU:HG	2.07	0.54
36:DP:62:LEU:HD23	36:DP:62:LEU:H	1.72	0.54
40:DT:32:TYR:CD2	40:DT:81:PRO:O	2.59	0.54
41:DU:66:ASN:CB	41:DU:76:TYR:HB2	2.37	0.54
42:DV:66:ARG:HH11	42:DV:66:ARG:HB3	1.72	0.54
46:DZ:11:GLU:CD	46:DZ:11:GLU:N	2.41	0.54
51:D4:38:LYS:O	51:D4:39:CYS:SG	2.64	0.54
55:D8:23:VAL:HG12	55:D8:46:ARG:HH11	1.71	0.54
1:AA:13:U:O2'	1:AA:915:A:OP2	2.24	0.54
1:AA:470:C:H5"	1:AA:471:G:OP2	2.08	0.54
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.88	0.54
1:AA:1048:G:N3	1:AA:1050:G:N7	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1191:A:H5"	3:AC:4:LYS:HZ2	1.73	0.54
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.23	0.54
2:AB:155:LEU:HG	2:AB:159:PRO:HG3	1.88	0.54
8:AH:10:LEU:HD23	8:AH:83:ILE:CG1	2.37	0.54
8:AH:48:TYR:CD1	8:AH:49:GLU:N	2.76	0.54
19:AS:43:GLU:CA	19:AS:45:VAL:HG13	2.37	0.54
22:AV:38:A:C2	24:AX:16:A:C6	2.96	0.54
24:AX:11:U:O5'	24:AX:11:U:H6	1.91	0.54
30:BF:164:ARG:HG2	30:BF:164:ARG:NH1	2.18	0.54
32:BH:107:VAL:CG2	32:BH:107:VAL:O	2.55	0.54
33:BI:131:LYS:HG3	33:BI:132:PRO:HD2	1.90	0.54
34:BN:133:GLN:C	34:BN:134:ARG:HG3	2.27	0.54
36:BP:98:GLU:HG3	36:BP:99:LEU:N	2.22	0.54
36:BP:114:ILE:O	36:BP:114:ILE:HG13	2.07	0.54
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.15	0.54
37:BQ:27:VAL:HG12	37:BQ:29:PHE:H	1.72	0.54
44:BX:12:VAL:HG12	44:BX:17:ALA:HB1	1.88	0.54
45:BY:27:VAL:HB	45:BY:29:GLU:OE1	2.07	0.54
50:B3:10:LYS:NZ	50:B3:15:TYR:OH	2.28	0.54
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.43	0.54
1:CA:686:U:O2'	1:CA:687:A:C5'	2.55	0.54
1:CA:687:A:C2	1:CA:704:A:C6	2.95	0.54
2:CB:204:ASN:HB3	2:CB:210:SER:OG	2.08	0.54
6:CF:40:VAL:O	6:CF:41:GLU:HG3	2.08	0.54
7:CG:22:LEU:O	7:CG:25:ALA:HB3	2.08	0.54
13:CM:25:ILE:HD11	13:CM:66:LEU:CD2	2.38	0.54
15:CO:18:PHE:CE1	15:CO:21:ASP:HB2	2.42	0.54
20:CT:24:LEU:HD22	20:CT:24:LEU:C	2.28	0.54
23:CW:38:A:C2'	23:CW:39:U:H5"	2.38	0.54
25:DA:811:U:H1'	25:DA:1251:C:O4'	2.08	0.54
25:DA:2477:C:N3	56:D9:4:ARG:NH1	2.55	0.54
25:DA:2615:U:H2'	25:DA:2616:C:C6	2.41	0.54
28:DD:11:PRO:C	28:DD:13:ARG:N	2.61	0.54
28:DD:158:ALA:HB3	28:DD:161:THR:HG21	1.89	0.54
28:DD:243:GLY:O	28:DD:244:ARG:HB3	2.07	0.54
29:DE:75:VAL:O	29:DE:77:ILE:N	2.41	0.54
29:DE:101:ARG:NH2	29:DE:171:GLU:CB	2.68	0.54
33:DI:132:PRO:O	33:DI:133:HIS:ND1	2.40	0.54
34:DN:73:THR:CG2	34:DN:82:LEU:HD11	2.37	0.54
35:DO:50:GLY:C	35:DO:52:VAL:H	2.09	0.54
37:DQ:26:TYR:CD1	37:DQ:26:TYR:O	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:121:ILE:O	40:DT:124:ASP:HB2	2.08	0.54
41:DU:69:CYS:CB	41:DU:79:PHE:HD1	2.19	0.54
46:DZ:3:TYR:N	46:DZ:3:TYR:CD1	2.75	0.54
1:AA:119:A:O2'	1:AA:120:A:OP2	2.20	0.54
1:AA:366:C:H6	1:AA:366:C:O5'	1.90	0.54
11:AK:64:ALA:O	11:AK:68:ALA:N	2.34	0.54
13:AM:23:TYR:CE1	13:AM:70:LEU:HD22	2.42	0.54
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.39	0.54
25:BA:242:G:H5"	55:B8:62:LEU:HD13	1.89	0.54
25:BA:669:G:N3	25:BA:669:G:C2'	2.69	0.54
25:BA:2318:G:HO2'	25:BA:2319:G:P	2.29	0.54
29:BE:70:ALA:O	29:BE:71:GLY:O	2.25	0.54
29:BE:132:HIS:CD2	29:BE:135:HIS:NE2	2.75	0.54
35:BO:86:ILE:HD12	35:BO:86:ILE:N	2.23	0.54
36:BP:117:GLU:OE1	36:BP:117:GLU:N	2.37	0.54
40:BT:28:VAL:HG12	40:BT:29:ARG:HH21	1.73	0.54
40:BT:30:VAL:CG2	40:BT:84:GLN:CD	2.76	0.54
42:BV:2:PHE:CD2	42:BV:3:ALA:N	2.76	0.54
45:BY:8:LYS:H	45:BY:8:LYS:CD	2.05	0.54
45:BY:37:VAL:HG23	45:BY:39:VAL:HG23	1.90	0.54
46:BZ:67:LEU:HD22	46:BZ:90:VAL:HG11	1.88	0.54
49:B2:67:LYS:HA	49:B2:70:GLN:NE2	2.22	0.54
1:CA:490:G:H2'	1:CA:491:G:H8	1.73	0.54
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.43	0.54
1:CA:1443:G:H22	1:CA:1460:A:H1'	1.73	0.54
5:CE:60:TYR:HE1	5:CE:64:ARG:HD3	1.71	0.54
8:CH:74:PRO:O	8:CH:75:ARG:C	2.46	0.54
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.22	0.54
16:CP:19:ILE:HB	16:CP:37:GLY:C	2.28	0.54
23:CW:36:A:N1	23:CW:37:A:C5	2.76	0.54
25:DA:889:C:O2'	25:DA:890:A:P	2.66	0.54
25:DA:1139:G:O2'	25:DA:1143:A:N1	2.32	0.54
25:DA:2820:A:OP1	38:DR:4:LEU:HA	2.06	0.54
31:DG:13:GLU:O	31:DG:13:GLU:HG3	2.08	0.54
31:DG:77:ILE:O	31:DG:81:LYS:O	2.25	0.54
32:DH:35:VAL:CG1	32:DH:71:LEU:HG	2.36	0.54
33:DI:61:ARG:HA	33:DI:61:ARG:CZ	2.37	0.54
39:DS:18:ILE:O	39:DS:19:LYS:O	2.25	0.54
41:DU:97:ASP:OD1	41:DU:98:LEU:N	2.41	0.54
51:D4:1:MET:HB3	51:D4:6:HIS:CD2	2.43	0.54
1:AA:457:C:H2'	1:AA:458:C:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:950:U:H2'	1:AA:951:G:C8	2.43	0.54
2:AB:11:LEU:CD1	2:AB:217:ARG:NH2	2.71	0.54
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.73	0.54
3:AC:73:PRO:HA	3:AC:76:VAL:HG13	1.89	0.54
4:AD:8:VAL:HG11	4:AD:21:LEU:HB2	1.90	0.54
7:AG:86:GLN:HB2	7:AG:148:ASN:ND2	2.23	0.54
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.21	0.54
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.07	0.54
10:AJ:50:ILE:HD13	10:AJ:50:ILE:H	1.72	0.54
20:AT:53:LEU:CD1	20:AT:102:GLY:HA3	2.24	0.54
25:BA:1188:U:H4'	42:BV:79:VAL:CG2	2.37	0.54
25:BA:1558:A:H4'	25:BA:1559:G:O5'	2.08	0.54
25:BA:2746:U:O5'	25:BA:2746:U:H6	1.91	0.54
26:BB:11:C:H5"	26:BB:12:C:OP2	2.07	0.54
26:BB:66:A:N6	26:BB:108:U:C5	2.76	0.54
27:BC:49:ILE:HG22	27:BC:50:ASP:N	2.23	0.54
28:BD:36:PRO:O	28:BD:37:LEU:HD23	2.07	0.54
28:BD:211:ARG:O	28:BD:214:TRP:HB2	2.08	0.54
28:BD:224:ALA:O	28:BD:225:ALA:CB	2.55	0.54
29:BE:61:ARG:HB3	29:BE:62:PRO:HD3	1.90	0.54
30:BF:39:TRP:O	30:BF:43:LYS:HG2	2.08	0.54
31:BG:37:VAL:HG11	31:BG:94:LEU:HD12	1.86	0.54
31:BG:160:VAL:HG12	31:BG:161:THR:N	2.22	0.54
32:BH:54:ARG:O	32:BH:54:ARG:HG3	2.08	0.54
35:BO:119:PRO:O	35:BO:120:GLU:CB	2.56	0.54
39:BS:101:LEU:HD13	39:BS:101:LEU:H	1.72	0.54
42:BV:66:ARG:HH11	42:BV:66:ARG:HG2	1.73	0.54
49:B2:13:ALA:O	49:B2:16:LEU:HB2	2.07	0.54
1:CA:470:C:C5'	1:CA:471:G:OP2	2.55	0.54
3:CC:46:GLU:O	3:CC:47:LEU:HB2	2.07	0.54
10:CJ:83:GLU:HB3	10:CJ:84:GLN:NE2	2.22	0.54
11:CK:99:GLN:HG2	11:CK:105:VAL:HG11	1.89	0.54
12:CL:119:LYS:HB2	12:CL:120:TYR:CD1	2.43	0.54
15:CO:61:GLY:O	15:CO:64:ARG:HB3	2.08	0.54
23:CW:32:U:H2'	23:CW:33:U:H5'	1.88	0.54
25:DA:859:G:N2	25:DA:917:A:OP2	2.37	0.54
25:DA:1965:C:O5'	25:DA:1965:C:H6	1.91	0.54
25:DA:2680:C:H5'	29:DE:189:PRO:HA	1.89	0.54
32:DH:124:GLU:HB2	32:DH:132:ARG:CD	2.35	0.54
34:DN:26:LEU:HG	34:DN:30:ILE:HD11	1.88	0.54
34:DN:51:PHE:CE2	34:DN:119:ARG:HD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:67:LEU:HB3	34:DN:88:GLU:HG2	1.88	0.54
43:DW:68:ARG:HD2	43:DW:110:LYS:HB3	1.90	0.54
45:DY:49:VAL:HG12	45:DY:50:ARG:N	2.22	0.54
45:DY:57:GLN:HE21	45:DY:58:GLY:N	2.06	0.54
46:DZ:19:ARG:NH2	46:DZ:84:GLU:O	2.40	0.54
7:AG:118:VAL:HG23	7:AG:119:ARG:N	2.21	0.54
20:AT:81:LYS:O	20:AT:85:MET:HB2	2.07	0.54
25:BA:529:A:H5"	25:BA:530:G:OP1	2.08	0.54
25:BA:562:U:O4	25:BA:2033:A:N1	2.39	0.54
25:BA:614:U:O2	25:BA:614:U:C5'	2.52	0.54
25:BA:1365:A:H5"	48:B1:41:ARG:HH12	1.72	0.54
25:BA:2602:A:H62	47:B0:2:ALA:HB3	1.72	0.54
27:BC:77:ILE:HG21	27:BC:123:VAL:N	2.23	0.54
30:BF:167:ALA:HB1	30:BF:173:VAL:HG11	1.90	0.54
31:BG:72:ARG:NH1	31:BG:86:MET:HB2	2.15	0.54
32:BH:64:LEU:HA	32:BH:67:LEU:HB3	1.90	0.54
33:BI:83:ALA:O	33:BI:89:TYR:HE1	1.90	0.54
43:BW:13:SER:HB3	43:BW:16:LYS:HG3	1.90	0.54
45:BY:28:LYS:HB3	45:BY:37:VAL:CG2	2.37	0.54
46:BZ:143:GLY:C	46:BZ:144:LEU:HD22	2.29	0.54
48:B1:18:ILE:HG12	48:B1:37:ILE:HG23	1.88	0.54
55:B8:31:HIS:ND1	55:B8:32:LEU:CB	2.71	0.54
1:CA:532:A:H2'	1:CA:533:A:OP1	2.08	0.54
1:CA:533:A:C4'	1:CA:534:U:OP1	2.50	0.54
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.42	0.54
4:CD:96:LEU:HD23	4:CD:139:ARG:CZ	2.38	0.54
9:CI:55:ALA:CB	9:CI:58:HIS:ND1	2.70	0.54
25:DA:762:U:H4'	25:DA:763:G:O5'	2.08	0.54
25:DA:1815:A:H4'	25:DA:1816:G:O5'	2.07	0.54
25:DA:2291:U:O2'	25:DA:2374:C:O2	2.25	0.54
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.43	0.54
25:DA:2848:G:N2	25:DA:2867:G:C4	2.76	0.54
28:DD:25:THR:HG22	28:DD:26:LYS:N	2.20	0.54
29:DE:1:MET:HE3	29:DE:83:ASP:HB2	1.90	0.54
29:DE:53:PRO:O	29:DE:54:GLN:O	2.25	0.54
32:DH:30:LYS:HE3	32:DH:81:GLU:CA	2.37	0.54
36:DP:6:LEU:O	36:DP:7:ARG:HG2	2.07	0.54
37:DQ:39:PRO:HA	37:DQ:97:VAL:O	2.07	0.54
37:DQ:110:THR:OG1	37:DQ:112:GLU:HG2	2.08	0.54
40:DT:32:TYR:CD2	40:DT:32:TYR:N	2.68	0.54
41:DU:92:ARG:NH1	42:DV:11:GLN:CB	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:1:MET:HE2	43:DW:2:GLU:H	1.73	0.54
1:AA:974:A:C1'	14:AN:31:ARG:HE	2.21	0.54
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.38	0.54
1:AA:1108:G:H5'	3:AC:176:HIS:ND1	2.20	0.54
8:AH:8:ASP:O	8:AH:11:THR:N	2.36	0.54
11:AK:126:ARG:C	11:AK:128:ALA:H	2.12	0.54
13:AM:3:ARG:CD	31:BG:113:ARG:NH2	2.71	0.54
25:BA:604:G:OP2	36:BP:90:ARG:NH2	2.41	0.54
25:BA:811:U:O4	36:BP:21:ARG:NH2	2.40	0.54
25:BA:1237:A:O2'	25:BA:1238:G:O4'	2.26	0.54
25:BA:1340:U:C4'	25:BA:1341:U:OP2	2.55	0.54
25:BA:2701:C:H3'	25:BA:2702:U:C5'	2.27	0.54
25:BA:2787:C:H1'	29:BE:61:ARG:CG	2.38	0.54
29:BE:119:ARG:O	29:BE:120:TRP:CD2	2.61	0.54
31:BG:132:ASN:ND2	31:BG:132:ASN:N	2.55	0.54
33:BI:44:LEU:O	33:BI:47:LEU:HB3	2.08	0.54
34:BN:18:ALA:O	34:BN:21:LYS:N	2.33	0.54
35:BO:11:ALA:O	35:BO:98:VAL:HG23	2.08	0.54
36:BP:58:THR:O	36:BP:58:THR:HG22	2.07	0.54
36:BP:105:LEU:HD12	36:BP:105:LEU:N	2.23	0.54
40:BT:45:PHE:CE1	40:BT:74:ARG:HG3	2.43	0.54
46:BZ:119:GLU:HB2	46:BZ:122:ARG:HG2	1.90	0.54
48:B1:8:SER:HB2	48:B1:66:HIS:CD2	2.43	0.54
1:CA:128:G:N2	1:CA:130:A:H62	2.06	0.54
1:CA:827:U:H3	1:CA:872:A:H61	1.55	0.54
1:CA:1067:A:H1'	1:CA:1068:G:O4'	2.07	0.54
2:CB:87:ARG:NE	2:CB:233:SER:HB2	2.22	0.54
4:CD:19:LEU:CD2	4:CD:21:LEU:HD11	2.38	0.54
16:CP:8:ARG:HH11	16:CP:8:ARG:HG3	1.71	0.54
16:CP:8:ARG:HB3	16:CP:28:ARG:NH1	2.23	0.54
21:CU:3:LYS:HG2	21:CU:14:TRP:CD1	2.43	0.54
22:CV:55:U:O2'	22:CV:56:U:H5'	2.08	0.54
25:DA:77:C:O3'	49:D2:14:ARG:NH2	2.40	0.54
25:DA:154:G:O6	25:DA:172:C:N4	2.37	0.54
25:DA:587:C:O2	36:DP:33:ARG:NH1	2.41	0.54
25:DA:614(A):U:C4'	25:DA:614(B):G:OP1	2.52	0.54
25:DA:871:U:OP1	37:DQ:5:ARG:HG3	2.08	0.54
25:DA:1697:G:C3'	25:DA:1698:A:C5'	2.78	0.54
25:DA:2729:G:H1'	29:DE:187:ALA:CB	2.38	0.54
28:DD:30:GLU:HG3	28:DD:63:ARG:CZ	2.38	0.54
29:DE:128:SER:OG	29:DE:129:HIS:N	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:68:PRO:CG	31:DG:90:LEU:HD12	2.37	0.54
32:DH:103:LEU:HD21	32:DH:115:VAL:HB	1.89	0.54
32:DH:130:ARG:O	32:DH:130:ARG:HD2	2.08	0.54
33:DI:125:GLU:OE2	33:DI:141:LYS:HG2	2.08	0.54
34:DN:15:LEU:HB3	34:DN:136:GLU:HA	1.89	0.54
41:DU:106:PHE:O	41:DU:110:VAL:HG23	2.08	0.54
42:DV:25:LEU:CD1	42:DV:94:LEU:HD21	2.38	0.54
44:DX:12:VAL:HG11	44:DX:27:THR:HG1	1.73	0.54
45:DY:75:ILE:CG1	45:DY:80:GLY:H	2.21	0.54
47:D0:41:ARG:HD3	47:D0:44:ARG:HD2	1.90	0.54
53:D6:15:GLU:CG	53:D6:47:THR:OG1	2.56	0.54
53:D6:25:LYS:HD3	55:D8:34:TRP:HZ2	1.73	0.54
1:AA:422:C:HO2'	1:AA:423:G:N2	2.06	0.54
2:AB:119:GLU:O	2:AB:122:PHE:HB3	2.08	0.54
3:AC:14:ILE:O	3:AC:15:THR:C	2.45	0.54
3:AC:58:GLU:O	3:AC:59:ARG:HG3	2.08	0.54
5:AE:100:VAL:HG13	5:AE:118:ILE:HG22	1.89	0.54
8:AH:19:VAL:HG21	8:AH:21:LYS:HE3	1.91	0.54
9:AI:37:PHE:HB3	9:AI:43:ALA:HB2	1.89	0.54
12:AL:84:LEU:HD22	12:AL:85:ILE:N	2.22	0.54
13:AM:28:ALA:O	13:AM:30:ALA:N	2.41	0.54
13:AM:90:LEU:O	13:AM:91:ARG:CB	2.54	0.54
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.08	0.54
22:AV:37:U:H2'	22:AV:38:A:O4'	2.08	0.54
25:BA:685:A:O2'	25:BA:689:A:N6	2.41	0.54
25:BA:1301:A:C4'	25:BA:1302:A:OP1	2.49	0.54
25:BA:2320:A:C5	25:BA:2333:A:N6	2.74	0.54
35:BO:7:TYR:CE1	35:BO:20:MET:HB2	2.43	0.54
40:BT:29:ARG:HD3	40:BT:84:GLN:O	2.08	0.54
46:BZ:39:VAL:CG2	46:BZ:44:PHE:HB2	2.38	0.54
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.73	0.54
6:CF:77:ARG:O	6:CF:79:LEU:N	2.41	0.54
7:CG:110:GLN:O	7:CG:111:ARG:HB2	2.07	0.54
13:CM:82:MET:HE2	13:CM:93:ARG:N	2.22	0.54
18:CR:74:ARG:NH2	18:CR:81:PHE:HA	2.22	0.54
20:CT:53:LEU:HB3	20:CT:102:GLY:HA3	1.90	0.54
22:CV:28:U:O2'	22:CV:29:C:H5'	2.08	0.54
22:CV:55:U:C2'	22:CV:56:U:H5'	2.37	0.54
25:DA:1820:U:C4'	25:DA:1821:A:OP2	2.46	0.54
29:DE:14:ILE:HG12	29:DE:21:VAL:HG23	1.89	0.54
29:DE:173:VAL:HG12	29:DE:174:ASP:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:7:TYR:N	30:DF:7:TYR:CD1	2.76	0.54
33:DI:37:VAL:HG13	33:DI:38:LEU:HD12	1.89	0.54
34:DN:103:VAL:O	34:DN:104:LYS:C	2.46	0.54
38:DR:52:ILE:O	38:DR:55:ALA:HB3	2.08	0.54
42:DV:8:GLY:O	42:DV:10:LYS:CE	2.55	0.54
45:DY:81:LYS:HB3	45:DY:97:ARG:HD3	1.88	0.54
47:D0:69:PHE:CD2	47:D0:79:VAL:HG22	2.43	0.54
1:AA:76:C:H42	1:AA:93:G:H1	1.56	0.53
1:AA:192:U:H4'	20:AT:103:GLY:HA2	1.89	0.53
2:AB:82:ARG:O	2:AB:85:ALA:HB3	2.07	0.53
2:AB:108:ILE:CG2	2:AB:152:PHE:CE1	2.91	0.53
4:AD:13:ARG:HH22	4:AD:36:ARG:HH11	1.55	0.53
5:AE:91:LEU:CD2	5:AE:138:ALA:HB1	2.38	0.53
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.38	0.53
6:AF:41:GLU:O	6:AF:43:LEU:N	2.40	0.53
12:AL:41:ARG:HD2	12:AL:43:VAL:CG1	2.38	0.53
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.22	0.53
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.70	0.53
22:AV:17:C:OP1	22:AV:62:C:H5'	2.08	0.53
23:AW:38:A:H2'	23:AW:39:U:H5"	1.90	0.53
23:AY:28:G:H2'	23:AY:29:G:C8	2.42	0.53
25:BA:1819:A:H1'	25:BA:1821:A:N6	2.22	0.53
25:BA:2472:G:H5'	25:BA:2473:U:H5"	1.90	0.53
32:BH:146:ALA:O	32:BH:150:ALA:HB2	2.09	0.53
35:BO:17:ARG:HA	35:BO:17:ARG:HH11	1.73	0.53
36:BP:58:THR:O	36:BP:61:ARG:CZ	2.56	0.53
37:BQ:1:MET:O	37:BQ:2:LEU:HB2	2.08	0.53
41:BU:61:TRP:CZ3	41:BU:94:ASN:HB2	2.43	0.53
45:BY:43:ASN:O	45:BY:44:ILE:O	2.26	0.53
46:BZ:10:ARG:HD2	46:BZ:36:LYS:HD3	1.90	0.53
1:CA:509:A:O2'	1:CA:510:A:OP1	2.21	0.53
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.08	0.53
9:CI:15:ALA:HB2	9:CI:65:VAL:CG2	2.23	0.53
11:CK:32:ILE:CD1	11:CK:68:ALA:O	2.56	0.53
18:CR:58:LEU:HD12	18:CR:58:LEU:N	2.23	0.53
25:DA:13:A:C2	25:DA:14:A:N6	2.75	0.53
25:DA:571:A:H1'	25:DA:573:G:C8	2.42	0.53
25:DA:750:A:O2'	25:DA:752:A:OP1	2.26	0.53
25:DA:1300:U:H1'	25:DA:1626:G:C2	2.43	0.53
25:DA:1799:G:C8	25:DA:1819:A:N6	2.75	0.53
25:DA:1819:A:H5"	25:DA:1820:U:H5'	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.42	0.53
32:DH:123:PHE:CE2	32:DH:133:VAL:HG22	2.43	0.53
33:DI:14:ASP:O	33:DI:16:GLY:N	2.39	0.53
35:DO:8:LEU:CD2	35:DO:8:LEU:N	2.71	0.53
40:DT:8:LYS:HA	40:DT:11:GLU:OE1	2.07	0.53
40:DT:26:ASP:OD2	40:DT:27:THR:N	2.40	0.53
40:DT:28:VAL:HG12	40:DT:29:ARG:CZ	2.38	0.53
41:DU:112:ARG:HG2	41:DU:112:ARG:NH1	2.20	0.53
55:D8:4:MET:O	55:D8:62:LEU:HD11	2.07	0.53
1:AA:115:G:H1'	1:AA:116:A:N7	2.23	0.53
1:AA:473:G:H2'	1:AA:474:G:H8	1.73	0.53
1:AA:919:A:C2'	1:AA:920:U:H5'	2.39	0.53
2:AB:52:GLU:O	2:AB:56:ARG:HG2	2.07	0.53
2:AB:80:ILE:CG1	2:AB:215:LEU:HD12	2.37	0.53
10:AJ:44:VAL:CG1	10:AJ:45:ARG:N	2.70	0.53
11:AK:19:ALA:HB3	11:AK:82:VAL:HG23	1.90	0.53
12:AL:117:ARG:HD2	12:AL:122:THR:HB	1.88	0.53
18:AR:86:VAL:HG12	18:AR:87:ARG:HB3	1.89	0.53
22:AV:38:A:H5"	22:AV:39:A:OP2	2.09	0.53
25:BA:71:A:O2'	25:BA:72:U:OP2	2.21	0.53
25:BA:332:A:O2'	25:BA:333:G:P	2.65	0.53
25:BA:601:C:O2'	30:BF:104:LYS:NZ	2.41	0.53
25:BA:1278:A:H5"	38:BR:36:THR:HG22	1.90	0.53
25:BA:1497:U:H3	25:BA:1578:U:P	2.32	0.53
25:BA:1601:G:N7	25:BA:1602:U:C4	2.76	0.53
25:BA:1963:U:O2	25:BA:1963:U:C3'	2.56	0.53
25:BA:2286:A:OP1	53:B6:30:THR:HB	2.08	0.53
25:BA:2345:G:H2'	25:BA:2345:G:N3	2.23	0.53
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.44	0.53
29:BE:132:HIS:HA	29:BE:135:HIS:NE2	2.23	0.53
36:BP:146:VAL:HG13	36:BP:147:LEU:N	2.23	0.53
37:BQ:78:PRO:O	37:BQ:81:VAL:HG13	2.08	0.53
38:BR:14:SER:HA	38:BR:17:ARG:CZ	2.38	0.53
40:BT:128:GLU:C	40:BT:128:GLU:OE1	2.47	0.53
48:B1:57:GLU:O	48:B1:58:ILE:HG23	2.07	0.53
49:B2:43:GLN:O	49:B2:44:LEU:HD22	2.08	0.53
1:CA:31:G:C6	1:CA:48:C:C1'	2.91	0.53
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.44	0.53
4:CD:59:ARG:HA	4:CD:59:ARG:HE	1.72	0.53
9:CI:3:GLN:O	9:CI:88:TYR:CE1	2.62	0.53
12:CL:22:SER:C	12:CL:24:VAL:H	2.12	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:25:ARG:HH11	20:CT:25:ARG:HG3	1.72	0.53
22:CV:30:G:C4	22:CV:31:G:C8	2.96	0.53
22:CV:48:U:H5'	22:CV:49:C:H5'	1.91	0.53
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.43	0.53
28:DD:26:LYS:HZ3	28:DD:82:ILE:H	1.57	0.53
28:DD:77:ALA:HB2	28:DD:97:TYR:HA	1.90	0.53
29:DE:3:GLY:HA3	29:DE:81:ILE:CG2	2.33	0.53
30:DF:128:ALA:C	30:DF:129:PHE:CD2	2.81	0.53
32:DH:109:PHE:C	32:DH:111:HIS:N	2.62	0.53
33:DI:35:LEU:O	33:DI:36:ALA:HB2	2.08	0.53
51:D4:16:CYS:SG	51:D4:36:CYS:HB3	2.48	0.53
1:AA:1158:C:H42	1:AA:1181:G:H22	1.55	0.53
1:AA:1316:G:O6	19:AS:5:LEU:HD23	2.09	0.53
2:AB:179:LYS:HG2	2:AB:179:LYS:O	2.07	0.53
2:AB:187:LEU:HD23	2:AB:201:ILE:O	2.07	0.53
7:AG:15:ASP:CB	7:AG:24:THR:CG2	2.87	0.53
8:AH:33:GLU:O	8:AH:34:GLU:C	2.46	0.53
9:AI:17:VAL:HG22	9:AI:63:ILE:HG12	1.91	0.53
11:AK:82:VAL:HG12	11:AK:108:ILE:HG12	1.90	0.53
13:AM:23:TYR:HB3	13:AM:67:GLU:CA	2.38	0.53
20:AT:30:LYS:HD3	20:AT:30:LYS:O	2.08	0.53
23:AW:7:A:N6	23:AW:49:C:C4	2.76	0.53
23:AW:38:A:N6	23:AW:39:U:C5	2.77	0.53
25:BA:92:A:H2'	25:BA:93:G:H8	1.74	0.53
25:BA:1812:A:H2'	25:BA:1813:G:H8	1.73	0.53
25:BA:2283:C:H2'	25:BA:2284:C:O4'	2.08	0.53
25:BA:2712:U:H5"	25:BA:2714:G:H5"	1.90	0.53
25:BA:2756:U:HO2'	25:BA:2757:A:C5'	2.21	0.53
25:BA:2866:U:H6	25:BA:2868:A:H1'	1.73	0.53
26:BB:66:A:C6	26:BB:108:U:N3	2.76	0.53
33:BI:63:ALA:O	33:BI:67:ARG:HG2	2.08	0.53
36:BP:3:LEU:O	36:BP:5:ASP:N	2.39	0.53
36:BP:48:PRO:O	36:BP:51:PHE:N	2.39	0.53
37:BQ:68:ILE:HG21	37:BQ:101:ARG:HD3	1.91	0.53
40:BT:99:LEU:H	40:BT:99:LEU:HD12	1.72	0.53
43:BW:6:ILE:HG12	43:BW:104:THR:CG2	2.38	0.53
43:BW:78:GLU:OE2	43:BW:99:ARG:NH1	2.41	0.53
54:B7:17:GLY:O	54:B7:21:ARG:HG2	2.07	0.53
1:CA:511:C:O2'	1:CA:512:U:P	2.66	0.53
1:CA:817:C:O2'	1:CA:818:G:H5"	2.08	0.53
2:CB:59:GLU:HB2	2:CB:221:LEU:HD12	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:141:VAL:HG11	3:CC:202:ILE:CG2	2.38	0.53
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.08	0.53
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.89	0.53
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.09	0.53
11:CK:127:LYS:NZ	11:CK:127:LYS:HA	2.24	0.53
13:CM:117:VAL:O	13:CM:118:ALA:O	2.25	0.53
25:DA:498:G:H21	45:DY:47:LYS:NZ	2.06	0.53
25:DA:2668:G:H2'	25:DA:2669:G:H8	1.74	0.53
29:DE:30:PRO:HD3	29:DE:180:ASN:ND2	2.23	0.53
29:DE:59:VAL:O	29:DE:60:ASN:CB	2.55	0.53
30:DF:125:LEU:HD21	30:DF:199:TRP:CE3	2.43	0.53
31:DG:109:VAL:C	31:DG:112:PRO:HD2	2.28	0.53
32:DH:20:ALA:HB1	32:DH:21:PRO:CD	2.38	0.53
33:DI:60:GLU:CG	33:DI:61:ARG:HH12	2.22	0.53
36:DP:83:VAL:O	36:DP:83:VAL:HG13	2.09	0.53
41:DU:92:ARG:NH1	41:DU:92:ARG:CG	2.68	0.53
41:DU:105:VAL:O	41:DU:109:LEU:HG	2.09	0.53
42:DV:81:TYR:C	42:DV:82:ARG:HG3	2.27	0.53
45:DY:94:LYS:CE	45:DY:101:LYS:HZ3	2.21	0.53
48:D1:41:ARG:HD3	48:D1:43:TYR:OH	2.08	0.53
49:D2:34:GLU:O	49:D2:38:GLN:HG3	2.08	0.53
50:D3:17:LYS:HD2	50:D3:20:LYS:HD2	1.89	0.53
1:AA:265:G:H2'	1:AA:266:G:H5"	1.89	0.53
2:AB:25:ASN:OD1	2:AB:26:PRO:HD2	2.08	0.53
7:AG:76:ARG:HD3	7:AG:89:MET:CG	2.38	0.53
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	1.88	0.53
17:AQ:11:VAL:HG22	17:AQ:20:THR:O	2.09	0.53
19:AS:9:VAL:O	19:AS:10:PHE:CG	2.62	0.53
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.08	0.53
23:AW:9:A:C5'	23:AW:46:G:H21	2.21	0.53
25:BA:83:G:O2'	25:BA:102:G:N2	2.41	0.53
25:BA:372:G:HO2'	25:BA:373:U:P	2.32	0.53
25:BA:791:C:H4'	25:BA:792:G:OP1	2.06	0.53
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.41	0.53
28:BD:76:PRO:HA	28:BD:118:VAL:HB	1.90	0.53
28:BD:131:LEU:N	28:BD:131:LEU:CD1	2.71	0.53
29:BE:28:ALA:HB3	29:BE:93:VAL:CG2	2.38	0.53
32:BH:125:VAL:HG12	32:BH:125:VAL:O	2.07	0.53
33:BI:117:GLU:HG3	33:BI:118:LYS:N	2.22	0.53
35:BO:80:ASP:OD1	40:BT:71:GLY:O	2.26	0.53
36:BP:71:VAL:HG22	36:BP:72:PRO:HD3	1.88	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:2:ARG:NH2	38:BR:5:LYS:HZ3	2.04	0.53
39:BS:106:ARG:HD2	39:BS:106:ARG:C	2.28	0.53
45:BY:98:VAL:O	45:BY:99:CYS:SG	2.66	0.53
49:B2:48:HIS:CD2	49:B2:49:LYS:N	2.76	0.53
54:B7:30:VAL:HG12	54:B7:34:ARG:HG3	1.90	0.53
1:CA:390:C:H2'	1:CA:391:G:C8	2.43	0.53
1:CA:869:G:O2'	1:CA:872:A:N7	2.35	0.53
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.89	0.53
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	1.89	0.53
2:CB:228:GLY:O	2:CB:230:VAL:HG13	2.08	0.53
3:CC:94:LEU:HD12	3:CC:95:THR:OG1	2.08	0.53
8:CH:39:LEU:O	8:CH:44:PHE:HB2	2.08	0.53
9:CI:11:LYS:O	9:CI:13:ALA:N	2.41	0.53
17:CQ:29:HIS:C	17:CQ:31:LEU:H	2.11	0.53
17:CQ:48:GLU:OE1	17:CQ:50:LYS:HD3	2.08	0.53
18:CR:76:LEU:HD23	18:CR:76:LEU:H	1.70	0.53
20:CT:53:LEU:HB3	20:CT:102:GLY:CA	2.38	0.53
23:CW:36:A:H2'	23:CW:37:A:C4'	2.38	0.53
25:DA:69:C:O2	25:DA:73:A:O2'	2.20	0.53
25:DA:142:A:H8	25:DA:1595:G:H21	1.54	0.53
25:DA:930:U:H1'	25:DA:931:G:C6	2.43	0.53
25:DA:1609:A:H1'	25:DA:1616:A:O4'	2.08	0.53
25:DA:1769:G:O2'	25:DA:1958:C:OP1	2.24	0.53
25:DA:1779:U:OP2	25:DA:1784:A:N6	2.33	0.53
25:DA:1820:U:C2	28:DD:202:LYS:HB3	2.44	0.53
25:DA:2014:A:HO2'	52:D5:2:ALA:N	2.07	0.53
25:DA:2468:G:O2'	25:DA:2469:A:H8	1.92	0.53
25:DA:2750:A:C4'	25:DA:2751:G:OP2	2.49	0.53
28:DD:32:SER:O	28:DD:36:PRO:HD2	2.08	0.53
31:DG:107:LEU:HD11	31:DG:178:PHE:CD1	2.43	0.53
31:DG:113:ARG:HD3	31:DG:140:ILE:O	2.07	0.53
36:DP:146:VAL:HG13	36:DP:147:LEU:N	2.23	0.53
37:DQ:47:ILE:HG22	37:DQ:48:GLU:N	2.23	0.53
40:DT:14:TYR:N	40:DT:14:TYR:CD1	2.76	0.53
42:DV:55:ALA:CB	42:DV:101:GLY:HA2	2.37	0.53
46:DZ:5:LEU:HB3	46:DZ:59:LEU:HD22	1.90	0.53
46:DZ:128:VAL:HG23	46:DZ:160:GLY:O	2.08	0.53
47:D0:60:PHE:CD1	47:D0:60:PHE:C	2.81	0.53
53:D6:19:ARG:CD	53:D6:19:ARG:H	2.21	0.53
1:AA:156:G:H1	1:AA:165:C:H42	1.55	0.53
1:AA:410:G:H21	1:AA:432:A:H62	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:687:A:O2'	1:AA:688:G:OP2	2.27	0.53
1:AA:1302:U:H5"	1:AA:1303:C:OP2	2.08	0.53
2:AB:56:ARG:HH11	2:AB:56:ARG:HA	1.73	0.53
2:AB:140:HIS:HA	2:AB:143:GLU:HG3	1.91	0.53
4:AD:3:ARG:HG2	4:AD:118:ARG:HD3	1.90	0.53
12:AL:30:ALA:O	12:AL:31:PRO:C	2.47	0.53
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.39	0.53
18:AR:82:THR:C	18:AR:83:GLU:HG2	2.28	0.53
25:BA:242:G:O2'	55:B8:6:THR:HG23	2.09	0.53
25:BA:2068:U:H3	25:BA:2430:A:H2	1.53	0.53
29:BE:51:PHE:CZ	29:BE:52:LEU:HD13	2.42	0.53
32:BH:156:ALA:N	32:BH:158:HIS:H	2.05	0.53
34:BN:17:ASP:OD1	34:BN:56:ASN:HB3	2.09	0.53
35:BO:119:PRO:HB2	40:BT:68:TYR:CE1	2.44	0.53
36:BP:33:ARG:NE	36:BP:40:SER:O	2.42	0.53
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.26	0.53
36:BP:138:LEU:CD1	36:BP:144:GLU:HG2	2.39	0.53
37:BQ:116:GLU:O	37:BQ:120:ILE:HG12	2.08	0.53
38:BR:13:HIS:ND1	38:BR:13:HIS:N	2.57	0.53
40:BT:89:VAL:HB	40:BT:91:ARG:NE	2.24	0.53
41:BU:17:ILE:HB	41:BU:32:PHE:HE1	1.74	0.53
43:BW:111:HIS:CG	43:BW:112:GLY:H	2.25	0.53
49:B2:69:ARG:HG2	49:B2:69:ARG:NH1	2.20	0.53
55:B8:50:LEU:CD1	55:B8:51:ALA:H	2.08	0.53
1:CA:346:G:OP2	40:DT:35:LYS:CD	2.57	0.53
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.44	0.53
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.90	0.53
3:CC:6:HIS:NE2	3:CC:184:TYR:CE2	2.77	0.53
12:CL:126:LYS:HG3	12:CL:127:GLU:H	1.73	0.53
14:CN:23:ARG:HD2	14:CN:28:GLY:O	2.09	0.53
14:CN:29:ARG:HG2	14:CN:40:CYS:SG	2.48	0.53
20:CT:51:GLU:O	20:CT:52:ALA:C	2.47	0.53
22:CV:62:C:C2'	22:CV:63:C:H5'	2.38	0.53
25:DA:84:A:C5'	45:DY:8:LYS:CG	2.84	0.53
25:DA:1819:A:O4'	25:DA:1821:A:C6	2.62	0.53
25:DA:2198:A:O2'	25:DA:2199:A:O5'	2.27	0.53
25:DA:2245:U:H5'	25:DA:2246:G:H5'	1.90	0.53
29:DE:4:ILE:CG1	29:DE:28:ALA:HB1	2.37	0.53
29:DE:161:GLY:O	29:DE:162:ALA:C	2.46	0.53
32:DH:98:LEU:HA	32:DH:103:LEU:HA	1.89	0.53
32:DH:153:LYS:HE2	32:DH:153:LYS:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:34:LEU:HD21	34:DN:120:LEU:HB2	1.91	0.53
39:DS:85:VAL:HG23	39:DS:112:PHE:HZ	1.73	0.53
41:DU:90:VAL:CG1	41:DU:91:ASP:H	2.12	0.53
42:DV:47:VAL:HG13	42:DV:48:GLY:N	2.23	0.53
45:DY:47:LYS:HA	45:DY:60:PHE:CD1	2.43	0.53
46:DZ:104:PHE:O	46:DZ:106:GLY:N	2.41	0.53
1:AA:1049:U:H1'	1:AA:1201:A:C4	2.38	0.53
8:AH:86:ILE:HG21	8:AH:133:LEU:HD13	1.91	0.53
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.91	0.53
10:AJ:39:PRO:HA	10:AJ:70:ARG:HG3	1.90	0.53
15:AO:33:THR:HG23	15:AO:63:ARG:HH12	1.73	0.53
23:AW:36:A:H8	23:AW:36:A:O5'	1.92	0.53
23:AW:53:G:N2	23:AW:62:C:C2	2.77	0.53
25:BA:204:A:H1'	25:BA:206:U:C6	2.44	0.53
25:BA:274:G:OP2	25:BA:274:G:N2	2.38	0.53
25:BA:804:A:C2'	25:BA:806:C:C4	2.91	0.53
25:BA:1286:A:C6	25:BA:1289:C:N3	2.76	0.53
25:BA:2176:A:H2	27:BC:44:HIS:CE1	2.26	0.53
25:BA:2847:U:O4	25:BA:2848:G:C2	2.61	0.53
32:BH:26:VAL:HG12	32:BH:79:VAL:HG21	1.89	0.53
36:BP:59:LEU:HG	55:B8:13:ARG:NH2	2.23	0.53
36:BP:107:LYS:C	36:BP:109:GLY:H	2.12	0.53
36:BP:112:LEU:HD22	36:BP:113:LYS:H	1.72	0.53
40:BT:28:VAL:CG2	40:BT:46:GLU:CA	2.86	0.53
1:CA:579:G:H5'	1:CA:728:A:H1'	1.90	0.53
1:CA:1363(A):A:H1'	1:CA:1365:G:C5	2.44	0.53
9:CI:114:TYR:CD2	9:CI:114:TYR:N	2.67	0.53
12:CL:83:VAL:HG21	12:CL:100:ILE:HD13	1.90	0.53
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.41	0.53
20:CT:75:ASN:OD1	20:CT:75:ASN:N	2.41	0.53
23:CW:19:G:H4'	23:CW:20:U:OP2	2.08	0.53
24:CX:16:A:C4	24:CX:17:U:C6	2.97	0.53
25:DA:780:G:H21	25:DA:783:A:H62	1.57	0.53
25:DA:2370:G:O2'	53:D6:45:LYS:HD2	2.08	0.53
28:DD:32:SER:O	28:DD:34:VAL:N	2.42	0.53
29:DE:57:LYS:HB3	29:DE:57:LYS:NZ	2.22	0.53
30:DF:34:TRP:CZ3	36:DP:8:PRO:HB3	2.44	0.53
33:DI:17:GLN:HE21	33:DI:19:VAL:HB	1.74	0.53
36:DP:3:LEU:O	36:DP:5:ASP:N	2.39	0.53
36:DP:34:GLY:O	36:DP:35:HIS:O	2.27	0.53
36:DP:112:LEU:H	36:DP:128:HIS:CD2	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:148:LEU:N	36:DP:148:LEU:HD23	2.24	0.53
38:DR:12:ARG:HG3	38:DR:12:ARG:NH1	2.22	0.53
38:DR:107:ASP:C	38:DR:107:ASP:OD2	2.46	0.53
40:DT:64:ARG:HD2	40:DT:73:GLU:HG2	1.90	0.53
40:DT:128:GLU:OE1	40:DT:128:GLU:C	2.47	0.53
43:DW:5:ALA:HB1	43:DW:50:VAL:HG23	1.91	0.53
46:DZ:114:GLY:HA3	46:DZ:177:PRO:CG	2.37	0.53
55:D8:6:THR:HG22	55:D8:63:PRO:HD3	1.91	0.53
1:AA:1238:A:N6	1:AA:1301:U:H3	2.03	0.53
4:AD:33:MET:CE	4:AD:33:MET:HA	2.39	0.53
5:AE:26:PHE:O	5:AE:27:ARG:CB	2.54	0.53
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.91	0.53
12:AL:24:VAL:HG22	12:AL:97:ARG:HB3	1.90	0.53
12:AL:41:ARG:HH22	12:AL:57:LYS:HZ1	1.50	0.53
18:AR:37:VAL:HG12	18:AR:79:LEU:CD2	2.39	0.53
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.24	0.53
23:AW:21:A:N6	23:AW:46:G:C4	2.77	0.53
25:BA:2320:A:N7	25:BA:2333:A:N1	2.55	0.53
28:BD:35:LYS:HB3	28:BD:104:TYR:HE1	1.73	0.53
28:BD:69:ARG:NH2	28:BD:192:THR:CB	2.72	0.53
30:BF:3:GLU:CB	30:BF:24:LEU:HG	2.35	0.53
30:BF:32:LEU:HD13	30:BF:112:MET:CE	2.39	0.53
31:BG:63:ILE:HD12	31:BG:141:PHE:CD1	2.44	0.53
32:BH:109:PHE:HE1	32:BH:152:ARG:NE	2.07	0.53
33:BI:131:LYS:HE3	33:BI:132:PRO:HD3	1.90	0.53
34:BN:62:VAL:CG1	34:BN:66:LYS:CB	2.86	0.53
37:BQ:26:TYR:O	37:BQ:67:ARG:NH1	2.38	0.53
37:BQ:29:PHE:CD2	37:BQ:65:PHE:CE1	2.96	0.53
38:BR:32:GLY:HA2	38:BR:116:LEU:HD12	1.90	0.53
39:BS:21:THR:C	39:BS:23:ARG:H	2.12	0.53
44:BX:29:TRP:CE3	44:BX:78:LYS:HB3	2.44	0.53
50:B3:26:LEU:HD23	50:B3:26:LEU:N	2.24	0.53
1:CA:277:C:OP1	17:CQ:41:LYS:HE3	2.09	0.53
1:CA:834:C:OP1	18:CR:60:ALA:HB2	2.08	0.53
1:CA:837:G:H1	1:CA:849:C:H42	1.57	0.53
5:CE:53:LEU:O	5:CE:54:ALA:C	2.47	0.53
9:CI:5:TYR:HH	9:CI:7:THR:HG1	1.57	0.53
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	2.08	0.53
13:CM:4:ILE:CG2	13:CM:5:ALA:H	2.19	0.53
13:CM:66:LEU:O	13:CM:67:GLU:C	2.47	0.53
16:CP:43:LYS:HG2	16:CP:48:TRP:CG	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:86:VAL:O	18:CR:87:ARG:O	2.27	0.53
25:DA:1341:U:O5'	25:DA:1341:U:H6	1.91	0.53
29:DE:8:LYS:HD2	29:DE:188:VAL:HG13	1.90	0.53
29:DE:47:VAL:HG23	29:DE:84:PHE:O	2.08	0.53
31:DG:142:PRO:HG2	31:DG:143:GLU:H	1.74	0.53
32:DH:9:ILE:O	32:DH:9:ILE:HG13	2.09	0.53
33:DI:19:VAL:HG22	33:DI:20:ASP:N	2.24	0.53
36:DP:58:THR:O	36:DP:61:ARG:HG3	2.09	0.53
36:DP:105:LEU:HD12	36:DP:105:LEU:N	2.23	0.53
48:D1:3:LYS:HG2	48:D1:4:VAL:N	2.24	0.53
55:D8:63:PRO:HB2	55:D8:64:TYR:CD1	2.44	0.53
1:AA:262:A:H5"	20:AT:76:ALA:HB2	1.89	0.53
1:AA:1049:U:O2	1:AA:1201:A:N3	2.41	0.53
3:AC:42:LEU:HD12	3:AC:45:LYS:NZ	2.24	0.53
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.30	0.53
8:AH:42:GLU:HG3	8:AH:109:ILE:HD11	1.91	0.53
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.91	0.53
11:AK:69:ALA:O	11:AK:72:ALA:N	2.41	0.53
23:AW:31:A:H2'	23:AW:32:U:O4'	2.09	0.53
25:BA:598:G:H1'	36:BP:12:ALA:HB2	1.90	0.53
25:BA:1131:G:O2'	25:BA:1132:A:O4'	2.26	0.53
25:BA:1486:A:H61	25:BA:1504:C:H42	1.57	0.53
25:BA:2176:A:C2	27:BC:44:HIS:CE1	2.97	0.53
25:BA:2447:G:H1'	25:BA:2501:C:C4	2.43	0.53
25:BA:2689:U:C4'	25:BA:2690:C:OP2	2.57	0.53
25:BA:2873:A:N3	38:BR:6:SER:CB	2.68	0.53
28:BD:6:PHE:CE1	28:BD:18:VAL:HG22	2.43	0.53
28:BD:33:LEU:O	28:BD:34:VAL:C	2.47	0.53
28:BD:34:VAL:O	28:BD:34:VAL:HG13	2.09	0.53
28:BD:45:ASN:CG	28:BD:46:GLN:N	2.59	0.53
30:BF:9:ILE:HG22	30:BF:9:ILE:O	2.09	0.53
1:CA:49:U:C4	1:CA:364:A:N7	2.77	0.53
1:CA:323:U:O3'	20:CT:22:ARG:HD3	2.09	0.53
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.35	0.53
2:CB:127:ILE:HG22	2:CB:127:ILE:O	2.09	0.53
3:CC:47:LEU:HD11	3:CC:76:VAL:HG12	1.91	0.53
5:CE:98:THR:HG22	5:CE:99:GLY:N	2.24	0.53
9:CI:58:HIS:C	9:CI:59:PHE:CD1	2.82	0.53
12:CL:22:SER:O	12:CL:24:VAL:N	2.42	0.53
17:CQ:88:TYR:C	17:CQ:88:TYR:CD2	2.82	0.53
18:CR:40:LEU:O	18:CR:43:PHE:N	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:13:A:N7	25:DA:525:U:C4	2.77	0.53
25:DA:27:G:H22	25:DA:512:G:H2'	1.71	0.53
25:DA:1607:C:N4	25:DA:1622:G:OP2	2.38	0.53
25:DA:1681:G:H8	25:DA:1681:G:OP2	1.92	0.53
25:DA:2147:G:H2'	25:DA:2148:G:O4'	2.09	0.53
25:DA:2206:G:N2	25:DA:2207:G:H5'	2.23	0.53
25:DA:2689:U:H4'	25:DA:2690:C:O5'	2.07	0.53
25:DA:2832:U:H1'	25:DA:2834:G:C4	2.44	0.53
29:DE:61:ARG:CB	29:DE:62:PRO:CD	2.86	0.53
31:DG:34:LEU:HD21	31:DG:99:MET:HE1	1.90	0.53
31:DG:161:THR:HG22	31:DG:162:THR:H	1.74	0.53
32:DH:86:GLU:O	32:DH:87:LEU:CB	2.56	0.53
33:DI:68:LEU:HA	33:DI:71:ILE:CG2	2.38	0.53
37:DQ:59:ARG:O	37:DQ:60:ARG:CB	2.57	0.53
40:DT:28:VAL:HG12	40:DT:29:ARG:NE	2.24	0.53
40:DT:83:ILE:HG13	40:DT:84:GLN:H	1.74	0.53
40:DT:129:ARG:HD2	40:DT:131:ALA:CB	2.38	0.53
42:DV:31:ALA:O	42:DV:61:VAL:HG12	2.09	0.53
45:DY:9:LYS:O	45:DY:27:VAL:HG22	2.09	0.53
45:DY:42:VAL:HG11	45:DY:65:ALA:HB3	1.88	0.53
1:AA:575:G:N2	1:AA:880:C:O2	2.42	0.53
1:AA:980:C:H1'	14:AN:19:ARG:HA	1.90	0.53
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.62	0.53
2:AB:213:LEU:O	2:AB:213:LEU:HD23	2.07	0.53
3:AC:140:ARG:HA	3:AC:143:GLU:OE1	2.07	0.53
5:AE:53:LEU:O	5:AE:57:LYS:HB2	2.09	0.53
19:AS:48:THR:CG2	19:AS:61:TYR:HD1	2.22	0.53
23:AW:16:U:H5	23:AW:18:G:P	2.32	0.53
25:BA:226:G:O2'	25:BA:227:A:H8	1.92	0.53
25:BA:1394:U:C4	25:BA:1395:A:C6	2.97	0.53
28:BD:73:VAL:O	28:BD:75:ILE:N	2.41	0.53
28:BD:95:LEU:HD21	28:BD:105:ILE:HG21	1.90	0.53
29:BE:75:VAL:O	29:BE:77:ILE:N	2.41	0.53
30:BF:182:ASN:O	30:BF:184:TYR:N	2.42	0.53
35:BO:24:VAL:CG2	35:BO:33:ALA:HB2	2.39	0.53
35:BO:104:ARG:HH22	40:BT:35:LYS:NZ	2.06	0.53
38:BR:41:ALA:C	38:BR:43:GLU:H	2.11	0.53
1:CA:662:G:H2'	1:CA:663:A:C8	2.44	0.53
1:CA:765:G:N1	1:CA:812:C:O2'	2.37	0.53
1:CA:1048:G:OP1	14:CN:4:LYS:HB2	2.08	0.53
1:CA:1095:U:H5'	1:CA:1109:C:O2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1502:A:H4'	1:CA:1503:A:OP1	2.09	0.53
3:CC:19:GLU:O	3:CC:40:ARG:NH2	2.41	0.53
7:CG:115:ARG:O	7:CG:116:ALA:C	2.47	0.53
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.91	0.53
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.44	0.53
25:DA:90:U:O2'	25:DA:92:A:H8	1.92	0.53
25:DA:627:A:O2'	25:DA:636:G:N2	2.41	0.53
25:DA:1819:A:H4'	25:DA:1820:U:C5'	2.34	0.53
25:DA:2050:C:H2'	25:DA:2051:A:O4'	2.08	0.53
26:DB:88:C:H2'	26:DB:89:G:O4'	2.09	0.53
28:DD:144:ALA:HB3	28:DD:192:THR:HG23	1.89	0.53
33:DI:77:LEU:HD11	33:DI:140:LEU:HA	1.89	0.53
34:DN:107:LEU:HD12	34:DN:117:PHE:HB2	1.90	0.53
36:DP:117:GLU:OE1	36:DP:117:GLU:N	2.37	0.53
36:DP:138:LEU:CD1	36:DP:144:GLU:HG2	2.39	0.53
37:DQ:120:ILE:O	37:DQ:123:HIS:HB2	2.08	0.53
39:DS:71:ARG:CG	39:DS:104:GLY:HA2	2.32	0.53
42:DV:64:HIS:CG	42:DV:92:THR:HG22	2.44	0.53
46:DZ:28:MET:SD	46:DZ:37:VAL:HG11	2.49	0.53
46:DZ:28:MET:HE2	46:DZ:37:VAL:HG21	1.91	0.53
50:D3:52:HIS:CD2	50:D3:52:HIS:H	2.25	0.53
53:D6:41:PRO:CD	53:D6:46:HIS:HA	2.39	0.53
1:AA:438:G:O2'	1:AA:494:U:O4	2.22	0.53
1:AA:1446:U:N3	1:AA:1452:C:O2	2.42	0.53
2:AB:69:LEU:HD23	2:AB:159:PRO:HG2	1.91	0.53
5:AE:32:VAL:O	5:AE:43:LEU:HD12	2.09	0.53
11:AK:27:ASN:HB2	11:AK:55:LYS:HE3	1.91	0.53
16:AP:12:LYS:O	16:AP:13:HIS:CB	2.57	0.53
22:AV:52:C:C2'	22:AV:53:G:O5'	2.57	0.53
25:BA:328:U:H4'	45:BY:68:HIS:CD2	2.43	0.53
25:BA:625:G:O6	36:BP:107:LYS:HD3	2.08	0.53
25:BA:708:C:H42	25:BA:723:G:H1	1.57	0.53
25:BA:2691:C:N4	25:BA:2719:G:C2	2.76	0.53
25:BA:2866:U:C6	25:BA:2868:A:H1'	2.43	0.53
27:BC:59:ARG:HH22	27:BC:200:LYS:N	2.07	0.53
27:BC:99:ILE:HG22	27:BC:99:ILE:O	2.09	0.53
30:BF:158:THR:HG21	30:BF:163:VAL:HB	1.91	0.53
32:BH:24:VAL:HG22	32:BH:35:VAL:O	2.08	0.53
32:BH:85:LYS:O	32:BH:133:VAL:N	2.42	0.53
33:BI:6:LEU:HG	33:BI:36:ALA:HA	1.90	0.53
33:BI:138:ILE:HG12	33:BI:139:GLN:N	2.15	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:13:TRP:HB2	34:BN:133:GLN:OE1	2.08	0.53
37:BQ:40:ALA:HB3	37:BQ:42:ILE:HD11	1.91	0.53
41:BU:95:LEU:CD1	42:BV:4:ILE:HD13	2.30	0.53
46:BZ:96:VAL:N	46:BZ:128:VAL:O	2.42	0.53
46:BZ:104:PHE:HB3	46:BZ:141:VAL:CG1	2.38	0.53
1:CA:511:C:H4'	1:CA:511:C:OP1	2.09	0.53
1:CA:529:G:H4'	1:CA:533:A:C2	2.44	0.53
1:CA:976:G:H5"	1:CA:1358:U:O2'	2.09	0.53
1:CA:1151:A:H5'	10:CJ:41:PRO:HA	1.91	0.53
1:CA:1505:G:H5'	1:CA:1506:U:H5"	1.90	0.53
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.89	0.53
12:CL:54:LYS:C	12:CL:70:ILE:HG13	2.29	0.53
12:CL:90:VAL:HG11	12:CL:93:LEU:CG	2.40	0.53
13:CM:82:MET:HE1	13:CM:93:ARG:HA	1.89	0.53
16:CP:32:TYR:C	16:CP:32:TYR:CD2	2.81	0.53
25:DA:72:U:C5	49:D2:61:LEU:HB3	2.44	0.53
25:DA:2319:G:O2'	25:DA:2320:A:O5'	2.26	0.53
27:DC:49:ILE:H	27:DC:49:ILE:CD1	2.18	0.53
28:DD:28:GLU:OE1	28:DD:29:PRO:HD3	2.09	0.53
30:DF:110:LEU:HD11	30:DF:181:LEU:HD12	1.91	0.53
40:DT:33:LYS:HE2	40:DT:43:GLN:CG	2.39	0.53
41:DU:97:ASP:O	41:DU:100:VAL:N	2.26	0.53
42:DV:65:GLY:HA3	42:DV:91:TYR:CE1	2.44	0.53
45:DY:95:LYS:HA	45:DY:101:LYS:HB2	1.91	0.53
54:D7:18:PHE:O	54:D7:22:MET:HG2	2.09	0.53
55:D8:38:GLY:O	55:D8:42:ARG:HB3	2.09	0.53
1:AA:508:C:H1'	1:AA:509:A:N7	2.25	0.52
1:AA:1432:G:OP1	40:BT:107:ASP:HB2	2.09	0.52
1:AA:1502:A:H2	1:AA:1505:G:N2	2.02	0.52
2:AB:41:ILE:HG22	2:AB:42:ILE:O	2.10	0.52
4:AD:60:GLU:OE1	4:AD:199:ASN:N	2.31	0.52
4:AD:62:GLN:OE1	4:AD:62:GLN:HA	2.08	0.52
4:AD:148:VAL:HG12	4:AD:149:ALA:N	2.24	0.52
5:AE:91:LEU:HD12	5:AE:120:THR:HG21	1.89	0.52
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.09	0.52
25:BA:641:C:O2'	25:BA:2350:C:OP1	2.20	0.52
25:BA:1324:G:H1'	25:BA:1616:A:N6	2.24	0.52
25:BA:1779:U:H5	25:BA:1784:A:N7	2.07	0.52
25:BA:2056:G:H21	25:BA:2057:A:C1'	2.22	0.52
25:BA:2111:C:H4'	25:BA:2112:G:OP1	2.09	0.52
26:BB:44:G:H1'	26:BB:47:C:N4	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:65:PRO:HG2	27:BC:189:ILE:CA	2.39	0.52
29:BE:177:PRO:O	29:BE:178:GLU:C	2.47	0.52
31:BG:72:ARG:HD3	31:BG:86:MET:HA	1.91	0.52
31:BG:101:ILE:O	31:BG:104:GLU:HB3	2.07	0.52
33:BI:117:GLU:CG	33:BI:118:LYS:H	2.20	0.52
34:BN:15:LEU:CD1	34:BN:16:ILE:H	2.22	0.52
37:BQ:109:VAL:HG22	37:BQ:113:GLN:OE1	2.09	0.52
38:BR:79:LEU:HA	38:BR:83:ILE:HG13	1.91	0.52
39:BS:34:HIS:CE1	39:BS:54:LEU:HD23	2.43	0.52
40:BT:57:PHE:CD1	40:BT:58:ASN:N	2.77	0.52
45:BY:95:LYS:HG2	45:BY:100:ALA:HA	1.91	0.52
46:BZ:155:LEU:O	46:BZ:157:LEU:HG	2.09	0.52
54:B7:18:PHE:O	54:B7:19:ARG:C	2.45	0.52
1:CA:129:U:O2'	1:CA:130:A:H2'	2.09	0.52
1:CA:372:C:N4	1:CA:387:U:H2'	2.24	0.52
1:CA:914:A:O2'	1:CA:915:A:H5'	2.08	0.52
1:CA:963:G:H21	10:CJ:55:LYS:HZ3	1.55	0.52
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.08	0.52
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.74	0.52
12:CL:24:VAL:O	12:CL:24:VAL:CG1	2.57	0.52
16:CP:5:ARG:CB	16:CP:67:THR:OG1	2.53	0.52
16:CP:32:TYR:C	16:CP:32:TYR:HD2	2.13	0.52
19:CS:36:ARG:NH1	19:CS:53:ASN:HA	2.24	0.52
25:DA:142:A:H5"	25:DA:142(A):C:H5	1.74	0.52
25:DA:727:A:OP1	25:DA:1431:U:O2'	2.26	0.52
25:DA:2258:C:O5'	25:DA:2258:C:H6	1.92	0.52
27:DC:93:TYR:O	27:DC:94:VAL:HG13	2.09	0.52
29:DE:28:ALA:HB3	29:DE:93:VAL:HG22	1.91	0.52
32:DH:10:PRO:HD2	32:DH:50:VAL:O	2.08	0.52
32:DH:147:ASN:N	32:DH:147:ASN:ND2	2.57	0.52
33:DI:3:VAL:HB	33:DI:37:VAL:O	2.09	0.52
34:DN:67:LEU:HD12	34:DN:67:LEU:H	1.72	0.52
36:DP:79:ARG:NE	36:DP:109:GLY:HA3	2.25	0.52
41:DU:21:ALA:HB1	41:DU:24:TYR:CD1	2.44	0.52
41:DU:62:ILE:HD12	41:DU:76:TYR:OH	2.09	0.52
41:DU:79:PHE:O	41:DU:79:PHE:HD2	1.91	0.52
43:DW:27:LYS:HE3	43:DW:31:GLU:HG2	1.91	0.52
45:DY:63:LYS:HZ2	45:DY:63:LYS:HA	1.71	0.52
2:AB:14:GLY:O	2:AB:15:VAL:CG1	2.48	0.52
2:AB:91:PRO:HG3	2:AB:154:LEU:HD12	1.91	0.52
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.12	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:161:ASN:O	4:AD:165:MET:HG2	2.10	0.52
6:AF:82:ARG:HB3	6:AF:85:VAL:HG23	1.89	0.52
25:BA:74:A:H4'	25:BA:75:G:O5'	2.07	0.52
25:BA:1012:U:O4	34:BN:25:ARG:HD3	2.09	0.52
25:BA:1453:U:O4	38:BR:73:VAL:HG13	2.08	0.52
25:BA:2585:U:H5"	25:BA:2586:C:OP1	2.09	0.52
25:BA:2780:G:C4'	25:BA:2781:A:OP2	2.57	0.52
26:BB:3:C:H42	26:BB:118:G:H1	1.55	0.52
28:BD:248:SER:HB2	28:BD:250:TRP:HE3	1.74	0.52
29:BE:116:VAL:O	29:BE:117:MET:CB	2.53	0.52
33:BI:77:LEU:HD11	33:BI:104:GLN:CD	2.29	0.52
34:BN:11:PRO:HB3	34:BN:51:PHE:CE1	2.43	0.52
36:BP:79:ARG:CD	36:BP:109:GLY:O	2.57	0.52
38:BR:101:ALA:O	38:BR:102:GLU:HB2	2.08	0.52
39:BS:106:ARG:HH12	39:BS:108:GLY:HA3	1.73	0.52
53:B6:13:CYS:O	53:B6:21:TYR:HA	2.08	0.52
55:B8:23:VAL:CG1	55:B8:46:ARG:HB3	2.39	0.52
1:CA:533:A:O2'	1:CA:534:U:P	2.67	0.52
1:CA:818:G:O2'	1:CA:820:U:C4	2.62	0.52
1:CA:1405:G:OP2	58:CA:1741:PAR:O34	2.27	0.52
2:CB:82:ARG:NH2	2:CB:92:TYR:OH	2.42	0.52
3:CC:95:THR:O	3:CC:97:LYS:N	2.42	0.52
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.08	0.52
4:CD:151:LYS:HG2	4:CD:151:LYS:O	2.09	0.52
4:CD:172:PRO:CB	4:CD:187:ARG:HH22	2.22	0.52
5:CE:90:VAL:HG21	5:CE:121:LYS:HB3	1.92	0.52
9:CI:89:ASN:C	9:CI:91:ASP:H	2.13	0.52
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.74	0.52
13:CM:84:ILE:HD13	19:CS:65:ASN:CB	2.35	0.52
14:CN:59:ALA:O	14:CN:60:SER:CB	2.57	0.52
18:CR:19:LYS:O	18:CR:20:ALA:HB3	2.09	0.52
19:CS:11:VAL:HG21	19:CS:16:LEU:HD11	1.91	0.52
25:DA:2787:C:H1'	29:DE:61:ARG:HG3	1.91	0.52
27:DC:78:ALA:HB2	27:DC:82:LYS:HB2	1.91	0.52
29:DE:101:ARG:HH22	29:DE:171:GLU:HB2	1.71	0.52
32:DH:6:ARG:C	32:DH:8:PRO:HD2	2.30	0.52
32:DH:153:LYS:CB	32:DH:154:PRO:CD	2.72	0.52
35:DO:2:ILE:CD1	35:DO:6:THR:HG21	2.38	0.52
36:DP:49:ARG:HD2	55:D8:59:LYS:HG2	1.91	0.52
41:DU:104:GLN:CD	41:DU:104:GLN:N	2.62	0.52
1:AA:8:A:H62	4:AD:208:SER:HB2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:825:G:N2	1:AA:875:C:O2	2.40	0.52
1:AA:970:C:N4	9:AI:128:ARG:O	2.42	0.52
2:AB:102:LEU:HB2	2:AB:176:GLU:HG2	1.91	0.52
3:AC:18:TRP:HD1	14:AN:54:PRO:HA	1.71	0.52
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.91	0.52
3:AC:111:LEU:CD2	3:AC:146:ALA:HB2	2.38	0.52
5:AE:84:PHE:O	5:AE:86:ALA:N	2.42	0.52
6:AF:1:MET:HE2	6:AF:68:PRO:HB3	1.92	0.52
9:AI:32:ASP:O	9:AI:35:GLU:HB3	2.10	0.52
19:AS:47:HIS:O	19:AS:62:ILE:HG21	2.08	0.52
22:AV:28:U:H3	22:AV:44:A:H61	1.57	0.52
22:AV:55:U:H2'	22:AV:56:U:H5'	1.90	0.52
23:AW:56:C:C4	23:AW:57:G:N7	2.77	0.52
25:BA:221:A:C5	25:BA:266:G:N7	2.77	0.52
25:BA:311:A:O4'	25:BA:332:A:N9	2.42	0.52
25:BA:1792:G:H5'	28:BD:205:VAL:HG13	1.92	0.52
25:BA:2093:G:HO2'	25:BA:2198:A:H2	1.55	0.52
25:BA:2820:A:H61	29:BE:192:ASN:HB2	1.74	0.52
26:BB:40:U:O2'	26:BB:45:A:N6	2.42	0.52
28:BD:45:ASN:OD1	28:BD:46:GLN:N	2.42	0.52
29:BE:37:ARG:O	29:BE:38:THR:C	2.48	0.52
34:BN:7:LYS:O	34:BN:8:GLN:C	2.47	0.52
36:BP:59:LEU:HG	36:BP:59:LEU:O	2.09	0.52
39:BS:52:SER:O	39:BS:69:VAL:HG23	2.09	0.52
39:BS:85:VAL:N	39:BS:106:ARG:HB2	2.23	0.52
40:BT:29:ARG:CA	40:BT:29:ARG:HE	2.16	0.52
41:BU:61:TRP:CH2	41:BU:94:ASN:CB	2.91	0.52
45:BY:77:PRO:O	45:BY:78:ALA:CB	2.57	0.52
48:B1:46:LEU:HD23	48:B1:46:LEU:H	1.74	0.52
1:CA:66:G:C5'	1:CA:173:U:O4	2.58	0.52
2:CB:223:ILE:HA	2:CB:226:ARG:CD	2.39	0.52
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.09	0.52
5:CE:105:VAL:O	5:CE:108:ALA:CB	2.57	0.52
8:CH:28:ALA:CB	8:CH:57:PRO:HB2	2.39	0.52
10:CJ:54:PHE:CE2	10:CJ:55:LYS:HD2	2.45	0.52
12:CL:27:LEU:HG	12:CL:62:SER:CB	2.40	0.52
12:CL:60:LEU:N	12:CL:60:LEU:HD22	2.25	0.52
15:CO:32:LEU:O	15:CO:36:ILE:HG13	2.09	0.52
23:CW:69:G:H3'	23:CW:70:G:H5"	1.91	0.52
25:DA:26:G:H1'	25:DA:515:A:H61	1.74	0.52
25:DA:84:A:H61	25:DA:102:G:C2'	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:241:A:O3'	25:DA:242:G:H4'	2.08	0.52
25:DA:9273:G:O2'	25:DA:9274:U:H5'	2.09	0.52
25:DA:746:A:C6	25:DA:2611:U:H5"	2.44	0.52
25:DA:830:G:H1'	25:DA:2448:A:N1	2.24	0.52
25:DA:995:C:C6	41:DU:57:PHE:CD1	2.95	0.52
25:DA:1693:U:OP2	25:DA:1694:C:H5	1.90	0.52
25:DA:2111:C:H42	25:DA:2147:G:H22	1.56	0.52
25:DA:2637:U:H5"	29:DE:82:ARG:HH21	1.74	0.52
29:DE:110:GLY:HA2	29:DE:162:ALA:H	1.74	0.52
30:DF:124:LEU:HD12	30:DF:125:LEU:N	2.24	0.52
32:DH:18:GLU:O	32:DH:24:VAL:HA	2.10	0.52
32:DH:87:LEU:HD13	32:DH:148:ILE:CG2	2.38	0.52
35:DO:8:LEU:HD22	35:DO:8:LEU:N	2.23	0.52
36:DP:107:LYS:C	36:DP:109:GLY:N	2.63	0.52
39:DS:34:HIS:HB3	39:DS:53:SER:HB3	1.92	0.52
46:DZ:44:PHE:HA	46:DZ:47:VAL:CG1	2.39	0.52
54:D7:8:ASN:OD1	54:D7:8:ASN:C	2.48	0.52
1:AA:242:C:H3'	1:AA:242:C:C6	2.43	0.52
2:AB:11:LEU:HD11	2:AB:217:ARG:HH21	1.74	0.52
2:AB:118:LEU:CB	2:AB:142:LEU:HD13	2.40	0.52
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.09	0.52
3:AC:58:GLU:HB2	3:AC:65:ALA:CB	2.34	0.52
5:AE:76:ILE:HD11	5:AE:142:LEU:CD1	2.26	0.52
13:AM:3:ARG:NH1	31:BG:113:ARG:NE	2.56	0.52
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.10	0.52
17:AQ:34:LYS:HG2	17:AQ:35:VAL:N	2.23	0.52
23:AW:34:G:O6	24:AX:14:A:C4	2.62	0.52
25:BA:811:U:C4	36:BP:21:ARG:NH2	2.75	0.52
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.91	0.52
25:BA:1899:G:N2	25:BA:1902:C:H41	2.08	0.52
25:BA:2058:A:H5"	25:BA:2059:A:OP2	2.10	0.52
25:BA:2696:U:H2'	25:BA:2697:G:C8	2.44	0.52
28:BD:126:GLN:HG3	28:BD:129:ASN:ND2	2.25	0.52
31:BG:5:VAL:HG12	51:B4:51:TYR:CE1	2.43	0.52
34:BN:134:ARG:H	34:BN:135:PRO:CD	2.16	0.52
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.51	0.52
37:BQ:2:LEU:H	37:BQ:3:MET:HE3	1.75	0.52
41:BU:92:ARG:HE	41:BU:94:ASN:HB3	1.74	0.52
44:BX:10:ALA:HB1	44:BX:11:PRO:CD	2.39	0.52
45:BY:27:VAL:HA	45:BY:28:LYS:NZ	2.24	0.52
55:B8:16:ILE:HG22	55:B8:64:TYR:HD2	1.71	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:119:A:O4'	1:CA:120:A:C5	2.63	0.52
1:CA:129(A):G:H5"	1:CA:130:A:P	2.49	0.52
1:CA:380:G:N2	1:CA:383:A:OP2	2.41	0.52
2:CB:105:PHE:O	2:CB:107:THR:N	2.42	0.52
4:CD:9:CYS:SG	4:CD:22:LYS:CD	2.98	0.52
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.83	0.52
7:CG:60:LYS:NZ	7:CG:63:LYS:HB3	2.23	0.52
8:CH:39:LEU:CD1	8:CH:111:ILE:HD11	2.39	0.52
15:CO:39:LEU:O	15:CO:42:HIS:N	2.39	0.52
25:DA:2330:G:H1'	47:D0:41:ARG:CB	2.39	0.52
25:DA:2481:G:O2'	25:DA:2482:G:O5'	2.24	0.52
25:DA:2875:C:O2'	40:DT:5:ALA:HB3	2.10	0.52
28:DD:155:LEU:O	28:DD:156:ALA:HB3	2.10	0.52
31:DG:16:ARG:HH11	31:DG:16:ARG:CG	2.14	0.52
31:DG:106:LEU:HD12	31:DG:110:ALA:HB3	1.92	0.52
33:DI:82:ARG:HG3	33:DI:82:ARG:NH1	2.24	0.52
34:DN:42:TRP:HA	34:DN:42:TRP:HE3	1.75	0.52
34:DN:55:VAL:HG22	34:DN:126:PRO:HA	1.92	0.52
37:DQ:109:VAL:HG13	37:DQ:113:GLN:OE1	2.10	0.52
40:DT:68:TYR:N	40:DT:68:TYR:CD2	2.77	0.52
46:DZ:19:ARG:NH1	46:DZ:84:GLU:O	2.43	0.52
48:D1:64:ALA:HA	48:D1:67:ILE:CG1	2.39	0.52
1:AA:242:C:C6	1:AA:242:C:C3'	2.92	0.52
1:AA:501:C:H2'	1:AA:502:G:C8	2.45	0.52
1:AA:1066:C:C2'	1:AA:1067:A:O5'	2.58	0.52
1:AA:1265:G:H2'	1:AA:1266:G:C8	2.44	0.52
4:AD:31:CYS:C	4:AD:33:MET:N	2.63	0.52
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.25	0.52
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.09	0.52
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.90	0.52
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HA	1.91	0.52
11:AK:57:THR:HG22	11:AK:59:TYR:N	2.24	0.52
11:AK:87:THR:HG22	11:AK:88:GLY:N	2.24	0.52
20:AT:44:ALA:HB3	20:AT:91:LEU:HD12	1.91	0.52
23:AW:56:C:O4'	25:BA:2169:A:H1'	2.09	0.52
23:AY:34:G:C2'	23:AY:35:A:H5'	2.39	0.52
25:BA:99:U:H1'	25:BA:102:G:C2	2.44	0.52
25:BA:519:U:H2'	25:BA:520:G:H8	1.74	0.52
25:BA:671:C:OP1	36:BP:42:SER:O	2.27	0.52
25:BA:1024:G:C6	25:BA:1025:G:C6	2.97	0.52
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2391:G:O2'	25:BA:2424:C:N4	2.42	0.52
25:BA:2791:C:H1'	25:BA:2792:G:N7	2.25	0.52
28:BD:165:ILE:HG12	28:BD:175:LEU:CD2	2.39	0.52
30:BF:31:HIS:HB2	36:BP:9:ASN:ND2	2.24	0.52
32:BH:26:VAL:HG11	32:BH:76:VAL:HA	1.91	0.52
36:BP:34:GLY:O	36:BP:35:HIS:O	2.27	0.52
38:BR:45:ARG:HG3	38:BR:46:GLY:N	2.25	0.52
43:BW:22:ASP:HA	43:BW:25:ARG:HH12	1.75	0.52
45:BY:47:LYS:HD2	45:BY:47:LYS:N	2.25	0.52
46:BZ:29:TYR:HA	46:BZ:33:LEU:O	2.09	0.52
54:B7:12:ARG:NH2	54:B7:44:PRO:HB3	2.25	0.52
1:CA:17:U:H2'	1:CA:18:C:C6	2.43	0.52
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.09	0.52
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.45	0.52
2:CB:62:ALA:O	2:CB:65:GLY:N	2.39	0.52
2:CB:168:THR:O	2:CB:170:GLU:N	2.43	0.52
4:CD:162:LEU:O	4:CD:165:MET:HB2	2.10	0.52
6:CF:8:ILE:HA	6:CF:87:ARG:O	2.08	0.52
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.91	0.52
16:CP:11:SER:HB2	16:CP:14:ASN:HB3	1.90	0.52
22:CV:42:C:C2'	22:CV:43:G:O5'	2.57	0.52
25:DA:85:G:OP1	45:DY:8:LYS:HA	2.10	0.52
28:DD:65:ILE:HD11	28:DD:67:PHE:CD1	2.45	0.52
28:DD:243:GLY:O	28:DD:244:ARG:CB	2.57	0.52
30:DF:155:LEU:HD13	30:DF:174:VAL:HG22	1.92	0.52
31:DG:104:GLU:O	31:DG:108:ASN:HB2	2.09	0.52
33:DI:79:ILE:HB	33:DI:141:LYS:O	2.09	0.52
34:DN:58:ASP:O	34:DN:60:ILE:HG13	2.10	0.52
35:DO:98:VAL:HG12	35:DO:117:LEU:HD22	1.91	0.52
38:DR:8:ARG:HG3	38:DR:43:GLU:OE2	2.10	0.52
38:DR:60:LEU:O	38:DR:63:ARG:HB3	2.09	0.52
40:DT:30:VAL:HG11	40:DT:84:GLN:HG3	1.92	0.52
43:DW:22:ASP:HA	43:DW:25:ARG:HH12	1.74	0.52
46:DZ:9:TYR:HE1	46:DZ:61:LEU:HD13	1.74	0.52
53:D6:10:LEU:H	53:D6:10:LEU:HD22	1.73	0.52
1:AA:625:G:H4'	16:AP:16:HIS:HD2	1.75	0.52
1:AA:929:G:N2	1:AA:1388:C:O2	2.38	0.52
2:AB:71:VAL:HB	2:AB:164:VAL:HG13	1.92	0.52
4:AD:9:CYS:SG	4:AD:22:LYS:CE	2.98	0.52
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.23	0.52
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:8:ASN:OD1	17:AQ:34:LYS:HE2	2.10	0.52
17:AQ:59:ILE:HG22	17:AQ:60:ILE:N	2.24	0.52
20:AT:86:ARG:O	20:AT:90:GLN:HG3	2.08	0.52
25:BA:345:A:O2'	25:BA:347:A:N7	2.42	0.52
25:BA:555:U:O2'	25:BA:556:G:C8	2.62	0.52
25:BA:1450(A):C:O5'	25:BA:1450(A):C:H6	1.92	0.52
25:BA:2422:A:H4'	25:BA:2423:U:OP1	2.10	0.52
31:BG:51:ARG:HA	31:BG:51:ARG:NE	2.24	0.52
32:BH:109:PHE:CE1	32:BH:152:ARG:NE	2.77	0.52
33:BI:83:ALA:HB1	33:BI:88:ILE:HA	1.87	0.52
36:BP:9:ASN:CB	36:BP:10:PRO:HD2	2.40	0.52
36:BP:83:VAL:O	36:BP:83:VAL:HG13	2.09	0.52
41:BU:14:HIS:C	41:BU:16:LYS:N	2.62	0.52
46:BZ:149:SER:C	46:BZ:150:LEU:HD13	2.30	0.52
1:CA:100:C:H2'	1:CA:101:A:N9	2.24	0.52
1:CA:1059:C:OP2	3:CC:199:LYS:NZ	2.35	0.52
4:CD:10:ARG:HG3	4:CD:10:ARG:NH1	2.20	0.52
5:CE:110:LEU:CD2	5:CE:139:LEU:HD21	2.37	0.52
6:CF:21:LEU:O	6:CF:24:GLU:HG2	2.09	0.52
7:CG:69:VAL:O	7:CG:69:VAL:CG1	2.57	0.52
7:CG:102:ARG:HG2	7:CG:106:GLN:OE1	2.09	0.52
8:CH:84:ARG:HG3	8:CH:85:ARG:N	2.21	0.52
10:CJ:58:ASP:O	10:CJ:60:ARG:CG	2.58	0.52
11:CK:67:ASP:O	11:CK:71:LYS:HG3	2.08	0.52
13:CM:15:VAL:HG12	13:CM:19:LEU:HD21	1.92	0.52
14:CN:15:LYS:HD2	14:CN:16:PHE:CE2	2.44	0.52
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.29	0.52
19:CS:45:VAL:C	19:CS:62:ILE:CG2	2.78	0.52
20:CT:53:LEU:HG	20:CT:102:GLY:H	1.75	0.52
22:CV:20:G:C4	22:CV:58:A:H2	2.27	0.52
25:DA:9273:G:C2'	25:DA:9274:U:H5'	2.39	0.52
25:DA:340:A:H2'	25:DA:341:G:O5'	2.10	0.52
25:DA:857:C:OP2	47:D0:77:ARG:NH2	2.42	0.52
25:DA:1819:A:H5"	25:DA:1820:U:H5"	1.91	0.52
25:DA:2287:A:HO2'	25:DA:2288:A:P	2.32	0.52
27:DC:83:ILE:HD11	27:DC:95:GLY:O	2.09	0.52
35:DO:87:ILE:HG22	35:DO:88:ASN:O	2.09	0.52
41:DU:92:ARG:NE	42:DV:11:GLN:HB2	2.24	0.52
45:DY:44:ILE:CD1	45:DY:45:VAL:HG23	2.40	0.52
46:DZ:13:GLU:HA	46:DZ:13:GLU:OE2	2.10	0.52
55:D8:51:ALA:HA	55:D8:54:GLU:OE2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:511:C:O2'	1:AA:512:U:OP2	2.23	0.52
3:AC:58:GLU:N	3:AC:65:ALA:HB3	2.20	0.52
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.08	0.52
5:AE:127:ASN:OD1	5:AE:127:ASN:C	2.47	0.52
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.92	0.52
9:AI:29:ASN:OD1	9:AI:64:THR:HA	2.08	0.52
23:AW:49:C:N4	23:AW:65:G:H1	2.08	0.52
25:BA:443:A:N7	30:BF:45:ARG:HD2	2.24	0.52
25:BA:1266:G:O2'	25:BA:1267:U:OP2	2.27	0.52
25:BA:1441:G:H2'	25:BA:1442:G:H8	1.74	0.52
25:BA:1943:U:H1'	25:BA:1945:G:H5'	1.90	0.52
25:BA:2078:C:C4	25:BA:2079:U:C4	2.98	0.52
36:BP:148:LEU:HD23	36:BP:148:LEU:N	2.24	0.52
37:BQ:26:TYR:CD1	37:BQ:28:ALA:HB2	2.45	0.52
39:BS:15:ARG:N	39:BS:15:ARG:CD	2.68	0.52
42:BV:20:LEU:H	42:BV:20:LEU:HD12	1.74	0.52
45:BY:7:VAL:HB	45:BY:8:LYS:HD2	1.91	0.52
54:B7:31:LEU:O	54:B7:35:ARG:HB2	2.10	0.52
1:CA:872:A:C4	1:CA:874:G:N7	2.78	0.52
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.45	0.52
2:CB:19:HIS:CE1	2:CB:189:ASP:OD2	2.62	0.52
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.91	0.52
8:CH:85:ARG:HD3	8:CH:85:ARG:C	2.30	0.52
9:CI:71:SER:O	9:CI:74:ILE:HB	2.09	0.52
10:CJ:40:LEU:CD2	10:CJ:69:ASN:HB3	2.39	0.52
19:CS:16:LEU:H	19:CS:16:LEU:HD13	1.75	0.52
25:DA:205:G:O2'	25:DA:206:U:OP2	2.28	0.52
25:DA:614(A):U:H3'	25:DA:614(A):U:H6	1.74	0.52
25:DA:792:G:H5"	25:DA:793:A:H5'	1.91	0.52
25:DA:889:C:H1'	25:DA:890:A:O4'	2.09	0.52
25:DA:2751:G:O5'	25:DA:2751:G:C8	2.57	0.52
27:DC:86:ALA:CB	27:DC:94:VAL:HG11	2.40	0.52
28:DD:267:SER:HA	28:DD:270:ILE:HG13	1.92	0.52
29:DE:36:ARG:NH1	29:DE:86:PRO:HD2	2.24	0.52
31:DG:33:ARG:O	31:DG:162:THR:HG23	2.10	0.52
34:DN:18:ALA:HB1	34:DN:21:LYS:HB2	1.92	0.52
37:DQ:51:ARG:HH11	37:DQ:51:ARG:CB	2.21	0.52
40:DT:92:GLY:C	40:DT:94:ALA:N	2.63	0.52
41:DU:61:TRP:CZ3	41:DU:94:ASN:HB2	2.45	0.52
43:DW:111:HIS:CG	43:DW:112:GLY:N	2.77	0.52
48:D1:45:ASN:ND2	48:D1:47:GLN:NE2	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D4:20:ASN:ND2	51:D4:21:VAL:N	2.56	0.52
1:AA:1503:A:HO2'	1:AA:1504:G:P	2.33	0.52
3:AC:84:ILE:O	3:AC:88:ARG:HG3	2.10	0.52
4:AD:20:TYR:HA	4:AD:26:CYS:SG	2.50	0.52
7:AG:155:ARG:O	7:AG:156:TRP:O	2.28	0.52
11:AK:33:THR:CB	11:AK:38:ASN:O	2.54	0.52
11:AK:44:SER:H	11:AK:47:VAL:HG23	1.74	0.52
16:AP:21:VAL:CG1	16:AP:34:GLU:HB3	2.40	0.52
20:AT:50:GLU:N	20:AT:100:ILE:HG12	2.25	0.52
25:BA:29:U:H2'	25:BA:30:G:C8	2.45	0.52
25:BA:1494:A:N3	25:BA:1494:A:H3'	2.25	0.52
25:BA:1548:C:C4	25:BA:1549:C:N4	2.77	0.52
25:BA:1929:G:C4'	25:BA:1930:G:OP1	2.48	0.52
25:BA:2011:U:OP1	43:BW:42:ARG:NH1	2.43	0.52
28:BD:33:LEU:HD12	28:BD:33:LEU:N	2.21	0.52
31:BG:13:GLU:O	31:BG:13:GLU:HG3	2.10	0.52
31:BG:138:GLN:OE1	31:BG:153:ARG:N	2.42	0.52
31:BG:138:GLN:HB3	31:BG:153:ARG:O	2.10	0.52
35:BO:93:PRO:HB3	35:BO:114:ILE:CD1	2.39	0.52
36:BP:101:VAL:HG13	36:BP:102:ARG:N	2.25	0.52
39:BS:16:ASN:O	39:BS:19:LYS:HB3	2.10	0.52
39:BS:42:ASP:C	39:BS:44:LYS:H	2.13	0.52
42:BV:39:LEU:HB3	42:BV:40:LEU:HD23	1.91	0.52
43:BW:12:ILE:O	43:BW:12:ILE:HG23	2.10	0.52
1:CA:977:A:H2'	1:CA:978:A:H5"	1.92	0.52
1:CA:1063:C:N3	1:CA:1064:G:C6	2.78	0.52
5:CE:51:VAL:O	5:CE:54:ALA:HB3	2.09	0.52
7:CG:43:PHE:HD1	7:CG:43:PHE:O	1.92	0.52
10:CJ:82:ILE:HD12	10:CJ:86:MET:HE1	1.92	0.52
18:CR:70:ILE:HG23	18:CR:79:LEU:HD12	1.91	0.52
21:CU:24:ARG:O	21:CU:25:LYS:O	2.28	0.52
25:DA:605:C:H1'	25:DA:657:U:O2'	2.10	0.52
25:DA:671:C:OP1	36:DP:42:SER:O	2.27	0.52
25:DA:1754:C:P	40:DT:96:ARG:HH12	2.33	0.52
25:DA:2611:U:O2'	52:D5:3:LYS:HE2	2.10	0.52
30:DF:89:VAL:HG12	30:DF:90:PHE:N	2.25	0.52
32:DH:10:PRO:O	32:DH:11:VAL:CG1	2.56	0.52
32:DH:161:GLY:O	32:DH:163:TYR:HD1	1.93	0.52
36:DP:79:ARG:CD	36:DP:109:GLY:O	2.57	0.52
39:DS:7:TYR:CE2	39:DS:91:PRO:HG3	2.44	0.52
39:DS:60:GLY:O	39:DS:61:ASN:CB	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:28:VAL:HG13	40:DT:46:GLU:CA	2.34	0.52
46:DZ:31:ARG:HB3	46:DZ:31:ARG:NH1	2.25	0.52
49:D2:5:GLU:HB3	49:D2:9:GLN:HE22	1.75	0.52
49:D2:14:ARG:HH11	49:D2:14:ARG:HG3	1.75	0.52
1:AA:407:G:H1	1:AA:435:C:N4	2.04	0.52
1:AA:1139:G:H5'	1:AA:1140:C:OP1	2.09	0.52
1:AA:1329:A:H5'	13:AM:29:ARG:HE	1.74	0.52
2:AB:118:LEU:O	2:AB:122:PHE:N	2.37	0.52
3:AC:182:ILE:CG1	3:AC:203:PHE:HD1	2.23	0.52
6:AF:21:LEU:O	6:AF:23:LYS:N	2.42	0.52
7:AG:72:ARG:HB3	7:AG:142:GLU:OE2	2.10	0.52
10:AJ:24:VAL:HG12	10:AJ:24:VAL:O	2.09	0.52
10:AJ:33:GLN:H	10:AJ:75:ILE:HD11	1.75	0.52
13:AM:118:ALA:HB1	22:AV:29:C:O3'	2.09	0.52
25:BA:72:U:H1'	49:B2:58:ALA:HA	1.91	0.52
25:BA:196:A:N3	25:BA:196:A:C2'	2.73	0.52
25:BA:457:A:H1'	25:BA:459:U:C6	2.45	0.52
25:BA:2089:U:H3	25:BA:2230:G:H1	1.58	0.52
25:BA:2503:A:N3	25:BA:2503:A:C5'	2.73	0.52
25:BA:2581:G:H5"	25:BA:2582:G:OP1	2.10	0.52
25:BA:2823:A:OP1	29:BE:113:PHE:HB2	2.09	0.52
26:BB:6:C:H4'	26:BB:28:C:H5'	1.91	0.52
27:BC:36:LYS:HZ3	27:BC:36:LYS:HB2	1.75	0.52
28:BD:63:ARG:HD3	28:BD:63:ARG:N	2.24	0.52
30:BF:2:LYS:H	30:BF:2:LYS:CD	2.12	0.52
30:BF:182:ASN:OD1	30:BF:185:ASP:N	2.42	0.52
31:BG:39:ILE:HD12	31:BG:40:ASN:N	2.24	0.52
32:BH:107:VAL:O	32:BH:109:PHE:CE1	2.63	0.52
34:BN:40:PRO:HA	41:BU:64:ARG:HG2	1.92	0.52
35:BO:119:PRO:O	40:BT:68:TYR:HE1	1.93	0.52
36:BP:47:ASP:OD1	36:BP:49:ARG:HG3	2.09	0.52
36:BP:79:ARG:NE	36:BP:109:GLY:HA3	2.25	0.52
41:BU:61:TRP:CZ2	41:BU:94:ASN:CG	2.83	0.52
42:BV:19:LYS:CD	42:BV:94:LEU:HB2	2.39	0.52
46:BZ:141:VAL:HA	46:BZ:144:LEU:HD23	1.91	0.52
55:B8:23:VAL:CG1	55:B8:46:ARG:HD3	2.36	0.52
55:B8:52:LYS:N	55:B8:53:PRO:HD2	2.25	0.52
1:CA:62:U:O2'	1:CA:379:C:O2	2.25	0.52
1:CA:452:A:O2'	1:CA:453:A:O5'	2.27	0.52
1:CA:1054:C:O2	1:CA:1054:C:H2'	2.09	0.52
2:CB:93:VAL:O	2:CB:93:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:13:ARG:O	4:CD:15:GLU:N	2.42	0.52
5:CE:107:ARG:HG3	5:CE:111:GLU:HG3	1.92	0.52
17:CQ:70:ARG:O	17:CQ:71:PHE:HD2	1.93	0.52
22:CV:51:U:C4	22:CV:52:C:N4	2.78	0.52
22:CV:64:G:C2'	22:CV:65:G:H5'	2.39	0.52
25:DA:767:U:O5'	25:DA:767:U:H6	1.92	0.52
25:DA:995:C:O2	25:DA:995:C:C2'	2.54	0.52
25:DA:2576:G:O2'	25:DA:2579:C:OP2	2.24	0.52
25:DA:2805:G:N2	25:DA:2893:G:O6	2.39	0.52
26:DB:44:G:H1'	26:DB:47:C:H42	1.74	0.52
29:DE:81:ILE:O	29:DE:81:ILE:CG2	2.57	0.52
31:DG:99:MET:HG3	31:DG:100:TRP:N	2.25	0.52
31:DG:166:ASP:HA	31:DG:169:ALA:HB3	1.91	0.52
32:DH:42:ARG:O	32:DH:42:ARG:HG3	2.09	0.52
33:DI:110:ASP:HB2	33:DI:111:PRO:CA	2.40	0.52
33:DI:112:LYS:O	33:DI:113:ARG:HB2	2.09	0.52
36:DP:115:LEU:CD2	36:DP:131:SER:HB2	2.40	0.52
37:DQ:141:GLN:HA	46:DZ:53:ILE:HG22	1.91	0.52
38:DR:1:MET:O	38:DR:2:ARG:CB	2.57	0.52
38:DR:28:LEU:HD13	38:DR:28:LEU:C	2.30	0.52
40:DT:32:TYR:CB	40:DT:81:PRO:HB3	2.30	0.52
41:DU:91:ASP:CG	41:DU:96:ALA:HB2	2.30	0.52
45:DY:47:LYS:HG2	45:DY:60:PHE:CD1	2.45	0.52
45:DY:48:ALA:H	45:DY:60:PHE:HA	1.75	0.52
46:DZ:22:GLY:HA2	46:DZ:41:LEU:CD1	2.39	0.52
49:D2:53:LEU:O	49:D2:56:GLN:HB2	2.10	0.52
1:AA:327:A:N3	1:AA:329:A:C8	2.78	0.52
1:AA:693:G:O2'	7:AG:82:GLY:HA3	2.09	0.52
1:AA:913:A:O2'	1:AA:914:A:OP2	2.28	0.52
1:AA:1054:C:N4	23:AY:34:G:N9	2.58	0.52
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.45	0.52
6:AF:44:GLY:HA2	6:AF:59:TYR:CZ	2.45	0.52
7:AG:41:ARG:O	7:AG:42:ILE:C	2.48	0.52
11:AK:62:GLN:HG2	11:AK:63:LEU:N	2.25	0.52
13:AM:91:ARG:NH1	13:AM:96:LEU:HD22	2.25	0.52
18:AR:36:ASN:O	18:AR:39:VAL:HG23	2.10	0.52
19:AS:12:ASP:HB3	19:AS:14:HIS:HE1	1.68	0.52
20:AT:56:MET:CE	20:AT:85:MET:CE	2.87	0.52
25:BA:243:U:OP2	55:B8:8:LYS:HE3	2.10	0.52
25:BA:323:G:H3'	30:BF:169:ASN:HD21	1.75	0.52
25:BA:890:A:C5	25:BA:892:G:N7	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2119:A:N6	25:BA:2171:A:C6	2.77	0.52
25:BA:2418:A:OP2	55:B8:29:LYS:CE	2.58	0.52
25:BA:2468:G:H2'	25:BA:2476:A:C8	2.44	0.52
26:BB:17:C:H2'	26:BB:18:G:O4'	2.09	0.52
27:BC:39:GLU:CD	27:BC:70:LYS:HZ3	2.13	0.52
29:BE:23:VAL:HA	29:BE:184:VAL:O	2.09	0.52
31:BG:39:ILE:HD12	31:BG:40:ASN:H	1.75	0.52
31:BG:42:GLY:N	31:BG:43:LEU:HD13	2.25	0.52
33:BI:77:LEU:HD12	33:BI:104:GLN:HE22	1.72	0.52
33:BI:130:TYR:HB3	33:BI:136:VAL:HG13	1.92	0.52
34:BN:134:ARG:N	34:BN:135:PRO:CD	2.72	0.52
40:BT:27:THR:O	40:BT:88:ILE:HG12	2.10	0.52
41:BU:6:THR:O	41:BU:9:VAL:HG23	2.10	0.52
41:BU:12:ARG:HA	41:BU:15:LYS:CD	2.40	0.52
45:BY:13:VAL:HB	45:BY:72:VAL:HG13	1.91	0.52
56:B9:7:VAL:HG13	56:B9:34:GLN:NE2	2.25	0.52
1:CA:269:C:H2'	1:CA:270:A:C8	2.45	0.52
1:CA:748:C:C4'	1:CA:749:C:O5'	2.57	0.52
12:CL:64:TYR:O	12:CL:65:GLU:HB2	2.10	0.52
19:CS:6:LYS:CG	19:CS:7:LYS:HD3	2.36	0.52
22:CV:30:G:C6	22:CV:43:G:N1	2.78	0.52
23:CW:36:A:C2	23:CW:37:A:N3	2.78	0.52
25:DA:372:G:OP1	48:D1:69:LYS:NZ	2.44	0.52
25:DA:1615:C:C6	25:DA:1617:C:C4	2.98	0.52
25:DA:1820:U:HO2'	25:DA:1821:A:P	2.33	0.52
25:DA:1820:U:O2	28:DD:202:LYS:HB3	2.10	0.52
27:DC:40:THR:HG21	27:DC:215:THR:CB	2.41	0.52
31:DG:136:ARG:O	31:DG:137:GLU:C	2.47	0.52
32:DH:26:VAL:O	32:DH:27:LYS:O	2.28	0.52
32:DH:143:GLN:HE22	32:DH:147:ASN:ND2	2.04	0.52
37:DQ:115:MET:O	37:DQ:119:ARG:HB2	2.10	0.52
38:DR:28:LEU:HA	38:DR:34:ILE:HG13	1.91	0.52
38:DR:109:ALA:O	38:DR:111:LEU:HD22	2.09	0.52
40:DT:68:TYR:N	40:DT:68:TYR:HD2	2.08	0.52
43:DW:18:ARG:HG2	43:DW:76:VAL:HG12	1.92	0.52
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.10	0.52
47:D0:46:LYS:HB3	47:D0:47:PRO:HD2	1.91	0.52
1:AA:251:G:C4'	1:AA:252:U:O5'	2.51	0.51
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.92	0.51
4:AD:168:ARG:HH21	6:CF:18:GLN:NE2	2.09	0.51
8:AH:48:TYR:HD1	8:AH:49:GLU:N	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:125:PHE:CD1	11:AK:125:PHE:N	2.75	0.51
19:AS:6:LYS:CD	19:AS:7:LYS:CD	2.86	0.51
19:AS:45:VAL:C	19:AS:47:HIS:N	2.63	0.51
23:AW:17:C:N4	25:BA:2181:G:H5'	2.19	0.51
25:BA:1364:G:N7	48:B1:3:LYS:HE2	2.25	0.51
25:BA:1542:A:O2'	25:BA:1543:C:O2	2.28	0.51
25:BA:2030:A:H5'	25:BA:2031:A:OP1	2.10	0.51
25:BA:2282:G:O2'	25:BA:2283:C:OP2	2.28	0.51
25:BA:2712:U:O2'	25:BA:2712(A):A:P	2.68	0.51
25:BA:2873:A:H1'	38:BR:6:SER:HB3	1.90	0.51
28:BD:13:ARG:HG2	28:BD:13:ARG:O	2.10	0.51
31:BG:33:ARG:H	31:BG:162:THR:HG23	1.75	0.51
31:BG:110:ALA:O	31:BG:111:LEU:C	2.49	0.51
31:BG:133:LEU:HD11	31:BG:157:ILE:HD11	1.92	0.51
37:BQ:10:ARG:HH11	37:BQ:10:ARG:HG2	1.75	0.51
37:BQ:16:ARG:HG2	37:BQ:18:LYS:HD3	1.90	0.51
39:BS:101:LEU:HD22	39:BS:101:LEU:O	2.10	0.51
40:BT:31:SER:O	40:BT:32:TYR:CB	2.58	0.51
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.30	0.51
45:BY:89:PHE:O	45:BY:90:LEU:HB3	2.10	0.51
46:BZ:111:VAL:O	46:BZ:111:VAL:HG13	2.09	0.51
48:B1:29:GLY:O	48:B1:30:VAL:CG2	2.58	0.51
1:CA:624:C:O3'	16:CP:10:GLY:HA2	2.10	0.51
1:CA:950:U:O4'	1:CA:971:G:C6	2.63	0.51
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.75	0.51
23:CW:16:U:C4	23:CW:18:G:H3'	2.44	0.51
25:DA:247:G:H4'	25:DA:386:G:C5	2.45	0.51
25:DA:674:G:H1'	30:DF:74:ARG:HD3	1.92	0.51
25:DA:1049:C:H2'	25:DA:1050:A:H5"	1.92	0.51
25:DA:1578:U:H2'	25:DA:1579:A:H5'	1.92	0.51
25:DA:1786:A:O2'	25:DA:1938:A:N6	2.44	0.51
25:DA:2562:U:H1'	35:DO:23:ARG:NH1	2.26	0.51
27:DC:82:LYS:O	27:DC:83:ILE:HD13	2.10	0.51
27:DC:169:GLY:O	27:DC:170:ALA:HB3	2.09	0.51
28:DD:31:LYS:HZ2	28:DD:102:LYS:HZ2	1.58	0.51
29:DE:101:ARG:HB2	29:DE:201:THR:HG22	1.92	0.51
32:DH:25:LYS:HG2	32:DH:34:GLU:HG2	1.92	0.51
32:DH:123:PHE:HE2	32:DH:133:VAL:HG22	1.75	0.51
33:DI:101:LEU:C	33:DI:101:LEU:HD23	2.30	0.51
33:DI:114:LEU:O	33:DI:115:ALA:HB2	2.10	0.51
34:DN:24:GLY:O	34:DN:28:THR:HB	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DQ:141:GLN:HA	46:DZ:53:ILE:CG2	2.41	0.51
40:DT:40:THR:O	40:DT:41:ARG:CB	2.56	0.51
1:AA:255:G:H1'	17:AQ:16:GLN:OE1	2.10	0.51
7:AG:60:LYS:HA	7:AG:60:LYS:HZ3	1.73	0.51
15:AO:55:GLY:O	15:AO:58:MET:HB2	2.11	0.51
19:AS:14:HIS:CD2	19:AS:15:LEU:CD2	2.93	0.51
25:BA:396:G:O2'	48:B1:43:TYR:O	2.28	0.51
25:BA:811:U:O4'	25:BA:1251:C:O4'	2.29	0.51
25:BA:1109:C:H3'	25:BA:1110:G:O4'	2.10	0.51
25:BA:1452:A:N6	25:BA:2703:C:C5	2.78	0.51
25:BA:1601:G:C5	25:BA:1602:U:C4	2.98	0.51
25:BA:2073:C:H5"	28:BD:229:VAL:HG22	1.92	0.51
25:BA:2562:U:H1'	35:BO:23:ARG:HH11	1.73	0.51
25:BA:2691:C:N4	25:BA:2719:G:N2	2.58	0.51
28:BD:253:GLN:HB2	28:BD:257:LEU:HB2	1.92	0.51
30:BF:180:GLY:O	30:BF:182:ASN:ND2	2.43	0.51
31:BG:43:LEU:HD23	31:BG:88:ILE:HD11	1.92	0.51
34:BN:125:GLY:CA	34:BN:126:PRO:O	2.58	0.51
38:BR:20:LEU:HD21	38:BR:40:LYS:HD3	1.92	0.51
41:BU:14:HIS:NE2	41:BU:32:PHE:CD2	2.78	0.51
41:BU:92:ARG:HH21	41:BU:94:ASN:CB	2.23	0.51
42:BV:5:VAL:HG21	42:BV:35:LEU:HB3	1.92	0.51
45:BY:20:TYR:HE1	45:BY:42:VAL:CA	2.23	0.51
46:BZ:6:LYS:NZ	46:BZ:43:GLU:OE1	2.43	0.51
47:B0:25:ARG:HD2	47:B0:29:GLN:HE22	1.75	0.51
55:B8:4:MET:SD	55:B8:61:LEU:HD22	2.50	0.51
1:CA:411:A:N7	1:CA:429:U:O4	2.43	0.51
2:CB:173:ALA:O	2:CB:176:GLU:N	2.44	0.51
2:CB:213:LEU:HD23	2:CB:214:ILE:CG1	2.32	0.51
3:CC:84:ILE:O	3:CC:84:ILE:HG12	2.09	0.51
7:CG:76:ARG:O	7:CG:87:VAL:HB	2.10	0.51
7:CG:107:ALA:CB	7:CG:134:ALA:HB2	2.40	0.51
11:CK:41:THR:HG22	11:CK:42:TRP:N	2.26	0.51
11:CK:114:VAL:HG22	11:CK:114:VAL:O	2.09	0.51
20:CT:29:LYS:HD2	20:CT:66:ALA:CA	2.40	0.51
20:CT:45:GLN:O	20:CT:47:GLY:N	2.42	0.51
25:DA:464:U:H4'	54:D7:5:TRP:CZ3	2.45	0.51
25:DA:775:G:H4'	25:DA:776:G:O5'	2.10	0.51
25:DA:914:C:C2'	25:DA:915:C:O5'	2.58	0.51
25:DA:1174:A:H5"	25:DA:1175:U:H5'	1.92	0.51
25:DA:1287:A:N6	25:DA:1288:U:O4	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2481:G:HO2'	25:DA:2482:G:C5'	2.24	0.51
25:DA:2689:U:H4'	25:DA:2690:C:OP2	2.10	0.51
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.10	0.51
28:DD:79:VAL:CG2	28:DD:111:LEU:HD11	2.39	0.51
28:DD:106:ILE:HD11	28:DD:157:ARG:O	2.10	0.51
29:DE:34:VAL:O	29:DE:35:GLN:CB	2.57	0.51
33:DI:110:ASP:HB3	33:DI:112:LYS:HG3	1.91	0.51
39:DS:26:LEU:HG	39:DS:39:ILE:HD13	1.92	0.51
53:D6:25:LYS:HD3	55:D8:34:TRP:CZ2	2.46	0.51
55:D8:50:LEU:CD1	55:D8:51:ALA:H	2.16	0.51
1:AA:1299:A:N7	1:AA:1301:U:O2	2.43	0.51
1:AA:1320:C:H42	19:AS:36:ARG:HG3	1.74	0.51
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.45	0.51
2:AB:87:ARG:NH2	2:AB:233:SER:OG	2.43	0.51
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.91	0.51
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.11	0.51
5:AE:80:ILE:HD11	5:AE:91:LEU:HD23	1.93	0.51
5:AE:96:PRO:HA	5:AE:117:ASP:OD1	2.10	0.51
6:AF:44:GLY:HA2	6:AF:59:TYR:CE2	2.46	0.51
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	2.26	0.51
20:AT:44:ALA:HA	20:AT:92:LEU:CD2	2.40	0.51
25:BA:749:C:HO2'	25:BA:1617:C:HO2'	1.57	0.51
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.26	0.51
25:BA:2517:C:O2'	25:BA:2518:A:H8	1.94	0.51
31:BG:161:THR:CG2	31:BG:162:THR:N	2.73	0.51
32:BH:124:GLU:O	32:BH:131:VAL:HG13	2.11	0.51
37:BQ:137:TYR:CZ	46:BZ:81:ARG:NH1	2.75	0.51
42:BV:20:LEU:HB3	42:BV:21:ARG:HD3	1.92	0.51
45:BY:2:ARG:C	45:BY:4:LYS:H	2.13	0.51
48:B1:3:LYS:CG	48:B1:4:VAL:N	2.73	0.51
1:CA:490:G:H2'	1:CA:491:G:C8	2.45	0.51
2:CB:36:ARG:HE	2:CB:36:ARG:N	2.09	0.51
3:CC:140:ARG:CG	3:CC:140:ARG:NH1	2.71	0.51
7:CG:89:MET:HE3	7:CG:155:ARG:HG2	1.91	0.51
10:CJ:47:PHE:CE2	14:CN:37:PHE:HE2	2.28	0.51
11:CK:12:ARG:HD3	11:CK:13:GLN:N	2.25	0.51
11:CK:21:ILE:HA	11:CK:30:VAL:HA	1.92	0.51
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.40	0.51
13:CM:115:LYS:O	13:CM:117:VAL:CG1	2.58	0.51
20:CT:96:GLY:O	20:CT:97:ALA:O	2.29	0.51
25:DA:474:G:O2'	25:DA:475:U:OP1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:12:C:N4	47:D0:75:LEU:HD12	2.24	0.51
30:DF:155:LEU:HD12	30:DF:174:VAL:O	2.10	0.51
31:DG:41:GLN:HB3	31:DG:43:LEU:HD13	1.93	0.51
31:DG:146:TYR:C	31:DG:148:MET:H	2.13	0.51
33:DI:1:MET:HG3	33:DI:23:PRO:CB	2.41	0.51
33:DI:127:VAL:HG13	33:DI:139:GLN:HB3	1.92	0.51
34:DN:103:VAL:O	34:DN:106:MET:N	2.34	0.51
36:DP:47:ASP:OD1	36:DP:49:ARG:HG3	2.09	0.51
43:DW:1:MET:HA	43:DW:1:MET:HE3	1.91	0.51
46:DZ:57:ILE:CG2	46:DZ:58:VAL:N	2.74	0.51
46:DZ:166:SER:CB	46:DZ:168:GLU:HB2	2.40	0.51
48:D1:83:GLU:CD	48:D1:83:GLU:N	2.61	0.51
52:D5:45:VAL:HG13	52:D5:50:GLY:HA2	1.93	0.51
1:AA:251:G:C2	1:AA:266:G:C6	2.98	0.51
1:AA:585:G:H4'	12:AL:8:ASN:OD1	2.11	0.51
1:AA:674:G:H2'	1:AA:675:A:H8	1.76	0.51
5:AE:20:GLN:HG2	5:AE:21:ALA:N	2.23	0.51
6:AF:97:PHE:HD2	18:AR:31:LEU:HD21	1.74	0.51
7:AG:15:ASP:O	7:AG:19:GLY:N	2.43	0.51
9:AI:36:TYR:CD2	9:AI:37:PHE:CE2	2.99	0.51
9:AI:99:LEU:HD13	9:AI:99:LEU:O	2.10	0.51
22:AV:57:C:O5'	22:AV:57:C:H6	1.93	0.51
23:AW:35:A:H8	23:AW:35:A:O5'	1.93	0.51
25:BA:74:A:H4'	25:BA:75:G:OP2	2.10	0.51
25:BA:614:U:O2'	25:BA:614(C):A:C8	2.62	0.51
25:BA:974:G:N1	25:BA:989:G:C4	2.78	0.51
25:BA:1275:A:C4	38:BR:16:HIS:HD2	2.28	0.51
25:BA:1453:U:C6	38:BR:63:ARG:HD3	2.46	0.51
25:BA:1965:C:N3	25:BA:1966:A:N6	2.58	0.51
25:BA:2365:G:H4'	47:B0:60:PHE:CZ	2.45	0.51
27:BC:47:LEU:HD13	27:BC:207:THR:CB	2.40	0.51
30:BF:34:TRP:CE3	30:BF:35:GLU:HG2	2.45	0.51
31:BG:44:GLY:HA2	31:BG:88:ILE:CG2	2.28	0.51
33:BI:56:LYS:CG	33:BI:57:ARG:N	2.74	0.51
34:BN:97:ARG:O	34:BN:100:GLU:HB2	2.10	0.51
38:BR:103:ARG:CB	38:BR:109:ALA:C	2.78	0.51
46:BZ:25:PRO:HA	46:BZ:38:TYR:HB2	1.93	0.51
46:BZ:63:ASP:C	46:BZ:65:GLN:H	2.13	0.51
48:B1:58:ILE:HD11	48:B1:60:PHE:CE2	2.45	0.51
49:B2:65:ASN:HB3	49:B2:69:ARG:HH22	1.74	0.51
53:B6:28:ARG:HA	53:B6:32:ASN:CB	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:100:C:C2	1:CA:101:A:C5	2.98	0.51
1:CA:667:G:H4'	15:CO:51:HIS:CE1	2.45	0.51
1:CA:1085:U:H4'	1:CA:1086:U:OP1	2.10	0.51
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.31	0.51
12:CL:8:ASN:OD1	17:CQ:34:LYS:HE2	2.11	0.51
13:CM:14:ARG:CA	13:CM:44:ARG:HA	2.37	0.51
13:CM:44:ARG:O	13:CM:46:LYS:N	2.42	0.51
18:CR:56:THR:OG1	18:CR:58:LEU:CD1	2.59	0.51
23:CW:9:A:O4'	23:CW:46:G:N2	2.43	0.51
25:DA:1175:U:H4'	25:DA:1176:G:O5'	2.10	0.51
25:DA:1418:G:OP1	25:DA:1588:C:O2'	2.29	0.51
25:DA:2610:C:H4'	25:DA:2611:U:OP2	2.09	0.51
26:DB:48:A:H4'	39:DS:95:HIS:CD2	2.46	0.51
29:DE:52:LEU:HD23	29:DE:76:ARG:HB2	1.92	0.51
29:DE:174:ASP:O	29:DE:183:LEU:HB2	2.11	0.51
30:DF:118:ALA:HA	30:DF:123:LEU:HB3	1.92	0.51
32:DH:109:PHE:HB2	32:DH:111:HIS:O	2.10	0.51
33:DI:31:LEU:HB2	33:DI:32:PRO:HD3	1.93	0.51
36:DP:101:VAL:HG23	36:DP:107:LYS:H	1.76	0.51
41:DU:11:ARG:O	41:DU:11:ARG:HG2	2.10	0.51
52:D5:36:CYS:SG	52:D5:37:LYS:N	2.83	0.51
56:D9:14:CYS:SG	56:D9:25:VAL:HG13	2.50	0.51
1:AA:473:G:H5"	16:AP:81:ARG:HH21	1.75	0.51
1:AA:532:A:H2'	1:AA:533:A:OP1	2.10	0.51
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.10	0.51
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.75	0.51
3:AC:50:ALA:HB2	3:AC:75:VAL:HB	1.92	0.51
3:AC:79:ARG:HH22	11:CK:100:ALA:HB2	1.76	0.51
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.93	0.51
4:AD:177:ASP:O	4:AD:179:GLU:N	2.43	0.51
16:AP:19:ILE:HG22	16:AP:36:ILE:CG1	2.40	0.51
20:AT:84:LEU:C	20:AT:84:LEU:CD1	2.79	0.51
22:AV:40:C:H2'	22:AV:41:C:C6	2.45	0.51
22:AV:74:A:O3'	22:AV:75:C:H6	1.93	0.51
24:AX:13:A:H3'	24:AX:14:A:C5'	2.40	0.51
25:BA:404:C:H1'	25:BA:406:G:C8	2.45	0.51
25:BA:1495:A:H2'	25:BA:1495:A:N3	2.26	0.51
25:BA:2107:C:H42	25:BA:2182:G:H1	1.57	0.51
25:BA:2458:G:C1'	25:BA:2490:G:H1	2.24	0.51
29:BE:134:ILE:N	29:BE:134:ILE:CD1	2.68	0.51
30:BF:22:ALA:C	30:BF:26:ALA:HB2	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:107:VAL:HG22	32:BH:109:PHE:CE2	2.46	0.51
34:BN:19:GLU:HG3	34:BN:20:GLY:N	2.26	0.51
34:BN:42:TRP:CE3	34:BN:48:MET:CE	2.93	0.51
35:BO:61:VAL:HG12	35:BO:87:ILE:HD11	1.92	0.51
36:BP:115:LEU:CD2	36:BP:131:SER:HB2	2.40	0.51
39:BS:85:VAL:C	39:BS:106:ARG:HG3	2.31	0.51
42:BV:20:LEU:CA	42:BV:21:ARG:HD3	2.41	0.51
43:BW:75:TYR:CE2	43:BW:104:THR:HB	2.45	0.51
44:BX:43:VAL:HG11	44:BX:81:VAL:HG11	1.92	0.51
48:B1:6:GLU:HG3	48:B1:61:ARG:O	2.10	0.51
49:B2:48:HIS:O	49:B2:50:ILE:N	2.43	0.51
1:CA:511:C:N3	1:CA:512:U:C4	2.79	0.51
1:CA:890:G:HO2'	1:CA:906:G:H1	1.58	0.51
4:CD:53:ASP:O	4:CD:57:ARG:HG3	2.10	0.51
5:CE:146:ALA:HB1	5:CE:150:ARG:NH2	2.24	0.51
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.09	0.51
7:CG:150:ALA:O	11:CK:57:THR:CG2	2.59	0.51
10:CJ:40:LEU:CG	10:CJ:69:ASN:HB3	2.37	0.51
14:CN:13:THR:N	14:CN:14:PRO:CD	2.69	0.51
25:DA:663:G:H5"	36:DP:18:ARG:HG3	1.92	0.51
25:DA:818:G:N1	25:DA:1188:U:OP2	2.35	0.51
25:DA:1799:G:O4'	25:DA:1800:C:H6	1.94	0.51
25:DA:1899:G:N2	25:DA:1902:C:N4	2.58	0.51
29:DE:118:LYS:H	29:DE:121:ASN:H	1.57	0.51
31:DG:13:GLU:O	31:DG:14:GLU:CB	2.58	0.51
31:DG:28:VAL:O	31:DG:31:VAL:HG12	2.11	0.51
34:DN:17:ASP:HB2	34:DN:55:VAL:HG12	1.91	0.51
34:DN:56:ASN:HA	34:DN:125:GLY:N	2.04	0.51
36:DP:93:GLY:O	36:DP:94:GLU:HB2	2.11	0.51
38:DR:50:HIS:O	38:DR:54:LEU:HB2	2.11	0.51
44:DX:57:LEU:N	44:DX:57:LEU:HD13	2.26	0.51
45:DY:96:ILE:HD11	45:DY:99:CYS:SG	2.51	0.51
46:DZ:89:PHE:CE1	46:DZ:96:VAL:HG21	2.45	0.51
2:AB:77:ALA:O	2:AB:80:ILE:CG2	2.48	0.51
3:AC:58:GLU:H	3:AC:65:ALA:CB	2.19	0.51
5:AE:39:GLY:HA2	5:AE:71:LEU:HD12	1.92	0.51
10:AJ:45:ARG:HG3	10:AJ:45:ARG:HH11	1.74	0.51
14:AN:23:ARG:O	14:AN:24:CYS:C	2.47	0.51
25:BA:390:A:O2'	25:BA:391:G:N7	2.41	0.51
25:BA:2421:G:OP2	55:B8:31:HIS:HE1	1.94	0.51
25:BA:2458:G:H4'	25:BA:2459:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2563:U:H2'	25:BA:2565:A:OP2	2.11	0.51
25:BA:2712(A):A:H5"	25:BA:2713:A:OP2	2.11	0.51
26:BB:66:A:N1	26:BB:108:U:C2	2.78	0.51
28:BD:31:LYS:NZ	28:BD:102:LYS:HZ1	2.07	0.51
29:BE:47:VAL:HG21	29:BE:86:PRO:CD	2.36	0.51
30:BF:155:LEU:HD22	30:BF:186:ILE:HD13	1.93	0.51
36:BP:86:LYS:CG	36:BP:87:ASP:N	2.74	0.51
37:BQ:79:LEU:HD23	37:BQ:80:GLU:H	1.76	0.51
44:BX:44:GLU:HG2	44:BX:49:VAL:O	2.11	0.51
1:CA:1226:C:C4	13:CM:104:ARG:HB2	2.44	0.51
1:CA:1423:G:H5'	35:DO:49:ARG:HH22	1.74	0.51
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.39	0.51
5:CE:100:VAL:C	5:CE:101:ILE:HD13	2.31	0.51
9:CI:19:LEU:HD21	9:CI:61:ALA:HB2	1.93	0.51
25:DA:444:C:H4'	30:DF:49:ALA:HB2	1.91	0.51
25:DA:559:G:H22	41:DU:49:HIS:CD2	2.27	0.51
25:DA:1416:G:O2'	25:DA:1417:C:O5'	2.27	0.51
25:DA:2679:A:H4'	29:DE:165:VAL:HG11	1.92	0.51
29:DE:116:VAL:HG21	29:DE:122:PHE:CG	2.46	0.51
30:DF:107:LYS:HD2	30:DF:206:ILE:CD1	2.29	0.51
31:DG:51:ARG:HH11	31:DG:51:ARG:HB3	1.74	0.51
31:DG:55:LYS:HZ1	31:DG:148:MET:HG3	1.73	0.51
31:DG:146:TYR:C	31:DG:148:MET:N	2.64	0.51
32:DH:22:GLY:O	32:DH:37:VAL:HB	2.10	0.51
33:DI:127:VAL:HG22	33:DI:139:GLN:HB3	1.93	0.51
38:DR:75:LEU:HD13	38:DR:75:LEU:O	2.11	0.51
39:DS:48:LEU:HD23	39:DS:82:ILE:HD11	1.91	0.51
40:DT:11:GLU:CD	40:DT:11:GLU:N	2.64	0.51
41:DU:101:ARG:C	41:DU:102:GLU:CG	2.79	0.51
49:D2:35:LEU:HB3	49:D2:50:ILE:CD1	2.41	0.51
1:AA:243:A:H61	1:AA:281:G:H1'	1.75	0.51
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.46	0.51
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.91	0.51
2:AB:121:LEU:HA	2:AB:126:GLU:OE1	2.11	0.51
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.25	0.51
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HG13	1.93	0.51
13:AM:89:GLY:C	13:AM:90:LEU:O	2.47	0.51
16:AP:74:LEU:O	16:AP:79:VAL:HG23	2.11	0.51
17:AQ:53:LEU:HG	17:AQ:82:MET:CE	2.41	0.51
20:AT:49:ALA:C	20:AT:100:ILE:HD11	2.31	0.51
25:BA:27:G:O2'	25:BA:28:A:O5'	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:643:A:N1	25:BA:2369:A:O2'	2.40	0.51
25:BA:800:A:H1'	25:BA:802:A:OP2	2.11	0.51
25:BA:1320:C:O2	25:BA:1322:A:N6	2.42	0.51
25:BA:1418:G:OP1	25:BA:1588:C:O2'	2.29	0.51
26:BB:15:A:H1'	26:BB:110:G:C5	2.46	0.51
26:BB:75:G:H5"	46:BZ:36:LYS:HE2	1.92	0.51
28:BD:25:THR:C	28:BD:27:THR:H	2.12	0.51
30:BF:18:ARG:O	30:BF:19:GLU:HB3	2.09	0.51
31:BG:70:VAL:HG23	31:BG:70:VAL:O	2.11	0.51
34:BN:123:TYR:OH	34:BN:130:HIS:NE2	2.36	0.51
35:BO:48:PRO:CB	35:BO:49:ARG:HH11	2.24	0.51
36:BP:107:LYS:C	36:BP:109:GLY:N	2.63	0.51
42:BV:39:LEU:C	42:BV:40:LEU:HD23	2.31	0.51
43:BW:51:LEU:HD13	43:BW:52:GLU:CA	2.40	0.51
45:BY:96:ILE:HG22	45:BY:97:ARG:H	1.75	0.51
45:BY:97:ARG:HE	45:BY:98:VAL:HG23	1.75	0.51
46:BZ:10:ARG:HD2	46:BZ:36:LYS:HB3	1.92	0.51
46:BZ:54:HIS:HB3	46:BZ:101:PRO:HD3	1.93	0.51
46:BZ:63:ASP:O	46:BZ:65:GLN:N	2.43	0.51
49:B2:38:GLN:HB3	49:B2:44:LEU:O	2.10	0.51
52:B5:56:LYS:HD2	52:B5:56:LYS:N	2.23	0.51
1:CA:486:U:H2'	1:CA:487:A:H8	1.76	0.51
1:CA:986:A:H1'	19:CS:55:LYS:HA	1.92	0.51
1:CA:1452:C:H2'	1:CA:1456:G:OP2	2.10	0.51
13:CM:92:HIS:HD2	13:CM:110:ARG:NH2	2.09	0.51
19:CS:5:LEU:C	19:CS:6:LYS:HE3	2.31	0.51
22:CV:20:G:C2	22:CV:58:A:C2	2.99	0.51
25:DA:888:C:C5'	25:DA:889:C:OP2	2.52	0.51
25:DA:2468:G:OP1	37:DQ:119:ARG:NH2	2.42	0.51
25:DA:2572:A:OP1	29:DE:144:ARG:HB2	2.10	0.51
29:DE:105:THR:OG1	29:DE:199:ARG:NH2	2.44	0.51
30:DF:196:LEU:O	30:DF:200:GLU:HG2	2.10	0.51
31:DG:7:LEU:N	31:DG:104:GLU:OE2	2.33	0.51
33:DI:120:ILE:HD12	33:DI:121:LYS:N	2.26	0.51
36:DP:107:LYS:C	36:DP:109:GLY:H	2.12	0.51
40:DT:7:ILE:O	40:DT:11:GLU:OE1	2.29	0.51
45:DY:94:LYS:NZ	45:DY:101:LYS:NZ	2.59	0.51
48:D1:58:ILE:HG13	48:D1:91:LYS:HB2	1.92	0.51
1:AA:251:G:H1'	1:AA:252:U:C6	2.46	0.51
1:AA:1139:G:H1'	1:AA:1141:C:H41	1.76	0.51
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.18	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:148:VAL:CG1	4:AD:149:ALA:N	2.74	0.51
6:AF:27:GLN:O	6:AF:28:ARG:C	2.48	0.51
9:AI:40:LEU:C	9:AI:42:ARG:H	2.14	0.51
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.41	0.51
10:AJ:64:GLU:O	14:AN:56:VAL:HA	2.11	0.51
19:AS:16:LEU:O	19:AS:20:LEU:HG	2.10	0.51
25:BA:1666:G:C3'	25:BA:1667:G:H5'	2.40	0.51
29:BE:71:GLY:O	29:BE:73:GLU:N	2.44	0.51
32:BH:156:ALA:CB	32:BH:159:GLU:HB3	2.40	0.51
34:BN:2:LYS:CB	34:BN:4:TYR:CE2	2.94	0.51
34:BN:104:LYS:HB2	34:BN:117:PHE:CE1	2.46	0.51
36:BP:62:LEU:HD23	36:BP:62:LEU:H	1.76	0.51
37:BQ:10:ARG:HG2	37:BQ:10:ARG:NH1	2.25	0.51
38:BR:28:LEU:O	38:BR:28:LEU:HD22	2.11	0.51
42:BV:82:ARG:NH1	42:BV:82:ARG:CG	2.72	0.51
43:BW:1:MET:HG3	43:BW:2:GLU:N	2.26	0.51
45:BY:27:VAL:HG12	45:BY:29:GLU:N	2.25	0.51
46:BZ:126:VAL:HA	46:BZ:164:ALA:CB	2.41	0.51
47:B0:49:LYS:HB2	47:B0:80:HIS:HB3	1.93	0.51
50:B3:8:LEU:HD23	50:B3:53:LEU:O	2.10	0.51
52:B5:41:PRO:CG	52:B5:44:THR:HG21	2.37	0.51
54:B7:46:VAL:HG12	54:B7:48:LYS:HZ3	1.76	0.51
1:CA:128:G:H22	1:CA:130:A:H62	1.59	0.51
1:CA:376:G:OP1	16:CP:67:THR:HG21	2.11	0.51
1:CA:1422:G:H5"	35:DO:48:PRO:HB3	1.92	0.51
1:CA:1492:A:N6	1:CA:1493:A:N6	2.59	0.51
4:CD:172:PRO:HB2	4:CD:187:ARG:NH2	2.26	0.51
6:CF:25:ILE:HD13	6:CF:25:ILE:N	2.25	0.51
8:CH:19:VAL:O	8:CH:19:VAL:HG23	2.11	0.51
12:CL:46:LYS:O	12:CL:47:LYS:C	2.48	0.51
15:CO:62:GLN:O	15:CO:63:ARG:C	2.49	0.51
17:CQ:52:LYS:O	17:CQ:55:ASP:CG	2.49	0.51
22:CV:35:C:C2'	22:CV:36:A:O5'	2.59	0.51
23:CW:8:U:O2'	23:CW:21:A:N1	2.44	0.51
25:DA:372:G:O2'	25:DA:400:G:N1	2.43	0.51
25:DA:503:A:HO2'	25:DA:506:G:H8	1.59	0.51
25:DA:534:U:H5'	41:DU:42:ALA:HB1	1.92	0.51
25:DA:871:U:H4'	37:DQ:69:PHE:CE2	2.45	0.51
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.46	0.51
25:DA:2712:U:O2'	25:DA:2712(A):A:P	2.68	0.51
28:DD:181:GLU:OE2	28:DD:270:ILE:HG22	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:61:ARG:HH21	33:DI:64:GLU:CD	2.13	0.51
34:DN:1:MET:HG2	34:DN:2:LYS:H	1.75	0.51
34:DN:25:ARG:NH1	34:DN:25:ARG:CG	2.73	0.51
34:DN:58:ASP:C	34:DN:60:ILE:N	2.54	0.51
35:DO:24:VAL:CG2	35:DO:33:ALA:HB2	2.40	0.51
40:DT:62:THR:HG22	40:DT:75:ILE:HG12	1.92	0.51
40:DT:81:PRO:O	40:DT:82:LEU:CB	2.59	0.51
45:DY:86:ARG:O	45:DY:92:ASN:HA	2.11	0.51
46:DZ:19:ARG:HH12	46:DZ:84:GLU:C	2.14	0.51
1:AA:501:C:O2	1:AA:549:C:O2'	2.25	0.51
1:AA:530:G:O6	24:AX:21:C:H1'	2.11	0.51
1:AA:960:U:O2'	1:AA:1223:C:H5'	2.11	0.51
1:AA:1032:G:H2'	1:AA:1033:G:C8	2.46	0.51
1:AA:1151:A:H2'	1:AA:1152:A:C8	2.45	0.51
3:AC:92:ALA:HB2	3:AC:99:VAL:CG1	2.41	0.51
3:AC:139:GLN:OE1	3:AC:139:GLN:HA	2.10	0.51
4:AD:108:LEU:O	4:AD:109:GLY:C	2.49	0.51
8:AH:39:LEU:HD22	8:AH:39:LEU:H	1.76	0.51
9:AI:5:TYR:CE2	9:AI:16:ARG:HB3	2.46	0.51
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.28	0.51
12:AL:22:SER:O	12:AL:24:VAL:N	2.44	0.51
14:AN:3:ARG:HG2	14:AN:3:ARG:O	2.10	0.51
25:BA:459:U:H4'	54:B7:40:TRP:CZ3	2.45	0.51
25:BA:2611:U:O2	52:B5:3:LYS:HE3	2.11	0.51
28:BD:118:VAL:CG2	28:BD:119:ALA:N	2.74	0.51
28:BD:145:VAL:HG12	28:BD:146:GLU:O	2.11	0.51
30:BF:152:GLU:O	30:BF:154:VAL:HG23	2.11	0.51
31:BG:113:ARG:O	31:BG:114:ILE:C	2.50	0.51
43:BW:20:VAL:O	43:BW:23:LEU:N	2.37	0.51
47:B0:48:GLY:HA3	47:B0:80:HIS:ND1	2.25	0.51
1:CA:129(A):G:H1'	1:CA:189(G):G:H5"	1.93	0.51
1:CA:736:C:H2'	1:CA:737:A:C8	2.46	0.51
1:CA:797:C:OP1	11:CK:124:LYS:HE2	2.11	0.51
5:CE:120:THR:HG22	5:CE:121:LYS:N	2.26	0.51
7:CG:75:VAL:HG23	7:CG:75:VAL:O	2.11	0.51
7:CG:102:ARG:O	7:CG:106:GLN:HG3	2.11	0.51
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.93	0.51
8:CH:91:ARG:HG2	8:CH:91:ARG:NH1	2.02	0.51
11:CK:62:GLN:HG2	11:CK:63:LEU:N	2.25	0.51
13:CM:65:LYS:HB2	13:CM:69:GLU:HB3	1.93	0.51
18:CR:66:LEU:O	18:CR:70:ILE:HG12	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:620:G:H4'	25:DA:621:A:C5'	2.40	0.51
25:DA:816:C:O2'	25:DA:932:G:O6	2.22	0.51
25:DA:2051:A:N6	25:DA:2614:A:C8	2.79	0.51
28:DD:43:ARG:HH11	28:DD:44:ASN:CG	2.13	0.51
28:DD:71:ASP:CB	28:DD:103:ARG:HH22	2.23	0.51
28:DD:83:GLU:HB2	28:DD:92:ILE:HD11	1.91	0.51
29:DE:77:ILE:HG22	29:DE:78:LEU:HG	1.93	0.51
32:DH:12:PRO:O	32:DH:13:LYS:HB2	2.10	0.51
32:DH:16:SER:O	32:DH:17:VAL:CB	2.59	0.51
37:DQ:141:GLN:NE2	46:DZ:72:ARG:HA	2.25	0.51
40:DT:33:LYS:CE	40:DT:43:GLN:OE1	2.57	0.51
41:DU:76:TYR:O	41:DU:78:THR:N	2.44	0.51
43:DW:14:PRO:O	43:DW:17:VAL:N	2.43	0.51
53:D6:26:ASN:O	53:D6:27:LYS:HG2	2.11	0.51
55:D8:50:LEU:HD12	55:D8:54:GLU:OE2	2.11	0.51
1:AA:250:A:O2'	1:AA:251:G:P	2.69	0.51
1:AA:1281:U:C4'	1:AA:1282:C:OP1	2.55	0.51
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.11	0.51
13:AM:15:VAL:HG12	13:AM:45:VAL:CG2	2.39	0.51
13:AM:81:LEU:HD11	13:AM:88:ARG:NH2	2.26	0.51
19:AS:29:ARG:O	19:AS:31:ILE:N	2.44	0.51
23:AW:48:C:H2'	23:AW:59:U:H4'	1.93	0.51
25:BA:34:C:H6	25:BA:34:C:H3'	1.75	0.51
25:BA:793:A:OP2	25:BA:2071:A:O2'	2.25	0.51
25:BA:1301:A:H2'	25:BA:1302:A:H5"	1.89	0.51
25:BA:2494:G:O2'	37:BQ:80:GLU:HA	2.10	0.51
30:BF:150:GLY:HA2	30:BF:172:TRP:CD2	2.46	0.51
31:BG:46:ALA:C	31:BG:51:ARG:HG3	2.32	0.51
32:BH:170:ARG:HG2	32:BH:171:LEU:N	2.26	0.51
33:BI:127:VAL:HG23	33:BI:139:GLN:HG3	1.93	0.51
36:BP:93:GLY:O	36:BP:94:GLU:HB2	2.11	0.51
37:BQ:134:ARG:HG3	37:BQ:134:ARG:HH11	1.76	0.51
38:BR:92:GLY:O	38:BR:94:TYR:CD2	2.64	0.51
38:BR:97:VAL:O	38:BR:97:VAL:HG12	2.11	0.51
41:BU:79:PHE:CD2	41:BU:79:PHE:C	2.81	0.51
43:BW:84:ARG:HB2	43:BW:96:ILE:CG2	2.41	0.51
45:BY:13:VAL:HB	45:BY:72:VAL:CG1	2.41	0.51
46:BZ:6:LYS:HE2	46:BZ:8:TYR:OH	2.10	0.51
46:BZ:17:ALA:O	46:BZ:20:ARG:HB2	2.11	0.51
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.10	0.51
2:CB:20:GLU:O	2:CB:40:HIS:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:104:ALA:N	5:CE:106:PRO:HD2	2.26	0.51
9:CI:82:ALA:HA	9:CI:85:LEU:CD1	2.41	0.51
13:CM:44:ARG:C	13:CM:46:LYS:N	2.63	0.51
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.11	0.51
19:CS:45:VAL:C	19:CS:62:ILE:HG21	2.31	0.51
20:CT:29:LYS:CD	20:CT:66:ALA:CA	2.89	0.51
20:CT:56:MET:HG3	20:CT:84:LEU:HD11	1.86	0.51
20:CT:100:ILE:HD12	20:CT:100:ILE:N	2.25	0.51
22:CV:20:G:C5	22:CV:58:A:H2	2.28	0.51
25:DA:48:G:H2'	25:DA:49:A:H2	1.76	0.51
25:DA:1155:A:H4'	41:DU:55:ARG:NH1	2.26	0.51
25:DA:1495:A:H2'	25:DA:1496:A:O4'	2.11	0.51
25:DA:1693:U:O5'	25:DA:1693:U:H6	1.93	0.51
25:DA:2001:A:H5"	25:DA:2689:U:H2'	1.92	0.51
25:DA:2311:A:C8	31:DG:82:LEU:HD11	2.46	0.51
25:DA:2489:G:N2	25:DA:2491:U:O4	2.40	0.51
27:DC:82:LYS:HE3	27:DC:151:GLU:O	2.11	0.51
30:DF:75:HIS:CE1	30:DF:82:ILE:HD12	2.46	0.51
32:DH:98:LEU:HD22	32:DH:125:VAL:CG2	2.41	0.51
34:DN:12:ARG:HB3	34:DN:50:ASP:OD1	2.10	0.51
39:DS:108:GLY:O	39:DS:110:LEU:HG	2.11	0.51
46:DZ:58:VAL:HG13	46:DZ:67:LEU:H	1.76	0.51
46:DZ:128:VAL:HG22	46:DZ:129:SER:N	2.26	0.51
1:AA:222:U:H2'	1:AA:223:U:C6	2.45	0.50
1:AA:363:A:C2	12:AL:31:PRO:HG2	2.46	0.50
1:AA:501:C:H2'	1:AA:502:G:H8	1.77	0.50
1:AA:1192:C:OP2	3:AC:4:LYS:NZ	2.43	0.50
5:AE:101:ILE:CG1	5:AE:119:LEU:CD2	2.81	0.50
8:AH:39:LEU:HD22	8:AH:39:LEU:N	2.25	0.50
9:AI:3:GLN:CD	9:AI:20:ARG:HH12	2.14	0.50
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	2.11	0.50
13:AM:74:VAL:O	13:AM:78:ILE:HG13	2.11	0.50
13:AM:112:GLY:O	13:AM:113:PRO:O	2.30	0.50
15:AO:23:GLY:O	15:AO:27:VAL:HB	2.11	0.50
20:AT:49:ALA:CA	20:AT:100:ILE:HD11	2.41	0.50
22:AV:34:U:N3	22:AV:36:A:H5"	2.27	0.50
25:BA:311:A:N9	25:BA:332:A:C8	2.80	0.50
25:BA:526:A:O2'	25:BA:2043:C:O2	2.21	0.50
25:BA:659:C:H2'	25:BA:660:G:C8	2.46	0.50
25:BA:1836:C:H2'	25:BA:1837:C:H6	1.76	0.50
25:BA:2519:U:H5"	25:BA:2520:C:OP1	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:81:ALA:HA	28:BD:113:VAL:CG1	2.42	0.50
30:BF:65:TRP:CZ3	30:BF:72:ARG:HB2	2.47	0.50
30:BF:117:ARG:HH21	30:BF:187:VAL:HA	1.76	0.50
31:BG:135:LEU:HD11	31:BG:157:ILE:HD11	1.93	0.50
33:BI:131:LYS:HG3	33:BI:133:HIS:CE1	2.46	0.50
34:BN:2:LYS:O	34:BN:4:TYR:CZ	2.64	0.50
37:BQ:43:THR:O	37:BQ:46:GLN:HB2	2.10	0.50
40:BT:31:SER:O	40:BT:32:TYR:HB3	2.11	0.50
41:BU:14:HIS:O	41:BU:16:LYS:N	2.44	0.50
41:BU:92:ARG:HH21	41:BU:94:ASN:HB3	1.76	0.50
42:BV:87:HIS:NE2	42:BV:89:GLN:HG2	2.27	0.50
43:BW:48:ALA:O	43:BW:49:LYS:C	2.48	0.50
44:BX:18:TYR:N	44:BX:18:TYR:CD1	2.78	0.50
2:CB:24:TRP:CG	2:CB:25:ASN:N	2.79	0.50
4:CD:96:LEU:HD23	4:CD:139:ARG:NH1	2.26	0.50
5:CE:26:PHE:HD1	5:CE:26:PHE:H	1.58	0.50
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	1.92	0.50
17:CQ:42:TYR:N	17:CQ:42:TYR:CD1	2.79	0.50
20:CT:53:LEU:CD2	20:CT:100:ILE:HB	2.41	0.50
24:CX:16:A:C2	24:CX:17:U:N1	2.79	0.50
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.11	0.50
25:DA:1799:G:O4'	25:DA:1800:C:C6	2.63	0.50
28:DD:211:ARG:O	28:DD:215:LEU:HG	2.12	0.50
31:DG:16:ARG:HB3	31:DG:17:PRO:HD3	1.92	0.50
31:DG:111:LEU:HB2	31:DG:112:PRO:HD3	1.93	0.50
31:DG:129:GLY:HA2	31:DG:169:ALA:CB	2.41	0.50
32:DH:127:GLU:HG3	32:DH:130:ARG:NE	2.26	0.50
34:DN:39:ARG:HH11	34:DN:39:ARG:HG2	1.76	0.50
36:DP:101:VAL:HG13	36:DP:102:ARG:N	2.25	0.50
38:DR:59:ASP:N	38:DR:59:ASP:OD2	2.44	0.50
39:DS:65:VAL:O	39:DS:69:VAL:HG12	2.10	0.50
44:DX:63:LYS:HA	44:DX:72:LYS:HA	1.93	0.50
1:AA:1279:A:N3	1:AA:1279:A:C3'	2.71	0.50
1:AA:1503:A:O2'	1:AA:1504:G:P	2.69	0.50
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.76	0.50
8:AH:2:LEU:HD11	8:AH:5:PRO:HA	1.94	0.50
9:AI:53:VAL:O	9:AI:54:ASP:HB2	2.09	0.50
14:AN:3:ARG:O	14:AN:7:ILE:HG12	2.11	0.50
14:AN:45:ARG:HG3	14:AN:45:ARG:NH1	2.22	0.50
16:AP:58:TYR:CA	16:AP:61:SER:HB3	2.41	0.50
20:AT:27:LYS:HD3	20:AT:27:LYS:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:50:GLU:HA	20:AT:100:ILE:CG2	2.39	0.50
23:AW:11:C:H2'	23:AW:12:U:C6	2.46	0.50
23:AW:57:G:H2'	23:AW:57:G:N3	2.26	0.50
25:BA:436:C:O5'	25:BA:436:C:H6	1.94	0.50
25:BA:482:A:H5'	45:BY:47:LYS:HG2	1.93	0.50
25:BA:1299:G:H8	25:BA:1299:G:O5'	1.95	0.50
25:BA:2147:G:H2'	25:BA:2148:G:O4'	2.11	0.50
25:BA:2171:A:O2'	25:BA:2172:U:O5'	2.29	0.50
25:BA:2457:U:C2'	25:BA:2458:G:C5'	2.86	0.50
25:BA:2481:G:HO2'	25:BA:2482:G:P	2.34	0.50
25:BA:2820:A:N6	29:BE:192:ASN:HB2	2.27	0.50
29:BE:34:VAL:HG22	29:BE:48:GLN:HE21	1.76	0.50
35:BO:68:GLU:CB	35:BO:78:ARG:HB2	2.39	0.50
35:BO:88:ASN:O	35:BO:91:LEU:N	2.37	0.50
40:BT:61:PHE:CE2	40:BT:76:PHE:HB2	2.46	0.50
43:BW:92:ARG:O	43:BW:93:ALA:HB3	2.11	0.50
1:CA:332:G:H2'	1:CA:333:G:H8	1.77	0.50
1:CA:1528:U:H4'	1:CA:1529:G:O5'	2.10	0.50
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.26	0.50
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	2.51	0.50
4:CD:138:TYR:HD2	4:CD:139:ARG:N	2.10	0.50
5:CE:43:LEU:HD12	5:CE:44:GLY:H	1.77	0.50
11:CK:59:TYR:CZ	11:CK:63:LEU:CD1	2.93	0.50
13:CM:70:LEU:O	13:CM:74:VAL:HG23	2.11	0.50
25:DA:26:G:OP1	43:DW:80:PRO:HB3	2.12	0.50
25:DA:1558:A:C8	25:DA:1560:G:C8	2.99	0.50
25:DA:2249:U:H1'	25:DA:2275:C:H41	1.76	0.50
25:DA:2571:C:H5"	25:DA:2572:A:H5"	1.93	0.50
29:DE:116:VAL:CG2	29:DE:117:MET:N	2.75	0.50
32:DH:16:SER:O	32:DH:17:VAL:HB	2.11	0.50
32:DH:132:ARG:HH11	32:DH:132:ARG:CB	2.24	0.50
36:DP:86:LYS:CG	36:DP:87:ASP:N	2.74	0.50
36:DP:115:LEU:HD23	36:DP:131:SER:HB2	1.94	0.50
39:DS:5:THR:C	39:DS:7:TYR:N	2.64	0.50
42:DV:81:TYR:C	42:DV:82:ARG:CG	2.80	0.50
46:DZ:108:PRO:O	46:DZ:143:GLY:HA2	2.11	0.50
1:AA:983:A:N3	1:AA:983:A:C3'	2.72	0.50
1:AA:983:A:H61	1:AA:1222:G:H22	1.59	0.50
1:AA:1067:A:C4'	1:AA:1068:G:O5'	2.55	0.50
1:AA:1279:A:C2	1:AA:1279:A:OP2	2.64	0.50
3:AC:175:LEU:HD23	3:AC:201:TYR:HE2	1.72	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:8:VAL:O	4:AD:11:LEU:CG	2.60	0.50
4:AD:173:TRP:CA	4:AD:187:ARG:HH12	2.23	0.50
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.28	0.50
11:AK:32:ILE:CD1	11:AK:68:ALA:O	2.59	0.50
17:AQ:85:VAL:O	17:AQ:89:LEU:HB2	2.11	0.50
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.41	0.50
19:AS:43:GLU:C	19:AS:45:VAL:H	2.14	0.50
22:AV:19:G:C2	22:AV:59:A:C4	2.99	0.50
22:AV:30:G:O2'	22:AV:31:G:H5'	2.11	0.50
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.46	0.50
25:BA:1812:A:H2'	25:BA:1813:G:C8	2.46	0.50
25:BA:2079:U:H2'	25:BA:2080:G:O4'	2.12	0.50
25:BA:2712(A):A:C5'	38:BR:13:HIS:HD2	2.24	0.50
26:BB:49:C:H2'	26:BB:50:G:C8	2.46	0.50
27:BC:22:ILE:HG23	27:BC:24:GLU:OE2	2.11	0.50
27:BC:39:GLU:HG2	27:BC:180:PHE:CB	2.41	0.50
28:BD:143:HIS:HD2	28:BD:144:ALA:CB	2.24	0.50
28:BD:182:LEU:HB2	28:BD:271:ILE:O	2.12	0.50
31:BG:167:GLU:HA	31:BG:170:ARG:HB3	1.92	0.50
33:BI:140:LEU:HD12	33:BI:141:LYS:N	2.27	0.50
34:BN:97:ARG:O	34:BN:100:GLU:N	2.44	0.50
36:BP:49:ARG:CZ	36:BP:50:ARG:HH22	2.25	0.50
40:BT:30:VAL:HG13	40:BT:31:SER:H	1.76	0.50
40:BT:129:ARG:NH1	40:BT:131:ALA:O	2.43	0.50
1:CA:61:G:C5	1:CA:107:G:C2	2.99	0.50
1:CA:204:U:H4'	1:CA:216:G:O5'	2.11	0.50
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.45	0.50
1:CA:666:G:H5'	1:CA:726:C:H1'	1.93	0.50
1:CA:817:C:C4	1:CA:819:A:H1'	2.46	0.50
1:CA:982:U:H5"	14:CN:6:LEU:HD11	1.92	0.50
2:CB:44:LEU:O	2:CB:47:THR:HB	2.10	0.50
3:CC:64:VAL:HG22	3:CC:97:LYS:NZ	2.26	0.50
11:CK:49:GLY:O	11:CK:50:TYR:CG	2.65	0.50
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	2.11	0.50
20:CT:26:ASN:HB3	20:CT:71:THR:HG23	1.92	0.50
20:CT:84:LEU:O	20:CT:84:LEU:HD13	2.11	0.50
21:CU:2:GLY:O	21:CU:4:GLY:N	2.43	0.50
23:CW:37:A:C6	23:CW:38:A:C6	2.99	0.50
25:DA:283:A:O2'	25:DA:284:U:OP1	2.28	0.50
25:DA:637:A:OP2	36:DP:115:LEU:HD22	2.11	0.50
25:DA:1266:G:O2'	25:DA:1267:U:OP2	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1428:C:N4	25:DA:1569:A:H3'	2.26	0.50
25:DA:1754:C:N3	25:DA:2716:U:O2'	2.44	0.50
25:DA:1819:A:C5'	25:DA:1820:U:H5'	2.42	0.50
25:DA:1820:U:H1'	28:DD:202:LYS:HB3	1.91	0.50
25:DA:2162:G:O3'	25:DA:2172:U:O2'	2.27	0.50
25:DA:2391:G:O2'	25:DA:2424:C:N4	2.44	0.50
25:DA:2847:U:C3'	25:DA:2848:G:C5'	2.88	0.50
28:DD:133:LEU:HD23	28:DD:136:ILE:HD12	1.93	0.50
30:DF:46:ARG:O	30:DF:47:GLY:C	2.49	0.50
33:DI:8:PRO:HG3	33:DI:14:ASP:HB2	1.93	0.50
33:DI:132:PRO:O	33:DI:133:HIS:O	2.28	0.50
38:DR:21:TYR:OH	38:DR:43:GLU:HG2	2.10	0.50
39:DS:32:LEU:O	39:DS:62:LYS:HE2	2.11	0.50
41:DU:92:ARG:HH21	41:DU:94:ASN:ND2	2.07	0.50
44:DX:43:VAL:HG21	44:DX:81:VAL:HG11	1.93	0.50
45:DY:43:ASN:HA	45:DY:64:GLU:HA	1.93	0.50
46:DZ:96:VAL:HG22	46:DZ:97:GLU:N	2.27	0.50
47:D0:82:ARG:HG3	47:D0:82:ARG:O	2.11	0.50
48:D1:8:SER:OG	48:D1:10:LYS:HG3	2.11	0.50
53:D6:19:ARG:H	53:D6:19:ARG:HD2	1.77	0.50
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.92	0.50
4:AD:92:VAL:HG12	4:AD:96:LEU:CD1	2.41	0.50
5:AE:80:ILE:CD1	5:AE:91:LEU:HD23	2.41	0.50
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	1.92	0.50
10:AJ:13:HIS:CE1	10:AJ:14:LYS:HE3	2.46	0.50
12:AL:54:LYS:HD2	12:AL:54:LYS:N	2.26	0.50
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.92	0.50
12:AL:117:ARG:NH2	12:AL:124:LYS:HB2	2.26	0.50
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.25	0.50
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.26	0.50
20:AT:53:LEU:CD1	20:AT:102:GLY:CA	2.82	0.50
22:AV:52:C:N3	22:AV:53:G:N7	2.59	0.50
25:BA:2287:A:C6	25:BA:2289:G:C4	2.99	0.50
25:BA:2320:A:N6	25:BA:2333:A:N9	2.59	0.50
25:BA:2500:U:C2	25:BA:2504:U:C5	2.99	0.50
25:BA:2776:A:O2'	25:BA:2781:A:H4'	2.12	0.50
25:BA:2844:G:H3'	25:BA:2845:G:H8	1.75	0.50
25:BA:2848:G:H1'	25:BA:2868:A:N6	2.26	0.50
29:BE:15:PHE:CD2	29:BE:15:PHE:N	2.78	0.50
30:BF:65:TRP:HH2	30:BF:72:ARG:NH2	2.05	0.50
36:BP:91:PHE:CD1	36:BP:91:PHE:N	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BX:11:PRO:O	44:BX:12:VAL:C	2.50	0.50
44:BX:64:LYS:HD3	44:BX:73:ARG:NE	2.26	0.50
47:B0:82:ARG:O	47:B0:82:ARG:HG3	2.11	0.50
1:CA:128:G:O2'	17:CQ:3:LYS:HE2	2.11	0.50
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.93	0.50
3:CC:191:THR:OG1	3:CC:192:THR:N	2.44	0.50
5:CE:8:GLU:CA	5:CE:34:VAL:HG22	2.40	0.50
7:CG:31:MET:SD	7:CG:34:GLY:HA2	2.52	0.50
11:CK:20:TYR:HB2	11:CK:31:THR:O	2.12	0.50
15:CO:56:LEU:O	15:CO:59:MET:HB2	2.11	0.50
16:CP:8:ARG:CG	16:CP:8:ARG:NH1	2.53	0.50
16:CP:20:VAL:HG23	16:CP:34:GLU:O	2.10	0.50
23:CW:5:G:N2	23:CW:69:G:C2	2.80	0.50
25:DA:768:G:O2'	25:DA:769:G:H5'	2.11	0.50
25:DA:1453:U:C4'	25:DA:1455:G:OP1	2.30	0.50
25:DA:1962:C:O2'	25:DA:1964:G:OP2	2.28	0.50
25:DA:2576:G:H3'	25:DA:2576:G:N3	2.27	0.50
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.46	0.50
28:DD:44:ASN:HB3	28:DD:49:ILE:CA	2.28	0.50
28:DD:190:TYR:O	28:DD:191:ALA:HB2	2.12	0.50
32:DH:16:SER:HB3	32:DH:26:VAL:O	2.12	0.50
36:DP:35:HIS:O	36:DP:36:LYS:HB2	2.11	0.50
37:DQ:79:LEU:O	37:DQ:80:GLU:HB2	2.12	0.50
40:DT:28:VAL:O	40:DT:29:ARG:CB	2.48	0.50
47:D0:49:LYS:N	47:D0:80:HIS:HB3	2.25	0.50
50:D3:29:ARG:HB2	50:D3:33:GLN:NE2	2.26	0.50
1:AA:79:G:H4'	1:AA:80:G:OP1	2.11	0.50
1:AA:250:A:HO2'	1:AA:251:G:P	2.34	0.50
1:AA:376:G:H5"	16:AP:5:ARG:HD2	1.94	0.50
1:AA:595:G:H5"	1:AA:596:C:OP1	2.12	0.50
1:AA:1118:C:H5"	9:AI:104:ARG:CG	2.40	0.50
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.76	0.50
4:AD:133:VAL:HG11	4:AD:138:TYR:HD1	1.75	0.50
5:AE:36:ASP:OD1	5:AE:40:ARG:HB2	2.11	0.50
13:AM:93:ARG:HA	13:AM:93:ARG:NE	2.25	0.50
22:AV:1:C:H3'	22:AV:1:C:H6	1.76	0.50
25:BA:221:A:N7	25:BA:266:G:O6	2.39	0.50
25:BA:447:A:N1	25:BA:454:A:H2'	2.26	0.50
25:BA:2405:G:O2'	25:BA:2406:U:P	2.70	0.50
25:BA:2801:A:H5"	25:BA:2801(A):A:OP1	2.11	0.50
26:BB:109:C:OP2	26:BB:109:C:H6	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:142:VAL:HG22	28:BD:143:HIS:H	1.77	0.50
28:BD:172:TYR:HD2	28:BD:184:LYS:HD2	1.75	0.50
29:BE:49:LEU:CD1	29:BE:81:ILE:HG13	2.35	0.50
30:BF:17:ARG:HG3	30:BF:17:ARG:NH1	2.18	0.50
31:BG:33:ARG:HB2	31:BG:162:THR:HG21	1.91	0.50
33:BI:30:LEU:HD23	33:BI:30:LEU:N	2.25	0.50
33:BI:88:ILE:CG1	33:BI:122:GLU:H	2.24	0.50
34:BN:45:ASN:HD22	34:BN:46:VAL:N	2.06	0.50
35:BO:9:GLU:OE2	35:BO:18:LYS:HE2	2.11	0.50
35:BO:87:ILE:HG22	35:BO:88:ASN:N	2.26	0.50
40:BT:3:ARG:HH11	40:BT:6:LEU:HD12	1.75	0.50
41:BU:25:TRP:HD1	41:BU:26:GLY:CA	2.25	0.50
41:BU:59:ARG:O	41:BU:63:VAL:HG23	2.11	0.50
41:BU:93:LYS:O	41:BU:96:ALA:HB3	2.10	0.50
42:BV:47:VAL:O	42:BV:48:GLY:C	2.50	0.50
42:BV:79:VAL:O	42:BV:79:VAL:CG2	2.59	0.50
48:B1:23:LYS:HD3	48:B1:28:GLY:HA3	1.93	0.50
53:B6:20:ASN:O	53:B6:21:TYR:CG	2.65	0.50
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.46	0.50
1:CA:60:A:H1'	1:CA:61:G:O4'	2.12	0.50
1:CA:274:A:O2'	1:CA:275:G:O4'	2.30	0.50
1:CA:872:A:N3	1:CA:872:A:C2'	2.74	0.50
1:CA:1456:G:C2	1:CA:1457:G:N9	2.80	0.50
3:CC:58:GLU:HB2	3:CC:65:ALA:CB	2.40	0.50
3:CC:129:ALA:CB	3:CC:132:ARG:HB2	2.41	0.50
5:CE:16:THR:OG1	5:CE:17:ALA:N	2.41	0.50
5:CE:83:GLU:HG3	5:CE:88:LYS:HG3	1.93	0.50
13:CM:115:LYS:O	13:CM:117:VAL:HG13	2.11	0.50
25:DA:395:U:O2'	25:DA:396:G:C8	2.65	0.50
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.46	0.50
25:DA:1300:U:C5	25:DA:1634:A:H1'	2.45	0.50
25:DA:2119:A:H61	25:DA:2168:G:H1'	1.77	0.50
25:DA:2286:A:P	53:D6:30:THR:HG1	2.34	0.50
28:DD:80:ALA:HB2	28:DD:96:HIS:CD2	2.46	0.50
28:DD:267:SER:C	28:DD:269:PHE:H	2.15	0.50
29:DE:131:ALA:O	29:DE:132:HIS:CB	2.60	0.50
30:DF:65:TRP:CB	30:DF:66:PRO:CD	2.87	0.50
33:DI:30:LEU:HB3	33:DI:36:ALA:HB3	1.92	0.50
36:DP:56:SER:O	36:DP:57:THR:HB	2.11	0.50
40:DT:20:PRO:HD2	40:DT:85:LYS:HE3	1.93	0.50
42:DV:38:LEU:H	42:DV:51:VAL:HG13	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:97:ARG:H	45:DY:97:ARG:CD	2.18	0.50
1:AA:327:A:O2'	1:AA:328:C:O4'	2.30	0.50
1:AA:406:G:H1'	1:AA:495:A:N1	2.27	0.50
1:AA:436:C:H2'	1:AA:437:U:H6	1.75	0.50
1:AA:533:A:O2'	1:AA:534:U:OP1	2.28	0.50
1:AA:1067:A:OP2	1:AA:1067:A:C8	2.65	0.50
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.46	0.50
10:AJ:67:THR:O	10:AJ:67:THR:CG2	2.60	0.50
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.77	0.50
13:AM:15:VAL:HA	13:AM:18:ALA:HB3	1.93	0.50
19:AS:51:VAL:O	19:AS:58:VAL:HG13	2.12	0.50
23:AW:15:G:N3	23:AW:59:U:O2	2.45	0.50
23:AW:65:G:C6	23:AW:66:U:C4	3.00	0.50
25:BA:49:A:H61	25:BA:177:G:H2'	1.77	0.50
25:BA:560:C:H4'	41:BU:52:ARG:NH2	2.26	0.50
25:BA:976:C:H5'	25:BA:1156:A:N6	2.27	0.50
25:BA:1326:U:C5	25:BA:1647:G:O2'	2.64	0.50
25:BA:1453:U:O2'	25:BA:1455:G:H8	1.92	0.50
25:BA:1930:G:O2'	25:BA:1931:U:OP2	2.30	0.50
25:BA:2287:A:N6	25:BA:2344:U:H3	2.10	0.50
25:BA:2445:G:OP1	30:BF:74:ARG:NH2	2.45	0.50
25:BA:2654:A:H1'	25:BA:2656:U:C6	2.47	0.50
28:BD:3:VAL:HG13	28:BD:17:THR:HB	1.93	0.50
28:BD:67:PHE:CE1	28:BD:157:ARG:NH1	2.80	0.50
28:BD:69:ARG:NH2	28:BD:192:THR:CG2	2.75	0.50
28:BD:69:ARG:NH2	28:BD:192:THR:HG21	2.26	0.50
28:BD:239:ARG:HH21	28:BD:239:ARG:HG2	1.76	0.50
31:BG:36:LYS:HE2	31:BG:160:VAL:HG21	1.92	0.50
35:BO:48:PRO:HB3	35:BO:49:ARG:NH1	2.26	0.50
37:BQ:48:GLU:OE1	37:BQ:48:GLU:HA	2.11	0.50
37:BQ:114:ALA:C	37:BQ:116:GLU:H	2.14	0.50
39:BS:74:ALA:HB1	39:BS:103:GLU:HB2	1.94	0.50
40:BT:92:GLY:C	40:BT:94:ALA:N	2.61	0.50
43:BW:88:ARG:NH1	43:BW:94:ASP:OD1	2.45	0.50
46:BZ:96:VAL:CG1	46:BZ:97:GLU:N	2.74	0.50
48:B1:46:LEU:N	48:B1:46:LEU:CD2	2.75	0.50
49:B2:13:ALA:HA	49:B2:16:LEU:CG	2.42	0.50
2:CB:109:SER:C	2:CB:111:ARG:H	2.13	0.50
4:CD:155:LEU:O	4:CD:156:GLU:C	2.50	0.50
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	1.94	0.50
9:CI:4:TYR:CE2	9:CI:59:PHE:CE2	2.97	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	2.12	0.50
16:CP:49:LEU:HD12	16:CP:49:LEU:C	2.32	0.50
25:DA:614(A):U:O2'	25:DA:614(B):G:OP1	2.30	0.50
25:DA:873:G:H1	25:DA:904:C:H42	1.58	0.50
25:DA:1616:A:N3	25:DA:1616:A:H5'	2.26	0.50
25:DA:2119:A:N6	25:DA:2168:G:H1'	2.27	0.50
25:DA:2725:A:O2'	25:DA:2726:U:O2	2.30	0.50
25:DA:2751:G:OP2	32:DH:4:ILE:CG2	2.60	0.50
30:DF:11:VAL:HB	30:DF:18:ARG:HG3	1.93	0.50
31:DG:129:GLY:HA2	31:DG:169:ALA:HB2	1.93	0.50
32:DH:30:LYS:HB2	32:DH:79:VAL:O	2.12	0.50
32:DH:103:LEU:CD2	32:DH:115:VAL:HB	2.41	0.50
32:DH:109:PHE:O	32:DH:111:HIS:N	2.37	0.50
39:DS:20:ARG:C	39:DS:22:GLY:H	2.15	0.50
39:DS:88:ASP:CG	39:DS:90:GLY:H	2.14	0.50
40:DT:91:ARG:CB	40:DT:116:ALA:HA	2.42	0.50
43:DW:48:ALA:O	43:DW:49:LYS:C	2.50	0.50
1:AA:1231:G:H5"	9:AI:128:ARG:HG3	1.93	0.50
5:AE:68:GLU:O	5:AE:68:GLU:OE2	2.30	0.50
5:AE:79:GLU:OE1	8:AH:104:ARG:HA	2.12	0.50
5:AE:121:LYS:O	5:AE:122:GLU:HG3	2.11	0.50
6:AF:24:GLU:O	6:AF:27:GLN:HB2	2.12	0.50
12:AL:75:HIS:ND1	12:AL:76:ASN:N	2.59	0.50
18:AR:44:LEU:HB3	18:AR:48:GLY:O	2.11	0.50
20:AT:41:ILE:HG22	20:AT:88:VAL:HG23	1.93	0.50
22:AV:54:G:C4	22:AV:55:U:C5	2.99	0.50
23:AW:53:G:C6	23:AW:54:U:C4	2.99	0.50
25:BA:74:A:N3	25:BA:74:A:O5'	2.44	0.50
25:BA:340:A:H2'	25:BA:341:G:H8	1.76	0.50
25:BA:659:C:H2'	25:BA:660:G:H8	1.77	0.50
25:BA:703:U:H2'	25:BA:704:G:H5'	1.93	0.50
25:BA:776:G:H4'	25:BA:777:A:O5'	2.11	0.50
25:BA:1486:A:N6	25:BA:1504:C:H42	2.10	0.50
25:BA:1789:A:H5"	28:BD:220:HIS:O	2.11	0.50
25:BA:1826:G:H2'	25:BA:1827:C:H6	1.74	0.50
25:BA:2171:A:O2'	25:BA:2172:U:C6	2.63	0.50
28:BD:70:TRP:CH2	28:BD:150:LYS:HA	2.46	0.50
29:BE:89:ASP:O	29:BE:90:THR:HB	2.10	0.50
36:BP:27:HIS:ND1	36:BP:27:HIS:N	2.59	0.50
36:BP:35:HIS:O	36:BP:36:LYS:HB2	2.11	0.50
42:BV:35:LEU:O	42:BV:37:VAL:O	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:62:HIS:O	43:BW:63:ASP:C	2.50	0.50
47:B0:54:GLY:O	47:B0:57:PHE:N	2.41	0.50
50:B3:38:GLU:O	50:B3:40:THR:HG23	2.11	0.50
1:CA:1067:A:O2'	1:CA:1068:G:O5'	2.30	0.50
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.47	0.50
1:CA:1305:G:O4'	1:CA:1305:G:OP2	2.30	0.50
1:CA:1431:C:H2'	1:CA:1432:G:O4'	2.11	0.50
4:CD:108:LEU:O	4:CD:165:MET:CE	2.58	0.50
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.32	0.50
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.77	0.50
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	2.12	0.50
12:CL:26:ALA:C	12:CL:27:LEU:HD22	2.31	0.50
13:CM:93:ARG:HD3	25:DA:888:C:OP2	2.12	0.50
20:CT:8:ARG:O	20:CT:9:ASN:OD1	2.30	0.50
20:CT:25:ARG:HG3	20:CT:25:ARG:NH1	2.25	0.50
23:CW:37:A:N6	23:CW:38:A:N1	2.59	0.50
25:DA:265:A:H1'	25:DA:266:G:O4'	2.12	0.50
25:DA:598:G:H4'	36:DP:11:GLY:CA	2.42	0.50
25:DA:614(C):A:O2'	25:DA:615:G:O5'	2.30	0.50
25:DA:969:U:OP1	50:D3:17:LYS:HD3	2.12	0.50
25:DA:995:C:O2	25:DA:995:C:H2'	2.11	0.50
25:DA:1840:G:H1	25:DA:1902:C:H42	1.58	0.50
28:DD:31:LYS:HZ1	28:DD:102:LYS:NZ	2.09	0.50
30:DF:36:VAL:HG11	30:DF:183:VAL:CG1	2.41	0.50
31:DG:95:ARG:O	31:DG:96:ARG:O	2.30	0.50
32:DH:7:LEU:N	32:DH:8:PRO:CD	2.74	0.50
32:DH:26:VAL:HG13	32:DH:27:LYS:N	2.26	0.50
33:DI:92:VAL:O	33:DI:120:ILE:HG23	2.12	0.50
35:DO:104:ARG:HH21	40:DT:43:GLN:NE2	2.07	0.50
40:DT:39:ARG:HG3	40:DT:40:THR:HG22	1.93	0.50
44:DX:50:LYS:O	44:DX:83:VAL:HA	2.12	0.50
45:DY:43:ASN:CB	45:DY:64:GLU:HA	2.41	0.50
51:D4:11:PRO:HA	51:D4:25:TYR:CD2	2.46	0.50
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.46	0.50
1:AA:366:C:O2'	1:AA:367:U:OP1	2.30	0.50
1:AA:422:C:O2'	1:AA:423:G:N2	2.45	0.50
1:AA:518:C:O2'	12:AL:50:SER:HB3	2.11	0.50
1:AA:1067:A:O2'	1:AA:1068:G:O5'	2.30	0.50
1:AA:1321:C:C4	1:AA:1322:C:C4	3.00	0.50
2:AB:28:PHE:CZ	2:AB:189:ASP:HA	2.47	0.50
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:228:GLY:O	2:AB:230:VAL:HG13	2.12	0.50
3:AC:172:ARG:O	3:AC:173:VAL:HG23	2.12	0.50
4:AD:76:ARG:HD2	4:AD:207:TYR:CE1	2.46	0.50
4:AD:110:PHE:HD2	4:AD:148:VAL:CG2	2.25	0.50
4:AD:192:GLU:O	4:AD:193:ASP:C	2.50	0.50
6:AF:23:LYS:O	6:AF:27:GLN:HG2	2.12	0.50
8:AH:9:MET:O	8:AH:12:ARG:N	2.44	0.50
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.12	0.50
11:AK:32:ILE:HD11	11:AK:68:ALA:O	2.11	0.50
13:AM:3:ARG:CZ	31:BG:113:ARG:NH2	2.58	0.50
15:AO:67:LEU:O	15:AO:71:GLN:N	2.40	0.50
22:AV:58:A:O2'	22:AV:59:A:H5'	2.12	0.50
25:BA:271(A):A:N1	25:BA:272(D):G:O2'	2.43	0.50
25:BA:301:G:O2'	25:BA:302:C:O4'	2.25	0.50
25:BA:527:C:H1'	25:BA:528:A:C6	2.47	0.50
25:BA:571:A:H1'	25:BA:573:G:C8	2.47	0.50
25:BA:1210:A:O2'	25:BA:1211:U:OP2	2.29	0.50
25:BA:1668:A:N6	25:BA:1676:A:H61	2.09	0.50
28:BD:30:GLU:CD	28:BD:63:ARG:NH2	2.65	0.50
30:BF:64:ILE:O	30:BF:65:TRP:CD1	2.53	0.50
37:BQ:27:VAL:HG13	37:BQ:105:GLU:OE1	2.11	0.50
38:BR:84:ALA:N	38:BR:85:PRO:CD	2.75	0.50
39:BS:16:ASN:OD1	39:BS:16:ASN:N	2.43	0.50
45:BY:31:LEU:CB	45:BY:32:PRO:CA	2.90	0.50
46:BZ:136:PHE:O	46:BZ:137:ILE:HG13	2.11	0.50
51:B4:44:CYS:O	51:B4:46:ASN:N	2.39	0.50
1:CA:92:C:H2'	1:CA:93:G:H8	1.75	0.50
1:CA:266:G:O2'	1:CA:267:C:OP2	2.26	0.50
1:CA:344:A:C5'	1:CA:345:C:OP2	2.48	0.50
1:CA:429:U:O2'	1:CA:430:A:O5'	2.30	0.50
4:CD:98:GLU:OE2	4:CD:103:ASN:ND2	2.44	0.50
4:CD:124:GLY:O	4:CD:126:ILE:N	2.45	0.50
4:CD:165:MET:O	4:CD:167:GLY:N	2.44	0.50
6:CF:14:LEU:HB3	6:CF:19:LEU:HB2	1.94	0.50
12:CL:60:LEU:HD23	12:CL:64:TYR:CB	2.42	0.50
13:CM:78:ILE:O	13:CM:81:LEU:HB2	2.11	0.50
19:CS:43:GLU:C	19:CS:45:VAL:HG13	2.32	0.50
25:DA:655:A:H2'	25:DA:656:G:H5'	1.94	0.50
25:DA:753:C:OP2	25:DA:753:C:H5	1.87	0.50
25:DA:2051:A:H61	25:DA:2614:A:C2'	2.25	0.50
25:DA:2503:A:H4'	25:DA:2504:U:OP1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2725:A:N6	25:DA:2727:G:N3	2.60	0.50
28:DD:161:THR:O	28:DD:196:VAL:HG23	2.11	0.50
28:DD:248:SER:HB2	28:DD:249:PRO:HD2	1.94	0.50
30:DF:174:VAL:O	30:DF:174:VAL:CG2	2.60	0.50
33:DI:33:ARG:HB3	33:DI:35:LEU:HG	1.94	0.50
34:DN:25:ARG:O	34:DN:28:THR:HG22	2.12	0.50
35:DO:4:PRO:O	35:DO:5:GLN:CB	2.59	0.50
36:DP:64:LYS:HB3	55:D8:25:MET:CG	2.36	0.50
37:DQ:54:MET:HG2	37:DQ:64:ILE:HG21	1.93	0.50
40:DT:61:PHE:CE2	40:DT:76:PHE:HB2	2.47	0.50
45:DY:12:THR:OG1	45:DY:26:LYS:HE2	2.12	0.50
46:DZ:29:TYR:HA	46:DZ:33:LEU:O	2.11	0.50
49:D2:13:ALA:C	49:D2:15:LYS:N	2.64	0.50
1:AA:79:G:O4'	1:AA:80:G:OP1	2.30	0.50
1:AA:262:A:O3'	20:AT:75:ASN:ND2	2.45	0.50
1:AA:668:G:O2'	15:AO:46:HIS:CD2	2.65	0.50
4:AD:187:ARG:NH1	4:AD:187:ARG:HG2	2.27	0.50
4:AD:190:ASP:O	4:AD:194:LEU:HD23	2.12	0.50
5:AE:73:ASN:O	5:AE:75:THR:HG22	2.12	0.50
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.93	0.50
19:AS:15:LEU:C	19:AS:19:VAL:HG23	2.31	0.50
20:AT:45:GLN:C	20:AT:47:GLY:H	2.15	0.50
22:AV:35:C:O2'	22:AV:36:A:OP1	2.30	0.50
23:AW:34:G:N9	24:AX:14:A:C2	2.77	0.50
25:BA:35:G:C4	25:BA:454:A:C2	3.00	0.50
25:BA:90:U:O2'	25:BA:92:A:H5"	2.12	0.50
25:BA:142:A:C8	25:BA:1408:C:H1'	2.46	0.50
25:BA:373:U:H2'	25:BA:374:A:C8	2.45	0.50
25:BA:458:G:O2'	25:BA:459:U:OP2	2.30	0.50
25:BA:527:C:H5"	25:BA:528:A:OP1	2.12	0.50
25:BA:690:G:H2'	25:BA:691:C:C6	2.47	0.50
25:BA:870:A:H4'	37:BQ:6:ARG:O	2.11	0.50
25:BA:1899:G:H21	25:BA:1902:C:N4	2.10	0.50
25:BA:2111:C:H42	25:BA:2147:G:N2	2.09	0.50
28:BD:89:SER:O	28:BD:198:ASN:ND2	2.45	0.50
29:BE:173:VAL:HG12	29:BE:174:ASP:N	2.26	0.50
31:BG:101:ILE:CG1	31:BG:105:LYS:HE3	2.37	0.50
34:BN:18:ALA:CB	34:BN:21:LYS:CB	2.89	0.50
34:BN:24:GLY:H	34:BN:27:ALA:H	1.59	0.50
42:BV:19:LYS:HG2	42:BV:94:LEU:H	1.77	0.50
43:BW:26:GLY:HA2	43:BW:71:VAL:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:22:VAL:HB	55:B8:49:VAL:HG23	1.94	0.50
1:CA:79:G:O4'	1:CA:80:G:OP1	2.30	0.50
1:CA:950:U:H2'	1:CA:951:G:H8	1.76	0.50
2:CB:114:ARG:O	2:CB:114:ARG:CG	2.59	0.50
2:CB:194:PRO:O	2:CB:196:LEU:N	2.45	0.50
3:CC:11:ARG:HD3	3:CC:178:LEU:HD12	1.92	0.50
12:CL:82:VAL:HG12	12:CL:83:VAL:N	2.27	0.50
12:CL:126:LYS:CG	12:CL:127:GLU:N	2.75	0.50
16:CP:8:ARG:HB3	16:CP:28:ARG:HH12	1.76	0.50
16:CP:67:THR:HB	16:CP:70:ALA:HB2	1.93	0.50
19:CS:63:THR:HG23	19:CS:66:MET:H	1.76	0.50
22:CV:53:G:O2'	22:CV:54:G:OP1	2.30	0.50
25:DA:565:C:H4'	25:DA:1253:A:N6	2.26	0.50
25:DA:581:C:H2'	25:DA:582:G:C8	2.46	0.50
25:DA:1803:A:O2'	28:DD:259:THR:HG21	2.12	0.50
25:DA:2306:C:O5'	25:DA:2307:G:H5"	2.12	0.50
25:DA:2437:U:H2'	25:DA:2438:U:C6	2.47	0.50
25:DA:2734:A:H5'	25:DA:2735:G:OP2	2.12	0.50
25:DA:2848:G:C2	25:DA:2867:G:C4	3.00	0.50
26:DB:48:A:H4'	39:DS:95:HIS:HD2	1.76	0.50
28:DD:2:ALA:O	28:DD:3:VAL:HB	2.11	0.50
31:DG:49:ASP:HB3	31:DG:52:ILE:HG12	1.94	0.50
36:DP:49:ARG:CZ	36:DP:50:ARG:HH22	2.25	0.50
38:DR:84:ALA:N	38:DR:85:PRO:CD	2.74	0.50
41:DU:92:ARG:O	41:DU:94:ASN:N	2.45	0.50
42:DV:39:LEU:N	42:DV:39:LEU:HD13	2.27	0.50
46:DZ:52:SER:C	46:DZ:53:ILE:HG12	2.33	0.50
1:AA:274:A:O2'	1:AA:275:G:O5'	2.22	0.49
1:AA:324:G:OP1	20:AT:22:ARG:HD3	2.12	0.49
1:AA:328:C:H4'	1:AA:329:A:H5"	1.94	0.49
2:AB:21:ARG:HD3	2:AB:39:ILE:HG13	1.94	0.49
2:AB:75:LYS:C	2:AB:75:LYS:CD	2.80	0.49
2:AB:204:ASN:HD22	2:AB:205:ASP:N	2.09	0.49
4:AD:173:TRP:CA	4:AD:187:ARG:NH1	2.73	0.49
4:AD:192:GLU:O	4:AD:194:LEU:N	2.45	0.49
10:AJ:6:ILE:HG13	10:AJ:72:VAL:O	2.12	0.49
10:AJ:72:VAL:O	10:AJ:73:ASP:OD1	2.30	0.49
22:AV:57:C:C2'	22:AV:58:A:H5'	2.42	0.49
23:AW:38:A:C6	23:AW:39:U:C5	3.00	0.49
25:BA:322:A:P	30:BF:169:ASN:HB2	2.52	0.49
25:BA:534:U:HO2'	41:BU:49:HIS:HD1	1.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:910:A:N7	37:BQ:13:GLN:HG3	2.26	0.49
25:BA:1131:G:H1'	34:BN:82:LEU:HD12	1.94	0.49
25:BA:1902:C:O2'	28:BD:244:ARG:CB	2.59	0.49
25:BA:2123:G:H2'	25:BA:2124:G:C8	2.47	0.49
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.47	0.49
25:BA:2580:U:H4'	29:BE:130:GLY:HA2	1.94	0.49
36:BP:48:PRO:O	36:BP:50:ARG:N	2.45	0.49
36:BP:92:GLU:HA	36:BP:123:LEU:CD1	2.42	0.49
36:BP:101:VAL:HG23	36:BP:107:LYS:H	1.76	0.49
38:BR:67:LEU:O	38:BR:67:LEU:HD12	2.11	0.49
40:BT:134:GLU:O	40:BT:135:ALA:HB3	2.12	0.49
43:BW:57:ASN:O	43:BW:58:ALA:C	2.49	0.49
45:BY:11:ASP:OD1	45:BY:12:THR:O	2.30	0.49
45:BY:45:VAL:HA	45:BY:62:GLU:HG2	1.93	0.49
46:BZ:150:LEU:O	46:BZ:171:ILE:HG12	2.11	0.49
1:CA:652:U:C4	1:CA:752:G:N3	2.80	0.49
1:CA:1054:C:OP2	1:CA:1054:C:C4'	2.60	0.49
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.47	0.49
2:CB:168:THR:HG23	2:CB:192:SER:CB	2.42	0.49
3:CC:29:TYR:O	3:CC:30:ARG:C	2.50	0.49
4:CD:22:LYS:HD3	4:CD:26:CYS:SG	2.52	0.49
4:CD:103:ASN:O	4:CD:106:TYR:HB3	2.12	0.49
8:CH:29:SER:HB3	8:CH:32:LYS:CD	2.42	0.49
9:CI:89:ASN:O	9:CI:91:ASP:N	2.44	0.49
12:CL:79:GLU:CD	12:CL:79:GLU:N	2.61	0.49
16:CP:81:ARG:HG2	16:CP:83:GLU:OE2	2.12	0.49
25:DA:184:C:H2'	25:DA:185:U:C6	2.46	0.49
25:DA:9271:G:N3	25:DA:9272:G:H1'	2.27	0.49
25:DA:362(F):A:O2'	25:DA:364:C:H5	1.94	0.49
25:DA:1162:G:H21	42:DV:89:GLN:HE22	1.60	0.49
25:DA:1297:C:O2'	25:DA:1302:A:N1	2.37	0.49
25:DA:1558:A:O2'	25:DA:1559:G:OP2	2.30	0.49
25:DA:2467:C:O2	37:DQ:124:LYS:NZ	2.38	0.49
25:DA:2475:C:H42	25:DA:2529:G:H22	1.60	0.49
28:DD:12:SER:HB2	28:DD:208:LYS:HB3	1.93	0.49
28:DD:31:LYS:HE3	28:DD:94:LEU:HD11	1.94	0.49
28:DD:44:ASN:HB2	28:DD:48:ARG:O	2.12	0.49
29:DE:107:THR:O	29:DE:190:GLY:HA2	2.12	0.49
34:DN:123:TYR:CE2	34:DN:129:PRO:HD2	2.47	0.49
36:DP:61:ARG:O	36:DP:61:ARG:HD2	2.12	0.49
38:DR:45:ARG:CG	38:DR:46:GLY:H	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:52:SER:O	39:DS:56:LEU:CD2	2.60	0.49
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.94	0.49
41:DU:12:ARG:C	41:DU:14:HIS:N	2.65	0.49
42:DV:99:ILE:HD13	42:DV:99:ILE:N	2.25	0.49
43:DW:110:LYS:HG3	43:DW:111:HIS:ND1	2.26	0.49
45:DY:14:LEU:HD23	45:DY:14:LEU:O	2.12	0.49
45:DY:39:VAL:CG1	45:DY:40:GLU:H	2.12	0.49
45:DY:46:LYS:O	45:DY:48:ALA:N	2.45	0.49
46:DZ:58:VAL:HG11	46:DZ:66:SER:HB3	1.93	0.49
46:DZ:59:LEU:HG	46:DZ:69:THR:CG2	2.41	0.49
47:D0:73:GLY:C	47:D0:75:LEU:N	2.66	0.49
1:AA:1048:G:H2'	1:AA:1049:U:OP2	2.13	0.49
2:AB:25:ASN:OD1	2:AB:27:LYS:N	2.43	0.49
2:AB:80:ILE:CD1	2:AB:212:GLN:HA	2.42	0.49
4:AD:172:PRO:C	4:AD:187:ARG:HH12	2.14	0.49
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.42	0.49
6:AF:69:GLU:CD	6:AF:69:GLU:N	2.65	0.49
7:AG:72:ARG:HG3	7:AG:73:MET:HE2	1.93	0.49
8:AH:48:TYR:O	8:AH:49:GLU:HB3	2.12	0.49
10:AJ:72:VAL:HG12	10:AJ:73:ASP:N	2.27	0.49
22:AV:53:G:O2'	22:AV:54:G:H5'	2.12	0.49
23:AY:39:U:C2	23:AY:40:C:C5	3.00	0.49
25:BA:142:A:H5'	25:BA:142(A):C:OP2	2.11	0.49
25:BA:614:U:O2	25:BA:614:U:O4'	2.30	0.49
25:BA:1706:U:H5"	25:BA:1707:G:OP2	2.11	0.49
25:BA:1819:A:C1'	25:BA:1821:A:C5	2.94	0.49
25:BA:1838:C:N4	25:BA:1898:U:H2'	2.26	0.49
25:BA:2078:C:N4	25:BA:2079:U:O4	2.45	0.49
28:BD:26:LYS:NZ	28:BD:81:ALA:HB1	2.22	0.49
34:BN:47:ALA:HB2	34:BN:112:LEU:CD1	2.41	0.49
34:BN:111:PRO:HA	34:BN:114:ARG:NH1	2.27	0.49
39:BS:17:ARG:CA	39:BS:20:ARG:HH12	2.22	0.49
40:BT:53:ARG:HG2	40:BT:53:ARG:NH1	2.26	0.49
40:BT:86:ILE:HG12	40:BT:87:ASP:N	2.27	0.49
42:BV:31:ALA:O	42:BV:61:VAL:N	2.45	0.49
47:B0:5:LYS:NZ	47:B0:5:LYS:HB3	2.27	0.49
50:B3:29:ARG:HB2	50:B3:30:ARG:HG3	1.93	0.49
55:B8:4:MET:O	55:B8:62:LEU:CD1	2.60	0.49
55:B8:60:LEU:N	55:B8:60:LEU:HD23	2.26	0.49
1:CA:429:U:O2'	1:CA:430:A:H5"	2.11	0.49
1:CA:470:C:OP1	1:CA:470:C:O4'	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:50:ILE:O	7:CG:54:THR:HG23	2.11	0.49
14:CN:28:GLY:O	14:CN:29:ARG:O	2.30	0.49
17:CQ:43:LEU:HD12	17:CQ:68:ARG:HG2	1.94	0.49
18:CR:26:LEU:HD21	18:CR:42:ARG:NE	2.27	0.49
23:CW:18:G:H1	23:CW:55:U:C1'	2.23	0.49
23:CY:28:G:C2	23:CY:43:C:C4	3.00	0.49
25:DA:182:A:N3	25:DA:433:C:O2'	2.42	0.49
25:DA:271(M):G:H4'	33:DI:53:ALA:HB2	1.94	0.49
25:DA:748:G:OP1	25:DA:2612:C:N4	2.45	0.49
25:DA:1689:A:N6	25:DA:1698:A:H2	2.06	0.49
25:DA:2849:U:OP2	40:DT:95:ARG:NH1	2.40	0.49
29:DE:8:LYS:O	29:DE:193:GLY:N	2.43	0.49
31:DG:97:ASP:H	31:DG:100:TRP:HD1	1.59	0.49
31:DG:115:ARG:CG	31:DG:115:ARG:HH11	2.25	0.49
33:DI:29:TYR:HD1	33:DI:33:ARG:HE	1.60	0.49
33:DI:129:THR:HA	33:DI:137:PRO:HA	1.94	0.49
36:DP:92:GLU:HA	36:DP:123:LEU:CD1	2.43	0.49
37:DQ:34:LEU:CD1	37:DQ:129:THR:HB	2.40	0.49
37:DQ:54:MET:CB	37:DQ:64:ILE:HD13	2.34	0.49
38:DR:94:TYR:H	38:DR:94:TYR:HD1	1.58	0.49
39:DS:66:ALA:O	39:DS:69:VAL:CG1	2.60	0.49
47:D0:49:LYS:HB2	47:D0:80:HIS:HB3	1.92	0.49
55:D8:61:LEU:C	55:D8:63:PRO:HD2	2.32	0.49
1:AA:366:C:O2'	1:AA:367:U:O5'	2.30	0.49
1:AA:1067:A:O2'	1:AA:1068:G:OP2	2.30	0.49
2:AB:8:LYS:HZ3	2:AB:217:ARG:HH12	1.60	0.49
4:AD:31:CYS:O	4:AD:33:MET:N	2.45	0.49
6:AF:69:GLU:N	6:AF:69:GLU:OE2	2.45	0.49
9:AI:8:GLY:C	9:AI:76:ALA:HB1	2.33	0.49
10:AJ:50:ILE:N	10:AJ:50:ILE:CD1	2.61	0.49
14:AN:12:ARG:HB3	14:AN:14:PRO:CD	2.43	0.49
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.31	0.49
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.27	0.49
16:AP:53:VAL:O	16:AP:57:ARG:HG2	2.12	0.49
18:AR:44:LEU:HD11	18:AR:79:LEU:HD13	1.94	0.49
18:AR:70:ILE:HG22	18:AR:74:ARG:HD2	1.95	0.49
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.74	0.49
20:AT:63:ILE:CD1	20:AT:80:ARG:HB2	2.42	0.49
23:AY:30:G:H5'	23:AY:31:A:OP2	2.11	0.49
25:BA:1276:A:O2'	38:BR:16:HIS:HE1	1.95	0.49
25:BA:1299:G:O4'	25:BA:1301:A:C8	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1341:U:O4	44:BX:16:LYS:CE	2.58	0.49
25:BA:2065:C:H1'	25:BA:2449:U:O2	2.12	0.49
25:BA:2125:G:N1	25:BA:2172:U:OP2	2.41	0.49
25:BA:2468:G:H2'	25:BA:2476:A:H8	1.78	0.49
26:BB:104:U:O2'	46:BZ:72:ARG:HG3	2.11	0.49
28:BD:108:PRO:HB3	28:BD:143:HIS:CE1	2.48	0.49
32:BH:82:GLY:O	32:BH:135:GLY:O	2.30	0.49
36:BP:57:THR:O	36:BP:60:MET:HG3	2.12	0.49
37:BQ:46:GLN:O	37:BQ:48:GLU:N	2.46	0.49
40:BT:81:PRO:C	40:BT:82:LEU:HD12	2.33	0.49
48:B1:13:ILE:O	48:B1:41:ARG:HA	2.11	0.49
48:B1:64:ALA:O	48:B1:67:ILE:CD1	2.60	0.49
1:CA:60:A:O2'	1:CA:61:G:O5'	2.30	0.49
1:CA:129:U:O3'	1:CA:130:A:OP1	2.30	0.49
1:CA:129(A):G:H4'	1:CA:130:A:O5'	2.12	0.49
1:CA:664:G:H22	1:CA:741:G:H1	1.60	0.49
3:CC:119:ARG:O	3:CC:123:GLN:HG3	2.12	0.49
4:CD:11:LEU:C	4:CD:13:ARG:N	2.66	0.49
7:CG:37:ASN:O	7:CG:41:ARG:HG3	2.12	0.49
7:CG:155:ARG:O	7:CG:156:TRP:O	2.30	0.49
8:CH:81:HIS:N	8:CH:138:TRP:O	2.45	0.49
9:CI:112:LYS:HA	9:CI:119:ALA:HA	1.94	0.49
10:CJ:57:LYS:O	10:CJ:58:ASP:OD1	2.30	0.49
20:CT:29:LYS:O	20:CT:29:LYS:HG3	2.11	0.49
22:CV:76:C:O5'	22:CV:77:A:OP2	2.30	0.49
23:CW:36:A:N1	23:CW:37:A:C4	2.81	0.49
25:DA:13:A:N3	25:DA:15:G:C6	2.80	0.49
25:DA:583:G:OP2	41:DU:10:ARG:NH1	2.41	0.49
25:DA:1565:C:O2'	25:DA:1566:A:H8	1.95	0.49
27:DC:77:ILE:HB	27:DC:122:ALA:HA	1.94	0.49
28:DD:17:THR:O	28:DD:211:ARG:NH2	2.45	0.49
31:DG:77:ILE:O	31:DG:77:ILE:CG2	2.60	0.49
32:DH:34:GLU:O	32:DH:36:PRO:HD3	2.12	0.49
37:DQ:12:GLN:NE2	37:DQ:72:LYS:HG3	2.28	0.49
37:DQ:34:LEU:HD12	37:DQ:130:LYS:O	2.13	0.49
37:DQ:54:MET:HG2	37:DQ:64:ILE:CG2	2.42	0.49
49:D2:65:ASN:HB3	49:D2:69:ARG:NH2	2.27	0.49
1:AA:375:U:O2'	16:AP:28:ARG:HD2	2.12	0.49
1:AA:962:C:H2'	1:AA:963:G:C8	2.44	0.49
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.46	0.49
1:AA:1423:G:H5'	35:BO:49:ARG:NH2	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:151:LYS:HG2	4:AD:151:LYS:O	2.13	0.49
4:AD:206:PHE:O	4:AD:206:PHE:CG	2.64	0.49
5:AE:105:VAL:HG11	5:AE:131:ILE:HG22	1.94	0.49
7:AG:9:VAL:O	7:AG:10:ARG:C	2.51	0.49
9:AI:35:GLU:O	9:AI:38:GLN:HB2	2.12	0.49
13:AM:90:LEU:O	13:AM:91:ARG:HB2	2.12	0.49
20:AT:56:MET:SD	20:AT:85:MET:HE2	2.53	0.49
25:BA:589:C:H2'	25:BA:590:A:C8	2.47	0.49
25:BA:974:G:C2	25:BA:989:G:N3	2.81	0.49
25:BA:1453:U:C4'	25:BA:1455:G:OP1	2.42	0.49
25:BA:2406:U:N3	36:BP:73:GLY:O	2.39	0.49
27:BC:55:ASP:CG	27:BC:56:GLN:N	2.65	0.49
28:BD:206:LEU:CD2	28:BD:211:ARG:HG2	2.40	0.49
29:BE:40:GLU:CD	29:BE:40:GLU:N	2.64	0.49
29:BE:108:SER:O	29:BE:162:ALA:HA	2.12	0.49
49:B2:68:ARG:O	49:B2:72:ALA:HB3	2.12	0.49
51:B4:40:ILE:HG13	51:B4:57:ILE:CG2	2.23	0.49
1:CA:392:G:O2'	1:CA:483:C:O2'	2.25	0.49
5:CE:132:ALA:O	5:CE:135:THR:N	2.40	0.49
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.27	0.49
20:CT:29:LYS:CG	20:CT:29:LYS:O	2.59	0.49
25:DA:1963:U:O2	25:DA:1963:U:H5'	2.12	0.49
25:DA:2720:U:H3'	25:DA:2721:A:H8	1.77	0.49
28:DD:252:TRP:O	28:DD:253:GLN:C	2.51	0.49
29:DE:88:GLY:O	29:DE:89:ASP:HB2	2.12	0.49
31:DG:61:ALA:HB2	31:DG:68:PRO:HD3	1.95	0.49
31:DG:73:ALA:O	31:DG:84:LYS:O	2.30	0.49
33:DI:18:VAL:HG12	33:DI:18:VAL:O	2.10	0.49
33:DI:54:GLN:O	33:DI:58:LEU:HB2	2.12	0.49
33:DI:57:ARG:O	33:DI:61:ARG:HG2	2.12	0.49
34:DN:5:VAL:HG22	34:DN:6:PRO:O	2.12	0.49
34:DN:134:ARG:N	34:DN:135:PRO:HD3	2.27	0.49
36:DP:91:PHE:CD1	36:DP:91:PHE:N	2.80	0.49
41:DU:110:VAL:HG12	41:DU:114:LYS:HD2	1.94	0.49
42:DV:35:LEU:CD2	42:DV:57:VAL:HG22	2.28	0.49
42:DV:40:LEU:HD23	42:DV:47:VAL:HA	1.93	0.49
46:DZ:53:ILE:HG23	46:DZ:71:VAL:HG23	1.94	0.49
53:D6:43:CYS:O	53:D6:44:ARG:O	2.30	0.49
1:AA:429:U:H4'	1:AA:430:A:O5'	2.12	0.49
1:AA:535:A:O2'	1:AA:536:C:OP1	2.22	0.49
1:AA:971:G:OP1	1:AA:972:C:O5'	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.13	0.49
1:AA:1298:C:C4	7:AG:114:ARG:HD2	2.47	0.49
1:AA:1298:C:H1'	1:AA:1299:A:C6	2.47	0.49
2:AB:17:PHE:HD2	2:AB:17:PHE:H	1.59	0.49
3:AC:122:GLU:OE1	3:AC:126:ARG:NH2	2.46	0.49
3:AC:147:LYS:HB2	3:AC:203:PHE:CD2	2.47	0.49
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.71	0.49
25:BA:1818:U:HO2'	25:BA:1819:A:P	2.36	0.49
25:BA:2466:C:OP1	56:B9:4:ARG:HB2	2.12	0.49
25:BA:2638:G:OP2	29:BE:82:ARG:NH2	2.46	0.49
25:BA:2691:C:C6	25:BA:2872:G:C6	3.01	0.49
25:BA:2848:G:N7	40:BT:97:ALA:HB2	2.27	0.49
25:BA:2875:C:H4'	40:BT:5:ALA:HB2	1.94	0.49
30:BF:32:LEU:O	30:BF:36:VAL:HG22	2.11	0.49
31:BG:88:ILE:HG13	31:BG:89:GLY:N	2.27	0.49
31:BG:101:ILE:HG13	51:B4:51:TYR:O	2.12	0.49
34:BN:91:LEU:HD23	34:BN:98:VAL:HG21	1.94	0.49
34:BN:123:TYR:CE1	34:BN:130:HIS:HE1	2.25	0.49
38:BR:2:ARG:HH22	38:BR:5:LYS:HZ3	1.60	0.49
41:BU:59:ARG:O	41:BU:60:LEU:C	2.50	0.49
42:BV:62:LEU:HD13	42:BV:95:LEU:HB2	1.94	0.49
46:BZ:17:ALA:HA	46:BZ:20:ARG:HB2	1.94	0.49
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CZ	2.47	0.49
48:B1:90:ILE:CG2	48:B1:94:LEU:HD12	2.30	0.49
50:B3:26:LEU:O	50:B3:35:ARG:HD3	2.12	0.49
52:B5:42:PRO:O	52:B5:43:HIS:HB2	2.13	0.49
1:CA:60:A:O2'	1:CA:61:G:OP2	2.30	0.49
1:CA:128:G:H4'	17:CQ:3:LYS:HG2	1.94	0.49
1:CA:686:U:O2'	1:CA:687:A:OP2	2.26	0.49
1:CA:838:G:H2'	1:CA:839:U:H5"	1.94	0.49
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.94	0.49
1:CA:1239:A:N6	1:CA:1297:C:O4'	2.43	0.49
2:CB:15:VAL:HG21	2:CB:209:ARG:NH2	2.27	0.49
7:CG:121:ALA:O	7:CG:124:LEU:N	2.45	0.49
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.12	0.49
13:CM:8:GLU:OE1	13:CM:67:GLU:HB2	2.12	0.49
17:CQ:67:LYS:C	17:CQ:69:LYS:H	2.15	0.49
18:CR:53:ARG:HH21	18:CR:60:ALA:N	2.10	0.49
23:CW:16:U:H3'	23:CW:17:C:C5'	2.36	0.49
25:DA:614(C):A:O2'	25:DA:615:G:O4'	2.30	0.49
25:DA:2046:G:O5'	52:D5:19:ARG:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2068:U:N3	25:DA:2430:A:H2	2.09	0.49
25:DA:2469:A:H3'	25:DA:2470:G:O4'	2.11	0.49
29:DE:111:ARG:NE	29:DE:160:TYR:HE1	2.10	0.49
29:DE:111:ARG:NE	29:DE:160:TYR:CE1	2.80	0.49
31:DG:4:ASP:O	31:DG:5:VAL:HB	2.13	0.49
31:DG:120:LEU:O	31:DG:122:PRO:HD3	2.12	0.49
33:DI:76:THR:CG2	33:DI:139:GLN:HE22	2.24	0.49
39:DS:106:ARG:HB3	39:DS:110:LEU:HD13	1.93	0.49
40:DT:86:ILE:HG12	40:DT:87:ASP:H	1.78	0.49
41:DU:79:PHE:C	41:DU:79:PHE:CD2	2.86	0.49
41:DU:111:GLU:O	41:DU:113:ALA:N	2.45	0.49
42:DV:35:LEU:HD22	42:DV:57:VAL:O	2.12	0.49
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.12	0.49
45:DY:38:ILE:CG2	45:DY:66:PRO:HG3	2.43	0.49
47:D0:51:VAL:HG21	47:D0:80:HIS:HA	1.95	0.49
47:D0:72:ARG:CB	47:D0:75:LEU:HB3	2.41	0.49
49:D2:13:ALA:HA	49:D2:16:LEU:HG	1.94	0.49
53:D6:45:LYS:O	53:D6:46:HIS:CB	2.59	0.49
54:D7:24:THR:HG23	54:D7:27:GLY:N	2.27	0.49
1:AA:243:A:O2'	1:AA:244:U:OP2	2.30	0.49
1:AA:503:C:OP2	12:AL:116:SER:HB3	2.12	0.49
1:AA:580:U:H2'	1:AA:581:G:O4'	2.12	0.49
3:AC:61:ALA:O	3:AC:62:ASP:CB	2.61	0.49
4:AD:43:HIS:O	4:AD:44:GLY:C	2.50	0.49
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.13	0.49
10:AJ:90:LEU:N	10:AJ:90:LEU:HD12	2.28	0.49
12:AL:26:ALA:O	12:AL:27:LEU:CB	2.56	0.49
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.77	0.49
13:AM:80:ARG:NH1	19:AS:69:HIS:NE2	2.57	0.49
13:AM:92:HIS:CE1	13:AM:98:VAL:HG21	2.48	0.49
19:AS:43:GLU:HA	19:AS:45:VAL:CG1	2.42	0.49
20:AT:91:LEU:C	20:AT:93:GLU:H	2.16	0.49
21:AU:25:LYS:HB2	21:AU:25:LYS:HZ2	1.78	0.49
22:AV:49:C:O4'	22:AV:49:C:O2	2.28	0.49
22:AV:53:G:O2'	22:AV:54:G:OP1	2.30	0.49
23:AW:34:G:C5	24:AX:14:A:N1	2.78	0.49
25:BA:34:C:HO2'	25:BA:35:G:P	2.36	0.49
25:BA:662:G:H4'	36:BP:15:ARG:O	2.13	0.49
25:BA:705:A:C8	25:BA:727:A:N3	2.81	0.49
25:BA:855:G:H1	25:BA:922:U:H3	1.61	0.49
25:BA:1252:G:O2'	41:BU:33:ARG:NH1	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1348:G:H2'	25:BA:1349:A:H5"	1.95	0.49
25:BA:2126:A:O2'	25:BA:2127:G:P	2.70	0.49
25:BA:2181:G:H2'	25:BA:2182:G:C8	2.46	0.49
25:BA:2370:G:H21	53:B6:45:LYS:HZ1	1.59	0.49
27:BC:21:THR:HG21	27:BC:191:ALA:HB2	1.95	0.49
28:BD:142:VAL:HG23	28:BD:193:VAL:HA	1.94	0.49
28:BD:264:LYS:HG3	28:BD:265:PRO:HD2	1.94	0.49
29:BE:8:LYS:HD3	29:BE:191:PRO:O	2.12	0.49
29:BE:31:CYS:HB3	29:BE:49:LEU:HD23	1.94	0.49
29:BE:113:PHE:CE2	29:BE:158:GLY:HA2	2.47	0.49
30:BF:51:THR:HG22	30:BF:92:PRO:HG2	1.94	0.49
31:BG:48:GLU:O	31:BG:49:ASP:CB	2.60	0.49
35:BO:2:ILE:CD1	35:BO:6:THR:HG21	2.41	0.49
38:BR:97:VAL:HA	38:BR:113:LEU:O	2.13	0.49
39:BS:26:LEU:O	39:BS:88:ASP:HB3	2.12	0.49
46:BZ:19:ARG:NH1	46:BZ:82:ARG:HH21	2.11	0.49
46:BZ:71:VAL:HG22	46:BZ:88:PHE:HE2	1.77	0.49
50:B3:39:ASP:OD2	50:B3:39:ASP:O	2.30	0.49
1:CA:64:G:N2	1:CA:68:G:O6	2.40	0.49
1:CA:748:C:O2'	1:CA:749:C:OP2	2.30	0.49
1:CA:757:U:H2'	1:CA:758:G:O4'	2.13	0.49
1:CA:1213:A:C6	1:CA:1215:G:H1'	2.47	0.49
4:CD:25:ARG:C	4:CD:27:TYR:N	2.66	0.49
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.77	0.49
8:CH:48:TYR:CD2	8:CH:48:TYR:N	2.81	0.49
11:CK:57:THR:CG2	11:CK:58:PRO:HD2	2.43	0.49
13:CM:66:LEU:HD12	13:CM:66:LEU:N	2.26	0.49
16:CP:21:VAL:O	16:CP:33:ILE:HG12	2.13	0.49
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.60	0.49
18:CR:33:ASP:OD1	18:CR:36:ASN:OD1	2.30	0.49
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.61	0.49
23:CW:55:U:H3'	23:CW:55:U:O2	2.12	0.49
24:CX:16:A:C4	24:CX:17:U:C5	3.00	0.49
23:CY:28:G:C2	23:CY:43:C:N3	2.81	0.49
25:DA:74:A:H4'	25:DA:75:G:O5'	2.12	0.49
25:DA:749:C:N3	25:DA:1618:A:C2	2.81	0.49
25:DA:1140:C:C4'	25:DA:1143:A:C6	2.94	0.49
25:DA:1340:U:C4'	25:DA:1341:U:OP2	2.58	0.49
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.48	0.49
26:DB:13:A:O2'	26:DB:15:A:OP2	2.31	0.49
29:DE:65:GLY:HA2	29:DE:70:ALA:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:78:LEU:O	29:DE:79:ARG:HD2	2.12	0.49
30:DF:39:TRP:CB	30:DF:101:LEU:HD22	2.43	0.49
30:DF:42:ALA:O	30:DF:45:ARG:HB2	2.13	0.49
30:DF:183:VAL:O	30:DF:187:VAL:HG23	2.13	0.49
32:DH:153:LYS:HG2	32:DH:162:ILE:CG1	2.41	0.49
34:DN:108:PRO:O	34:DN:113:GLY:HA3	2.13	0.49
38:DR:92:GLY:O	38:DR:93:GLY:C	2.51	0.49
46:DZ:43:GLU:O	46:DZ:47:VAL:HG12	2.12	0.49
5:AE:76:ILE:HG12	5:AE:142:LEU:CD1	2.41	0.49
9:AI:42:ARG:O	9:AI:43:ALA:C	2.50	0.49
12:AL:83:VAL:HG22	12:AL:100:ILE:CG2	2.43	0.49
12:AL:117:ARG:NH2	12:AL:124:LYS:HA	2.28	0.49
19:AS:11:VAL:HA	19:AS:38:SER:CB	2.38	0.49
20:AT:63:ILE:CD1	20:AT:81:LYS:CG	2.91	0.49
23:AW:49:C:O2'	23:AW:50:U:H5'	2.12	0.49
24:AX:19:U:O5'	24:AX:19:U:H6	1.96	0.49
25:BA:601:C:H4'	30:BF:104:LYS:HZ3	1.77	0.49
25:BA:614(C):A:O2'	25:BA:615:G:O4'	2.30	0.49
25:BA:748:G:C8	43:BW:89:ALA:HB1	2.48	0.49
25:BA:792:G:H5"	25:BA:793:A:H5'	1.95	0.49
25:BA:988:A:H5"	50:B3:11:SER:HB2	1.95	0.49
25:BA:1525:G:H2'	25:BA:1526:G:H8	1.77	0.49
25:BA:2894:G:N3	25:BA:2894:G:H2'	2.28	0.49
29:BE:32:PRO:HA	29:BE:90:THR:HA	1.95	0.49
33:BI:40:THR:O	33:BI:41:GLU:C	2.51	0.49
33:BI:131:LYS:HE3	33:BI:132:PRO:CD	2.43	0.49
38:BR:95:THR:O	38:BR:95:THR:HG23	2.11	0.49
39:BS:46:VAL:HG12	39:BS:47:THR:N	2.26	0.49
39:BS:85:VAL:HG23	39:BS:86:ALA:N	2.27	0.49
39:BS:92:TYR:N	39:BS:92:TYR:CD1	2.80	0.49
41:BU:79:PHE:CE2	41:BU:83:LEU:HD22	2.47	0.49
42:BV:62:LEU:CD1	42:BV:95:LEU:HB2	2.42	0.49
43:BW:8:ARG:HH11	43:BW:8:ARG:CB	2.25	0.49
47:B0:54:GLY:O	47:B0:56:ASP:N	2.46	0.49
49:B2:19:VAL:HA	49:B2:22:GLU:HG3	1.94	0.49
50:B3:7:LYS:CB	50:B3:34:GLU:HG2	2.42	0.49
1:CA:1064:G:C4'	1:CA:1065:U:H5'	2.39	0.49
4:CD:29:PRO:C	4:CD:30:LYS:HG2	2.32	0.49
5:CE:84:PHE:O	5:CE:86:ALA:N	2.39	0.49
5:CE:127:ASN:OD1	5:CE:127:ASN:C	2.50	0.49
9:CI:53:VAL:HG23	9:CI:55:ALA:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:78:ASN:ND2	10:CJ:80:LYS:N	2.48	0.49
12:CL:113:ARG:HH21	12:CL:116:SER:H	1.59	0.49
13:CM:116:THR:C	13:CM:117:VAL:HG13	2.33	0.49
14:CN:36:PHE:C	14:CN:36:PHE:CD1	2.86	0.49
19:CS:63:THR:CG2	19:CS:66:MET:HE2	2.40	0.49
19:CS:67:VAL:HG12	19:CS:68:GLY:N	2.27	0.49
20:CT:89:ARG:HB2	20:CT:104:LEU:CD1	2.43	0.49
22:CV:35:C:H2'	22:CV:36:A:C8	2.47	0.49
25:DA:1636:C:H2'	25:DA:1637:A:C8	2.47	0.49
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.48	0.49
25:DA:2311:A:C1'	31:DG:82:LEU:HD11	2.41	0.49
25:DA:2572:A:N7	29:DE:144:ARG:NE	2.58	0.49
28:DD:43:ARG:NH1	28:DD:44:ASN:HD21	2.07	0.49
28:DD:270:ILE:HD12	28:DD:270:ILE:O	2.13	0.49
29:DE:61:ARG:CB	29:DE:62:PRO:HD3	2.43	0.49
29:DE:111:ARG:HB3	38:DR:1:MET:CE	2.42	0.49
30:DF:123:LEU:HD13	30:DF:192:LEU:HB3	1.92	0.49
31:DG:137:GLU:CB	31:DG:152:LEU:HD22	2.43	0.49
32:DH:89:ILE:HA	32:DH:162:ILE:HA	1.94	0.49
32:DH:127:GLU:HB2	32:DH:130:ARG:HD2	1.94	0.49
33:DI:127:VAL:HA	33:DI:139:GLN:HA	1.95	0.49
34:DN:38:HIS:NE2	34:DN:50:ASP:OD2	2.45	0.49
36:DP:27:HIS:N	36:DP:27:HIS:ND1	2.59	0.49
36:DP:109:GLY:O	36:DP:110:TYR:O	2.31	0.49
38:DR:80:PHE:O	38:DR:85:PRO:HD3	2.12	0.49
40:DT:6:LEU:O	40:DT:6:LEU:HD23	2.13	0.49
43:DW:34:ASN:O	43:DW:37:ARG:HB3	2.13	0.49
48:D1:53:VAL:HG22	48:D1:74:VAL:HG13	1.95	0.49
49:D2:16:LEU:O	49:D2:17:SER:CB	2.61	0.49
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.28	0.49
1:AA:689:C:H2'	1:AA:690:G:O4'	2.12	0.49
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.28	0.49
7:AG:15:ASP:N	7:AG:24:THR:HG21	2.28	0.49
7:AG:135:VAL:O	7:AG:139:GLU:HG3	2.12	0.49
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.60	0.49
20:AT:73:HIS:HB3	20:AT:74:LYS:HG2	1.93	0.49
25:BA:300:A:H2'	25:BA:334:C:H1'	1.94	0.49
25:BA:434:U:C4'	25:BA:435:C:OP1	2.32	0.49
25:BA:726:G:H5'	25:BA:1432:C:O2'	2.13	0.49
25:BA:1045:A:H2'	25:BA:1045:A:N3	2.28	0.49
25:BA:1286:A:N1	25:BA:1289:C:C2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1495:A:H3'	25:BA:1496:A:C2	2.47	0.49
25:BA:1803:A:O2'	28:BD:259:THR:HG21	2.13	0.49
25:BA:1930:G:O2'	25:BA:1968:G:N1	2.42	0.49
25:BA:2249:U:H1'	25:BA:2275:C:N4	2.27	0.49
25:BA:2418:A:H2'	25:BA:2419:U:C6	2.48	0.49
25:BA:2468:G:H22	25:BA:2481:G:H2'	1.78	0.49
25:BA:2638:G:O2'	25:BA:2639:A:C8	2.66	0.49
29:BE:195:LEU:O	29:BE:195:LEU:HG	2.11	0.49
31:BG:9:ARG:O	31:BG:11:TYR:N	2.45	0.49
31:BG:72:ARG:CD	31:BG:86:MET:CB	2.86	0.49
31:BG:102:PHE:CE2	31:BG:141:PHE:HE1	2.29	0.49
32:BH:132:ARG:O	32:BH:133:VAL:HG23	2.13	0.49
32:BH:146:ALA:HB2	32:BH:164:TYR:OH	2.12	0.49
33:BI:30:LEU:HD22	33:BI:35:LEU:HD12	1.94	0.49
34:BN:82:LEU:CD2	34:BN:84:LYS:HE2	2.42	0.49
34:BN:94:HIS:N	34:BN:95:PRO:CD	2.75	0.49
35:BO:104:ARG:CZ	35:BO:104:ARG:CB	2.90	0.49
36:BP:15:ARG:HG3	36:BP:16:ARG:N	2.28	0.49
37:BQ:132:VAL:HB	37:BQ:137:TYR:OH	2.13	0.49
40:BT:92:GLY:O	40:BT:93:ARG:HB3	2.12	0.49
45:BY:31:LEU:CD2	45:BY:36:ALA:O	2.58	0.49
48:B1:29:GLY:O	48:B1:30:VAL:HG23	2.12	0.49
51:B4:53:THR:O	51:B4:54:LYS:HG3	2.13	0.49
55:B8:4:MET:O	55:B8:62:LEU:HD11	2.13	0.49
55:B8:58:ILE:O	55:B8:61:LEU:HD23	2.13	0.49
1:CA:496:A:H5"	1:CA:498:U:OP2	2.12	0.49
1:CA:950:U:OP2	13:CM:102:ARG:HD2	2.12	0.49
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.30	0.49
7:CG:14:PRO:CG	7:CG:21:VAL:HG13	2.40	0.49
7:CG:71:PRO:O	7:CG:96:GLN:HG3	2.12	0.49
8:CH:103:VAL:CG1	8:CH:108:GLY:HA3	2.41	0.49
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.94	0.49
13:CM:120:LYS:O	13:CM:121:LYS:HB2	2.13	0.49
20:CT:63:ILE:CG2	20:CT:77:ALA:HB1	2.43	0.49
20:CT:83:ARG:C	20:CT:85:MET:N	2.66	0.49
22:CV:75:C:H2'	22:CV:76:C:H5'	1.93	0.49
23:CY:29:G:H21	23:CY:30:G:H1'	1.78	0.49
25:DA:644:A:O3'	25:DA:645:C:C6	2.65	0.49
25:DA:1694:C:C4'	25:DA:1695:G:C4	2.95	0.49
25:DA:2645:G:H8	25:DA:2645:G:OP2	1.95	0.49
26:DB:117:G:H4'	39:DS:54:LEU:CD1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:45:ALA:O	27:DC:46:LYS:HB2	2.12	0.49
27:DC:168:THR:HA	27:DC:173:ALA:HB1	1.94	0.49
28:DD:11:PRO:O	28:DD:13:ARG:N	2.46	0.49
28:DD:22:SER:O	28:DD:23:GLU:C	2.51	0.49
30:DF:125:LEU:HA	30:DF:194:MET:O	2.12	0.49
31:DG:110:ALA:C	31:DG:112:PRO:HD2	2.32	0.49
33:DI:111:PRO:O	33:DI:114:LEU:HB2	2.13	0.49
34:DN:91:LEU:CD2	34:DN:98:VAL:HG21	2.43	0.49
36:DP:46:LYS:HG2	36:DP:51:PHE:CZ	2.48	0.49
36:DP:48:PRO:O	36:DP:50:ARG:N	2.45	0.49
39:DS:5:THR:HG1	39:DS:8:GLU:HG3	1.74	0.49
39:DS:94:TYR:CE2	39:DS:99:LYS:HG3	2.48	0.49
42:DV:18:LEU:HD23	42:DV:19:LYS:N	2.28	0.49
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB3	2.47	0.49
45:DY:38:ILE:HG22	45:DY:66:PRO:HA	1.94	0.49
46:DZ:114:GLY:HA3	46:DZ:177:PRO:CB	2.42	0.49
53:D6:13:CYS:O	53:D6:21:TYR:HA	2.13	0.49
1:AA:250:A:O2'	1:AA:251:G:OP2	2.30	0.49
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.30	0.49
5:AE:20:GLN:O	5:AE:21:ALA:C	2.50	0.49
6:AF:67:MET:HB2	6:AF:68:PRO:CD	2.42	0.49
9:AI:8:GLY:O	9:AI:76:ALA:HB1	2.12	0.49
9:AI:16:ARG:NH2	9:AI:64:THR:HG21	2.28	0.49
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.12	0.49
23:AW:23:A:C6	23:AW:24:G:C6	3.01	0.49
25:BA:395:U:O2'	25:BA:396:G:C8	2.66	0.49
25:BA:958:U:C5	37:BQ:41:TRP:CE3	3.01	0.49
25:BA:1396:U:O2	25:BA:1396:U:H2'	2.11	0.49
25:BA:1826:G:C4'	28:BD:242:ARG:HH21	2.21	0.49
25:BA:2716:U:H2'	25:BA:2717:G:H8	1.78	0.49
27:BC:20:TYR:CG	27:BC:21:THR:N	2.81	0.49
28:BD:210:GLY:O	28:BD:211:ARG:C	2.51	0.49
32:BH:17:VAL:O	32:BH:45:VAL:HG22	2.12	0.49
32:BH:20:ALA:HB1	32:BH:21:PRO:CD	2.42	0.49
33:BI:6:LEU:O	33:BI:15:VAL:HG12	2.12	0.49
37:BQ:2:LEU:O	37:BQ:70:PRO:HG2	2.13	0.49
43:BW:48:ALA:O	43:BW:50:VAL:N	2.46	0.49
44:BX:10:ALA:HB1	44:BX:11:PRO:HD2	1.94	0.49
46:BZ:14:LYS:O	46:BZ:15:PRO:C	2.50	0.49
49:B2:48:HIS:CG	49:B2:49:LYS:N	2.81	0.49
55:B8:33:ASN:OD1	55:B8:33:ASN:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:346:G:OP2	40:DT:35:LYS:HD2	2.12	0.49
7:CG:60:LYS:HA	7:CG:60:LYS:HZ2	1.78	0.49
9:CI:4:TYR:CD2	9:CI:59:PHE:HE2	2.31	0.49
9:CI:79:LEU:HD22	9:CI:79:LEU:O	2.13	0.49
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.41	0.49
22:CV:75:C:C2'	22:CV:76:C:H5'	2.43	0.49
25:DA:300:A:H1'	25:DA:319:C:H1'	1.95	0.49
25:DA:598:G:O4'	36:DP:11:GLY:C	2.51	0.49
25:DA:639:U:H2'	25:DA:640:C:C6	2.48	0.49
25:DA:1342:A:O4'	25:DA:1397:U:H4'	2.13	0.49
25:DA:1668:A:OP1	35:DO:5:GLN:HG3	2.12	0.49
25:DA:1799:G:O2'	25:DA:1800:C:OP2	2.30	0.49
27:DC:49:ILE:HD12	27:DC:49:ILE:N	2.22	0.49
31:DG:133:LEU:CD2	31:DG:157:ILE:HB	2.42	0.49
37:DQ:141:GLN:HE22	46:DZ:72:ARG:CA	2.21	0.49
40:DT:15:VAL:HA	40:DT:79:HIS:HD2	1.77	0.49
40:DT:33:LYS:HE3	40:DT:43:GLN:HE22	1.67	0.49
40:DT:89:VAL:HG12	40:DT:91:ARG:HG3	1.94	0.49
42:DV:8:GLY:O	42:DV:10:LYS:HE2	2.13	0.49
46:DZ:96:VAL:HG22	46:DZ:97:GLU:H	1.77	0.49
46:DZ:156:LYS:O	46:DZ:157:LEU:C	2.51	0.49
55:D8:46:ARG:O	55:D8:47:LYS:HB3	2.11	0.49
1:AA:407:G:OP1	4:AD:115:ARG:NH2	2.46	0.49
1:AA:453:A:C6	1:AA:454:C:C4	3.01	0.49
1:AA:673:G:H2'	1:AA:674:G:C8	2.47	0.49
1:AA:992:U:O2'	1:AA:993:G:OP2	2.30	0.49
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.42	0.49
1:AA:1203:C:OP1	14:AN:3:ARG:HD3	2.13	0.49
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.23	0.49
2:AB:31:TYR:N	2:AB:31:TYR:CD2	2.79	0.49
7:AG:145:ALA:C	7:AG:147:ALA:H	2.15	0.49
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.95	0.49
12:AL:71:PRO:O	12:AL:102:ARG:NH1	2.45	0.49
12:AL:117:ARG:C	12:AL:119:LYS:O	2.51	0.49
13:AM:15:VAL:HG13	13:AM:43:THR:O	2.13	0.49
22:AV:52:C:C2	22:AV:53:G:C8	3.00	0.49
25:BA:34:C:O2'	25:BA:35:G:OP1	2.30	0.49
25:BA:587:C:C4'	25:BA:588:U:OP2	2.55	0.49
25:BA:614(C):A:O2'	25:BA:615:G:O5'	2.30	0.49
25:BA:1397:U:O4	25:BA:1602:U:O2	2.31	0.49
25:BA:1917:U:H2'	25:BA:1918:A:H5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2145:C:O2'	25:BA:2146:C:OP1	2.29	0.49
25:BA:2250:G:O2'	25:BA:2497:A:OP2	2.26	0.49
25:BA:2517:C:C4	25:BA:2542:A:C6	3.01	0.49
29:BE:64:LYS:C	29:BE:66:HIS:N	2.65	0.49
31:BG:63:ILE:HD12	31:BG:141:PHE:CE1	2.48	0.49
31:BG:83:ARG:O	31:BG:84:LYS:HB2	2.13	0.49
34:BN:62:VAL:O	34:BN:63:THR:O	2.30	0.49
34:BN:70:LYS:C	34:BN:71:ILE:HD12	2.32	0.49
35:BO:115:VAL:HG12	35:BO:116:SER:H	1.78	0.49
36:BP:115:LEU:HD23	36:BP:131:SER:HB2	1.94	0.49
37:BQ:16:ARG:HG2	37:BQ:18:LYS:HD2	1.94	0.49
40:BT:30:VAL:HG21	40:BT:84:GLN:H	1.78	0.49
40:BT:31:SER:HB3	40:BT:43:GLN:CA	2.43	0.49
40:BT:100:TYR:O	40:BT:103:ARG:N	2.44	0.49
41:BU:95:LEU:HB3	42:BV:4:ILE:HD13	1.94	0.49
42:BV:39:LEU:HA	42:BV:47:VAL:CG1	2.43	0.49
44:BX:90:GLU:O	44:BX:91:ALA:C	2.51	0.49
47:B0:68:GLU:HG3	47:B0:80:HIS:HB2	1.94	0.49
1:CA:48:C:O2'	1:CA:49:U:OP1	2.30	0.49
1:CA:173:U:O5'	1:CA:174:C:OP2	2.30	0.49
1:CA:486:U:H2'	1:CA:487:A:C8	2.47	0.49
1:CA:652:U:O2'	1:CA:653:A:O5'	2.29	0.49
1:CA:1456:G:N2	1:CA:1457:G:C4	2.80	0.49
3:CC:14:ILE:CG1	3:CC:15:THR:N	2.72	0.49
6:CF:7:ASN:O	6:CF:88:VAL:HA	2.12	0.49
11:CK:95:ILE:O	11:CK:98:LEU:HB2	2.13	0.49
16:CP:1:MET:O	16:CP:3:LYS:HG3	2.13	0.49
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.78	0.49
20:CT:49:ALA:O	20:CT:50:GLU:O	2.30	0.49
22:CV:54:G:O2'	22:CV:55:U:OP2	2.30	0.49
25:DA:528:A:C2	25:DA:2042:A:H2'	2.48	0.49
25:DA:572:A:C4	25:DA:573:G:H1'	2.48	0.49
25:DA:910:A:N3	25:DA:2264:C:O2'	2.35	0.49
25:DA:2494:G:O2'	37:DQ:80:GLU:HA	2.12	0.49
25:DA:2581:G:H2'	25:DA:2610:C:H41	1.77	0.49
25:DA:2751:G:OP2	32:DH:4:ILE:HG22	2.13	0.49
27:DC:56:GLN:NE2	27:DC:173:ALA:HB1	2.28	0.49
30:DF:123:LEU:HD13	30:DF:192:LEU:HD13	1.95	0.49
30:DF:206:ILE:HD12	30:DF:206:ILE:C	2.33	0.49
31:DG:106:LEU:HA	31:DG:110:ALA:CB	2.43	0.49
40:DT:23:ARG:CG	40:DT:120:ARG:CZ	2.87	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:62:LEU:CD1	42:DV:95:LEU:HB2	2.42	0.49
45:DY:44:ILE:HD12	45:DY:45:VAL:H	1.78	0.49
45:DY:84:ARG:O	45:DY:95:LYS:HD3	2.13	0.49
45:DY:97:ARG:N	45:DY:97:ARG:CD	2.75	0.49
1:AA:256:U:H2'	1:AA:257:G:C8	2.48	0.48
1:AA:421:U:O4'	1:AA:421:U:O2	2.30	0.48
1:AA:1392:G:N2	1:AA:1502:A:H8	2.04	0.48
3:AC:79:ARG:NH2	11:CK:100:ALA:HB2	2.28	0.48
4:AD:59:ARG:HE	4:AD:59:ARG:HA	1.78	0.48
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.95	0.48
7:AG:91:VAL:HG11	7:AG:96:GLN:HG3	1.95	0.48
11:AK:41:THR:CG2	11:AK:42:TRP:N	2.75	0.48
14:AN:9:LYS:HG3	14:AN:12:ARG:HH22	1.77	0.48
20:AT:49:ALA:C	20:AT:100:ILE:HD13	2.33	0.48
20:AT:98:PRO:C	20:AT:100:ILE:H	2.14	0.48
23:AW:67:C:C4	23:AW:68:C:N4	2.80	0.48
25:BA:309:G:H4'	45:BY:18:GLY:HA3	1.95	0.48
25:BA:383:U:H2'	25:BA:385:C:H5	1.78	0.48
25:BA:1658:C:OP1	29:BE:132:HIS:CE1	2.66	0.48
28:BD:236:GLY:O	28:BD:238:GLY:N	2.42	0.48
28:BD:270:ILE:H	28:BD:270:ILE:CD1	2.17	0.48
29:BE:152:LYS:HG2	34:BN:78:TYR:CD1	2.47	0.48
31:BG:114:ILE:O	31:BG:115:ARG:C	2.51	0.48
31:BG:127:GLY:H	31:BG:166:ASP:CG	2.15	0.48
33:BI:126:TYR:O	33:BI:139:GLN:HA	2.13	0.48
42:BV:40:LEU:HA	42:BV:45:THR:HB	1.94	0.48
1:CA:484:G:O2'	1:CA:485:G:O5'	2.30	0.48
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.30	0.48
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.48	0.48
1:CA:1439:C:OP1	20:CT:38:LYS:HD2	2.13	0.48
2:CB:154:LEU:O	2:CB:156:LYS:HG2	2.13	0.48
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.77	0.48
2:CB:194:PRO:O	2:CB:195:ASP:C	2.50	0.48
10:CJ:54:PHE:CD1	10:CJ:55:LYS:HE3	2.48	0.48
12:CL:22:SER:C	12:CL:24:VAL:N	2.66	0.48
13:CM:93:ARG:CZ	25:DA:888:C:OP1	2.61	0.48
16:CP:11:SER:H	16:CP:14:ASN:HB3	1.78	0.48
16:CP:32:TYR:HD2	16:CP:32:TYR:O	1.96	0.48
22:CV:30:G:C5	22:CV:43:G:N1	2.81	0.48
25:DA:442:G:H4'	25:DA:443:A:OP1	2.13	0.48
25:DA:686:G:N2	25:DA:788:A:H61	2.10	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1012:U:C4	34:DN:28:THR:HG21	2.48	0.48
25:DA:1203:G:O6	25:DA:1204:A:N6	2.46	0.48
25:DA:1453:U:O2'	25:DA:1455:G:O5'	2.30	0.48
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.13	0.48
26:DB:51:G:H5'	26:DB:52:A:OP2	2.13	0.48
32:DH:152:ARG:HE	32:DH:153:LYS:CE	2.26	0.48
33:DI:62:LYS:O	33:DI:66:GLU:HG2	2.13	0.48
34:DN:89:LYS:NZ	34:DN:89:LYS:HB3	2.27	0.48
36:DP:15:ARG:HG3	36:DP:16:ARG:N	2.28	0.48
38:DR:63:ARG:HA	38:DR:80:PHE:CE2	2.47	0.48
40:DT:100:TYR:HD2	40:DT:103:ARG:NH2	2.10	0.48
41:DU:31:SER:C	41:DU:33:ARG:H	2.16	0.48
46:DZ:13:GLU:HB3	46:DZ:14:LYS:HZ1	1.78	0.48
46:DZ:18:LEU:HD12	46:DZ:25:PRO:HG3	1.95	0.48
46:DZ:28:MET:CE	46:DZ:59:LEU:HD12	2.43	0.48
50:D3:49:LYS:C	50:D3:51:ALA:H	2.17	0.48
52:D5:4:HIS:CB	52:D5:5:PRO:CD	2.90	0.48
53:D6:15:GLU:C	53:D6:47:THR:HG21	2.33	0.48
1:AA:204:U:H4'	1:AA:216:G:C8	2.48	0.48
1:AA:674:G:H2'	1:AA:675:A:C8	2.48	0.48
1:AA:1126:U:H6	1:AA:1126:U:P	2.37	0.48
1:AA:1343:G:O3'	9:AI:122:ALA:HB3	2.13	0.48
1:AA:1363(A):A:H1'	1:AA:1365:G:C8	2.48	0.48
2:AB:180:LEU:C	2:AB:182:ILE:H	2.16	0.48
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.95	0.48
3:AC:113:ALA:O	3:AC:116:VAL:N	2.45	0.48
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.12	0.48
4:AD:10:ARG:CG	4:AD:10:ARG:NH1	2.72	0.48
7:AG:75:VAL:HA	7:AG:87:VAL:O	2.13	0.48
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.12	0.48
25:BA:270:A:OP2	25:BA:271(X):G:N1	2.42	0.48
29:BE:4:ILE:CG2	29:BE:198:VAL:HB	2.43	0.48
29:BE:31:CYS:CB	29:BE:49:LEU:HD23	2.43	0.48
31:BG:51:ARG:NH1	31:BG:53:LEU:HD21	2.28	0.48
34:BN:126:PRO:O	34:BN:127:ASP:CB	2.61	0.48
36:BP:46:LYS:HG2	36:BP:51:PHE:CG	2.48	0.48
36:BP:79:ARG:CD	36:BP:109:GLY:C	2.81	0.48
36:BP:110:TYR:O	36:BP:111:ARG:C	2.52	0.48
37:BQ:46:GLN:O	37:BQ:47:ILE:C	2.51	0.48
38:BR:103:ARG:CA	38:BR:109:ALA:O	2.61	0.48
40:BT:29:ARG:NE	40:BT:86:ILE:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:46:LYS:O	46:BZ:50:GLN:HG3	2.13	0.48
1:CA:250:A:H8	1:CA:250:A:O5'	1.95	0.48
1:CA:277:C:P	17:CQ:68:ARG:HH12	2.36	0.48
1:CA:691:G:N7	11:CK:26:ASN:HB3	2.28	0.48
1:CA:1308:U:OP1	13:CM:98:VAL:N	2.46	0.48
1:CA:1380:U:H5"	1:CA:1381:U:OP1	2.13	0.48
2:CB:107:THR:O	2:CB:110:GLN:HB2	2.12	0.48
4:CD:70:ILE:HG23	4:CD:75:PHE:HB2	1.95	0.48
4:CD:138:TYR:CE2	4:CD:139:ARG:O	2.66	0.48
9:CI:46:ALA:HB1	9:CI:77:ILE:HG22	1.95	0.48
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.28	0.48
10:CJ:45:ARG:HB3	10:CJ:65:LEU:HB3	1.95	0.48
12:CL:60:LEU:HD23	12:CL:64:TYR:HB3	1.95	0.48
15:CO:34:LEU:HD12	15:CO:34:LEU:O	2.13	0.48
20:CT:22:ARG:O	20:CT:26:ASN:OD1	2.30	0.48
23:CW:28:G:N2	23:CW:43:C:C2	2.81	0.48
25:DA:392:C:H5"	25:DA:409:C:H5"	1.95	0.48
25:DA:749:C:H5'	25:DA:1271:G:H1'	1.95	0.48
25:DA:1747(A):G:H2'	25:DA:1748:G:H5"	1.95	0.48
25:DA:2750:A:HO2'	25:DA:2751:G:P	2.36	0.48
25:DA:2790:A:O2'	25:DA:2893:G:N3	2.43	0.48
28:DD:31:LYS:NZ	28:DD:102:LYS:NZ	2.60	0.48
29:DE:70:ALA:O	29:DE:71:GLY:C	2.51	0.48
33:DI:37:VAL:CG1	33:DI:38:LEU:HD12	2.43	0.48
33:DI:69:LYS:HG3	33:DI:136:VAL:CG2	2.43	0.48
33:DI:124:GLY:H	33:DI:142:VAL:CG2	2.26	0.48
37:DQ:133:ARG:HH11	37:DQ:133:ARG:HG3	1.78	0.48
40:DT:65:LYS:O	40:DT:72:VAL:N	2.37	0.48
45:DY:54:LYS:O	45:DY:55:TYR:CB	2.60	0.48
53:D6:20:ASN:ND2	53:D6:21:TYR:N	2.60	0.48
1:AA:1317:C:C2	14:AN:16:PHE:CE1	3.02	0.48
3:AC:113:ALA:O	3:AC:115:LEU:N	2.46	0.48
6:AF:21:LEU:C	6:AF:23:LYS:N	2.67	0.48
10:AJ:61:GLU:HG3	14:AN:58:LYS:NZ	2.28	0.48
11:AK:98:LEU:HD23	11:AK:98:LEU:HA	1.59	0.48
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.24	0.48
14:AN:23:ARG:O	14:AN:24:CYS:O	2.30	0.48
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.13	0.48
16:AP:82:GLN:CG	16:AP:83:GLU:N	2.70	0.48
17:AQ:77:VAL:O	17:AQ:78:GLU:HB3	2.13	0.48
19:AS:28:LYS:HB3	19:AS:29:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:16:U:C5	23:AW:18:G:O5'	2.66	0.48
23:AW:50:U:C2	23:AW:65:G:N2	2.81	0.48
25:BA:50:U:C4'	25:BA:51:G:OP2	2.60	0.48
25:BA:307:G:H21	25:BA:330:A:H62	1.61	0.48
25:BA:813:U:OP2	36:BP:23:PRO:O	2.31	0.48
25:BA:920:G:H2'	25:BA:921:G:H8	1.78	0.48
25:BA:2745:C:H4'	32:BH:142:GLY:O	2.14	0.48
25:BA:2848:G:O2'	25:BA:2867:G:N2	2.46	0.48
26:BB:66:A:C6	26:BB:108:U:C4	3.02	0.48
32:BH:13:LYS:O	32:BH:15:VAL:N	2.45	0.48
39:BS:89:ARG:O	39:BS:90:GLY:C	2.51	0.48
42:BV:15:GLU:CB	42:BV:16:PRO:CD	2.87	0.48
45:BY:95:LYS:HE2	45:BY:99:CYS:O	2.13	0.48
46:BZ:91:LEU:HD12	46:BZ:91:LEU:H	1.77	0.48
46:BZ:121:HIS:ND1	46:BZ:169:GLU:HG2	2.28	0.48
47:B0:10:THR:CG2	47:B0:12:ASN:HB2	2.43	0.48
1:CA:67:C:H2'	1:CA:68:G:H8	1.79	0.48
1:CA:100:C:H2'	1:CA:101:A:O4'	2.13	0.48
1:CA:1004:A:H5"	1:CA:1025:U:H3	1.78	0.48
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.48	0.48
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.48	0.48
2:CB:12:GLU:O	2:CB:16:HIS:ND1	2.31	0.48
3:CC:19:GLU:O	3:CC:19:GLU:HG2	2.14	0.48
3:CC:186:PHE:CG	3:CC:187:ALA:N	2.80	0.48
6:CF:39:LYS:CG	6:CF:40:VAL:H	2.26	0.48
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.78	0.48
7:CG:146:GLU:O	7:CG:149:ARG:HB3	2.12	0.48
9:CI:83:ARG:NE	9:CI:102:LEU:HD11	2.26	0.48
9:CI:99:LEU:HD12	9:CI:101:PHE:CD1	2.48	0.48
18:CR:59:SER:HB3	18:CR:62:GLU:HB2	1.95	0.48
25:DA:581:C:H2'	25:DA:582:G:H8	1.78	0.48
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.49	0.48
25:DA:1449:A:H2	25:DA:1529:G:H1'	1.78	0.48
25:DA:1567:A:OP2	28:DD:84:TYR:OH	2.25	0.48
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.28	0.48
26:DB:14:U:H4'	26:DB:15:A:OP2	2.10	0.48
28:DD:79:VAL:HG12	28:DD:113:VAL:HA	1.96	0.48
28:DD:267:SER:HA	28:DD:270:ILE:CG1	2.43	0.48
33:DI:61:ARG:NH2	33:DI:64:GLU:OE2	2.46	0.48
33:DI:77:LEU:CD1	33:DI:78:THR:H	2.25	0.48
35:DO:60:ALA:HB2	35:DO:86:ILE:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:110:TYR:O	36:DP:111:ARG:C	2.52	0.48
44:DX:11:PRO:HB2	44:DX:13:LEU:HD21	1.96	0.48
45:DY:42:VAL:HB	45:DY:67:LEU:CD1	2.41	0.48
45:DY:50:ARG:CB	45:DY:53:PRO:HD2	2.43	0.48
46:DZ:22:GLY:O	46:DZ:23:LYS:HG2	2.13	0.48
1:AA:119:A:H4'	1:AA:120:A:O5'	2.13	0.48
1:AA:625:G:O4'	16:AP:16:HIS:HD2	1.97	0.48
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.28	0.48
1:AA:1064:G:H4'	1:AA:1065:U:O5'	2.13	0.48
1:AA:1301:U:O4	1:AA:1303:C:C1'	2.61	0.48
1:AA:1530:G:H2'	1:AA:1531:A:O5'	2.14	0.48
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.77	0.48
3:AC:83:ARG:HG3	3:AC:87:LEU:HD11	1.95	0.48
4:AD:4:TYR:CE2	4:AD:6:GLY:O	2.65	0.48
4:AD:175:SER:OG	4:AD:186:LEU:HD21	2.13	0.48
5:AE:121:LYS:O	5:AE:122:GLU:CG	2.62	0.48
8:AH:8:ASP:O	8:AH:9:MET:C	2.52	0.48
10:AJ:47:PHE:CZ	14:AN:37:PHE:CE2	3.02	0.48
11:AK:99:GLN:HA	11:AK:105:VAL:CG2	2.43	0.48
13:AM:3:ARG:HH12	31:BG:113:ARG:HE	1.60	0.48
13:AM:79:LYS:O	13:AM:82:MET:SD	2.72	0.48
20:AT:43:LEU:HB2	20:AT:52:ALA:CB	2.41	0.48
23:AW:5:G:N2	23:AW:6:G:H1'	2.28	0.48
23:AW:11:C:H2'	23:AW:12:U:H6	1.76	0.48
25:BA:1689:A:H62	25:BA:1698:A:H2	1.61	0.48
25:BA:2848:G:O2'	25:BA:2849:U:O5'	2.27	0.48
26:BB:3:C:N4	26:BB:118:G:H1	2.11	0.48
28:BD:142:VAL:HG22	28:BD:143:HIS:N	2.28	0.48
30:BF:3:GLU:HG3	30:BF:19:GLU:CB	2.39	0.48
30:BF:199:TRP:CZ3	30:BF:203:GLN:CG	2.96	0.48
31:BG:20:ILE:O	31:BG:24:GLY:CA	2.62	0.48
31:BG:81:LYS:O	31:BG:82:LEU:O	2.31	0.48
32:BH:152:ARG:HB3	32:BH:161:GLY:HA2	1.95	0.48
33:BI:118:LYS:HD2	33:BI:119:PRO:CD	2.31	0.48
34:BN:68:GLU:HA	34:BN:68:GLU:OE1	2.13	0.48
34:BN:120:LEU:C	34:BN:121:LYS:HD2	2.34	0.48
36:BP:146:VAL:CG2	36:BP:147:LEU:H	2.15	0.48
37:BQ:10:ARG:CG	37:BQ:10:ARG:NH1	2.64	0.48
37:BQ:141:GLN:OE1	46:BZ:72:ARG:HD3	2.12	0.48
42:BV:65:GLY:O	42:BV:91:TYR:CD1	2.66	0.48
44:BX:5:TYR:CZ	49:B2:30:ARG:HB2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:7:ILE:HB	48:B1:62:VAL:CG2	2.42	0.48
1:CA:274:A:O2'	1:CA:275:G:O5'	2.30	0.48
1:CA:518:C:O2'	12:CL:50:SER:HB3	2.12	0.48
1:CA:1442(B):A:O2'	1:CA:1443:G:O5'	2.32	0.48
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.14	0.48
5:CE:90:VAL:HG23	5:CE:121:LYS:H	1.78	0.48
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.76	0.48
11:CK:32:ILE:HD12	11:CK:72:ALA:CB	2.44	0.48
14:CN:27:CYS:HG	59:CN:101:ZN:ZN	1.25	0.48
15:CO:26:GLU:HB3	15:CO:81:LEU:HD22	1.95	0.48
18:CR:56:THR:HB	18:CR:58:LEU:HD11	1.95	0.48
23:CW:57:G:H2'	23:CW:57:G:N3	2.28	0.48
25:DA:483:A:H3'	25:DA:484:C:C6	2.49	0.48
25:DA:2712:U:O2'	25:DA:2713:A:H5'	2.14	0.48
25:DA:2723:C:H5"	38:DR:1:MET:HG2	1.96	0.48
25:DA:2725:A:O2'	25:DA:2726:U:O5'	2.30	0.48
32:DH:96:ALA:HB2	32:DH:105:LEU:HB3	1.95	0.48
32:DH:98:LEU:HD12	32:DH:102:ALA:C	2.34	0.48
33:DI:76:THR:CG2	33:DI:77:LEU:H	2.25	0.48
34:DN:63:THR:HG22	34:DN:64:GLY:H	1.78	0.48
40:DT:16:ARG:NH2	40:DT:82:LEU:O	2.46	0.48
40:DT:51:ARG:HG3	40:DT:98:LYS:HG3	1.96	0.48
41:DU:25:TRP:CG	41:DU:26:GLY:N	2.78	0.48
42:DV:22:VAL:CG1	42:DV:23:GLU:N	2.76	0.48
46:DZ:124:ILE:HG23	46:DZ:165:VAL:HG23	1.95	0.48
47:D0:25:ARG:HA	47:D0:29:GLN:HE22	1.78	0.48
48:D1:35:THR:CG2	48:D1:36:GLY:N	2.76	0.48
1:AA:329:A:C2	1:AA:332:G:C8	3.01	0.48
1:AA:651:C:N4	1:AA:753:A:OP2	2.46	0.48
1:AA:983:A:N1	1:AA:1222:G:N2	2.61	0.48
1:AA:1240:U:H5	7:AG:109:ASN:OD1	1.95	0.48
1:AA:1279:A:C1'	1:AA:1282:C:N4	2.76	0.48
1:AA:1491:G:N7	58:AA:7111:PAR:O53	2.37	0.48
3:AC:21:ARG:C	3:AC:22:TRP:HD1	2.16	0.48
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.94	0.48
7:AG:47:CYS:HB3	7:AG:58:PRO:HG3	1.95	0.48
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.44	0.48
12:AL:45:PRO:HG3	12:AL:51:ALA:N	2.27	0.48
12:AL:53:ARG:HH12	12:AL:92:ASP:HB3	1.76	0.48
20:AT:20:LEU:O	20:AT:21:LYS:C	2.51	0.48
25:BA:272(J):C:H2'	25:BA:363:G:H22	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1456:G:H2'	25:BA:1457:A:C8	2.46	0.48
25:BA:2345:G:O2'	25:BA:2382:G:C5'	2.61	0.48
28:BD:13:ARG:O	28:BD:13:ARG:CG	2.61	0.48
28:BD:24:ILE:O	28:BD:25:THR:O	2.31	0.48
28:BD:201:HIS:C	28:BD:203:ASN:N	2.67	0.48
29:BE:28:ALA:HB3	29:BE:93:VAL:HG23	1.96	0.48
29:BE:61:ARG:HB3	29:BE:62:PRO:CD	2.44	0.48
30:BF:139:PHE:CB	30:BF:166:ALA:HB1	2.43	0.48
30:BF:195:ASP:HB2	30:BF:198:ALA:H	1.78	0.48
31:BG:116:ASP:O	31:BG:117:PHE:HB3	2.14	0.48
38:BR:79:LEU:HD13	38:BR:80:PHE:HD1	1.78	0.48
42:BV:34:GLU:O	42:BV:36:PRO:CD	2.57	0.48
44:BX:3:THR:O	44:BX:4:ALA:HB3	2.14	0.48
45:BY:28:LYS:N	45:BY:28:LYS:CE	2.70	0.48
1:CA:633:G:H5'	1:CA:634:C:OP2	2.13	0.48
1:CA:1148:U:H5"	9:CI:7:THR:HG21	1.96	0.48
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.48	0.48
2:CB:220:ASP:O	2:CB:221:LEU:C	2.50	0.48
4:CD:14:ARG:HB2	4:CD:40:PRO:HD2	1.95	0.48
13:CM:3:ARG:NH2	13:CM:7:VAL:HG13	2.28	0.48
13:CM:20:THR:C	13:CM:22:ILE:H	2.17	0.48
23:CY:30:G:C6	23:CY:31:A:N7	2.81	0.48
25:DA:242:G:HO2'	25:DA:243:U:P	2.36	0.48
25:DA:642:G:H21	25:DA:646:A:H2	1.60	0.48
25:DA:1131:G:H4'	34:DN:82:LEU:HB2	1.96	0.48
25:DA:1266:G:OP2	52:D5:19:ARG:NH1	2.46	0.48
25:DA:1275:A:H4'	25:DA:1276:A:O5'	2.13	0.48
25:DA:1786:A:O3'	25:DA:1787:A:H8	1.96	0.48
25:DA:2520:C:N4	25:DA:2567:G:C5	2.82	0.48
26:DB:114:C:O2'	39:DS:46:VAL:HG13	2.13	0.48
27:DC:68:LEU:CD1	27:DC:179:SER:HA	2.37	0.48
28:DD:182:LEU:HB2	28:DD:271:ILE:O	2.11	0.48
31:DG:20:ILE:O	31:DG:24:GLY:HA2	2.12	0.48
31:DG:139:LEU:HA	31:DG:144:ILE:HG21	1.96	0.48
33:DI:79:ILE:HG22	33:DI:79:ILE:O	2.12	0.48
34:DN:2:LYS:NZ	41:DU:95:LEU:HD21	2.27	0.48
34:DN:26:LEU:CD2	34:DN:30:ILE:HD11	2.43	0.48
35:DO:63:VAL:HG22	35:DO:83:ALA:O	2.13	0.48
39:DS:5:THR:HG1	39:DS:7:TYR:HB3	1.76	0.48
39:DS:48:LEU:CD2	39:DS:82:ILE:HD11	2.44	0.48
40:DT:32:TYR:CD2	40:DT:81:PRO:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:5:MET:HG2	45:DY:35:TYR:CE2	2.49	0.48
45:DY:56:PRO:O	45:DY:57:GLN:NE2	2.47	0.48
45:DY:61:ILE:HG23	45:DY:62:GLU:N	2.28	0.48
46:DZ:48:PHE:CE2	46:DZ:71:VAL:HG11	2.47	0.48
46:DZ:145:GLU:O	46:DZ:146:ILE:C	2.51	0.48
49:D2:16:LEU:HD12	49:D2:21:LEU:HD21	1.95	0.48
49:D2:35:LEU:HB3	49:D2:50:ILE:HD13	1.94	0.48
1:AA:828:A:N3	2:AB:26:PRO:HG3	2.29	0.48
1:AA:1201:A:HO2'	1:AA:1202:G:P	2.37	0.48
3:AC:59:ARG:HA	3:AC:63:ASN:O	2.14	0.48
3:AC:134:ILE:N	3:AC:134:ILE:HD13	2.28	0.48
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.32	0.48
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.49	0.48
12:AL:32:PHE:CE1	12:AL:86:ARG:HG3	2.49	0.48
13:AM:90:LEU:HA	13:AM:93:ARG:CB	2.43	0.48
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.94	0.48
25:BA:272:G:HO2'	25:BA:272(A):U:C5'	2.26	0.48
25:BA:668:G:C4	25:BA:670:A:N7	2.82	0.48
25:BA:912:C:OP1	37:BQ:9:TYR:OH	2.29	0.48
25:BA:1427:A:O2'	25:BA:1428:C:OP2	2.27	0.48
25:BA:1542:A:H1'	25:BA:1544:A:O4'	2.13	0.48
25:BA:2009:G:H1'	38:BR:107:ASP:O	2.14	0.48
25:BA:2296:U:H4'	25:BA:2297:C:OP1	2.13	0.48
25:BA:2781:A:H8	25:BA:2781:A:O5'	1.97	0.48
25:BA:2867:G:O2'	25:BA:2868:A:OP2	2.30	0.48
28:BD:143:HIS:CD2	28:BD:143:HIS:C	2.87	0.48
28:BD:159:ALA:HB1	28:BD:198:ASN:O	2.13	0.48
29:BE:70:ALA:O	29:BE:71:GLY:C	2.52	0.48
29:BE:137:HIS:HB3	29:BE:138:PRO:CD	2.42	0.48
30:BF:152:GLU:CD	30:BF:191:ARG:HD2	2.34	0.48
31:BG:122:PRO:HG2	31:BG:123:ASN:OD1	2.14	0.48
32:BH:126:PRO:O	32:BH:130:ARG:HB3	2.14	0.48
33:BI:29:TYR:O	33:BI:32:PRO:HG2	2.14	0.48
36:BP:108:LYS:C	36:BP:110:TYR:H	2.17	0.48
41:BU:95:LEU:CD1	42:BV:4:ILE:HG21	2.40	0.48
43:BW:75:TYR:CD2	43:BW:75:TYR:C	2.87	0.48
47:B0:34:GLY:O	47:B0:35:ASN:C	2.51	0.48
47:B0:43:THR:O	47:B0:43:THR:CG2	2.58	0.48
47:B0:78:TYR:HB3	47:B0:80:HIS:CE1	2.48	0.48
1:CA:278:G:O3'	1:CA:281:G:H5'	2.14	0.48
1:CA:405:U:OP2	4:CD:3:ARG:HD2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:436:C:H2'	1:CA:437:U:H6	1.79	0.48
1:CA:824:C:H2'	1:CA:825:G:C8	2.49	0.48
1:CA:1212:U:OP1	1:CA:1212:U:H4'	2.14	0.48
2:CB:239:VAL:O	2:CB:239:VAL:HG12	2.14	0.48
3:CC:69:HIS:ND1	3:CC:69:HIS:N	2.60	0.48
3:CC:109:PRO:HB3	3:CC:115:LEU:HD12	1.96	0.48
4:CD:31:CYS:C	4:CD:33:MET:N	2.65	0.48
11:CK:69:ALA:O	11:CK:72:ALA:N	2.43	0.48
13:CM:90:LEU:HD12	13:CM:91:ARG:N	2.28	0.48
20:CT:8:ARG:O	20:CT:9:ASN:CG	2.52	0.48
25:DA:90:U:O2'	25:DA:92:A:H5"	2.13	0.48
25:DA:1419:A:N6	25:DA:1494:A:H61	2.12	0.48
25:DA:2103:C:H3'	25:DA:2104:G:H5"	1.95	0.48
25:DA:2393:A:C4'	36:DP:60:MET:O	2.62	0.48
25:DA:2713:A:C5'	25:DA:2714:G:OP2	2.60	0.48
25:DA:2831:G:H1'	25:DA:2883:A:H2'	1.94	0.48
25:DA:2849:U:C4	40:DT:23:ARG:NH2	2.77	0.48
32:DH:149:ARG:HG3	32:DH:162:ILE:O	2.12	0.48
37:DQ:70:PRO:HA	37:DQ:94:VAL:C	2.34	0.48
38:DR:17:ARG:CG	38:DR:17:ARG:NH1	2.75	0.48
39:DS:26:LEU:HD22	39:DS:87:PHE:HD1	1.78	0.48
40:DT:32:TYR:CG	40:DT:81:PRO:HB2	2.48	0.48
40:DT:83:ILE:HG13	40:DT:84:GLN:N	2.29	0.48
48:D1:73:LEU:HB3	48:D1:94:LEU:HD23	1.95	0.48
50:D3:6:VAL:HB	50:D3:54:VAL:HG11	1.96	0.48
1:AA:103:C:OP2	20:AT:14:LYS:HD2	2.14	0.48
1:AA:376:G:P	16:AP:67:THR:HG21	2.54	0.48
1:AA:831:U:OP1	2:AB:22:LYS:HG3	2.13	0.48
4:AD:171:GLY:HA3	4:AD:173:TRP:CZ3	2.49	0.48
6:AF:97:PHE:CD2	18:AR:31:LEU:HD21	2.49	0.48
13:AM:84:ILE:O	13:AM:84:ILE:HG22	2.13	0.48
17:AQ:97:SER:O	17:AQ:98:LEU:HD23	2.14	0.48
19:AS:51:VAL:HG23	19:AS:60:VAL:HG11	1.96	0.48
23:AW:9:A:H5'	23:AW:46:G:H21	1.78	0.48
24:AX:14:A:O2'	24:AX:15:A:O4'	2.27	0.48
25:BA:332:A:O2'	25:BA:333:G:OP1	2.30	0.48
25:BA:945:A:C4	25:BA:2448:A:C2	3.02	0.48
25:BA:1363:C:O2'	25:BA:1809:A:N3	2.42	0.48
25:BA:1548:C:H2'	25:BA:1549:C:C6	2.48	0.48
25:BA:2318:G:O2'	25:BA:2319:G:OP1	2.30	0.48
25:BA:2602:A:H62	47:B0:2:ALA:CB	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2689:U:H4'	25:BA:2690:C:OP2	2.12	0.48
28:BD:24:ILE:HG23	28:BD:25:THR:N	2.24	0.48
30:BF:20:LEU:HG	30:BF:21:ALA:H	1.78	0.48
34:BN:18:ALA:HB3	34:BN:21:LYS:HB3	1.95	0.48
35:BO:104:ARG:O	35:BO:105:GLU:C	2.52	0.48
36:BP:46:LYS:HG2	36:BP:51:PHE:CZ	2.48	0.48
36:BP:83:VAL:HG12	36:BP:112:LEU:CD2	2.41	0.48
37:BQ:57:HIS:CE1	37:BQ:116:GLU:HB3	2.48	0.48
40:BT:15:VAL:HG23	40:BT:79:HIS:NE2	2.29	0.48
42:BV:59:ALA:CB	42:BV:94:LEU:HD13	2.43	0.48
44:BX:64:LYS:NZ	44:BX:73:ARG:HH21	2.12	0.48
45:BY:12:THR:CG2	45:BY:13:VAL:N	2.77	0.48
46:BZ:158:PRO:CB	46:BZ:159:PRO:CD	2.91	0.48
52:B5:3:LYS:HD2	52:B5:3:LYS:HA	1.59	0.48
52:B5:46:CYS:SG	52:B5:47:PRO:HD2	2.54	0.48
54:B7:28:ARG:NH1	54:B7:28:ARG:HG3	2.28	0.48
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.13	0.48
1:CA:508:C:H5"	1:CA:509:A:OP1	2.12	0.48
1:CA:673:G:H2'	1:CA:674:G:C8	2.48	0.48
1:CA:675:A:H1'	11:CK:116:HIS:CD2	2.49	0.48
1:CA:748:C:O2'	1:CA:749:C:O5'	2.30	0.48
1:CA:1507:A:H2'	1:CA:1508:G:C8	2.49	0.48
3:CC:51:GLY:O	3:CC:70:VAL:HG13	2.14	0.48
3:CC:157:ILE:HB	3:CC:164:ARG:NH2	2.29	0.48
6:CF:1:MET:N	6:CF:68:PRO:HA	2.29	0.48
9:CI:16:ARG:N	9:CI:64:THR:O	2.42	0.48
12:CL:34:ARG:HA	12:CL:84:LEU:HD23	1.96	0.48
16:CP:58:TYR:C	16:CP:58:TYR:CD1	2.86	0.48
16:CP:74:LEU:HB3	16:CP:79:VAL:HG21	1.95	0.48
18:CR:29:PHE:HD2	18:CR:29:PHE:H	1.62	0.48
19:CS:10:PHE:CE2	19:CS:37:ARG:O	2.67	0.48
21:CU:2:GLY:C	21:CU:4:GLY:H	2.17	0.48
25:DA:625:G:O6	36:DP:107:LYS:HD3	2.14	0.48
25:DA:1739:U:O2	25:DA:1739:U:C4'	2.62	0.48
25:DA:1914:C:H2'	25:DA:1915:U:O4'	2.14	0.48
25:DA:2199:A:O2'	33:DI:28:ASN:ND2	2.45	0.48
25:DA:2702:U:O2'	25:DA:2703:C:OP2	2.21	0.48
25:DA:2791:C:H1'	25:DA:2792:G:N7	2.27	0.48
26:DB:34:U:H5"	26:DB:35:U:OP1	2.14	0.48
28:DD:159:ALA:HB1	28:DD:198:ASN:O	2.14	0.48
29:DE:199:ARG:HB2	29:DE:199:ARG:NH1	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:114:LEU:O	33:DI:115:ALA:CB	2.60	0.48
34:DN:91:LEU:HD23	34:DN:98:VAL:HG21	1.95	0.48
36:DP:46:LYS:HG2	36:DP:51:PHE:CG	2.48	0.48
37:DQ:45:GLN:CD	37:DQ:45:GLN:N	2.67	0.48
39:DS:20:ARG:HE	39:DS:21:THR:HA	1.78	0.48
42:DV:8:GLY:O	42:DV:10:LYS:HE3	2.13	0.48
53:D6:32:ASN:HD22	53:D6:33:LYS:HE3	1.77	0.48
53:D6:41:PRO:HD2	53:D6:46:HIS:HA	1.92	0.48
1:AA:59:A:H5'	1:AA:60:A:O5'	2.13	0.48
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.44	0.48
3:AC:27:LYS:HB3	3:AC:27:LYS:NZ	2.29	0.48
3:AC:154:SER:OG	3:AC:196:LEU:HD13	2.13	0.48
5:AE:131:ILE:HD13	5:AE:131:ILE:HA	1.75	0.48
10:AJ:63:PHE:CD2	10:AJ:63:PHE:N	2.81	0.48
13:AM:39:ILE:HD13	13:AM:52:GLU:HB3	1.96	0.48
13:AM:96:LEU:C	13:AM:110:ARG:HE	2.17	0.48
22:AV:20:G:H5"	22:AV:21:U:H3	1.79	0.48
25:BA:271(C):C:H2'	25:BA:271(D):G:C8	2.48	0.48
25:BA:329:G:OP2	45:BY:71:LYS:NZ	2.41	0.48
25:BA:628:G:N2	25:BA:636:G:H1'	2.28	0.48
25:BA:848:G:H2'	25:BA:849:A:C8	2.48	0.48
25:BA:1329:U:H5"	25:BA:1330:C:H5	1.79	0.48
25:BA:1952:A:C5	35:BO:22:ILE:HD11	2.49	0.48
25:BA:2056:G:H2'	25:BA:2056:G:N3	2.28	0.48
25:BA:2126:A:O2'	25:BA:2127:G:O4'	2.30	0.48
25:BA:2453:A:O2'	25:BA:2572:A:H1'	2.13	0.48
28:BD:176:ARG:HA	28:BD:182:LEU:HD23	1.94	0.48
28:BD:197:GLY:O	28:BD:198:ASN:HB3	2.14	0.48
28:BD:268:ARG:CZ	28:BD:268:ARG:HB2	2.42	0.48
30:BF:22:ALA:C	30:BF:24:LEU:H	2.16	0.48
30:BF:63:LYS:HE3	30:BF:65:TRP:O	2.12	0.48
30:BF:152:GLU:HA	30:BF:190:GLU:OE2	2.14	0.48
31:BG:106:LEU:O	31:BG:110:ALA:HB3	2.14	0.48
31:BG:152:LEU:O	31:BG:153:ARG:HD3	2.14	0.48
32:BH:159:GLU:HG3	32:BH:160:LYS:CG	2.43	0.48
39:BS:106:ARG:O	39:BS:107:GLU:HB3	2.14	0.48
40:BT:31:SER:CB	40:BT:43:GLN:O	2.58	0.48
45:BY:20:TYR:CE1	45:BY:42:VAL:N	2.81	0.48
55:B8:9:GLY:O	55:B8:13:ARG:HG2	2.13	0.48
1:CA:429:U:O2'	1:CA:430:A:OP2	2.30	0.48
1:CA:1346:A:N6	1:CA:1375:A:OP2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:37:ASN:O	2:CB:37:ASN:ND2	2.39	0.48
2:CB:215:LEU:O	2:CB:219:VAL:HG23	2.14	0.48
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	2.28	0.48
5:CE:76:ILE:HG12	5:CE:142:LEU:HD22	1.94	0.48
5:CE:80:ILE:HG23	5:CE:91:LEU:HB2	1.95	0.48
5:CE:147:ASP:O	5:CE:151:LEU:HG	2.14	0.48
11:CK:33:THR:HB	11:CK:38:ASN:O	2.13	0.48
11:CK:76:GLY:O	11:CK:77:MET:C	2.52	0.48
11:CK:119:CYS:O	11:CK:121:PRO:HD3	2.14	0.48
14:CN:36:PHE:CD1	14:CN:37:PHE:CD2	3.00	0.48
15:CO:26:GLU:HA	15:CO:81:LEU:CD2	2.44	0.48
16:CP:58:TYR:C	16:CP:58:TYR:HD1	2.16	0.48
19:CS:24:ALA:O	19:CS:25:LYS:HB2	2.13	0.48
23:CY:40:C:O2'	23:CY:41:C:H5'	2.13	0.48
25:DA:94:C:H5'	25:DA:94(A):G:OP2	2.13	0.48
25:DA:141:A:H8	25:DA:1408:C:O2'	1.97	0.48
25:DA:498:G:H21	45:DY:47:LYS:HZ2	1.62	0.48
25:DA:558:G:OP1	34:DN:111:PRO:HD2	2.14	0.48
25:DA:1568:G:OP2	28:DD:63:ARG:NH2	2.40	0.48
25:DA:2238:G:H5'	25:DA:2239:G:OP1	2.14	0.48
25:DA:2776:A:O2'	25:DA:2781:A:H4'	2.13	0.48
26:DB:66:A:H61	26:DB:108:U:C2'	2.25	0.48
29:DE:4:ILE:O	29:DE:4:ILE:HG23	2.13	0.48
32:DH:153:LYS:HE2	32:DH:153:LYS:CA	2.43	0.48
33:DI:32:PRO:C	33:DI:34:GLY:N	2.65	0.48
34:DN:48:MET:HE3	34:DN:48:MET:N	2.29	0.48
35:DO:104:ARG:HH22	40:DT:35:LYS:HE3	1.77	0.48
37:DQ:27:VAL:HG12	37:DQ:29:PHE:H	1.78	0.48
38:DR:104:ARG:HH11	38:DR:104:ARG:CB	2.26	0.48
41:DU:79:PHE:HD2	41:DU:79:PHE:C	2.17	0.48
41:DU:88:ILE:O	41:DU:88:ILE:HG13	2.13	0.48
48:D1:52:ARG:O	48:D1:56:GLN:O	2.31	0.48
51:D4:18:CYS:SG	51:D4:38:LYS:HB2	2.53	0.48
1:AA:457:C:H2'	1:AA:458:C:C6	2.49	0.48
1:AA:1328:C:O2'	13:AM:29:ARG:NH2	2.45	0.48
8:AH:20:TYR:CE1	8:AH:76:PRO:O	2.67	0.48
11:AK:88:GLY:O	11:AK:89:ALA:C	2.52	0.48
11:AK:99:GLN:HA	11:AK:105:VAL:HG21	1.95	0.48
13:AM:65:LYS:HD2	13:AM:69:GLU:CB	2.44	0.48
15:AO:82:ILE:CG1	15:AO:87:ILE:HB	2.40	0.48
23:AW:6:G:O2'	23:AW:7:A:H5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:242:G:H1'	25:BA:243:U:H5	1.79	0.48
25:BA:521:G:H2'	25:BA:522:G:H8	1.78	0.48
25:BA:1385:G:O6	25:BA:1403:C:C4	2.67	0.48
27:BC:47:LEU:HD23	27:BC:47:LEU:N	2.28	0.48
28:BD:24:ILE:O	28:BD:26:LYS:HD3	2.14	0.48
28:BD:248:SER:O	28:BD:250:TRP:N	2.47	0.48
31:BG:131:TYR:HE2	31:BG:133:LEU:CD2	2.27	0.48
33:BI:121:LYS:O	33:BI:122:GLU:CB	2.49	0.48
34:BN:38:HIS:ND1	34:BN:39:ARG:HG3	2.29	0.48
36:BP:109:GLY:O	36:BP:110:TYR:O	2.31	0.48
39:BS:71:ARG:HA	39:BS:74:ALA:HB3	1.95	0.48
40:BT:91:ARG:HB3	40:BT:116:ALA:HA	1.95	0.48
41:BU:101:ARG:C	41:BU:102:GLU:HG2	2.33	0.48
41:BU:113:ALA:C	41:BU:115:ALA:H	2.16	0.48
42:BV:49:THR:O	42:BV:50:PRO:C	2.52	0.48
43:BW:5:ALA:HB2	43:BW:54:ALA:CB	2.40	0.48
51:B4:38:ALA:O	51:B4:50:THR:O	2.32	0.48
51:B4:39:ARG:HG2	51:B4:49:GLU:HG3	1.94	0.48
54:B7:43:THR:HG22	54:B7:44:PRO:O	2.12	0.48
1:CA:445:G:H2'	1:CA:446:G:C8	2.49	0.48
1:CA:674:G:H2'	1:CA:675:A:H8	1.79	0.48
1:CA:1067:A:C1'	1:CA:1068:G:O4'	2.62	0.48
1:CA:1198:G:HO2'	10:CJ:54:PHE:HD2	1.60	0.48
1:CA:1456:G:H2'	1:CA:1457:G:H5'	1.95	0.48
6:CF:100:ASN:O	6:CF:101:ALA:C	2.52	0.48
6:CF:101:ALA:OXT	18:CR:28:GLU:HG3	2.14	0.48
8:CH:67:PRO:O	8:CH:76:PRO:HB3	2.14	0.48
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.46	0.48
23:CW:36:A:C2'	23:CW:37:A:C5'	2.89	0.48
25:DA:27:G:N2	25:DA:513:A:OP2	2.47	0.48
25:DA:360:G:H2'	25:DA:361:G:H8	1.79	0.48
25:DA:1609:A:H4'	25:DA:1617:C:OP1	2.14	0.48
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.49	0.48
25:DA:2787:C:O2'	29:DE:61:ARG:HG3	2.14	0.48
25:DA:2814:C:O2'	52:D5:29:THR:HG21	2.14	0.48
28:DD:24:ILE:O	28:DD:25:THR:O	2.31	0.48
28:DD:70:TRP:HZ3	28:DD:146:GLU:CD	2.16	0.48
29:DE:47:VAL:O	29:DE:80:GLU:HA	2.13	0.48
29:DE:101:ARG:HH21	29:DE:171:GLU:CB	2.26	0.48
29:DE:119:ARG:HG2	29:DE:160:TYR:HB2	1.95	0.48
30:DF:88:VAL:HG11	30:DF:91:GLY:HA3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:88:ILE:C	31:DG:88:ILE:CD1	2.83	0.48
34:DN:26:LEU:HD21	34:DN:30:ILE:HD11	1.94	0.48
40:DT:23:ARG:HD3	40:DT:120:ARG:HD3	1.94	0.48
46:DZ:23:LYS:C	46:DZ:25:PRO:HD3	2.33	0.48
46:DZ:117:LEU:CA	46:DZ:174:VAL:HG22	2.42	0.48
49:D2:46:GLN:HA	49:D2:46:GLN:OE1	2.13	0.48
1:AA:109:A:C6	1:AA:326:G:C6	3.02	0.48
1:AA:301:G:H2'	1:AA:302:G:C8	2.49	0.48
1:AA:366:C:HO2'	1:AA:367:U:P	2.37	0.48
3:AC:73:PRO:O	3:AC:76:VAL:HG13	2.13	0.48
6:AF:45:LEU:HD12	6:AF:46:ARG:N	2.26	0.48
7:AG:22:LEU:HD23	7:AG:62:PHE:CE2	2.40	0.48
12:AL:11:VAL:HG12	12:AL:12:ARG:HG2	1.96	0.48
12:AL:45:PRO:HD3	12:AL:51:ALA:O	2.14	0.48
19:AS:15:LEU:H	19:AS:15:LEU:HD22	1.79	0.48
20:AT:49:ALA:O	20:AT:100:ILE:HD13	2.13	0.48
25:BA:659:C:H4'	30:BF:100:THR:O	2.14	0.48
25:BA:811:U:O2	25:BA:1250:G:O5'	2.32	0.48
25:BA:856:C:H1'	47:B0:27:GLU:HB3	1.95	0.48
25:BA:1819:A:O4'	25:BA:1821:A:C5	2.67	0.48
27:BC:38:ASP:C	27:BC:40:THR:H	2.18	0.48
30:BF:66:PRO:O	30:BF:67:GLN:CB	2.61	0.48
30:BF:83:PHE:O	30:BF:86:GLY:N	2.47	0.48
34:BN:117:PHE:CD2	34:BN:117:PHE:C	2.87	0.48
40:BT:9:LEU:HD23	40:BT:9:LEU:HA	1.74	0.48
40:BT:18:ASP:OD1	40:BT:18:ASP:N	2.34	0.48
41:BU:25:TRP:HD1	41:BU:26:GLY:HA2	1.79	0.48
41:BU:68:ALA:O	41:BU:71:GLN:HB2	2.14	0.48
44:BX:12:VAL:CG1	44:BX:17:ALA:HB1	2.43	0.48
49:B2:18:PRO:O	49:B2:21:LEU:HB2	2.13	0.48
55:B8:32:LEU:O	55:B8:33:ASN:CG	2.53	0.48
1:CA:284:G:H2'	1:CA:285:G:H8	1.78	0.48
1:CA:975:A:H62	10:CJ:60:ARG:NH1	2.12	0.48
1:CA:1002:G:N2	1:CA:1039:C:O2	2.47	0.48
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.95	0.48
11:CK:11:LYS:HB2	11:CK:12:ARG:H	1.55	0.48
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.13	0.48
11:CK:54:ARG:HH12	23:CW:40:C:C5'	2.23	0.48
12:CL:71:PRO:O	12:CL:102:ARG:HD3	2.13	0.48
12:CL:119:LYS:O	12:CL:121:GLY:N	2.46	0.48
13:CM:74:VAL:O	13:CM:78:ILE:HG13	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:22:LEU:HD22	17:CQ:88:TYR:CD1	2.49	0.48
18:CR:75:ILE:C	18:CR:77:GLY:H	2.18	0.48
22:CV:35:C:H42	24:CX:18:G:H1	1.60	0.48
22:CV:35:C:O2'	22:CV:36:A:P	2.72	0.48
25:DA:301:G:O2'	25:DA:302:C:O4'	2.30	0.48
25:DA:328:U:O2'	45:DY:71:LYS:HD3	2.14	0.48
25:DA:481:G:H1'	25:DA:506:G:N2	2.28	0.48
25:DA:636:G:C4	36:DP:115:LEU:HD11	2.49	0.48
25:DA:1542:A:O2'	25:DA:1543:C:P	2.72	0.48
25:DA:1799:G:O2'	25:DA:1800:C:H5"	2.13	0.48
27:DC:83:ILE:HG23	27:DC:94:VAL:HG23	1.96	0.48
30:DF:204:ASN:C	30:DF:206:ILE:N	2.67	0.48
31:DG:151:ALA:HB3	31:DG:153:ARG:HH12	1.79	0.48
32:DH:154:PRO:HD3	32:DH:161:GLY:C	2.34	0.48
36:DP:114:ILE:HG21	36:DP:125:VAL:HG21	1.95	0.48
37:DQ:32:TYR:OH	37:DQ:111:GLU:HB2	2.14	0.48
37:DQ:116:GLU:HA	37:DQ:116:GLU:OE1	2.14	0.48
38:DR:1:MET:HG3	38:DR:3:HIS:CE1	2.49	0.48
40:DT:78:LEU:O	40:DT:79:HIS:ND1	2.47	0.48
45:DY:19:LYS:O	45:DY:19:LYS:HD2	2.13	0.48
45:DY:44:ILE:HD12	45:DY:45:VAL:HG23	1.95	0.48
45:DY:75:ILE:HD13	45:DY:76:CYS:N	2.28	0.48
46:DZ:81:ARG:O	46:DZ:82:ARG:HB2	2.14	0.48
1:AA:130:A:H1'	1:AA:264:U:H5'	1.96	0.47
1:AA:284:G:H2'	1:AA:285:G:H8	1.78	0.47
1:AA:337:C:H2'	1:AA:338:A:C8	2.49	0.47
1:AA:757:U:H2'	1:AA:758:G:O4'	2.13	0.47
1:AA:985:C:H2'	1:AA:986:A:C8	2.47	0.47
1:AA:1473:A:H2'	1:AA:1474:G:C8	2.48	0.47
1:AA:1503:A:O2'	1:AA:1504:G:OP2	2.31	0.47
3:AC:73:PRO:HA	3:AC:76:VAL:CG1	2.44	0.47
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.14	0.47
4:AD:167:GLY:O	4:AD:168:ARG:C	2.52	0.47
7:AG:92:SER:HB3	7:AG:95:ARG:CB	2.44	0.47
8:AH:44:PHE:HD1	8:AH:79:VAL:HG12	1.79	0.47
9:AI:76:ALA:O	9:AI:79:LEU:HB3	2.14	0.47
25:BA:51:G:N3	25:BA:119:A:C2	2.82	0.47
25:BA:340:A:C5	25:BA:341:G:C5	3.02	0.47
25:BA:704:G:O2'	25:BA:705:A:OP2	2.30	0.47
25:BA:1695:G:H1'	28:BD:8:PRO:O	2.14	0.47
25:BA:1966:A:O2'	25:BA:2592:G:O3'	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:C1'	52:B5:2:ALA:HA	2.40	0.47
25:BA:2067:G:H5"	25:BA:2068:U:OP2	2.14	0.47
25:BA:2689:U:O2'	25:BA:2690:C:P	2.72	0.47
27:BC:59:ARG:NH2	27:BC:199:HIS:H	2.12	0.47
30:BF:22:ALA:CA	30:BF:26:ALA:HB2	2.45	0.47
31:BG:38:VAL:HG22	31:BG:93:THR:HA	1.96	0.47
32:BH:19:VAL:HG21	32:BH:44:VAL:HA	1.95	0.47
32:BH:85:LYS:O	32:BH:132:ARG:CA	2.59	0.47
32:BH:98:LEU:HD12	32:BH:102:ALA:O	2.14	0.47
41:BU:31:SER:O	41:BU:35:ALA:N	2.38	0.47
44:BX:65:ARG:HD3	44:BX:70:LEU:HD12	1.95	0.47
46:BZ:126:VAL:HA	46:BZ:164:ALA:HB2	1.96	0.47
55:B8:59:LYS:C	55:B8:60:LEU:HD23	2.35	0.47
1:CA:49:U:O2	1:CA:362:G:H1'	2.13	0.47
1:CA:1080:A:H5'	5:CE:16:THR:HG21	1.96	0.47
1:CA:1441:G:H4'	1:CA:1442:G:C5	2.49	0.47
5:CE:61:TYR:O	5:CE:62:ALA:C	2.52	0.47
7:CG:108:ALA:CB	7:CG:120:ILE:HD13	2.44	0.47
11:CK:20:TYR:CB	11:CK:31:THR:HG22	2.43	0.47
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.96	0.47
12:CL:100:ILE:CG2	12:CL:101:VAL:N	2.77	0.47
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CB	2.32	0.47
22:CV:19:G:C2	22:CV:59:A:C5	3.02	0.47
22:CV:48:U:H6	22:CV:51:U:OP1	1.96	0.47
23:CW:12:U:C4	23:CW:13:C:C5	3.02	0.47
25:DA:121:G:H4'	25:DA:149:A:H5'	1.96	0.47
25:DA:396:G:O3'	48:D1:44:PRO:HA	2.13	0.47
25:DA:746:A:C5	25:DA:2611:U:H5"	2.49	0.47
25:DA:813:U:H2'	25:DA:814:C:C6	2.49	0.47
25:DA:1578:U:C2'	25:DA:1579:A:H5'	2.44	0.47
28:DD:70:TRP:CH2	28:DD:150:LYS:HA	2.49	0.47
29:DE:57:LYS:C	29:DE:59:VAL:H	2.17	0.47
30:DF:62:ARG:NH1	30:DF:62:ARG:CG	2.55	0.47
30:DF:178:PRO:HB3	30:DF:198:ALA:CB	2.44	0.47
34:DN:89:LYS:O	34:DN:93:THR:HG22	2.13	0.47
35:DO:49:ARG:NH1	35:DO:49:ARG:CG	2.76	0.47
35:DO:104:ARG:HH21	40:DT:33:LYS:HE3	1.78	0.47
36:DP:52:GLU:CD	36:DP:55:ARG:NH2	2.66	0.47
36:DP:108:LYS:C	36:DP:110:TYR:H	2.17	0.47
41:DU:91:ASP:C	41:DU:93:LYS:N	2.67	0.47
43:DW:60:ASN:N	43:DW:60:ASN:ND2	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:22:GLY:HA2	46:DZ:41:LEU:HD11	1.96	0.47
53:D6:42:TRP:CE3	53:D6:42:TRP:HA	2.49	0.47
56:D9:9:ARG:HH11	56:D9:9:ARG:CB	2.26	0.47
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.50	0.47
1:AA:1201:A:O2'	1:AA:1202:G:OP2	2.30	0.47
1:AA:1530:G:C2'	1:AA:1531:A:O5'	2.62	0.47
4:AD:149:ALA:HB3	4:AD:152:SER:OG	2.14	0.47
5:AE:105:VAL:HG12	5:AE:106:PRO:CD	2.44	0.47
6:AF:62:TRP:CD1	18:AR:35:ARG:CZ	2.97	0.47
7:AG:137:LYS:HE2	7:AG:137:LYS:HB3	1.74	0.47
11:AK:12:ARG:C	11:AK:13:GLN:HG3	2.34	0.47
12:AL:7:ILE:HA	12:AL:10:LEU:CD1	2.40	0.47
13:AM:3:ARG:CD	31:BG:113:ARG:HH21	2.28	0.47
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.44	0.47
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.29	0.47
22:AV:48:U:C6	22:AV:51:U:OP1	2.67	0.47
23:AW:66:U:H2'	23:AW:67:C:H6	1.74	0.47
23:AY:37:A:H2'	23:AY:38:A:O4'	2.14	0.47
25:BA:204:A:O2'	25:BA:205:G:H4'	2.14	0.47
25:BA:271(J):C:H5'	25:BA:271(K):U:OP2	2.15	0.47
25:BA:703:U:N3	25:BA:727:A:N6	2.62	0.47
25:BA:773:U:H4'	28:BD:47:GLY:HA2	1.96	0.47
25:BA:1301:A:H5"	25:BA:1301:A:C2	2.47	0.47
25:BA:1412:A:H2'	25:BA:1413:G:C8	2.49	0.47
25:BA:1966:A:H1'	25:BA:2593:U:C4'	2.43	0.47
25:BA:2127:G:C6	25:BA:2162:G:N1	2.82	0.47
25:BA:2810:A:H2'	29:BE:61:ARG:NH2	2.29	0.47
32:BH:12:PRO:HG3	32:BH:50:VAL:HG23	1.94	0.47
38:BR:63:ARG:O	38:BR:67:LEU:HB2	2.14	0.47
42:BV:4:ILE:O	42:BV:39:LEU:HD22	2.14	0.47
45:BY:36:ALA:HA	45:BY:69:ALA:N	2.29	0.47
1:CA:173:U:H1'	1:CA:197:A:C6	2.49	0.47
1:CA:609:A:H5'	16:CP:18:ARG:HH22	1.80	0.47
1:CA:1300:G:O4'	1:CA:1300:G:OP2	2.32	0.47
1:CA:1346:A:H1'	1:CA:1348:U:C6	2.49	0.47
2:CB:109:SER:C	2:CB:111:ARG:N	2.67	0.47
3:CC:61:ALA:N	3:CC:63:ASN:OD1	2.35	0.47
8:CH:103:VAL:CG1	8:CH:138:TRP:HD1	2.27	0.47
13:CM:124:PRO:HB3	13:CM:125:ARG:CA	2.41	0.47
14:CN:15:LYS:O	14:CN:16:PHE:C	2.52	0.47
18:CR:36:ASN:HB2	18:CR:39:VAL:CG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:44:A:H2'	22:CV:45:A:C8	2.49	0.47
22:CV:48:U:C5	22:CV:51:U:OP1	2.67	0.47
23:CW:2:C:C2	23:CW:3:C:C5	3.02	0.47
23:CW:16:U:C5	23:CW:18:G:H3'	2.49	0.47
24:CX:17:U:O2'	24:CX:18:G:H5'	2.14	0.47
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.49	0.47
25:DA:994:C:H3'	41:DU:54:LYS:HE3	1.96	0.47
25:DA:1340:U:O2'	25:DA:1341:U:OP1	2.30	0.47
25:DA:1385:G:H4'	25:DA:1386:C:OP1	2.14	0.47
25:DA:1434:A:H61	25:DA:1558:A:N6	2.09	0.47
25:DA:1790:C:H2'	25:DA:1791:A:C5	2.49	0.47
25:DA:1964:G:H4'	25:DA:1965:C:OP2	2.14	0.47
29:DE:71:GLY:O	29:DE:72:VAL:C	2.52	0.47
29:DE:188:VAL:HG22	29:DE:189:PRO:HD2	1.95	0.47
30:DF:170:LEU:HD23	30:DF:172:TRP:CZ2	2.49	0.47
32:DH:151:ILE:O	32:DH:152:ARG:HG2	2.14	0.47
33:DI:64:GLU:HA	33:DI:64:GLU:OE1	2.14	0.47
36:DP:114:ILE:HG12	36:DP:130:PHE:CD1	2.49	0.47
37:DQ:66:ILE:HG22	37:DQ:104:PHE:HE2	1.78	0.47
41:DU:91:ASP:N	41:DU:92:ARG:HD3	2.29	0.47
41:DU:114:LYS:O	41:DU:117:GLN:HB2	2.13	0.47
47:D0:10:THR:HG22	47:D0:12:ASN:H	1.78	0.47
52:D5:6:VAL:CG2	52:D5:7:PRO:HD2	2.44	0.47
53:D6:15:GLU:HG3	53:D6:47:THR:CB	2.43	0.47
1:AA:8:A:N6	4:AD:208:SER:HB2	2.29	0.47
1:AA:552:U:H2'	1:AA:553:A:H8	1.80	0.47
1:AA:1275:A:C4	1:AA:1276:G:C8	3.03	0.47
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.34	0.47
2:AB:47:THR:O	2:AB:51:LEU:HG	2.14	0.47
2:AB:76:GLN:H	2:AB:76:GLN:HG3	1.37	0.47
2:AB:92:TYR:CD2	2:AB:151:GLY:HA3	2.49	0.47
3:AC:116:VAL:CG2	3:AC:202:ILE:HD11	2.43	0.47
3:AC:151:VAL:C	3:AC:152:ILE:HG12	2.35	0.47
4:AD:80:GLU:O	4:AD:84:LYS:HG2	2.13	0.47
4:AD:96:LEU:HD12	4:AD:96:LEU:N	2.28	0.47
5:AE:53:LEU:HD12	5:AE:53:LEU:N	2.30	0.47
6:AF:8:ILE:HG12	6:AF:88:VAL:HG22	1.97	0.47
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.29	0.47
7:AG:51:GLN:O	7:AG:54:THR:O	2.31	0.47
9:AI:125:TYR:HD2	9:AI:126:SER:N	2.11	0.47
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:41:ARG:HG2	12:AL:42:THR:N	2.29	0.47
15:AO:39:LEU:O	15:AO:40:SER:C	2.53	0.47
16:AP:57:ARG:CZ	16:AP:79:VAL:O	2.63	0.47
17:AQ:20:THR:HA	17:AQ:43:LEU:HD23	1.95	0.47
18:AR:26:LEU:HD21	18:AR:42:ARG:HD2	1.96	0.47
19:AS:62:ILE:O	19:AS:62:ILE:HG23	2.14	0.47
23:AW:59:U:C5	23:AW:60:U:N3	2.82	0.47
25:BA:565:C:H4'	25:BA:1253:A:C6	2.49	0.47
25:BA:1550:C:H6	25:BA:1550:C:O5'	1.98	0.47
25:BA:2198:A:C5'	25:BA:2199:A:OP1	2.61	0.47
25:BA:2231:C:H2'	25:BA:2232:U:O4'	2.14	0.47
25:BA:2691:C:C6	25:BA:2872:G:N1	2.83	0.47
25:BA:2844:G:H3'	25:BA:2845:G:C8	2.49	0.47
30:BF:65:TRP:CZ3	30:BF:72:ARG:CB	2.97	0.47
30:BF:158:THR:OG1	30:BF:160:ASN:N	2.40	0.47
31:BG:91:ARG:HG3	31:BG:91:ARG:HH11	1.78	0.47
33:BI:98:ALA:HA	33:BI:101:LEU:HB2	1.97	0.47
36:BP:11:GLY:O	36:BP:12:ALA:HB3	2.15	0.47
37:BQ:110:THR:O	37:BQ:111:GLU:C	2.53	0.47
40:BT:28:VAL:CG1	40:BT:29:ARG:HH21	2.27	0.47
41:BU:80:ILE:HD11	41:BU:93:LYS:HE3	1.95	0.47
41:BU:96:ALA:O	41:BU:98:LEU:N	2.47	0.47
43:BW:55:ALA:O	43:BW:58:ALA:N	2.46	0.47
46:BZ:105:VAL:O	46:BZ:105:VAL:HG13	2.14	0.47
1:CA:120:A:O2'	1:CA:121:C:H5'	2.13	0.47
1:CA:324:G:N2	1:CA:327:A:OP2	2.47	0.47
1:CA:792:A:C4	1:CA:794:A:N6	2.82	0.47
1:CA:820:U:O2'	1:CA:821:G:OP1	2.30	0.47
1:CA:1054:C:C4	23:CY:34:G:H1'	2.45	0.47
1:CA:1190:G:P	3:CC:5:ILE:HG13	2.54	0.47
1:CA:1501:C:OP2	1:CA:1504:G:H2'	2.15	0.47
8:CH:44:PHE:CZ	8:CH:137:VAL:HG12	2.49	0.47
11:CK:61:ALA:O	11:CK:64:ALA:HB3	2.13	0.47
12:CL:53:ARG:HB3	12:CL:93:LEU:HD11	1.97	0.47
15:CO:25:THR:O	15:CO:26:GLU:C	2.52	0.47
23:CW:35:A:H8	23:CW:35:A:O5'	1.97	0.47
25:DA:97:C:H5"	49:D2:2:LYS:HB2	1.96	0.47
25:DA:910:A:C6	25:DA:911:A:C6	3.02	0.47
25:DA:911:A:H2'	37:DQ:9:TYR:OH	2.14	0.47
25:DA:1455:G:H21	25:DA:1456:G:C1'	2.27	0.47
25:DA:1693:U:H2'	28:DD:14:ARG:HH22	1.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1693:U:OP2	25:DA:1694:C:N4	2.47	0.47
25:DA:2126:A:O2'	25:DA:2127:G:OP2	2.31	0.47
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.49	0.47
25:DA:2750:A:O2'	25:DA:2751:G:OP1	2.30	0.47
29:DE:203:LYS:O	29:DE:203:LYS:HE3	2.15	0.47
30:DF:54:ARG:HG2	30:DF:81:PRO:HD3	1.96	0.47
31:DG:88:ILE:O	31:DG:88:ILE:CG2	2.62	0.47
34:DN:48:MET:H	34:DN:48:MET:CE	2.26	0.47
40:DT:33:LYS:CG	40:DT:43:GLN:CB	2.82	0.47
41:DU:98:LEU:O	41:DU:101:ARG:O	2.32	0.47
42:DV:59:ALA:HA	42:DV:95:LEU:O	2.14	0.47
45:DY:45:VAL:HG12	45:DY:60:PHE:HB3	1.95	0.47
46:DZ:61:LEU:HG	46:DZ:67:LEU:HD11	1.94	0.47
48:D1:80:LEU:HB3	48:D1:82:LEU:HD22	1.95	0.47
54:D7:19:ARG:HH11	54:D7:19:ARG:HG2	1.79	0.47
1:AA:224:C:H2'	1:AA:225:C:C6	2.50	0.47
1:AA:819:A:H4'	1:AA:820:U:OP2	2.14	0.47
3:AC:86:VAL:HG23	3:AC:87:LEU:HD23	1.96	0.47
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.96	0.47
25:BA:126:A:O5'	54:B7:19:ARG:HG3	2.14	0.47
25:BA:236:C:H2'	25:BA:237:C:C6	2.49	0.47
25:BA:520:G:H2'	25:BA:521:G:C8	2.48	0.47
25:BA:748:G:OP1	25:BA:2612:C:N4	2.47	0.47
26:BB:65:C:H3'	26:BB:109:C:H42	1.79	0.47
28:BD:143:HIS:HB3	28:BD:194:GLY:O	2.14	0.47
28:BD:201:HIS:O	28:BD:204:ILE:HG12	2.15	0.47
30:BF:122:LYS:HB3	30:BF:191:ARG:HG2	1.97	0.47
33:BI:119:PRO:O	33:BI:120:ILE:C	2.53	0.47
33:BI:131:LYS:HD2	33:BI:131:LYS:HA	1.61	0.47
35:BO:87:ILE:HG22	35:BO:88:ASN:O	2.13	0.47
40:BT:53:ARG:HH11	40:BT:53:ARG:CG	2.27	0.47
43:BW:51:LEU:HD13	43:BW:51:LEU:O	2.10	0.47
47:B0:25:ARG:HA	47:B0:29:GLN:NE2	2.29	0.47
1:CA:142:G:H2'	1:CA:143:A:H8	1.79	0.47
1:CA:563:A:H2'	1:CA:567:G:C8	2.49	0.47
2:CB:119:GLU:O	2:CB:122:PHE:HB3	2.14	0.47
2:CB:132:LYS:HG3	2:CB:135:GLN:OE1	2.15	0.47
4:CD:9:CYS:SG	4:CD:22:LYS:HD3	2.55	0.47
4:CD:92:VAL:HG12	4:CD:96:LEU:CD1	2.45	0.47
8:CH:123:GLU:O	8:CH:127:LEU:HB2	2.15	0.47
9:CI:118:LYS:NZ	9:CI:118:LYS:HB3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:48:LEU:N	13:CM:48:LEU:HD23	2.28	0.47
14:CN:43:CYS:O	14:CN:46:GLU:N	2.47	0.47
17:CQ:93:GLN:O	17:CQ:95:TYR:N	2.47	0.47
18:CR:75:ILE:HG22	18:CR:76:LEU:CD2	2.44	0.47
21:CU:5:ASP:O	21:CU:8:THR:HG23	2.15	0.47
22:CV:7:G:HO2'	22:CV:50:G:H5'	1.77	0.47
25:DA:889:C:O2'	25:DA:890:A:OP2	2.30	0.47
25:DA:1653:G:O6	38:DR:9:LYS:O	2.33	0.47
25:DA:1902:C:H2'	25:DA:1903:G:O4'	2.14	0.47
25:DA:2011:U:OP1	43:DW:42:ARG:NH1	2.48	0.47
25:DA:2073:C:H4'	28:DD:228:PRO:HB2	1.95	0.47
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.48	0.47
26:DB:12:C:O2'	26:DB:13:A:H5"	2.13	0.47
28:DD:73:VAL:HG13	28:DD:120:GLY:HA2	1.96	0.47
28:DD:213:ARG:HD2	28:DD:213:ARG:HA	1.55	0.47
29:DE:45:THR:CG2	29:DE:83:ASP:HA	2.44	0.47
31:DG:173:LEU:O	31:DG:178:PHE:HB2	2.14	0.47
32:DH:19:VAL:O	32:DH:20:ALA:HB2	2.14	0.47
32:DH:92:ILE:CD1	32:DH:160:LYS:HD3	2.44	0.47
33:DI:12:LEU:O	33:DI:13:GLY:O	2.33	0.47
34:DN:126:PRO:O	34:DN:127:ASP:CB	2.63	0.47
35:DO:24:VAL:HB	35:DO:33:ALA:HB2	1.96	0.47
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.96	0.47
46:DZ:137:ILE:HD11	46:DZ:158:PRO:HG3	1.96	0.47
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.30	0.47
1:AA:1277:C:O2'	1:AA:1278:U:H5'	2.13	0.47
2:AB:42:ILE:HD11	2:AB:202:PRO:C	2.35	0.47
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	1.97	0.47
3:AC:113:ALA:C	3:AC:115:LEU:N	2.66	0.47
3:AC:114:PRO:HD3	3:AC:183:ASP:OD2	2.13	0.47
5:AE:79:GLU:CD	8:AH:104:ARG:HA	2.34	0.47
7:AG:121:ALA:O	7:AG:125:MET:HG3	2.14	0.47
11:AK:61:ALA:HB1	11:AK:94:ALA:HB2	1.97	0.47
17:AQ:75:ARG:NH1	17:AQ:75:ARG:HG3	2.30	0.47
19:AS:6:LYS:CD	19:AS:7:LYS:CE	2.92	0.47
19:AS:53:ASN:OD1	19:AS:54:GLY:N	2.47	0.47
23:AW:18:G:N1	23:AW:55:U:O2'	2.41	0.47
25:BA:560:C:C5'	41:BU:52:ARG:HH22	2.26	0.47
25:BA:704:G:C2	25:BA:726:G:C5	3.03	0.47
27:BC:168:THR:HA	27:BC:173:ALA:HB1	1.96	0.47
28:BD:149:PRO:O	28:BD:150:LYS:HB2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:182:LEU:HD12	29:BE:183:LEU:N	2.30	0.47
35:BO:47:ILE:HG13	35:BO:48:PRO:CD	2.44	0.47
36:BP:84:ASN:N	36:BP:84:ASN:HD22	2.12	0.47
36:BP:114:ILE:HG12	36:BP:130:PHE:CD1	2.49	0.47
37:BQ:69:PHE:CG	37:BQ:70:PRO:HD2	2.48	0.47
40:BT:28:VAL:HG13	40:BT:46:GLU:N	2.29	0.47
41:BU:39:LEU:O	41:BU:40:PHE:C	2.53	0.47
45:BY:81:LYS:O	45:BY:82:PRO:O	2.32	0.47
46:BZ:133:ILE:HG22	46:BZ:133:ILE:O	2.13	0.47
49:B2:10:LEU:HD22	49:B2:14:ARG:CZ	2.44	0.47
54:B7:28:ARG:HG3	54:B7:28:ARG:HH11	1.79	0.47
1:CA:278:G:C6	17:CQ:95:TYR:HD2	2.33	0.47
1:CA:444:C:H42	1:CA:490:G:H1	1.62	0.47
2:CB:100:GLY:O	2:CB:104:ASN:N	2.47	0.47
3:CC:83:ARG:O	3:CC:86:VAL:HG22	2.14	0.47
3:CC:85:ARG:C	3:CC:87:LEU:H	2.17	0.47
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.95	0.47
5:CE:102:ALA:CB	5:CE:106:PRO:CG	2.93	0.47
9:CI:9:ARG:HE	9:CI:14:VAL:HG22	1.79	0.47
9:CI:19:LEU:HD23	9:CI:61:ALA:CA	2.44	0.47
10:CJ:84:GLN:O	10:CJ:85:LEU:HD23	2.14	0.47
11:CK:44:SER:O	11:CK:47:VAL:HG23	2.14	0.47
12:CL:20:LYS:C	12:CL:21:LYS:HD2	2.34	0.47
13:CM:16:ASP:OD2	13:CM:16:ASP:N	2.46	0.47
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.79	0.47
16:CP:9:PHE:CE1	16:CP:18:ARG:NH2	2.76	0.47
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.34	0.47
22:CV:54:G:C2	22:CV:55:U:C5	3.02	0.47
25:DA:324:A:N6	25:DA:338:G:O2'	2.46	0.47
25:DA:340:A:H2'	25:DA:341:G:C8	2.47	0.47
25:DA:637:A:H4'	25:DA:638:G:O5'	2.14	0.47
25:DA:776:G:N1	25:DA:2072:G:OP1	2.44	0.47
25:DA:779:U:OP1	28:DD:49:ILE:HG22	2.13	0.47
25:DA:993:G:OP1	41:DU:50:ARG:NH2	2.47	0.47
25:DA:2125:G:N2	25:DA:2172:U:OP2	2.44	0.47
25:DA:2287:A:H2	25:DA:2346:A:N1	2.12	0.47
25:DA:2801(A):A:H5"	25:DA:2802:G:OP1	2.15	0.47
26:DB:109:C:H5'	26:DB:110:G:OP1	2.15	0.47
27:DC:23:ASP:C	27:DC:25:ALA:H	2.17	0.47
27:DC:42:GLU:H	27:DC:213:TYR:H	1.62	0.47
28:DD:33:LEU:O	28:DD:34:VAL:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:59:LYS:HG3	28:DD:60:ARG:N	2.30	0.47
29:DE:33:VAL:O	29:DE:69:LYS:HE2	2.14	0.47
29:DE:73:GLU:HG3	29:DE:74:PRO:CD	2.34	0.47
29:DE:120:TRP:CD2	29:DE:155:LYS:HD3	2.49	0.47
30:DF:107:LYS:O	30:DF:108:LYS:C	2.53	0.47
32:DH:56:SER:OG	32:DH:58:GLU:HG3	2.13	0.47
32:DH:59:ARG:HG3	32:DH:59:ARG:NH1	2.27	0.47
33:DI:37:VAL:HG12	33:DI:38:LEU:N	2.28	0.47
35:DO:88:ASN:O	35:DO:91:LEU:N	2.48	0.47
36:DP:79:ARG:CD	36:DP:109:GLY:C	2.81	0.47
36:DP:83:VAL:CG2	36:DP:105:LEU:HD22	2.45	0.47
39:DS:58:LEU:N	39:DS:58:LEU:CD2	2.78	0.47
46:DZ:28:MET:CE	46:DZ:37:VAL:HG11	2.45	0.47
53:D6:11:LEU:HG	53:D6:26:ASN:ND2	2.29	0.47
53:D6:15:GLU:OE1	53:D6:18:ARG:HG3	2.14	0.47
1:AA:992:U:H1’	1:AA:993:G:C2	2.50	0.47
1:AA:1049:U:H5”	1:AA:1050:G:O5’	2.14	0.47
1:AA:1251:A:HO2’	1:AA:1369:C:HO2’	1.60	0.47
1:AA:1276:G:H2’	1:AA:1277:C:H5’	1.96	0.47
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.97	0.47
2:AB:91:PRO:HG3	2:AB:154:LEU:CB	2.37	0.47
2:AB:127:ILE:HG23	2:AB:135:GLN:HE21	1.80	0.47
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.15	0.47
4:AD:10:ARG:HA	4:AD:13:ARG:HD2	1.96	0.47
4:AD:79:PHE:C	4:AD:79:PHE:CD2	2.88	0.47
4:AD:108:LEU:CB	4:AD:110:PHE:HE1	2.26	0.47
4:AD:187:ARG:HG3	4:AD:188:LEU:N	2.29	0.47
5:AE:68:GLU:CD	5:AE:68:GLU:C	2.73	0.47
5:AE:76:ILE:CG1	5:AE:142:LEU:CD1	2.92	0.47
9:AI:48:GLU:O	9:AI:51:ARG:HB2	2.14	0.47
9:AI:58:HIS:CB	9:AI:59:PHE:HE1	2.22	0.47
20:AT:50:GLU:HA	20:AT:100:ILE:CG1	2.43	0.47
20:AT:67:ALA:O	20:AT:73:HIS:CE1	2.68	0.47
25:BA:247:G:H4’	25:BA:386:G:C5	2.49	0.47
25:BA:311:A:N7	25:BA:332:A:N6	2.63	0.47
25:BA:1422:G:H4’	25:BA:1493:C:OP1	2.14	0.47
25:BA:1944:U:H5”	25:BA:1945:G:OP2	2.14	0.47
25:BA:2544:G:H1’	25:BA:2646:C:H5’	1.95	0.47
28:BD:177:LEU:HB3	28:BD:178:PRO:CD	2.45	0.47
28:BD:181:GLU:HG2	28:BD:182:LEU:H	1.79	0.47
29:BE:47:VAL:CG2	29:BE:84:PHE:O	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:200:GLU:O	29:BE:201:THR:O	2.31	0.47
31:BG:72:ARG:CB	31:BG:86:MET:O	2.62	0.47
31:BG:86:MET:N	31:BG:87:PRO:HD2	2.23	0.47
31:BG:126:ASP:C	31:BG:128:ARG:H	2.18	0.47
32:BH:72:ILE:H	32:BH:72:ILE:HD12	1.79	0.47
43:BW:10:VAL:O	43:BW:11:ARG:CB	2.60	0.47
47:B0:49:LYS:O	47:B0:50:ASN:CB	2.62	0.47
48:B1:89:GLU:O	48:B1:93:GLU:HB2	2.13	0.47
53:B6:32:ASN:CG	53:B6:33:LYS:N	2.66	0.47
1:CA:262:A:H5"	20:CT:76:ALA:HB2	1.95	0.47
1:CA:265:G:H2'	1:CA:266:G:H5"	1.97	0.47
1:CA:279:A:O5'	1:CA:281:G:H5'	2.15	0.47
1:CA:819:A:H4'	1:CA:820:U:OP2	2.13	0.47
1:CA:871:U:O2'	1:CA:872:A:OP1	2.26	0.47
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.15	0.47
2:CB:79:ASP:O	2:CB:82:ARG:HB3	2.15	0.47
2:CB:122:PHE:HA	2:CB:139:LYS:NZ	2.30	0.47
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.96	0.47
6:CF:8:ILE:HG22	6:CF:10:LEU:CD1	2.44	0.47
7:CG:75:VAL:HA	7:CG:87:VAL:O	2.14	0.47
9:CI:16:ARG:HE	9:CI:64:THR:HG23	1.79	0.47
17:CQ:48:GLU:O	17:CQ:49:GLU:C	2.52	0.47
22:CV:5:G:O2'	22:CV:6:G:H5'	2.15	0.47
25:DA:531:C:H4'	25:DA:532:A:N3	2.29	0.47
25:DA:545:C:H3'	25:DA:547:A:C8	2.50	0.47
25:DA:1491:G:O2'	28:DD:101:GLU:HB2	2.14	0.47
25:DA:1827:C:H2'	25:DA:1828:G:O4'	2.15	0.47
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.49	0.47
27:DC:41:VAL:CA	27:DC:213:TYR:HA	2.43	0.47
28:DD:27:THR:O	28:DD:27:THR:HG23	2.15	0.47
30:DF:57:VAL:HG13	30:DF:58:ALA:H	1.78	0.47
31:DG:75:LYS:HD2	31:DG:77:ILE:HD11	1.96	0.47
31:DG:96:ARG:O	31:DG:98:ARG:N	2.48	0.47
32:DH:126:PRO:CG	32:DH:130:ARG:NH1	2.78	0.47
36:DP:55:ARG:HG2	36:DP:56:SER:N	2.25	0.47
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	2.14	0.47
37:DQ:112:GLU:HG3	37:DQ:113:GLN:N	2.30	0.47
39:DS:18:ILE:HD13	39:DS:87:PHE:O	2.15	0.47
40:DT:65:LYS:NZ	40:DT:66:VAL:HB	2.29	0.47
40:DT:80:SER:O	40:DT:81:PRO:C	2.52	0.47
41:DU:8:VAL:O	41:DU:9:VAL:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:24:ILE:HG21	43:DW:36:LEU:HD21	1.96	0.47
43:DW:68:ARG:HD2	43:DW:110:LYS:HB2	1.96	0.47
46:DZ:53:ILE:H	46:DZ:71:VAL:HG23	1.77	0.47
50:D3:31:LEU:C	50:D3:33:GLN:H	2.18	0.47
55:D8:61:LEU:H	55:D8:61:LEU:HG	1.26	0.47
1:AA:189(H):G:H2'	1:AA:189(I):G:C8	2.49	0.47
1:AA:328:C:H4'	1:AA:329:A:C5'	2.44	0.47
1:AA:707:C:H2'	1:AA:708:C:C6	2.50	0.47
1:AA:792:A:H1'	1:AA:794:A:N7	2.30	0.47
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.38	0.47
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.48	0.47
2:AB:30:ARG:HH21	2:AB:194:PRO:CB	2.27	0.47
2:AB:181:PHE:CD1	8:AH:70:GLN:HB3	2.47	0.47
4:AD:4:TYR:CD2	4:AD:5:ILE:O	2.68	0.47
8:AH:122:ARG:HB2	8:AH:122:ARG:HH11	1.80	0.47
10:AJ:6:ILE:CG2	10:AJ:98:ILE:HG13	2.44	0.47
10:AJ:63:PHE:HB3	14:AN:59:ALA:H	1.79	0.47
12:AL:46:LYS:CD	12:AL:47:LYS:HG3	2.45	0.47
12:AL:53:ARG:HH12	12:AL:92:ASP:HB2	1.80	0.47
14:AN:24:CYS:H	14:AN:33:VAL:CG1	2.27	0.47
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	2.23	0.47
17:AQ:84:LEU:HD23	17:AQ:84:LEU:HA	1.66	0.47
20:AT:22:ARG:O	20:AT:26:ASN:OD1	2.33	0.47
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.50	0.47
22:AV:53:G:H2'	22:AV:54:G:C5'	2.43	0.47
23:AY:27:G:H2'	23:AY:28:G:C8	2.50	0.47
25:BA:459:U:H2'	25:BA:460:A:C8	2.50	0.47
25:BA:795:C:H2'	25:BA:796:C:C6	2.50	0.47
25:BA:811:U:C4'	25:BA:1251:C:O4'	2.63	0.47
25:BA:887:A:C4	25:BA:889:C:C5	3.03	0.47
25:BA:1008:C:H5"	25:BA:1009:A:OP1	2.14	0.47
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.62	0.47
25:BA:1022:G:O2'	25:BA:1023:U:P	2.73	0.47
25:BA:1032:A:N3	56:B9:18:ARG:NH2	2.62	0.47
25:BA:1126:A:OP1	25:BA:1126:A:H8	1.96	0.47
25:BA:1210:A:H4'	25:BA:1211:U:O5'	2.14	0.47
25:BA:1468:C:H2'	25:BA:1469:A:C8	2.49	0.47
25:BA:1722:A:O2'	25:BA:1739:U:O2	2.32	0.47
25:BA:1824:G:OP1	28:BD:52:ARG:HD3	2.14	0.47
25:BA:1993:U:H4'	29:BE:128:SER:OG	2.15	0.47
25:BA:2171:A:HO2'	25:BA:2172:U:H5'	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2227:A:H5'	28:BD:263:ARG:HH11	1.80	0.47
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.15	0.47
25:BA:2429:G:N7	36:BP:56:SER:OG	2.48	0.47
25:BA:2579:C:H4'	29:BE:134:ILE:HD12	1.95	0.47
25:BA:2788:C:O2'	25:BA:2809:A:N3	2.41	0.47
26:BB:91:C:OP1	37:BQ:16:ARG:HG3	2.14	0.47
28:BD:49:ILE:HD11	28:BD:52:ARG:CA	2.43	0.47
29:BE:29:GLY:HA3	29:BE:51:PHE:CE2	2.41	0.47
29:BE:119:ARG:O	29:BE:120:TRP:CG	2.68	0.47
29:BE:152:LYS:HB3	34:BN:78:TYR:CE2	2.49	0.47
30:BF:66:PRO:O	30:BF:67:GLN:CG	2.62	0.47
30:BF:195:ASP:HB3	30:BF:197:ASP:OD1	2.14	0.47
31:BG:11:TYR:OH	31:BG:33:ARG:HG3	2.15	0.47
31:BG:117:PHE:CE1	31:BG:119:GLY:CA	2.96	0.47
33:BI:1:MET:O	33:BI:20:ASP:HB2	2.15	0.47
34:BN:14:VAL:CG1	34:BN:15:LEU:N	2.77	0.47
35:BO:20:MET:HE3	35:BO:44:LYS:HE2	1.97	0.47
36:BP:114:ILE:HG21	36:BP:125:VAL:HG21	1.95	0.47
37:BQ:50:ALA:O	37:BQ:51:ARG:C	2.53	0.47
37:BQ:66:ILE:O	37:BQ:66:ILE:HG13	2.14	0.47
38:BR:63:ARG:NH2	38:BR:80:PHE:CD2	2.83	0.47
39:BS:20:ARG:HH11	39:BS:20:ARG:CG	2.12	0.47
39:BS:92:TYR:HD2	39:BS:94:TYR:HB2	1.79	0.47
40:BT:80:SER:O	40:BT:82:LEU:N	2.48	0.47
42:BV:43:GLU:HA	42:BV:43:GLU:OE1	2.14	0.47
42:BV:65:GLY:CA	42:BV:91:TYR:CE1	2.97	0.47
46:BZ:93:ASP:HA	46:BZ:130:PRO:CG	2.31	0.47
46:BZ:121:HIS:CE1	46:BZ:169:GLU:HG2	2.49	0.47
47:B0:41:ARG:H	47:B0:41:ARG:CD	2.26	0.47
52:B5:37:LYS:HG3	52:B5:38:ALA:N	2.29	0.47
1:CA:102:G:O2'	1:CA:151:A:N3	2.40	0.47
1:CA:275:G:O2'	1:CA:276:G:H5'	2.14	0.47
1:CA:737:A:H2'	1:CA:738:C:H6	1.80	0.47
1:CA:749:C:H2'	1:CA:750:G:H8	1.80	0.47
1:CA:1064:G:HO2'	1:CA:1065:U:C5'	2.24	0.47
1:CA:1135:U:H6	1:CA:1135:U:H3'	1.79	0.47
1:CA:1347:G:C4	9:CI:107:ARG:NH2	2.83	0.47
2:CB:7:VAL:C	2:CB:217:ARG:HH21	2.18	0.47
2:CB:155:LEU:HA	2:CB:155:LEU:HD22	1.55	0.47
3:CC:71:ALA:CB	3:CC:109:PRO:HG3	2.45	0.47
4:CD:100:ARG:HH12	4:CD:137:SER:HA	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:106:PRO:HG2	5:CE:107:ARG:H	1.78	0.47
5:CE:145:LYS:HD2	5:CE:149:GLU:OE2	2.15	0.47
6:CF:10:LEU:CD1	6:CF:10:LEU:N	2.77	0.47
7:CG:62:PHE:HA	7:CG:124:LEU:HD22	1.97	0.47
7:CG:153:HIS:O	7:CG:155:ARG:N	2.48	0.47
8:CH:25:ASP:HB3	8:CH:58:TYR:HB3	1.97	0.47
8:CH:104:ARG:C	8:CH:106:GLY:N	2.67	0.47
9:CI:9:ARG:HG2	9:CI:104:ARG:HH11	1.80	0.47
9:CI:25:LYS:O	9:CI:60:ASP:HA	2.14	0.47
11:CK:17:GLY:C	11:CK:80:VAL:HG12	2.35	0.47
11:CK:33:THR:HG22	11:CK:39:PRO:HA	1.97	0.47
12:CL:7:ILE:HD12	17:CQ:32:TYR:HB3	1.97	0.47
20:CT:104:LEU:HD23	20:CT:104:LEU:C	2.34	0.47
22:CV:29:C:H2'	22:CV:30:G:H8	1.79	0.47
22:CV:53:G:O6	22:CV:64:G:C6	2.68	0.47
25:DA:92:A:H2'	25:DA:93:G:C8	2.50	0.47
25:DA:467:G:OP1	54:D7:33:ARG:NH1	2.47	0.47
25:DA:850:C:O3'	50:D3:49:LYS:NZ	2.48	0.47
25:DA:988:A:P	50:D3:11:SER:HB3	2.55	0.47
25:DA:1237:A:H4'	25:DA:1238:G:O5'	2.13	0.47
25:DA:1248:G:OP1	30:DF:92:PRO:HG3	2.14	0.47
25:DA:1678:G:N2	25:DA:1989:G:H22	2.13	0.47
25:DA:1821:A:H8	25:DA:1821:A:O5'	1.97	0.47
25:DA:1866:C:H2'	25:DA:1876:A:O4'	2.14	0.47
25:DA:2126:A:N1	25:DA:2162:G:O2'	2.43	0.47
25:DA:2562:U:H1'	35:DO:23:ARG:HH11	1.78	0.47
27:DC:68:LEU:HD22	27:DC:180:PHE:CB	2.45	0.47
28:DD:3:VAL:CG1	28:DD:17:THR:HB	2.44	0.47
28:DD:37:LEU:O	28:DD:38:LYS:C	2.50	0.47
28:DD:264:LYS:CD	28:DD:266:SER:HB3	2.40	0.47
29:DE:36:ARG:NH1	29:DE:85:ASN:OD1	2.48	0.47
29:DE:59:VAL:HG13	29:DE:60:ASN:N	2.29	0.47
29:DE:101:ARG:HH21	29:DE:171:GLU:HB2	1.75	0.47
29:DE:120:TRP:CE3	29:DE:155:LYS:HD3	2.49	0.47
29:DE:188:VAL:HG23	29:DE:189:PRO:HD2	1.97	0.47
30:DF:23:ASP:O	30:DF:24:LEU:O	2.32	0.47
30:DF:103:LYS:HA	30:DF:106:ARG:CG	2.32	0.47
30:DF:128:ALA:O	30:DF:129:PHE:CG	2.66	0.47
31:DG:122:PRO:HB3	31:DG:180:PHE:HD2	1.79	0.47
32:DH:22:GLY:O	32:DH:37:VAL:N	2.48	0.47
33:DI:29:TYR:O	33:DI:32:PRO:HD2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:78:THR:CG2	33:DI:141:LYS:HD2	2.45	0.47
33:DI:92:VAL:O	33:DI:120:ILE:CG2	2.62	0.47
37:DQ:70:PRO:HA	37:DQ:94:VAL:O	2.14	0.47
38:DR:17:ARG:HG2	38:DR:17:ARG:NH1	2.18	0.47
38:DR:28:LEU:HA	38:DR:34:ILE:CG1	2.45	0.47
38:DR:116:LEU:HD23	38:DR:116:LEU:HA	1.69	0.47
39:DS:25:ARG:HH11	39:DS:25:ARG:CB	2.27	0.47
40:DT:19:LEU:H	40:DT:19:LEU:HD12	1.79	0.47
43:DW:107:LEU:HD12	43:DW:107:LEU:HA	1.79	0.47
45:DY:91:GLU:HG3	45:DY:92:ASN:N	2.30	0.47
46:DZ:53:ILE:N	46:DZ:53:ILE:HD13	2.29	0.47
46:DZ:64:GLY:O	46:DZ:65:GLN:C	2.52	0.47
46:DZ:152:ALA:O	46:DZ:167:PRO:HB2	2.14	0.47
48:D1:80:LEU:HB3	48:D1:82:LEU:CD2	2.44	0.47
49:D2:5:GLU:CB	49:D2:9:GLN:HE22	2.27	0.47
50:D3:2:PRO:O	50:D3:39:ASP:HB3	2.13	0.47
51:D4:9:LEU:HG	51:D4:26:SER:CA	2.43	0.47
52:D5:37:LYS:HG3	52:D5:38:ALA:H	1.79	0.47
1:AA:49:U:O2	1:AA:362:G:H1'	2.15	0.47
1:AA:366:C:O2'	1:AA:394:G:N2	2.48	0.47
1:AA:1064:G:O2'	1:AA:1065:U:OP2	2.30	0.47
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.15	0.47
2:AB:223:ILE:O	2:AB:227:GLY:N	2.48	0.47
4:AD:112:VAL:HG23	4:AD:113:SER:N	2.30	0.47
5:AE:112:LEU:HD23	5:AE:112:LEU:HA	1.57	0.47
10:AJ:4:ILE:HD11	10:AJ:77:PRO:HB3	1.96	0.47
13:AM:96:LEU:O	13:AM:110:ARG:NE	2.47	0.47
14:AN:36:PHE:CD1	14:AN:37:PHE:CD2	3.02	0.47
15:AO:87:ILE:CG2	15:AO:88:ARG:H	2.28	0.47
25:BA:180:G:OP2	54:B7:32:LYS:HE3	2.15	0.47
25:BA:234:C:H2'	25:BA:235:U:H6	1.78	0.47
25:BA:481:G:OP2	45:BY:47:LYS:HE3	2.14	0.47
25:BA:598:G:H5'	36:BP:11:GLY:HA3	1.97	0.47
25:BA:779:U:OP1	28:BD:49:ILE:HG22	2.14	0.47
25:BA:1300:U:O2'	25:BA:1301:A:OP2	2.30	0.47
25:BA:1326:U:H5	25:BA:1647:G:O2'	1.97	0.47
25:BA:1899:G:O2'	25:BA:1900:A:H5"	2.14	0.47
25:BA:1902:C:OP1	28:BD:242:ARG:HD3	2.15	0.47
25:BA:2320:A:H61	25:BA:2333:A:H2'	1.80	0.47
28:BD:24:ILE:O	28:BD:26:LYS:CE	2.62	0.47
28:BD:73:VAL:C	28:BD:75:ILE:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:181:GLU:OE1	28:BD:270:ILE:HG21	2.15	0.47
30:BF:101:LEU:HA	30:BF:102:PRO:HD2	1.65	0.47
33:BI:83:ALA:HB2	33:BI:88:ILE:HG23	1.95	0.47
35:BO:19:ILE:O	35:BO:19:ILE:HG13	2.14	0.47
36:BP:31:ALA:C	36:BP:32:THR:HG23	2.35	0.47
38:BR:2:ARG:CZ	38:BR:5:LYS:HE3	2.45	0.47
39:BS:19:LYS:O	39:BS:19:LYS:HG2	2.15	0.47
39:BS:38:GLN:HB2	39:BS:47:THR:CG2	2.45	0.47
41:BU:89:GLU:O	41:BU:89:GLU:HG3	2.14	0.47
41:BU:113:ALA:C	41:BU:115:ALA:N	2.68	0.47
46:BZ:38:TYR:C	46:BZ:38:TYR:CD1	2.88	0.47
46:BZ:76:LEU:N	46:BZ:76:LEU:HD22	2.29	0.47
46:BZ:128:VAL:HG21	46:BZ:132:ASN:O	2.15	0.47
48:B1:5:CYS:HG	48:B1:8:SER:HB3	1.80	0.47
49:B2:16:LEU:O	49:B2:17:SER:HB3	2.15	0.47
1:CA:246:A:H4'	1:CA:247:G:OP1	2.15	0.47
1:CA:445:G:H2'	1:CA:446:G:H8	1.79	0.47
1:CA:686:U:H5'	1:CA:686:U:C6	2.50	0.47
1:CA:1321:C:C4	1:CA:1322:C:C4	3.02	0.47
5:CE:76:ILE:HD11	5:CE:142:LEU:CD2	2.37	0.47
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.15	0.47
7:CG:121:ALA:O	7:CG:122:HIS:C	2.53	0.47
13:CM:11:ARG:CB	13:CM:11:ARG:NH1	2.77	0.47
13:CM:19:LEU:N	13:CM:19:LEU:HD22	2.30	0.47
19:CS:11:VAL:HA	19:CS:38:SER:HB2	1.96	0.47
19:CS:13:ASP:O	19:CS:15:LEU:N	2.48	0.47
25:DA:270:A:N1	25:DA:366:C:O2'	2.42	0.47
25:DA:911:A:C5	37:DQ:9:TYR:CD1	3.03	0.47
25:DA:1610:A:H4'	25:DA:1611:C:OP1	2.13	0.47
25:DA:2517:C:O2'	25:DA:2518:A:H3'	2.15	0.47
25:DA:2787:C:H1'	29:DE:61:ARG:CG	2.45	0.47
28:DD:92:ILE:H	28:DD:92:ILE:HD13	1.79	0.47
28:DD:267:SER:O	28:DD:268:ARG:HB2	2.15	0.47
30:DF:164:ARG:HG3	30:DF:175:THR:OG1	2.15	0.47
31:DG:118:ARG:HA	31:DG:118:ARG:NE	2.28	0.47
32:DH:124:GLU:CB	32:DH:132:ARG:HG3	2.45	0.47
32:DH:164:TYR:O	32:DH:166:GLY:N	2.47	0.47
34:DN:17:ASP:C	34:DN:19:GLU:H	2.18	0.47
35:DO:105:GLU:HA	35:DO:108:GLU:CD	2.35	0.47
38:DR:81:ASP:O	38:DR:82:GLU:CB	2.63	0.47
39:DS:62:LYS:HB3	39:DS:97:ARG:CD	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:3:ARG:O	40:DT:6:LEU:N	2.46	0.47
40:DT:128:GLU:C	40:DT:128:GLU:CD	2.73	0.47
42:DV:48:GLY:O	42:DV:49:THR:O	2.32	0.47
43:DW:9:TYR:CE2	43:DW:102:HIS:NE2	2.80	0.47
49:D2:13:ALA:O	49:D2:15:LYS:N	2.48	0.47
1:AA:56:U:H2'	1:AA:57:G:C8	2.50	0.47
1:AA:274:A:O2'	1:AA:275:G:H8	1.97	0.47
1:AA:495:A:O2'	1:AA:496:A:O5'	2.24	0.47
1:AA:656:C:H4'	15:AO:62:GLN:HE22	1.78	0.47
1:AA:681:C:H2'	1:AA:682:G:H8	1.79	0.47
1:AA:737:A:H2'	1:AA:738:C:C6	2.50	0.47
1:AA:914:A:H2'	1:AA:915:A:O4'	2.15	0.47
2:AB:77:ALA:HA	2:AB:80:ILE:CG2	2.44	0.47
7:AG:142:GLU:O	7:AG:145:ALA:HB3	2.15	0.47
9:AI:58:HIS:HB2	9:AI:59:PHE:CD1	2.48	0.47
9:AI:100:GLY:O	9:AI:101:PHE:CD2	2.68	0.47
13:AM:23:TYR:CD1	13:AM:70:LEU:HD22	2.49	0.47
17:AQ:27:PHE:HB2	17:AQ:28:PRO:CD	2.45	0.47
18:AR:74:ARG:HH21	18:AR:81:PHE:CA	2.21	0.47
20:AT:13:LEU:O	20:AT:16:HIS:HB3	2.14	0.47
22:AV:53:G:O2'	22:AV:54:G:O5'	2.32	0.47
23:AW:18:G:H1	23:AW:55:U:C1'	2.27	0.47
25:BA:32:C:HO2'	25:BA:33:U:H5'	1.79	0.47
25:BA:412:A:N7	25:BA:2411:A:H2	2.13	0.47
25:BA:805:G:N2	25:BA:829:A:OP1	2.41	0.47
25:BA:1287:A:C6	25:BA:1288:U:O4	2.65	0.47
25:BA:1344:G:C6	25:BA:1385:G:N7	2.83	0.47
25:BA:1566:A:OP1	28:BD:211:ARG:NH1	2.46	0.47
25:BA:1658:C:OP1	29:BE:132:HIS:ND1	2.48	0.47
25:BA:2320:A:C6	25:BA:2333:A:C8	3.02	0.47
25:BA:2590:A:OP2	28:BD:238:GLY:HA2	2.15	0.47
30:BF:117:ARG:NH2	30:BF:187:VAL:HA	2.30	0.47
36:BP:95:VAL:HA	36:BP:99:LEU:HD23	1.97	0.47
36:BP:138:LEU:HD12	36:BP:139:LYS:N	2.30	0.47
37:BQ:12:GLN:HG2	37:BQ:73:PRO:CD	2.35	0.47
37:BQ:30:GLY:O	37:BQ:134:ARG:NH1	2.48	0.47
46:BZ:98:MET:HE2	46:BZ:99:TYR:O	2.15	0.47
49:B2:13:ALA:HA	49:B2:16:LEU:HG	1.97	0.47
50:B3:10:LYS:C	50:B3:31:LEU:HD21	2.35	0.47
55:B8:62:LEU:N	55:B8:63:PRO:HD2	2.29	0.47
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1316:G:O6	19:CS:5:LEU:HD23	2.13	0.47
3:CC:68:VAL:HG12	3:CC:68:VAL:O	2.15	0.47
3:CC:154:SER:OG	3:CC:155:GLY:N	2.47	0.47
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.33	0.47
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG2	2.49	0.47
11:CK:33:THR:HA	11:CK:40:ILE:HG12	1.96	0.47
12:CL:84:LEU:HD23	12:CL:84:LEU:HA	1.36	0.47
13:CM:57:ARG:HH11	13:CM:57:ARG:CB	2.20	0.47
18:CR:40:LEU:HB3	18:CR:79:LEU:HD11	1.97	0.47
19:CS:8:GLY:O	19:CS:9:VAL:HG23	2.15	0.47
25:DA:82:G:C5	25:DA:83:G:O6	2.68	0.47
25:DA:890:A:C5	25:DA:892:G:N7	2.83	0.47
25:DA:942:G:H5"	36:DP:36:LYS:HE2	1.95	0.47
25:DA:1128:A:C8	25:DA:2518:A:N6	2.82	0.47
25:DA:1455:G:O6	25:DA:2705:A:N3	2.47	0.47
25:DA:1667:G:O2'	25:DA:1991:U:O4	2.32	0.47
25:DA:1805:U:O2	28:DD:50:THR:HB	2.15	0.47
25:DA:1819:A:OP1	28:DD:161:THR:HG21	2.15	0.47
25:DA:2009:G:N3	38:DR:107:ASP:HA	2.30	0.47
28:DD:44:ASN:HB3	28:DD:48:ARG:O	2.15	0.47
28:DD:77:ALA:HB2	28:DD:97:TYR:CG	2.50	0.47
28:DD:112:GLN:N	28:DD:115:GLN:NE2	2.63	0.47
31:DG:177:GLY:O	31:DG:179:PRO:HD3	2.15	0.47
32:DH:16:SER:O	32:DH:17:VAL:HG23	2.15	0.47
32:DH:137:ASP:O	32:DH:138:LYS:HB2	2.15	0.47
33:DI:41:GLU:O	33:DI:45:LYS:HB2	2.15	0.47
33:DI:57:ARG:CA	33:DI:60:GLU:HB3	2.45	0.47
36:DP:31:ALA:C	36:DP:32:THR:HG23	2.35	0.47
36:DP:33:ARG:O	36:DP:34:GLY:O	2.33	0.47
40:DT:29:ARG:HD3	40:DT:29:ARG:HA	1.58	0.47
42:DV:1:MET:HG2	42:DV:42:GLY:H	1.80	0.47
44:DX:11:PRO:HG2	49:D2:40:SER:OG	2.15	0.47
44:DX:60:ARG:NH2	54:D7:47:ARG:HH21	2.11	0.47
44:DX:64:LYS:NZ	44:DX:73:ARG:HH21	2.13	0.47
46:DZ:48:PHE:O	46:DZ:49:ARG:C	2.53	0.47
50:D3:35:ARG:HG3	50:D3:35:ARG:NH1	2.30	0.47
1:AA:787:A:N6	1:AA:792:A:O2'	2.47	0.47
1:AA:1224:G:N2	1:AA:1363:C:N3	2.62	0.47
2:AB:8:LYS:O	2:AB:12:GLU:HG3	2.15	0.47
2:AB:8:LYS:NZ	2:AB:217:ARG:HH12	2.12	0.47
2:AB:118:LEU:HB2	2:AB:142:LEU:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:187:LEU:HD22	2:AB:187:LEU:C	2.35	0.47
2:AB:204:ASN:ND2	2:AB:205:ASP:N	2.62	0.47
3:AC:23:TYR:CD2	3:AC:23:TYR:C	2.88	0.47
3:AC:101:LEU:HD23	3:AC:102:ASN:N	2.30	0.47
4:AD:30:LYS:O	4:AD:32:ALA:N	2.48	0.47
4:AD:134:ASP:OD2	4:AD:135:LEU:HD13	2.15	0.47
14:AN:15:LYS:CD	14:AN:16:PHE:CE2	2.98	0.47
19:AS:15:LEU:HD22	19:AS:15:LEU:N	2.30	0.47
19:AS:64:GLU:O	19:AS:67:VAL:HG23	2.14	0.47
25:BA:590:A:H2'	25:BA:591:C:C6	2.50	0.47
25:BA:639:U:H2'	25:BA:640:C:C6	2.50	0.47
25:BA:797:C:OP2	30:BF:62:ARG:HG3	2.15	0.47
25:BA:1416:G:O2'	25:BA:1417:C:O4'	2.32	0.47
25:BA:1549:C:H2'	25:BA:1550:C:C5	2.44	0.47
25:BA:2453:A:C2	25:BA:2504:U:N3	2.83	0.47
27:BC:22:ILE:HG22	27:BC:22:ILE:O	2.15	0.47
28:BD:210:GLY:O	28:BD:212:SER:N	2.47	0.47
28:BD:264:LYS:CD	28:BD:266:SER:HB2	2.41	0.47
31:BG:43:LEU:HD23	31:BG:88:ILE:CD1	2.45	0.47
31:BG:47:LYS:HD3	31:BG:82:LEU:HG	1.97	0.47
31:BG:64:THR:HG23	31:BG:65:GLY:H	1.79	0.47
31:BG:77:ILE:H	31:BG:83:ARG:HB3	1.79	0.47
35:BO:93:PRO:HB3	35:BO:114:ILE:HD11	1.96	0.47
38:BR:101:ALA:HB2	52:B5:44:THR:CB	2.45	0.47
39:BS:57:LYS:HB3	39:BS:58:LEU:H	1.58	0.47
46:BZ:91:LEU:HD12	46:BZ:91:LEU:N	2.30	0.47
47:B0:45:PHE:HE1	47:B0:77:ARG:NH1	2.13	0.47
52:B5:4:HIS:HB3	52:B5:5:PRO:HD3	1.96	0.47
52:B5:51:TYR:HD1	52:B5:52:TYR:CE2	2.33	0.47
53:B6:9:LEU:HD22	53:B6:26:ASN:HB2	1.96	0.47
55:B8:52:LYS:N	55:B8:53:PRO:CD	2.78	0.47
1:CA:580:U:H2'	1:CA:581:G:O4'	2.15	0.47
1:CA:971:G:OP1	1:CA:972:C:H5"	2.15	0.47
1:CA:1502:A:N3	1:CA:1505:G:N2	2.54	0.47
2:CB:86:GLU:C	2:CB:88:ALA:N	2.68	0.47
2:CB:115:LEU:HD12	2:CB:115:LEU:O	2.15	0.47
5:CE:81:GLU:HG2	5:CE:90:VAL:CG1	2.43	0.47
5:CE:100:VAL:CB	5:CE:118:ILE:CG2	2.83	0.47
8:CH:28:ALA:HB3	8:CH:57:PRO:HB2	1.97	0.47
9:CI:58:HIS:HB2	9:CI:59:PHE:CE1	2.49	0.47
9:CI:91:ASP:C	9:CI:93:ARG:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:8:LEU:HA	10:CJ:95:GLU:O	2.15	0.47
10:CJ:61:GLU:OE1	14:CN:58:LYS:CD	2.63	0.47
11:CK:24:SER:OG	11:CK:25:TYR:N	2.47	0.47
14:CN:9:LYS:C	14:CN:11:LYS:N	2.67	0.47
15:CO:33:THR:O	15:CO:34:LEU:C	2.53	0.47
23:CY:31:A:C2'	23:CY:32:U:H5'	2.45	0.47
25:DA:413:C:H42	25:DA:2410:G:H1	1.62	0.47
25:DA:787:U:H5"	25:DA:788:A:H5'	1.96	0.47
25:DA:1378:A:O2'	25:DA:1379:A:O5'	2.21	0.47
25:DA:2286:A:OP1	53:D6:30:THR:HB	2.13	0.47
25:DA:2420:C:OP1	55:D8:34:TRP:HB2	2.14	0.47
25:DA:2848:G:C3'	40:DT:95:ARG:O	2.62	0.47
28:DD:25:THR:O	28:DD:26:LYS:NZ	2.37	0.47
28:DD:68:LYS:HB2	28:DD:70:TRP:CH2	2.49	0.47
28:DD:70:TRP:CD1	28:DD:70:TRP:C	2.88	0.47
30:DF:65:TRP:CZ3	30:DF:73:ALA:O	2.67	0.47
30:DF:178:PRO:HB2	30:DF:201:VAL:CG1	2.42	0.47
39:DS:3:ARG:CG	39:DS:4:LEU:N	2.75	0.47
39:DS:5:THR:HG23	39:DS:8:GLU:OE2	2.15	0.47
40:DT:104:ASN:O	40:DT:105:LEU:HD23	2.15	0.47
40:DT:129:ARG:CD	40:DT:129:ARG:C	2.66	0.47
41:DU:97:ASP:O	41:DU:98:LEU:C	2.52	0.47
41:DU:104:GLN:CD	41:DU:104:GLN:H	2.18	0.47
48:D1:78:LYS:C	48:D1:80:LEU:H	2.17	0.47
1:AA:173:U:H5"	1:AA:197:A:O4'	2.16	0.46
1:AA:256:U:H5'	17:AQ:17:LYS:NZ	2.30	0.46
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.29	0.46
1:AA:1499:A:OP2	1:AA:1505:G:OP2	2.34	0.46
2:AB:125:PRO:O	2:AB:128:GLU:HB2	2.15	0.46
7:AG:111:ARG:NH2	7:AG:126:ASP:OD1	2.47	0.46
10:AJ:45:ARG:HA	10:AJ:45:ARG:HD3	1.71	0.46
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.97	0.46
19:AS:14:HIS:CD2	19:AS:15:LEU:HD21	2.50	0.46
19:AS:20:LEU:HA	19:AS:23:ASN:HB3	1.98	0.46
25:BA:534:U:HO2'	41:BU:49:HIS:CE1	2.28	0.46
25:BA:1312:U:P	44:BX:63:LYS:HD2	2.55	0.46
25:BA:1313:U:H2'	25:BA:1610:A:C2	2.50	0.46
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.49	0.46
27:BC:66:HIS:CD2	27:BC:187:ASP:HA	2.51	0.46
28:BD:156:ALA:C	28:BD:157:ARG:HG2	2.36	0.46
30:BF:32:LEU:C	30:BF:32:LEU:CD2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:96:ASP:OD1	30:BF:97:TYR:N	2.48	0.46
31:BG:13:GLU:O	31:BG:14:GLU:HB2	2.15	0.46
32:BH:100:GLY:C	32:BH:102:ALA:H	2.17	0.46
32:BH:130:ARG:O	32:BH:131:VAL:HG23	2.15	0.46
34:BN:45:ASN:HD22	34:BN:45:ASN:C	2.19	0.46
37:BQ:134:ARG:HG3	37:BQ:134:ARG:NH1	2.30	0.46
37:BQ:134:ARG:C	37:BQ:137:TYR:CD2	2.88	0.46
38:BR:9:LYS:C	38:BR:10:LEU:CG	2.68	0.46
40:BT:83:ILE:CD1	40:BT:84:GLN:CG	2.93	0.46
43:BW:24:ILE:HG21	43:BW:36:LEU:HD21	1.97	0.46
49:B2:67:LYS:O	49:B2:70:GLN:NE2	2.48	0.46
1:CA:1191:A:H5"	3:CC:4:LYS:NZ	2.30	0.46
1:CA:1452:C:O2'	1:CA:1456:G:OP2	2.30	0.46
1:CA:1504:G:H4'	1:CA:1505:G:O5'	2.13	0.46
2:CB:195:ASP:O	8:CH:68:ARG:NH2	2.48	0.46
6:CF:26:ILE:O	6:CF:30:LEU:HD12	2.14	0.46
7:CG:149:ARG:O	7:CG:152:ALA:N	2.48	0.46
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.96	0.46
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CG1	2.42	0.46
10:CJ:49:VAL:CG2	10:CJ:50:ILE:H	2.27	0.46
14:CN:51:GLY:C	14:CN:53:LEU:H	2.18	0.46
15:CO:27:VAL:O	15:CO:31:LEU:HB2	2.15	0.46
17:CQ:22:LEU:HD12	17:CQ:22:LEU:HA	1.66	0.46
17:CQ:89:LEU:O	17:CQ:93:GLN:HG3	2.14	0.46
20:CT:74:LYS:C	20:CT:76:ALA:N	2.69	0.46
25:DA:83:G:H22	25:DA:102:G:C2'	2.27	0.46
25:DA:340:A:C2'	25:DA:341:G:O5'	2.63	0.46
25:DA:1227:G:OP1	41:DU:13:LYS:HG2	2.15	0.46
27:DC:43:VAL:HG12	27:DC:43:VAL:O	2.15	0.46
27:DC:141:LYS:O	27:DC:142:ALA:HB2	2.14	0.46
28:DD:31:LYS:HB3	28:DD:35:LYS:HG3	1.97	0.46
28:DD:48:ARG:NH1	28:DD:48:ARG:HG3	2.30	0.46
33:DI:82:ARG:O	33:DI:89:TYR:HD1	1.98	0.46
34:DN:93:THR:O	34:DN:94:HIS:HB2	2.15	0.46
35:DO:47:ILE:HG23	35:DO:48:PRO:CD	2.43	0.46
37:DQ:12:GLN:HE21	37:DQ:73:PRO:CD	2.28	0.46
37:DQ:62:GLY:H	37:DQ:109:VAL:HG23	1.79	0.46
39:DS:25:ARG:HH11	39:DS:25:ARG:HB3	1.80	0.46
39:DS:100:ALA:O	39:DS:103:GLU:HG2	2.15	0.46
40:DT:106:SER:HA	40:DT:110:ILE:CG1	2.42	0.46
41:DU:62:ILE:HG23	41:DU:76:TYR:CE1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:38:LEU:O	42:DV:51:VAL:HG13	2.15	0.46
49:D2:16:LEU:O	49:D2:17:SER:HB3	2.15	0.46
55:D8:49:VAL:C	55:D8:53:PRO:HG3	2.34	0.46
55:D8:63:PRO:HB2	55:D8:64:TYR:HD1	1.80	0.46
1:AA:243:A:N6	1:AA:281:G:C4	2.84	0.46
1:AA:820:U:O2'	1:AA:821:G:OP1	2.29	0.46
1:AA:1112:C:N3	3:AC:178:LEU:HB2	2.30	0.46
1:AA:1126:U:C6	1:AA:1126:U:O5'	2.68	0.46
1:AA:1228:C:H4'	13:AM:116:THR:HA	1.97	0.46
2:AB:108:ILE:HG22	2:AB:152:PHE:HE1	1.80	0.46
4:AD:196:LEU:C	4:AD:198:VAL:H	2.19	0.46
11:AK:41:THR:HG21	11:AK:71:LYS:HD2	1.98	0.46
13:AM:20:THR:O	13:AM:22:ILE:N	2.40	0.46
13:AM:57:ARG:NH1	51:B4:60:GLU:HG3	2.30	0.46
13:AM:65:LYS:HA	13:AM:66:LEU:CG	2.44	0.46
13:AM:69:GLU:OE1	13:AM:69:GLU:O	2.33	0.46
17:AQ:53:LEU:HD12	17:AQ:54:GLY:N	2.29	0.46
20:AT:63:ILE:CG2	20:AT:77:ALA:HB1	2.45	0.46
25:BA:581:C:H2'	25:BA:582:G:C8	2.50	0.46
25:BA:710:G:H2'	25:BA:711:G:C8	2.50	0.46
25:BA:833:U:H2'	25:BA:834:C:C6	2.50	0.46
25:BA:954:G:O2'	25:BA:2274:A:N1	2.46	0.46
25:BA:1283:G:N2	25:BA:1285:G:H3'	2.29	0.46
25:BA:1558:A:O2'	25:BA:1559:G:OP2	2.31	0.46
25:BA:1952:A:C6	25:BA:1953:A:N1	2.84	0.46
28:BD:111:LEU:HD22	28:BD:115:GLN:OE1	2.15	0.46
29:BE:94:GLU:CG	29:BE:177:PRO:HB3	2.45	0.46
30:BF:34:TRP:CZ3	36:BP:8:PRO:HB3	2.49	0.46
36:BP:38:GLN:HG2	36:BP:45:LEU:HD13	1.97	0.46
38:BR:88:ARG:HD2	38:BR:89:ASP:OD1	2.14	0.46
39:BS:58:LEU:H	39:BS:58:LEU:HD12	1.78	0.46
39:BS:92:TYR:N	39:BS:92:TYR:HD1	2.12	0.46
39:BS:92:TYR:O	39:BS:94:TYR:N	2.47	0.46
41:BU:8:VAL:O	41:BU:9:VAL:C	2.52	0.46
41:BU:14:HIS:NE2	41:BU:32:PHE:CG	2.82	0.46
42:BV:65:GLY:HA3	42:BV:91:TYR:CE1	2.40	0.46
46:BZ:24:LEU:CB	46:BZ:41:LEU:HG	2.45	0.46
48:B1:16:ASN:HA	48:B1:38:SER:O	2.15	0.46
1:CA:77:G:O6	1:CA:92:C:N4	2.48	0.46
1:CA:173:U:O4'	1:CA:197:A:C4	2.68	0.46
1:CA:595:G:H1'	1:CA:596:C:H5	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:945:G:C2	1:CA:946:A:C8	3.03	0.46
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.45	0.46
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.15	0.46
2:CB:82:ARG:HG2	2:CB:83:MET:HE3	1.97	0.46
2:CB:85:ALA:HB1	2:CB:92:TYR:HB3	1.96	0.46
4:CD:19:LEU:CB	4:CD:21:LEU:CD1	2.93	0.46
5:CE:76:ILE:HG12	5:CE:77:PRO:CD	2.32	0.46
13:CM:108:ARG:NH1	13:CM:108:ARG:HG3	2.30	0.46
13:CM:119:GLY:CA	13:CM:120:LYS:HD3	2.44	0.46
17:CQ:53:LEU:HD12	17:CQ:54:GLY:N	2.30	0.46
18:CR:40:LEU:C	18:CR:42:ARG:N	2.67	0.46
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.29	0.46
23:CW:68:C:C2	23:CW:69:G:C8	3.02	0.46
25:DA:226:G:O2'	25:DA:227:A:C8	2.68	0.46
25:DA:457:A:O2'	25:DA:458:G:OP2	2.31	0.46
25:DA:614:U:O2	25:DA:614:U:O4'	2.30	0.46
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.15	0.46
25:DA:2001:A:H4'	25:DA:2689:U:H2'	1.96	0.46
25:DA:2134:A:C2	25:DA:2159:G:H1'	2.49	0.46
26:DB:30:C:H1'	26:DB:57:A:H61	1.80	0.46
27:DC:155:GLU:O	27:DC:156:ILE:CB	2.64	0.46
29:DE:31:CYS:HB3	29:DE:49:LEU:HB3	1.96	0.46
29:DE:119:ARG:HD2	29:DE:120:TRP:CE2	2.49	0.46
30:DF:129:PHE:O	30:DF:130:ALA:HB3	2.15	0.46
31:DG:68:PRO:HG2	31:DG:90:LEU:HD12	1.97	0.46
31:DG:125:PHE:HE1	31:DG:180:PHE:HE2	1.63	0.46
32:DH:62:LYS:O	32:DH:65:HIS:HB3	2.15	0.46
37:DQ:12:GLN:HE21	37:DQ:72:LYS:HA	1.79	0.46
39:DS:106:ARG:CA	39:DS:110:LEU:CD2	2.86	0.46
41:DU:6:THR:O	41:DU:9:VAL:HG23	2.15	0.46
45:DY:91:GLU:HG3	45:DY:92:ASN:OD1	2.15	0.46
46:DZ:13:GLU:HB3	46:DZ:14:LYS:NZ	2.31	0.46
1:AA:787:A:N1	1:AA:795:C:N4	2.60	0.46
1:AA:1053:G:N7	1:AA:1200:C:H5"	2.30	0.46
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.15	0.46
3:AC:60:ALA:HB3	3:AC:63:ASN:OD1	2.15	0.46
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.97	0.46
4:AD:118:ARG:O	4:AD:120:LEU:N	2.48	0.46
5:AE:142:LEU:O	5:AE:143:ARG:HD3	2.15	0.46
8:AH:40:ALA:C	8:AH:42:GLU:N	2.65	0.46
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:80:LYS:HD2	1:CA:1162:C:O2'	2.16	0.46
11:AK:41:THR:HG21	11:AK:71:LYS:CD	2.46	0.46
14:AN:58:LYS:HE3	14:AN:58:LYS:HB3	1.65	0.46
16:AP:31:LYS:HG3	16:AP:32:TYR:N	2.31	0.46
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.15	0.46
22:AV:34:U:O2	22:AV:36:A:H5"	2.15	0.46
25:BA:241:A:O2'	25:BA:242:G:O5'	2.30	0.46
25:BA:587:C:O2'	25:BA:588:U:OP2	2.30	0.46
26:BB:56:G:H4'	26:BB:57:A:C8	2.50	0.46
29:BE:61:ARG:CB	29:BE:62:PRO:CD	2.94	0.46
32:BH:116:GLU:HG2	32:BH:117:PRO:N	2.28	0.46
32:BH:144:VAL:CA	32:BH:147:ASN:HB2	2.30	0.46
33:BI:2:LYS:HB2	33:BI:39:ALA:HB3	1.96	0.46
33:BI:3:VAL:HG12	33:BI:38:LEU:HA	1.97	0.46
33:BI:53:ALA:O	33:BI:57:ARG:CG	2.63	0.46
33:BI:77:LEU:HB3	33:BI:140:LEU:HD13	1.97	0.46
36:BP:24:GLY:O	36:BP:25:SER:CB	2.64	0.46
37:BQ:46:GLN:O	37:BQ:49:ALA:N	2.48	0.46
37:BQ:55:VAL:CG2	37:BQ:56:ARG:N	2.78	0.46
38:BR:75:LEU:HD23	38:BR:78:LYS:HD3	1.97	0.46
41:BU:91:ASP:C	41:BU:93:LYS:N	2.66	0.46
43:BW:12:ILE:HG12	43:BW:17:VAL:CG1	2.44	0.46
44:BX:12:VAL:CG2	44:BX:13:LEU:H	2.23	0.46
45:BY:67:LEU:HD12	45:BY:71:LYS:CG	2.31	0.46
45:BY:67:LEU:CD1	45:BY:71:LYS:CB	2.93	0.46
49:B2:19:VAL:O	49:B2:20:GLU:C	2.53	0.46
51:B4:41:ILE:HA	51:B4:47:VAL:HG22	1.96	0.46
51:B4:54:LYS:HA	51:B4:55:PRO:HD3	1.69	0.46
1:CA:137:C:H42	1:CA:226:G:H1	1.63	0.46
1:CA:189(G):G:O6	1:CA:264:U:H5"	2.14	0.46
1:CA:533:A:O2'	1:CA:534:U:OP1	2.30	0.46
1:CA:1201:A:HO2'	1:CA:1202:G:P	2.39	0.46
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.79	0.46
2:CB:156:LYS:HB3	2:CB:156:LYS:HE2	1.65	0.46
2:CB:166:ASP:C	2:CB:166:ASP:OD2	2.53	0.46
3:CC:22:TRP:CB	3:CC:59:ARG:HB2	2.44	0.46
4:CD:71:SER:OG	4:CD:74:GLN:HG3	2.16	0.46
5:CE:59:GLY:O	5:CE:60:TYR:C	2.52	0.46
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.63	0.46
7:CG:43:PHE:C	7:CG:43:PHE:CD1	2.87	0.46
8:CH:2:LEU:HD22	8:CH:2:LEU:HA	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:103:VAL:O	8:CH:108:GLY:N	2.44	0.46
10:CJ:6:ILE:O	10:CJ:6:ILE:HG13	2.15	0.46
13:CM:82:MET:CE	13:CM:93:ARG:HA	2.45	0.46
25:DA:457:A:O2'	25:DA:458:G:P	2.73	0.46
25:DA:532:A:H2	41:DU:28:ARG:HH21	1.63	0.46
25:DA:604:G:H2'	25:DA:605:C:H6	1.77	0.46
25:DA:747:U:O2	25:DA:2014:A:H1'	2.15	0.46
25:DA:793:A:OP2	25:DA:2071:A:O2'	2.31	0.46
25:DA:995:C:H6	41:DU:57:PHE:HE1	1.50	0.46
25:DA:1937:A:N7	25:DA:1939:U:H2'	2.31	0.46
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.50	0.46
26:DB:92:C:OP1	37:DQ:19:GLY:N	2.45	0.46
28:DD:155:LEU:N	28:DD:155:LEU:CD1	2.78	0.46
32:DH:89:ILE:HD13	32:DH:90:LYS:H	1.78	0.46
35:DO:35:VAL:HG21	35:DO:69:ILE:CD1	2.41	0.46
36:DP:61:ARG:HD2	36:DP:61:ARG:N	2.31	0.46
36:DP:138:LEU:HD12	36:DP:139:LYS:N	2.30	0.46
37:DQ:104:PHE:HE1	37:DQ:125:LEU:HD11	1.80	0.46
40:DT:108:ARG:HA	40:DT:111:ARG:NH1	2.30	0.46
43:DW:60:ASN:C	43:DW:61:ASN:HD22	2.18	0.46
45:DY:49:VAL:HG11	45:DY:50:ARG:NH2	2.30	0.46
1:AA:250:A:C8	1:AA:252:U:C2	3.04	0.46
1:AA:251:G:O2'	1:AA:252:U:O5'	2.33	0.46
1:AA:355:C:O4'	1:AA:388:G:O2'	2.34	0.46
1:AA:939:G:H2'	1:AA:940:C:C6	2.50	0.46
1:AA:1439:C:OP1	20:AT:38:LYS:NZ	2.29	0.46
2:AB:196:LEU:HD12	2:AB:197:VAL:HG23	1.97	0.46
3:AC:153:VAL:HG12	3:AC:196:LEU:HD12	1.97	0.46
6:AF:16:GLN:O	6:AF:20:ALA:N	2.48	0.46
9:AI:116:LYS:O	9:AI:118:LYS:N	2.42	0.46
12:AL:35:GLY:HA3	12:AL:60:LEU:HD13	1.98	0.46
22:AV:52:C:C4	22:AV:53:G:N7	2.84	0.46
22:AV:54:G:N3	22:AV:55:U:C5	2.83	0.46
25:BA:804:A:C5'	25:BA:805:G:OP1	2.60	0.46
25:BA:820:A:H1'	25:BA:943:U:H1'	1.96	0.46
25:BA:890:A:N6	25:BA:892:G:C6	2.84	0.46
25:BA:1636:C:H2'	25:BA:1637:A:C8	2.51	0.46
25:BA:2489:G:O6	25:BA:2490:G:N1	2.48	0.46
25:BA:2646:C:H2'	25:BA:2647:U:O4'	2.14	0.46
27:BC:120:MET:CB	27:BC:142:ALA:HA	2.45	0.46
28:BD:3:VAL:HA	28:BD:18:VAL:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:53:PHE:CE2	28:BD:220:HIS:NE2	2.84	0.46
30:BF:45:ARG:CG	30:BF:46:ARG:N	2.76	0.46
31:BG:181:ARG:O	31:BG:182:LYS:C	2.53	0.46
32:BH:21:PRO:HB2	32:BH:22:GLY:H	1.59	0.46
36:BP:86:LYS:HB3	36:BP:117:GLU:O	2.16	0.46
38:BR:37:THR:HG23	38:BR:40:LYS:CB	2.46	0.46
38:BR:103:ARG:HD2	43:BW:40:ASN:CG	2.36	0.46
45:BY:55:TYR:HD1	45:BY:56:PRO:CG	2.29	0.46
45:BY:75:ILE:O	45:BY:76:CYS:HB2	2.15	0.46
46:BZ:4:ARG:NH2	46:BZ:66:SER:OG	2.49	0.46
46:BZ:27:VAL:O	46:BZ:88:PHE:N	2.44	0.46
50:B3:40:THR:HB	50:B3:41:PRO:HD2	1.98	0.46
1:CA:61:G:O6	1:CA:107:G:C6	2.69	0.46
1:CA:1445:C:C4	1:CA:1446:U:C4	3.02	0.46
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.51	0.46
2:CB:71:VAL:HG13	2:CB:93:VAL:CG2	2.45	0.46
4:CD:4:TYR:CE1	4:CD:5:ILE:O	2.68	0.46
4:CD:25:ARG:C	4:CD:27:TYR:H	2.19	0.46
5:CE:106:PRO:O	5:CE:107:ARG:C	2.53	0.46
6:CF:63:TYR:HD2	6:CF:63:TYR:N	2.12	0.46
10:CJ:47:PHE:HZ	14:CN:37:PHE:CZ	2.33	0.46
10:CJ:49:VAL:CG2	10:CJ:50:ILE:N	2.78	0.46
11:CK:73:MET:HG2	11:CK:77:MET:O	2.14	0.46
12:CL:102:ARG:HE	12:CL:102:ARG:HB3	1.52	0.46
13:CM:25:ILE:HD11	13:CM:66:LEU:HD21	1.98	0.46
19:CS:6:LYS:HD2	19:CS:7:LYS:H	1.81	0.46
19:CS:57:HIS:O	19:CS:59:PRO:HD3	2.15	0.46
23:CY:34:G:H2'	23:CY:35:A:H8	1.76	0.46
25:DA:94(A):G:H2'	25:DA:95:G:O4'	2.15	0.46
25:DA:197:A:H62	25:DA:2430:A:H2'	1.79	0.46
25:DA:265:A:H1'	25:DA:266:G:C1'	2.46	0.46
25:DA:568:U:C5'	25:DA:945:A:N6	2.78	0.46
25:DA:662:G:OP1	36:DP:15:ARG:NE	2.49	0.46
25:DA:1452:A:H5"	25:DA:1453:U:OP2	2.16	0.46
29:DE:52:LEU:HD12	29:DE:52:LEU:HA	1.58	0.46
31:DG:91:ARG:HG2	31:DG:92:VAL:N	2.30	0.46
32:DH:126:PRO:HG2	32:DH:130:ARG:NH1	2.22	0.46
33:DI:69:LYS:HG3	33:DI:136:VAL:CB	2.43	0.46
36:DP:38:GLN:HG2	36:DP:45:LEU:HD13	1.97	0.46
39:DS:15:ARG:NE	39:DS:88:ASP:OD1	2.48	0.46
40:DT:118:ARG:O	40:DT:119:LYS:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:115:ALA:C	41:DU:117:GLN:H	2.18	0.46
42:DV:64:HIS:N	42:DV:64:HIS:ND1	2.63	0.46
44:DX:57:LEU:N	44:DX:57:LEU:CD1	2.79	0.46
45:DY:48:ALA:HB2	45:DY:61:ILE:HD13	1.98	0.46
46:DZ:59:LEU:CG	46:DZ:69:THR:HG21	2.41	0.46
46:DZ:116:VAL:H	46:DZ:174:VAL:HG13	1.80	0.46
50:D3:10:LYS:HB3	50:D3:53:LEU:HA	1.98	0.46
1:AA:284:G:H2'	1:AA:285:G:C8	2.51	0.46
1:AA:923:A:N6	1:AA:1392:G:O6	2.48	0.46
1:AA:1025:U:O2'	1:AA:1026:G:N7	2.45	0.46
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.81	0.46
1:AA:1158:C:N4	1:AA:1181:G:H22	2.13	0.46
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.51	0.46
2:AB:58:ILE:H	2:AB:58:ILE:HG12	1.40	0.46
6:AF:21:LEU:HA	6:AF:21:LEU:HD22	1.59	0.46
25:BA:242:G:N3	25:BA:254:G:C5	2.83	0.46
25:BA:1131:G:O2'	25:BA:1132:A:O5'	2.34	0.46
25:BA:1342:A:N6	25:BA:1397:U:C4	2.82	0.46
25:BA:1427:A:H4'	25:BA:1428:C:O4'	2.16	0.46
25:BA:1428:C:N4	25:BA:1569:A:H3'	2.31	0.46
25:BA:1494:A:N3	25:BA:1494:A:C5'	2.70	0.46
25:BA:2198:A:H5"	25:BA:2199:A:OP1	2.16	0.46
25:BA:2848:G:H5"	25:BA:2849:U:OP1	2.15	0.46
29:BE:152:LYS:HB3	34:BN:78:TYR:CG	2.49	0.46
30:BF:133:ASN:HA	30:BF:162:LEU:HD23	1.98	0.46
31:BG:76:SER:CA	31:BG:83:ARG:HB2	2.45	0.46
33:BI:86:THR:O	33:BI:123:LEU:HD12	2.15	0.46
33:BI:110:ASP:OD1	33:BI:113:ARG:HG2	2.15	0.46
33:BI:131:LYS:HG3	33:BI:132:PRO:CD	2.46	0.46
34:BN:56:ASN:HA	34:BN:125:GLY:N	2.15	0.46
34:BN:56:ASN:O	34:BN:57:ALA:O	2.33	0.46
35:BO:63:VAL:HG12	35:BO:106:LEU:HD11	1.98	0.46
35:BO:80:ASP:H	40:BT:70:VAL:HG12	1.81	0.46
38:BR:2:ARG:NH2	38:BR:5:LYS:CE	2.78	0.46
41:BU:22:LYS:HD3	41:BU:22:LYS:HA	1.66	0.46
46:BZ:71:VAL:HG22	46:BZ:88:PHE:CD2	2.51	0.46
1:CA:115:G:H1'	1:CA:116:A:N7	2.30	0.46
1:CA:284:G:H2'	1:CA:285:G:C8	2.51	0.46
1:CA:1239:A:H1'	1:CA:1241:G:C4	2.50	0.46
2:CB:8:LYS:HD3	2:CB:8:LYS:N	2.31	0.46
2:CB:13:ALA:O	2:CB:14:GLY:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:19:LEU:HB3	4:CD:21:LEU:HD12	1.97	0.46
4:CD:189:PRO:CB	4:CD:194:LEU:HD21	2.46	0.46
5:CE:68:GLU:OE2	5:CE:68:GLU:O	2.33	0.46
7:CG:44:TYR:O	7:CG:48:LYS:HG3	2.15	0.46
7:CG:116:ALA:O	7:CG:119:ARG:N	2.48	0.46
13:CM:48:LEU:O	13:CM:49:THR:C	2.54	0.46
18:CR:59:SER:HB3	18:CR:62:GLU:CG	2.46	0.46
19:CS:20:LEU:HA	19:CS:23:ASN:HB2	1.98	0.46
22:CV:35:C:O2'	22:CV:36:A:OP1	2.32	0.46
23:CW:72:C:C2'	23:CW:73:A:H5'	2.45	0.46
25:DA:604:G:C6	25:DA:605:C:N4	2.83	0.46
25:DA:686:G:H4'	25:DA:687:C:OP2	2.16	0.46
25:DA:695:G:C6	25:DA:768:G:O6	2.68	0.46
25:DA:773:U:H4'	28:DD:47:GLY:HA3	1.98	0.46
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.30	0.46
25:DA:1654:A:OP2	38:DR:1:MET:O	2.34	0.46
25:DA:2033:A:H4'	25:DA:2034:U:OP1	2.16	0.46
25:DA:2287:A:N6	25:DA:2344:U:C2	2.84	0.46
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.50	0.46
28:DD:132:PRO:O	28:DD:136:ILE:HG13	2.15	0.46
28:DD:133:LEU:HB3	28:DD:173:VAL:HG11	1.98	0.46
29:DE:108:SER:HB3	29:DE:165:VAL:HG21	1.97	0.46
30:DF:161:GLU:O	30:DF:164:ARG:HB3	2.15	0.46
31:DG:26:GLN:HE21	31:DG:27:ASN:HB2	1.80	0.46
32:DH:151:ILE:O	32:DH:152:ARG:O	2.34	0.46
34:DN:42:TRP:CE3	34:DN:48:MET:HE1	2.50	0.46
37:DQ:14:ARG:HG2	37:DQ:41:TRP:HH2	1.79	0.46
39:DS:7:TYR:HA	39:DS:10:ARG:HH11	1.81	0.46
41:DU:105:VAL:HA	42:DV:44:LYS:HD3	1.98	0.46
43:DW:8:ARG:O	43:DW:9:TYR:HB2	2.15	0.46
45:DY:51:VAL:CG2	45:DY:57:GLN:HA	2.46	0.46
45:DY:84:ARG:HH22	45:DY:97:ARG:CB	2.28	0.46
5:AE:77:PRO:HG2	5:AE:142:LEU:HD22	1.96	0.46
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.15	0.46
9:AI:53:VAL:HB	9:AI:92:TYR:HE2	1.81	0.46
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.15	0.46
25:BA:340:A:H2'	25:BA:341:G:C8	2.49	0.46
25:BA:454:A:H4'	25:BA:455:C:OP2	2.14	0.46
25:BA:725:G:C6	25:BA:726:G:N1	2.84	0.46
25:BA:1204:A:H1'	25:BA:1206:G:N7	2.31	0.46
25:BA:1452:A:N6	25:BA:2703:C:H5	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1653:G:O2'	25:BA:1654:A:OP2	2.33	0.46
25:BA:2126:A:O2'	25:BA:2127:G:O5'	2.34	0.46
25:BA:2152:G:H2'	25:BA:2153:G:H8	1.80	0.46
25:BA:2287:A:N6	25:BA:2344:U:N3	2.63	0.46
25:BA:2368:C:H2'	25:BA:2369:A:H8	1.80	0.46
25:BA:2420:C:OP2	55:B8:32:LEU:O	2.33	0.46
26:BB:105:A:O2'	46:BZ:30:ASN:HA	2.16	0.46
27:BC:36:LYS:HD3	27:BC:37:PHE:H	1.80	0.46
28:BD:244:ARG:HA	28:BD:245:PRO:HA	1.56	0.46
29:BE:173:VAL:HB	29:BE:183:LEU:HB3	1.98	0.46
30:BF:139:PHE:O	30:BF:142:TRP:HB3	2.15	0.46
31:BG:45:GLU:HA	31:BG:45:GLU:OE1	2.15	0.46
32:BH:34:GLU:HA	32:BH:34:GLU:OE1	2.16	0.46
32:BH:142:GLY:O	32:BH:145:ALA:HB3	2.15	0.46
32:BH:163:TYR:N	32:BH:163:TYR:CD1	2.83	0.46
33:BI:77:LEU:CD1	33:BI:104:GLN:CD	2.83	0.46
34:BN:45:ASN:ND2	34:BN:45:ASN:C	2.69	0.46
35:BO:87:ILE:HG21	35:BO:91:LEU:HA	1.96	0.46
39:BS:33:LYS:HD2	39:BS:33:LYS:HA	1.68	0.46
39:BS:62:LYS:O	39:BS:65:VAL:HB	2.15	0.46
40:BT:1:MET:H1	40:BT:7:ILE:HD11	1.81	0.46
40:BT:80:SER:CB	40:BT:81:PRO:CD	2.93	0.46
43:BW:88:ARG:HG3	43:BW:94:ASP:OD1	2.16	0.46
48:B1:45:ASN:HD21	48:B1:47:GLN:NE2	2.04	0.46
48:B1:53:VAL:HG12	48:B1:53:VAL:O	2.14	0.46
50:B3:4:LEU:O	50:B3:36:VAL:HA	2.16	0.46
1:CA:61:G:H2'	1:CA:62:U:O4'	2.16	0.46
1:CA:128:G:C2'	1:CA:129:U:C5'	2.87	0.46
1:CA:406:G:H2'	1:CA:407:G:H8	1.80	0.46
1:CA:951:G:C6	1:CA:1231:G:C6	3.04	0.46
1:CA:963:G:N2	10:CJ:55:LYS:HZ3	2.13	0.46
1:CA:1005:A:HO2'	1:CA:1037:C:HO2'	1.54	0.46
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.50	0.46
1:CA:1240:U:H4'	1:CA:1241:G:OP2	2.16	0.46
2:CB:105:PHE:C	2:CB:107:THR:N	2.67	0.46
3:CC:32:LEU:HD22	3:CC:59:ARG:HH12	1.79	0.46
4:CD:141:ARG:O	4:CD:142:PRO:C	2.54	0.46
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.96	0.46
5:CE:67:VAL:HG13	5:CE:69:VAL:HG23	1.97	0.46
9:CI:16:ARG:NH2	9:CI:64:THR:HG21	2.31	0.46
11:CK:54:ARG:NH2	23:CW:40:C:OP1	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:49:THR:C	13:CM:51:ALA:N	2.67	0.46
15:CO:38:ARG:HH11	15:CO:38:ARG:HG2	1.80	0.46
19:CS:10:PHE:HE2	19:CS:37:ARG:O	1.98	0.46
22:CV:20:G:C4	22:CV:58:A:C2	3.04	0.46
23:CW:36:A:C2'	23:CW:37:A:H5"	2.33	0.46
23:CY:40:C:O5'	23:CY:40:C:H6	1.99	0.46
25:DA:498:G:N3	45:DY:47:LYS:NZ	2.53	0.46
25:DA:1612:C:H4'	54:D7:5:TRP:O	2.16	0.46
25:DA:1799:G:HO2'	25:DA:1800:C:P	2.37	0.46
27:DC:182:PRO:O	27:DC:183:GLU:CB	2.64	0.46
28:DD:85:ASP:HB2	28:DD:92:ILE:HD12	1.98	0.46
31:DG:44:GLY:O	31:DG:47:LYS:HB2	2.16	0.46
31:DG:75:LYS:HD2	31:DG:77:ILE:CD1	2.45	0.46
31:DG:125:PHE:HB3	31:DG:166:ASP:HB2	1.98	0.46
32:DH:9:ILE:HG22	32:DH:51:ARG:CG	2.42	0.46
33:DI:78:THR:O	33:DI:79:ILE:CB	2.63	0.46
36:DP:56:SER:O	36:DP:57:THR:CB	2.63	0.46
37:DQ:43:THR:OG1	37:DQ:45:GLN:HG2	2.16	0.46
37:DQ:141:GLN:OXT	46:DZ:99:TYR:O	2.34	0.46
39:DS:5:THR:C	39:DS:7:TYR:H	2.19	0.46
41:DU:65:ILE:HG12	41:DU:96:ALA:HB1	1.98	0.46
43:DW:43:GLY:O	43:DW:44:ALA:C	2.54	0.46
45:DY:91:GLU:O	45:DY:92:ASN:HB3	2.16	0.46
50:D3:5:LYS:CG	50:D3:36:VAL:HG12	2.45	0.46
51:D4:14:ILE:HG13	51:D4:31:ILE:CG2	2.39	0.46
52:D5:6:VAL:HG22	52:D5:7:PRO:HD2	1.98	0.46
55:D8:7:HIS:CG	55:D8:59:LYS:HZ1	2.34	0.46
55:D8:26:LYS:NZ	55:D8:47:LYS:HD3	2.31	0.46
1:AA:533:A:O2'	1:AA:535:A:OP2	2.29	0.46
1:AA:1281:U:H6	1:AA:1281:U:O5'	1.98	0.46
1:AA:1329:A:H5'	13:AM:29:ARG:NE	2.31	0.46
3:AC:60:ALA:CB	3:AC:63:ASN:HD21	2.28	0.46
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.36	0.46
4:AD:34:GLU:C	4:AD:35:ARG:HG3	2.36	0.46
4:AD:118:ARG:O	4:AD:119:GLN:C	2.53	0.46
7:AG:49:ILE:HG22	7:AG:49:ILE:O	2.15	0.46
9:AI:8:GLY:O	9:AI:15:ALA:N	2.49	0.46
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.48	0.46
17:AQ:53:LEU:HG	17:AQ:82:MET:HE2	1.98	0.46
25:BA:832:G:H5'	36:BP:45:LEU:HD11	1.96	0.46
25:BA:1264:G:H5'	52:B5:11:THR:OG1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1342:A:N7	25:BA:1397:U:C6	2.82	0.46
25:BA:2078:C:O2'	25:BA:2079:U:H5'	2.15	0.46
25:BA:2126:A:H1'	25:BA:2127:G:C1'	2.45	0.46
25:BA:2402:C:H5	25:BA:2415:G:H22	1.64	0.46
25:BA:2432:A:C4	48:B1:33:LYS:HG3	2.50	0.46
25:BA:2876:G:O5'	40:BT:3:ARG:HA	2.16	0.46
28:BD:79:VAL:HG12	28:BD:113:VAL:HA	1.97	0.46
29:BE:165:VAL:HG13	29:BE:166:THR:N	2.31	0.46
31:BG:107:LEU:HD13	31:BG:177:GLY:O	2.16	0.46
34:BN:47:ALA:HB2	34:BN:112:LEU:HD11	1.98	0.46
34:BN:99:LEU:HD22	34:BN:103:VAL:CG2	2.45	0.46
35:BO:122:LEU:HD23	40:BT:43:GLN:HE22	1.81	0.46
41:BU:90:VAL:CG2	42:BV:47:VAL:HG21	2.45	0.46
41:BU:111:GLU:O	41:BU:112:ARG:C	2.54	0.46
45:BY:81:LYS:HD3	45:BY:97:ARG:CB	2.33	0.46
53:B6:18:ARG:HD3	53:B6:18:ARG:N	2.30	0.46
1:CA:499:A:O2'	1:CA:500:G:C8	2.69	0.46
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.51	0.46
1:CA:1305:G:H5"	21:CU:4:GLY:C	2.36	0.46
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.50	0.46
9:CI:27:THR:O	9:CI:63:ILE:N	2.46	0.46
10:CJ:37:PRO:HA	10:CJ:72:VAL:CG2	2.45	0.46
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.45	0.46
11:CK:61:ALA:HA	11:CK:64:ALA:HB3	1.96	0.46
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.15	0.46
13:CM:120:LYS:HD3	13:CM:120:LYS:H	1.76	0.46
15:CO:10:LYS:HG3	15:CO:11:VAL:H	1.79	0.46
17:CQ:6:LEU:O	17:CQ:58:GLU:HA	2.15	0.46
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.46	0.46
18:CR:70:ILE:O	18:CR:71:LYS:C	2.53	0.46
19:CS:39:THR:HA	19:CS:70:LYS:HD3	1.97	0.46
19:CS:40:ILE:HG21	19:CS:62:ILE:HD11	1.97	0.46
20:CT:93:GLU:OE1	20:CT:94:ALA:N	2.49	0.46
22:CV:20:G:C6	22:CV:58:A:C2	3.04	0.46
25:DA:85:G:OP2	45:DY:9:LYS:HG3	2.15	0.46
25:DA:528:A:O2'	25:DA:529:A:P	2.74	0.46
25:DA:915:C:C4	25:DA:916:G:C5	3.03	0.46
25:DA:2402:C:H5	25:DA:2415:G:H22	1.64	0.46
27:DC:49:ILE:HG22	27:DC:50:ASP:N	2.30	0.46
27:DC:76:ALA:C	27:DC:78:ALA:N	2.69	0.46
28:DD:68:LYS:O	28:DD:68:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:183:ARG:HH11	28:DD:183:ARG:HG2	1.81	0.46
30:DF:62:ARG:O	30:DF:62:ARG:HG3	2.13	0.46
32:DH:89:ILE:HD12	32:DH:129:THR:O	2.15	0.46
33:DI:9:LEU:O	33:DI:10:GLU:O	2.34	0.46
33:DI:139:GLN:NE2	33:DI:139:GLN:O	2.48	0.46
34:DN:28:THR:HG23	34:DN:29:LYS:HG3	1.98	0.46
34:DN:41:ASP:O	34:DN:42:TRP:C	2.53	0.46
35:DO:1:MET:CE	35:DO:67:LYS:HG2	2.46	0.46
36:DP:71:VAL:HG23	36:DP:72:PRO:CD	2.45	0.46
36:DP:84:ASN:N	36:DP:84:ASN:HD22	2.12	0.46
36:DP:138:LEU:HD13	36:DP:144:GLU:HG2	1.98	0.46
37:DQ:25:ASP:OD2	46:DZ:78:LYS:HD2	2.16	0.46
38:DR:74:LYS:HD2	38:DR:77:ARG:HH21	1.80	0.46
38:DR:87:TYR:HE1	38:DR:117:VAL:O	1.99	0.46
39:DS:62:LYS:HB3	39:DS:97:ARG:HD3	1.96	0.46
40:DT:65:LYS:CD	40:DT:66:VAL:H	2.28	0.46
41:DU:104:GLN:NE2	41:DU:104:GLN:CA	2.77	0.46
42:DV:30:GLY:N	42:DV:61:VAL:HG13	2.31	0.46
42:DV:44:LYS:C	42:DV:46:VAL:N	2.68	0.46
43:DW:76:VAL:CG2	43:DW:102:HIS:O	2.64	0.46
43:DW:95:ILE:O	43:DW:95:ILE:HG13	2.15	0.46
44:DX:27:THR:CG2	44:DX:80:ILE:HB	2.45	0.46
46:DZ:124:ILE:HG23	46:DZ:165:VAL:CG2	2.45	0.46
1:AA:413:G:N2	1:AA:429:U:OP2	2.40	0.46
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.16	0.46
3:AC:21:ARG:O	3:AC:22:TRP:HD1	1.98	0.46
4:AD:38:TYR:HD1	4:AD:38:TYR:O	1.99	0.46
8:AH:29:SER:HB3	8:AH:32:LYS:CG	2.44	0.46
10:AJ:56:HIS:C	10:AJ:58:ASP:H	2.19	0.46
11:AK:24:SER:OG	11:AK:25:TYR:N	2.47	0.46
11:AK:82:VAL:CG1	11:AK:108:ILE:HG12	2.46	0.46
15:AO:70:LEU:HD23	15:AO:78:TYR:HB2	1.98	0.46
17:AQ:79:SER:O	17:AQ:80:GLY:O	2.33	0.46
20:AT:71:THR:CG2	20:AT:72:LEU:H	2.08	0.46
25:BA:320:A:H3'	30:BF:136:THR:HG22	1.96	0.46
25:BA:679:C:H2'	25:BA:680:G:C8	2.51	0.46
25:BA:954:G:H4'	37:BQ:13:GLN:NE2	2.31	0.46
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.81	0.46
25:BA:1448:G:H5'	25:BA:1449:A:OP1	2.15	0.46
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.51	0.46
25:BA:2355:C:H4'	47:B0:36:ILE:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2431:U:N3	25:BA:2434:A:OP2	2.44	0.46
29:BE:134:ILE:HB	29:BE:137:HIS:HB2	1.98	0.46
31:BG:14:GLU:C	31:BG:17:PRO:HD2	2.35	0.46
33:BI:10:GLU:C	33:BI:12:LEU:H	2.19	0.46
35:BO:64:ARG:NH1	40:BT:70:VAL:HG21	2.31	0.46
36:BP:85:LEU:HD22	36:BP:115:LEU:O	2.16	0.46
42:BV:19:LYS:HZ1	42:BV:20:LEU:HD13	1.80	0.46
45:BY:61:ILE:O	45:BY:62:GLU:HB2	2.16	0.46
46:BZ:85:HIS:C	46:BZ:85:HIS:ND1	2.68	0.46
47:B0:51:VAL:N	47:B0:62:LEU:HD12	2.30	0.46
52:B5:40:LYS:NZ	52:B5:46:CYS:HB2	2.31	0.46
1:CA:100:C:C2'	1:CA:101:A:O4'	2.64	0.46
1:CA:119:A:H4'	1:CA:120:A:OP2	2.15	0.46
1:CA:123:C:OP1	1:CA:311:C:O2'	2.32	0.46
1:CA:689:C:H2'	1:CA:690:G:O4'	2.16	0.46
1:CA:1002:G:C2	1:CA:1003:G:H1'	2.51	0.46
1:CA:1065:U:H4'	1:CA:1066:C:C4'	2.39	0.46
1:CA:1456:G:N3	1:CA:1456:G:H3'	2.31	0.46
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.45	0.46
2:CB:96:ARG:HH11	2:CB:148:TYR:HE1	1.63	0.46
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.97	0.46
3:CC:113:ALA:O	3:CC:116:VAL:N	2.49	0.46
4:CD:18:LYS:HE3	4:CD:31:CYS:CB	2.46	0.46
4:CD:138:TYR:C	4:CD:138:TYR:HD2	2.19	0.46
9:CI:58:HIS:HB2	9:CI:59:PHE:CD1	2.50	0.46
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.49	0.46
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	2.31	0.46
20:CT:38:LYS:C	20:CT:40:ALA:N	2.69	0.46
22:CV:3:C:H2'	22:CV:4:G:C5'	2.45	0.46
25:DA:9274:U:O3'	25:DA:9275:C:H6	1.98	0.46
25:DA:476:G:H4'	25:DA:502:A:N1	2.31	0.46
25:DA:819:A:C5	25:DA:1189:A:C4	3.04	0.46
25:DA:2689:U:O2'	25:DA:2690:C:OP2	2.30	0.46
25:DA:2823:A:OP1	29:DE:113:PHE:HB2	2.16	0.46
27:DC:64:LEU:O	27:DC:66:HIS:N	2.49	0.46
27:DC:77:ILE:HG21	27:DC:123:VAL:N	2.31	0.46
28:DD:261:LYS:HZ1	28:DD:263:ARG:NH1	2.14	0.46
37:DQ:25:ASP:OD2	46:DZ:78:LYS:CD	2.63	0.46
39:DS:56:LEU:HG	39:DS:58:LEU:HD22	1.98	0.46
40:DT:50:ILE:O	40:DT:99:LEU:HD12	2.16	0.46
41:DU:88:ILE:CD1	41:DU:109:LEU:HD22	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:88:ARG:HH11	43:DW:88:ARG:HG3	1.80	0.46
44:DX:39:ILE:O	44:DX:40:LYS:C	2.52	0.46
52:D5:3:LYS:HD2	52:D5:3:LYS:HA	1.53	0.46
1:AA:335:C:O2'	1:AA:1433:A:N3	2.42	0.46
1:AA:644:G:H5'	8:AH:92:ARG:HH22	1.80	0.46
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	2.16	0.46
1:AA:1235:U:O2'	1:AA:1305:G:O5'	2.34	0.46
1:AA:1392:G:N2	1:AA:1502:A:C8	2.82	0.46
4:AD:8:VAL:O	4:AD:10:ARG:N	2.49	0.46
4:AD:56:VAL:O	4:AD:59:ARG:N	2.49	0.46
7:AG:85:TYR:CE1	7:AG:154:TYR:HE1	2.32	0.46
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.98	0.46
14:AN:41:ARG:HG3	14:AN:42:ILE:H	1.79	0.46
16:AP:43:LYS:HG2	16:AP:48:TRP:CD2	2.51	0.46
20:AT:33:ILE:CD1	20:AT:62:LEU:HB3	2.45	0.46
25:BA:762:U:H4'	25:BA:763:G:O5'	2.16	0.46
25:BA:1032:A:O3'	56:B9:16:VAL:HG11	2.15	0.46
25:BA:1251:C:C3'	25:BA:1252:G:H5"	2.45	0.46
31:BG:83:ARG:HD3	31:BG:83:ARG:C	2.36	0.46
33:BI:65:ALA:O	33:BI:69:LYS:HB2	2.16	0.46
35:BO:77:ILE:HD11	40:BT:72:VAL:HG11	1.98	0.46
39:BS:47:THR:HG22	39:BS:49:VAL:O	2.16	0.46
46:BZ:5:LEU:HD22	46:BZ:47:VAL:HG21	1.97	0.46
49:B2:16:LEU:HA	49:B2:16:LEU:HD23	1.66	0.46
1:CA:729:A:H2'	1:CA:730:G:H8	1.80	0.46
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.16	0.46
2:CB:155:LEU:CD1	2:CB:159:PRO:HD3	2.46	0.46
4:CD:80:GLU:C	4:CD:82:ALA:N	2.69	0.46
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	2.15	0.46
8:CH:35:ILE:HG23	8:CH:111:ILE:HD12	1.97	0.46
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.97	0.46
10:CJ:67:THR:O	10:CJ:67:THR:OG1	2.31	0.46
11:CK:32:ILE:CD1	11:CK:68:ALA:HB1	2.46	0.46
13:CM:32:GLU:O	13:CM:35:GLU:HG2	2.16	0.46
19:CS:45:VAL:HG23	19:CS:46:GLY:N	2.31	0.46
19:CS:73:GLU:HB2	19:CS:74:PHE:CE2	2.51	0.46
25:DA:271(M):G:H5"	33:DI:53:ALA:HB1	1.97	0.46
25:DA:969:U:H2'	25:DA:970:C:C6	2.51	0.46
25:DA:1451:C:HO2'	25:DA:1457:A:N6	2.14	0.46
25:DA:2317:C:H2'	25:DA:2318:G:H5'	1.98	0.46
25:DA:2787:C:O2	29:DE:61:ARG:NH1	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:66:A:N1	26:DB:108:U:C2	2.84	0.46
28:DD:134:ARG:CG	28:DD:135:PHE:CE2	2.95	0.46
31:DG:34:LEU:HD22	31:DG:34:LEU:C	2.36	0.46
32:DH:13:LYS:HA	32:DH:13:LYS:CE	2.30	0.46
32:DH:26:VAL:CG1	32:DH:33:LEU:HB2	2.45	0.46
33:DI:71:ILE:C	33:DI:74:ASN:HD21	2.19	0.46
36:DP:64:LYS:CB	55:D8:25:MET:HG3	2.38	0.46
36:DP:123:LEU:HD23	36:DP:123:LEU:N	2.31	0.46
40:DT:3:ARG:HH11	40:DT:6:LEU:HD12	1.81	0.46
42:DV:48:GLY:O	42:DV:49:THR:C	2.54	0.46
45:DY:8:LYS:O	45:DY:27:VAL:HG21	2.15	0.46
45:DY:19:LYS:O	45:DY:19:LYS:CG	2.64	0.46
46:DZ:28:MET:HB2	46:DZ:90:VAL:HG23	1.98	0.46
49:D2:10:LEU:O	49:D2:14:ARG:CG	2.64	0.46
1:AA:428:G:H4'	1:AA:429:U:O5'	2.16	0.46
1:AA:992:U:HO2'	1:AA:993:G:P	2.39	0.46
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.30	0.46
5:AE:61:TYR:HA	5:AE:64:ARG:HB3	1.97	0.46
7:AG:86:GLN:HB2	7:AG:148:ASN:HD22	1.79	0.46
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.49	0.46
9:AI:37:PHE:HB3	9:AI:43:ALA:CB	2.46	0.46
15:AO:48:LYS:HD3	15:AO:48:LYS:HA	1.65	0.46
15:AO:67:LEU:O	15:AO:71:GLN:HB2	2.16	0.46
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.97	0.46
20:AT:93:GLU:O	20:AT:93:GLU:CG	2.64	0.46
22:AV:34:U:H3	22:AV:36:A:H5"	1.80	0.46
23:AW:16:U:H5	23:AW:18:G:O5'	2.00	0.46
25:BA:311:A:O4'	25:BA:332:A:O4'	2.34	0.46
25:BA:603:A:H1'	25:BA:604:G:O4'	2.15	0.46
25:BA:627:A:N7	36:BP:84:ASN:ND2	2.62	0.46
25:BA:727:A:N6	25:BA:728:G:N1	2.63	0.46
25:BA:910:A:C8	37:BQ:13:GLN:HG3	2.51	0.46
25:BA:1558:A:HO2'	25:BA:1559:G:P	2.39	0.46
25:BA:2037:G:H2'	25:BA:2038:G:C8	2.51	0.46
25:BA:2801(A):A:H4'	25:BA:2802:G:H8	1.80	0.46
28:BD:85:ASP:OD1	28:BD:87:ASN:ND2	2.48	0.46
29:BE:21:VAL:HA	29:BE:22:PRO:HD2	1.52	0.46
31:BG:17:PRO:HA	31:BG:20:ILE:HD12	1.97	0.46
37:BQ:43:THR:HA	37:BQ:94:VAL:HA	1.98	0.46
38:BR:59:ASP:OD2	38:BR:59:ASP:N	2.47	0.46
39:BS:13:ARG:O	39:BS:14:VAL:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:49:VAL:CG1	39:BS:50:SER:H	2.28	0.46
40:BT:23:ARG:NH2	40:BT:120:ARG:HD3	2.31	0.46
40:BT:32:TYR:HB3	40:BT:81:PRO:HB2	1.91	0.46
40:BT:114:LEU:HD23	40:BT:114:LEU:N	2.29	0.46
45:BY:35:TYR:CE2	45:BY:69:ALA:HB3	2.51	0.46
46:BZ:125:LEU:O	46:BZ:126:VAL:HG13	2.16	0.46
47:B0:42:GLY:O	47:B0:57:PHE:CG	2.69	0.46
1:CA:262:A:H5'	20:CT:74:LYS:HG3	1.98	0.46
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.39	0.46
1:CA:1397:C:H41	24:CX:22:A:H3'	1.81	0.46
2:CB:215:LEU:O	2:CB:218:ALA:HB3	2.16	0.46
2:CB:220:ASP:O	2:CB:222:ILE:N	2.49	0.46
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.79	0.46
4:CD:104:VAL:O	4:CD:108:LEU:HD22	2.15	0.46
4:CD:106:TYR:HE1	4:CD:112:VAL:O	1.98	0.46
7:CG:49:ILE:HG22	7:CG:49:ILE:O	2.15	0.46
8:CH:33:GLU:O	8:CH:36:LEU:N	2.48	0.46
11:CK:41:THR:CG2	11:CK:42:TRP:N	2.78	0.46
14:CN:39:LEU:CD1	14:CN:47:LEU:HD12	2.46	0.46
20:CT:98:PRO:O	20:CT:100:ILE:N	2.50	0.46
22:CV:35:C:HO2'	22:CV:36:A:P	2.39	0.46
25:DA:443:A:N7	30:DF:45:ARG:HD2	2.31	0.46
25:DA:598:G:O4'	36:DP:11:GLY:CA	2.64	0.46
25:DA:613:G:C2	25:DA:615:G:C6	3.04	0.46
25:DA:642:G:N2	25:DA:645:C:OP2	2.49	0.46
25:DA:819:A:C8	25:DA:1189:A:C6	3.04	0.46
25:DA:975(A):G:O2'	25:DA:1156:A:N1	2.34	0.46
25:DA:2415:G:O3'	36:DP:66:GLY:HA3	2.15	0.46
28:DD:223:GLY:O	28:DD:226:MET:HG3	2.16	0.46
31:DG:51:ARG:HB3	31:DG:51:ARG:NH1	2.31	0.46
31:DG:77:ILE:HG22	31:DG:80:PHE:N	2.27	0.46
31:DG:98:ARG:HA	31:DG:101:ILE:HG12	1.97	0.46
32:DH:54:ARG:HB2	32:DH:55:PRO:HD2	1.97	0.46
33:DI:52:ARG:HG3	33:DI:53:ALA:N	2.31	0.46
41:DU:92:ARG:NE	41:DU:95:LEU:HD12	2.30	0.46
42:DV:39:LEU:N	42:DV:39:LEU:CD1	2.79	0.46
53:D6:19:ARG:HD2	53:D6:19:ARG:N	2.31	0.46
1:AA:129(A):G:C6	1:AA:189(E):U:H4'	2.51	0.45
1:AA:1054:C:O2	1:AA:1054:C:C3'	2.64	0.45
1:AA:1065:U:O2'	1:AA:1066:C:P	2.74	0.45
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:178:ARG:HH22	2:AB:196:LEU:CA	2.28	0.45
3:AC:91:LEU:C	3:AC:99:VAL:HG11	2.36	0.45
4:AD:82:ALA:O	4:AD:83:SER:C	2.53	0.45
4:AD:153:ARG:HG2	4:AD:181:MET:SD	2.56	0.45
10:AJ:9:ARG:O	10:AJ:94:VAL:HG13	2.16	0.45
10:AJ:44:VAL:CG1	10:AJ:45:ARG:H	2.29	0.45
11:AK:20:TYR:HA	11:AK:83:ILE:O	2.17	0.45
15:AO:31:LEU:HD12	15:AO:31:LEU:HA	1.81	0.45
19:AS:16:LEU:O	19:AS:17:GLU:C	2.54	0.45
22:AV:31:G:C6	22:AV:32:G:N7	2.84	0.45
25:BA:125:G:C2	54:B7:10:ARG:HA	2.52	0.45
25:BA:726:G:C5'	25:BA:1432:C:O2'	2.64	0.45
25:BA:1183:G:H4'	50:B3:29:ARG:HH12	1.81	0.45
25:BA:1270:C:N3	25:BA:1648:C:N4	2.63	0.45
25:BA:1754:C:N3	25:BA:2716:U:O2'	2.47	0.45
25:BA:2346:A:HO2'	25:BA:2347:C:P	2.39	0.45
28:BD:67:PHE:CZ	28:BD:157:ARG:CZ	2.99	0.45
30:BF:54:ARG:O	30:BF:54:ARG:CG	2.60	0.45
30:BF:112:MET:HE2	30:BF:112:MET:HB2	1.55	0.45
30:BF:112:MET:O	30:BF:115:ALA:HB3	2.17	0.45
31:BG:43:LEU:HD13	31:BG:43:LEU:H	1.76	0.45
32:BH:65:HIS:O	32:BH:69:ARG:HD3	2.16	0.45
32:BH:151:ILE:HD13	32:BH:151:ILE:H	1.75	0.45
33:BI:104:GLN:O	33:BI:105:HIS:CG	2.69	0.45
34:BN:26:LEU:CD2	34:BN:30:ILE:HD11	2.44	0.45
35:BO:60:ALA:HA	35:BO:87:ILE:HG12	1.98	0.45
36:BP:123:LEU:N	36:BP:123:LEU:HD23	2.31	0.45
37:BQ:85:LYS:HG3	47:B0:7:LEU:CB	2.39	0.45
39:BS:49:VAL:HG22	39:BS:80:LEU:HD22	1.98	0.45
44:BX:92:LEU:HD21	49:B2:37:PHE:CE2	2.51	0.45
45:BY:12:THR:HG22	45:BY:13:VAL:N	2.30	0.45
46:BZ:10:ARG:NH2	46:BZ:26:GLY:O	2.49	0.45
47:B0:46:LYS:HB3	47:B0:47:PRO:HD2	1.98	0.45
51:B4:61:VAL:HG12	51:B4:61:VAL:O	2.16	0.45
55:B8:17:THR:HG23	55:B8:23:VAL:HG23	1.98	0.45
1:CA:64:G:H5'	1:CA:66:G:OP1	2.17	0.45
1:CA:119:A:C4'	1:CA:120:A:O5'	2.63	0.45
1:CA:153:C:H42	1:CA:168:G:H1	1.64	0.45
1:CA:173:U:H4'	1:CA:174:C:OP2	2.09	0.45
1:CA:235:C:C5'	17:CQ:70:ARG:HG2	2.42	0.45
1:CA:1443:G:N2	1:CA:1460:A:H1'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:48:MET:CA	2:CB:51:LEU:HD12	2.43	0.45
7:CG:70:LYS:HB3	7:CG:96:GLN:HG2	1.97	0.45
9:CI:82:ALA:HA	9:CI:85:LEU:HD11	1.97	0.45
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.16	0.45
11:CK:82:VAL:HG12	11:CK:108:ILE:HA	1.97	0.45
12:CL:126:LYS:CG	12:CL:127:GLU:H	2.29	0.45
16:CP:39:TYR:CD2	16:CP:73:LEU:HD11	2.50	0.45
20:CT:16:HIS:O	20:CT:17:ARG:C	2.54	0.45
25:DA:1824:G:OP1	28:DD:52:ARG:NH1	2.49	0.45
28:DD:260:ARG:HD3	28:DD:261:LYS:O	2.16	0.45
32:DH:19:VAL:CG1	32:DH:20:ALA:N	2.79	0.45
33:DI:76:THR:CG2	33:DI:77:LEU:N	2.79	0.45
34:DN:133:GLN:C	34:DN:134:ARG:HG3	2.35	0.45
38:DR:63:ARG:O	38:DR:67:LEU:HB2	2.17	0.45
39:DS:38:GLN:HG3	39:DS:47:THR:CG2	2.46	0.45
43:DW:88:ARG:HG3	43:DW:88:ARG:NH1	2.31	0.45
46:DZ:119:GLU:OE2	46:DZ:122:ARG:HB3	2.16	0.45
46:DZ:125:LEU:HD12	46:DZ:126:VAL:H	1.80	0.45
50:D3:8:LEU:CD1	50:D3:31:LEU:HD23	2.46	0.45
50:D3:19:GLN:HE22	50:D3:52:HIS:HE1	1.63	0.45
55:D8:26:LYS:HD3	55:D8:26:LYS:HA	1.83	0.45
1:AA:8:A:H1'	5:AE:102:ALA:O	2.16	0.45
1:AA:60:A:O2'	1:AA:61:G:OP2	2.30	0.45
1:AA:243:A:N6	1:AA:281:G:H1'	2.31	0.45
1:AA:520:A:N1	1:AA:536:C:H1'	2.32	0.45
1:AA:662:G:H2'	1:AA:663:A:C8	2.52	0.45
1:AA:1317:C:N3	19:AS:37:ARG:NH2	2.58	0.45
1:AA:1321:C:H4'	13:AM:87:TYR:CE2	2.51	0.45
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.48	0.45
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.40	0.45
5:AE:131:ILE:HG22	5:AE:132:ALA:N	2.31	0.45
6:AF:14:LEU:HB2	6:AF:19:LEU:HD12	1.99	0.45
11:AK:31:THR:OG1	11:AK:42:TRP:HB3	2.16	0.45
13:AM:68:GLY:O	13:AM:71:ARG:HB3	2.15	0.45
20:AT:20:LEU:O	20:AT:23:ARG:N	2.49	0.45
25:BA:479:A:H4'	25:BA:480:A:O5'	2.16	0.45
25:BA:995:C:HO2'	41:BU:61:TRP:HZ2	1.46	0.45
25:BA:1022:G:O2'	25:BA:1023:U:OP2	2.34	0.45
25:BA:1952:A:OP1	35:BO:44:LYS:NZ	2.50	0.45
25:BA:2052:G:H4'	29:BE:143:ASN:O	2.16	0.45
25:BA:2061:G:H2'	25:BA:2501:C:O2'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2517:C:HO2'	25:BA:2518:A:P	2.40	0.45
28:BD:31:LYS:HZ1	28:BD:102:LYS:NZ	2.13	0.45
31:BG:48:GLU:O	31:BG:49:ASP:HB2	2.16	0.45
31:BG:60:LEU:HD12	31:BG:92:VAL:HG11	1.99	0.45
31:BG:76:SER:HA	31:BG:83:ARG:HB2	1.98	0.45
31:BG:82:LEU:HD22	31:BG:87:PRO:HB3	1.98	0.45
32:BH:40:GLU:O	32:BH:42:ARG:N	2.47	0.45
34:BN:87:LEU:O	34:BN:88:GLU:C	2.55	0.45
39:BS:12:PHE:CE1	39:BS:14:VAL:HG23	2.50	0.45
41:BU:90:VAL:HG21	42:BV:47:VAL:HG21	1.99	0.45
46:BZ:53:ILE:HG21	46:BZ:71:VAL:HB	1.95	0.45
48:B1:25:LYS:O	48:B1:27:GLU:O	2.34	0.45
48:B1:48:LYS:HG3	48:B1:61:ARG:HG2	1.98	0.45
53:B6:42:TRP:HA	53:B6:42:TRP:HE3	1.81	0.45
1:CA:76:C:N4	1:CA:93:G:H1	2.10	0.45
1:CA:222:U:H2'	1:CA:223:U:C6	2.51	0.45
1:CA:599:C:H4'	8:CH:130:GLY:O	2.16	0.45
1:CA:1134:G:N2	1:CA:1141:C:C2	2.84	0.45
1:CA:1293:G:H2'	1:CA:1294:G:H8	1.81	0.45
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.52	0.45
1:CA:1380:U:C4	7:CG:3:ARG:HG3	2.51	0.45
4:CD:30:LYS:O	4:CD:32:ALA:N	2.48	0.45
7:CG:149:ARG:O	7:CG:152:ALA:HB2	2.16	0.45
9:CI:16:ARG:HE	9:CI:64:THR:CG2	2.29	0.45
9:CI:102:LEU:O	9:CI:103:THR:OG1	2.30	0.45
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB3	2.46	0.45
12:CL:7:ILE:HD13	12:CL:7:ILE:HA	1.83	0.45
12:CL:87:GLY:H	12:CL:98:TYR:HB3	1.81	0.45
13:CM:88:ARG:O	13:CM:88:ARG:HD2	2.15	0.45
15:CO:57:LEU:O	15:CO:58:MET:C	2.55	0.45
20:CT:41:ILE:C	20:CT:43:LEU:H	2.19	0.45
23:CW:15:G:H22	23:CW:59:U:H1'	1.81	0.45
25:DA:8:A:H2'	25:DA:9:U:H6	1.80	0.45
25:DA:92:A:H2'	25:DA:93:G:H8	1.81	0.45
25:DA:9274:U:HO2'	25:DA:9275:C:P	2.39	0.45
25:DA:605:C:O2	25:DA:657:U:O2'	2.34	0.45
25:DA:1331:A:O2'	25:DA:1332:G:H8	2.00	0.45
25:DA:2030:A:H4'	25:DA:2031:A:C8	2.50	0.45
25:DA:2712:U:HO2'	25:DA:2712(A):A:P	2.40	0.45
25:DA:2747:G:O6	25:DA:2755:C:H5"	2.15	0.45
28:DD:13:ARG:HG2	28:DD:13:ARG:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:117:ARG:HH21	30:DF:187:VAL:HA	1.81	0.45
30:DF:197:ASP:C	30:DF:199:TRP:H	2.20	0.45
31:DG:7:LEU:HD23	31:DG:7:LEU:C	2.37	0.45
32:DH:41:MET:HE1	32:DH:64:LEU:HB2	1.98	0.45
33:DI:74:ASN:CG	33:DI:75:LEU:H	2.18	0.45
36:DP:21:ARG:O	36:DP:22:GLY:O	2.35	0.45
36:DP:95:VAL:HA	36:DP:99:LEU:HD23	1.97	0.45
40:DT:3:ARG:CB	40:DT:6:LEU:HB2	2.46	0.45
41:DU:92:ARG:HH22	41:DU:94:ASN:HD22	1.49	0.45
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.77	0.45
51:D4:9:LEU:HG	51:D4:26:SER:O	2.16	0.45
55:D8:32:LEU:CD2	55:D8:32:LEU:H	2.28	0.45
1:AA:377:G:OP1	16:AP:3:LYS:HE3	2.17	0.45
1:AA:426:G:H4’	4:AD:41:GLY:O	2.16	0.45
1:AA:1060:C:OP1	14:AN:45:ARG:NH2	2.50	0.45
1:AA:1321:C:H3’	1:AA:1322:C:H5”	1.98	0.45
2:AB:24:TRP:HB3	2:AB:40:HIS:NE2	2.31	0.45
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.16	0.45
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.16	0.45
5:AE:11:ILE:HG22	5:AE:12:LEU:HB2	1.97	0.45
7:AG:10:ARG:CG	7:AG:10:ARG:NH1	2.71	0.45
11:AK:124:LYS:CD	11:AK:125:PHE:HE1	2.26	0.45
13:AM:37:THR:HG21	13:AM:56:LEU:HD22	1.98	0.45
18:AR:37:VAL:HG12	18:AR:79:LEU:HD21	1.98	0.45
19:AS:24:ALA:O	19:AS:25:LYS:HB2	2.16	0.45
20:AT:89:ARG:HB2	20:AT:104:LEU:CD1	2.44	0.45
22:AV:60:A:H2’	22:AV:61:U:H5’	1.97	0.45
25:BA:227:A:H5”	25:BA:228:A:OP1	2.16	0.45
25:BA:272:G:H4’	25:BA:272(A):U:H5”	1.98	0.45
25:BA:1042:G:N3	25:BA:1042:G:H2’	2.31	0.45
25:BA:2689:U:H5’	25:BA:2689:U:H6	1.76	0.45
25:BA:2847:U:H5	25:BA:2848:G:C6	2.27	0.45
28:BD:68:LYS:O	28:BD:68:LYS:HG3	2.16	0.45
28:BD:248:SER:C	28:BD:250:TRP:N	2.69	0.45
29:BE:93:VAL:HG21	29:BE:180:ASN:O	2.16	0.45
30:BF:20:LEU:HB3	30:BF:23:ASP:OD2	2.16	0.45
30:BF:64:ILE:HD13	30:BF:64:ILE:HA	1.71	0.45
33:BI:9:LEU:H	33:BI:13:GLY:HA2	1.82	0.45
38:BR:76:VAL:O	38:BR:80:PHE:HB2	2.16	0.45
46:BZ:99:TYR:HB3	46:BZ:123:ASP:OD1	2.16	0.45
48:B1:12:PRO:HA	48:B1:42:GLN:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:50:LEU:HA	55:B8:53:PRO:CG	2.46	0.45
1:CA:992:U:HO2'	1:CA:993:G:P	2.38	0.45
2:CB:88:ALA:HB2	2:CB:219:VAL:HG12	1.98	0.45
4:CD:8:VAL:O	4:CD:11:LEU:N	2.37	0.45
4:CD:54:TYR:OH	4:CD:209:ARG:NH1	2.49	0.45
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.97	0.45
9:CI:114:TYR:N	9:CI:114:TYR:HD2	2.14	0.45
14:CN:9:LYS:C	14:CN:11:LYS:H	2.18	0.45
19:CS:44:MET:N	19:CS:44:MET:SD	2.89	0.45
20:CT:52:ALA:O	20:CT:56:MET:N	2.41	0.45
20:CT:53:LEU:CB	20:CT:102:GLY:HA3	2.45	0.45
20:CT:88:VAL:HG12	20:CT:89:ARG:N	2.31	0.45
22:CV:41:C:O2'	22:CV:42:C:C5'	2.42	0.45
25:DA:371:A:H1'	25:DA:373:U:C6	2.51	0.45
25:DA:532:A:O2'	25:DA:2021:C:N4	2.49	0.45
25:DA:604:G:C6	25:DA:605:C:C4	3.05	0.45
25:DA:635:C:H2'	25:DA:636:G:O4'	2.17	0.45
25:DA:1008:C:H5"	25:DA:1009:A:OP1	2.16	0.45
25:DA:1028:A:N3	25:DA:2486:G:O2'	2.42	0.45
25:DA:1240:U:O2'	25:DA:1241:A:H5'	2.16	0.45
25:DA:1365:A:OP1	48:D1:41:ARG:NH1	2.49	0.45
25:DA:2683:C:OP1	40:DT:53:ARG:NH2	2.45	0.45
27:DC:61:THR:HG22	27:DC:163:PHE:O	2.17	0.45
27:DC:78:ALA:C	27:DC:80:GLY:H	2.20	0.45
29:DE:116:VAL:O	29:DE:117:MET:CB	2.65	0.45
35:DO:7:TYR:CZ	35:DO:44:LYS:HG3	2.51	0.45
36:DP:85:LEU:HD22	36:DP:115:LEU:O	2.16	0.45
36:DP:110:TYR:HD2	36:DP:111:ARG:HH21	1.64	0.45
40:DT:32:TYR:OH	40:DT:76:PHE:CD2	2.70	0.45
41:DU:112:ARG:NH1	41:DU:112:ARG:CG	2.76	0.45
43:DW:52:GLU:HA	43:DW:52:GLU:OE2	2.17	0.45
45:DY:9:LYS:HA	45:DY:27:VAL:CG2	2.46	0.45
45:DY:9:LYS:HE3	45:DY:28:LYS:O	2.16	0.45
48:D1:64:ALA:O	48:D1:66:HIS:N	2.50	0.45
55:D8:21:LYS:HD3	55:D8:48:PHE:CZ	2.52	0.45
55:D8:23:VAL:CG1	55:D8:46:ARG:HB3	2.47	0.45
1:AA:9:G:H2'	1:AA:10:A:C8	2.46	0.45
1:AA:344:A:H5"	1:AA:345:C:OP2	2.17	0.45
1:AA:1060:C:H4'	10:AJ:52:GLY:H	1.80	0.45
2:AB:51:LEU:HD22	2:AB:55:PHE:HE2	1.80	0.45
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.31	0.45
5:AE:13:ILE:O	5:AE:13:ILE:HG22	2.14	0.45
5:AE:107:ARG:NH1	5:AE:107:ARG:HB2	2.31	0.45
6:AF:72:VAL:CG1	6:AF:73:ASN:N	2.73	0.45
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.32	0.45
13:AM:46:LYS:HG3	13:AM:47:ASP:OD1	2.17	0.45
22:AV:40:C:C2	22:AV:41:C:C5	3.04	0.45
23:AW:12:U:C2	23:AW:24:G:N2	2.84	0.45
23:AY:38:A:H2'	23:AY:39:U:C6	2.51	0.45
25:BA:30:G:H2'	25:BA:31:C:C6	2.52	0.45
25:BA:240:G:C6	25:BA:241:A:C6	3.05	0.45
25:BA:727:A:N6	25:BA:728:G:O6	2.48	0.45
25:BA:729:G:O5'	28:BD:208:LYS:NZ	2.43	0.45
25:BA:1548:C:N4	25:BA:1549:C:N4	2.64	0.45
25:BA:2285:C:C5	53:B6:27:LYS:HE3	2.51	0.45
25:BA:2632:A:O2'	29:BE:61:ARG:NH2	2.49	0.45
25:BA:2801:A:H4'	25:BA:2801(A):A:O5'	2.17	0.45
26:BB:14:U:C3'	26:BB:14:U:C6	3.00	0.45
29:BE:32:PRO:HB3	29:BE:69:LYS:HD2	1.98	0.45
30:BF:17:ARG:CG	30:BF:17:ARG:NH1	2.72	0.45
30:BF:51:THR:HG21	30:BF:91:GLY:C	2.37	0.45
30:BF:54:ARG:O	30:BF:54:ARG:HG3	2.16	0.45
31:BG:161:THR:HG22	31:BG:162:THR:N	2.31	0.45
34:BN:16:ILE:CG2	34:BN:54:VAL:HG22	2.46	0.45
34:BN:70:LYS:HG3	34:BN:71:ILE:N	2.30	0.45
36:BP:97:PRO:O	36:BP:98:GLU:CB	2.62	0.45
39:BS:49:VAL:CG1	39:BS:50:SER:N	2.78	0.45
40:BT:50:ILE:HD12	40:BT:50:ILE:HA	1.77	0.45
40:BT:72:VAL:HG12	40:BT:73:GLU:N	2.32	0.45
40:BT:106:SER:C	40:BT:107:ASP:OD1	2.54	0.45
41:BU:108:GLU:HG3	42:BV:44:LYS:HZ2	1.81	0.45
42:BV:5:VAL:HG11	42:BV:57:VAL:HG11	1.96	0.45
46:BZ:40:ASP:OD1	46:BZ:42:VAL:HG12	2.16	0.45
51:B4:64:LYS:C	51:B4:65:CYS:SG	2.95	0.45
1:CA:344:A:H5"	1:CA:345:C:P	2.56	0.45
1:CA:791:G:C2'	1:CA:792:A:H5'	2.43	0.45
1:CA:820:U:HO2'	1:CA:821:G:P	2.40	0.45
1:CA:913:A:HO2'	1:CA:914:A:P	2.39	0.45
1:CA:946:A:H2'	1:CA:947:G:H8	1.82	0.45
1:CA:1005:A:O2'	1:CA:1037:C:O2'	2.27	0.45
2:CB:72:GLY:HA2	2:CB:165:VAL:CG2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:90:MET:HA	2:CB:90:MET:CE	2.47	0.45
4:CD:25:ARG:NH2	4:CD:30:LYS:HD2	2.30	0.45
4:CD:148:VAL:HG21	4:CD:158:ILE:CG2	2.45	0.45
5:CE:33:VAL:HG21	5:CE:109:ILE:CG1	2.46	0.45
6:CF:77:ARG:O	6:CF:78:GLU:C	2.54	0.45
7:CG:108:ALA:HB1	7:CG:120:ILE:HD13	1.97	0.45
10:CJ:45:ARG:NH1	10:CJ:45:ARG:CG	2.74	0.45
12:CL:117:ARG:HD2	12:CL:122:THR:HG22	1.98	0.45
16:CP:36:ILE:HG13	16:CP:37:GLY:N	2.31	0.45
17:CQ:22:LEU:HD22	17:CQ:88:TYR:HD1	1.82	0.45
20:CT:23:ARG:CA	20:CT:26:ASN:OD1	2.55	0.45
21:CU:3:LYS:HE3	21:CU:3:LYS:HB2	1.66	0.45
23:CW:49:C:H42	23:CW:65:G:H1	1.64	0.45
25:DA:94(A):G:N3	49:D2:47:ASN:ND2	2.64	0.45
25:DA:250:G:OP2	55:D8:13:ARG:NH2	2.49	0.45
25:DA:332:A:O2'	25:DA:333:G:OP1	2.32	0.45
25:DA:483:A:H3'	25:DA:484:C:H6	1.81	0.45
25:DA:2580:U:H4'	29:DE:130:GLY:CA	2.47	0.45
26:DB:15:A:H1'	26:DB:110:G:C4	2.51	0.45
28:DD:158:ALA:HB3	28:DD:161:THR:CG2	2.46	0.45
28:DD:224:ALA:O	28:DD:225:ALA:CB	2.64	0.45
30:DF:132:VAL:HG23	30:DF:133:ASN:N	2.31	0.45
31:DG:39:ILE:HB	31:DG:92:VAL:CG1	2.47	0.45
36:DP:86:LYS:HB3	36:DP:117:GLU:O	2.16	0.45
37:DQ:84:GLY:O	37:DQ:85:LYS:HB2	2.16	0.45
40:DT:118:ARG:O	40:DT:121:ILE:N	2.49	0.45
41:DU:74:LEU:C	41:DU:74:LEU:HD12	2.37	0.45
41:DU:76:TYR:C	41:DU:78:THR:N	2.70	0.45
46:DZ:15:PRO:O	46:DZ:19:ARG:HG3	2.17	0.45
53:D6:24:GLU:O	53:D6:25:LYS:HB2	2.15	0.45
54:D7:12:ARG:HG3	54:D7:12:ARG:HH11	1.80	0.45
1:AA:815:A:N6	1:AA:1509:C:H1'	2.32	0.45
1:AA:1226:C:O5'	1:AA:1226:C:H6	1.99	0.45
1:AA:1495:U:O2'	25:BA:1919:A:N1	2.45	0.45
2:AB:96:ARG:HH12	2:AB:147:LYS:CE	2.28	0.45
2:AB:105:PHE:CD2	2:AB:158:LEU:HG	2.51	0.45
2:AB:111:ARG:HH11	2:AB:111:ARG:CG	2.23	0.45
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ2	1.80	0.45
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.17	0.45
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	2.16	0.45
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:86:CYS:HB2	19:AS:73:GLU:OE1	2.16	0.45
16:AP:58:TYR:O	16:AP:61:SER:HB3	2.16	0.45
16:AP:73:LEU:HD23	16:AP:73:LEU:N	2.31	0.45
22:AV:64:G:N1	22:AV:65:G:C5	2.85	0.45
25:BA:1300:U:C5'	25:BA:1301:A:O5'	2.65	0.45
25:BA:1464:C:H2'	25:BA:1465:G:C8	2.51	0.45
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.31	0.45
25:BA:2051:A:H2'	25:BA:2614:A:H61	1.82	0.45
25:BA:2335:A:HO2'	25:BA:2336:A:P	2.40	0.45
25:BA:2813:A:H2'	25:BA:2814:C:O4'	2.16	0.45
25:BA:2835:A:N6	25:BA:2879:C:O4'	2.50	0.45
26:BB:45:A:H1'	31:BG:95:ARG:CZ	2.46	0.45
26:BB:66:A:N6	26:BB:108:U:C4	2.85	0.45
27:BC:77:ILE:HB	27:BC:121:GLY:O	2.17	0.45
30:BF:132:VAL:O	30:BF:133:ASN:C	2.54	0.45
36:BP:124:LYS:HG3	36:BP:143:GLY:C	2.37	0.45
38:BR:18:LEU:HD23	38:BR:18:LEU:HA	1.47	0.45
40:BT:92:GLY:O	40:BT:114:LEU:HA	2.16	0.45
42:BV:24:LYS:HG2	42:BV:90:PRO:HB2	1.98	0.45
42:BV:52:VAL:HG13	42:BV:55:ALA:HB3	1.99	0.45
42:BV:74:LYS:HB2	42:BV:83:ARG:HB2	1.99	0.45
43:BW:84:ARG:HB2	43:BW:96:ILE:HG23	1.99	0.45
44:BX:83:VAL:O	44:BX:84:ALA:C	2.55	0.45
49:B2:10:LEU:O	49:B2:14:ARG:HG3	2.17	0.45
53:B6:13:CYS:SG	53:B6:50:ARG:O	2.69	0.45
1:CA:8:A:OP2	5:CE:101:ILE:HG21	2.17	0.45
1:CA:119:A:N6	1:CA:288:A:N9	2.65	0.45
1:CA:266:G:H5"	1:CA:267:C:C5	2.52	0.45
1:CA:537:G:H2'	1:CA:538:G:C8	2.52	0.45
1:CA:921:U:O2	5:CE:19:MET:HB2	2.16	0.45
1:CA:1126:U:H1'	1:CA:1280:A:C6	2.51	0.45
1:CA:1178:G:OP2	9:CI:97:LYS:HE3	2.16	0.45
2:CB:87:ARG:HE	2:CB:233:SER:CB	2.30	0.45
3:CC:70:VAL:CG1	3:CC:72:LYS:H	2.24	0.45
4:CD:80:GLU:O	4:CD:82:ALA:N	2.50	0.45
5:CE:31:LEU:HD23	5:CE:45:PHE:CD1	2.51	0.45
7:CG:90:GLU:H	7:CG:90:GLU:HG3	1.29	0.45
7:CG:110:GLN:O	7:CG:111:ARG:CB	2.65	0.45
19:CS:62:ILE:HG23	19:CS:62:ILE:O	2.16	0.45
25:DA:7:G:H2'	25:DA:8:A:C8	2.51	0.45
25:DA:13:A:C6	25:DA:525:U:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.31	0.45
25:DA:862:G:O2'	26:DB:78:A:N3	2.50	0.45
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.31	0.45
25:DA:1664:A:C2	25:DA:2726:U:H1'	2.51	0.45
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.17	0.45
25:DA:2406:U:OP2	25:DA:2411:A:N6	2.50	0.45
25:DA:2468:G:H5'	37:DQ:120:ILE:HD12	1.98	0.45
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.82	0.45
28:DD:105:ILE:HD12	28:DD:106:ILE:H	1.81	0.45
29:DE:110:GLY:CA	29:DE:162:ALA:H	2.29	0.45
31:DG:58:GLN:HE22	31:DG:148:MET:CE	2.30	0.45
33:DI:3:VAL:CB	33:DI:37:VAL:O	2.65	0.45
33:DI:23:PRO:O	33:DI:27:ARG:HG2	2.15	0.45
36:DP:101:VAL:HG21	36:DP:108:LYS:H	1.81	0.45
39:DS:24:LEU:N	39:DS:24:LEU:HD22	2.32	0.45
39:DS:30:ARG:HH11	39:DS:30:ARG:HG2	1.81	0.45
40:DT:30:VAL:HA	40:DT:44:ASP:HA	1.99	0.45
41:DU:111:GLU:OE2	41:DU:111:GLU:HA	2.16	0.45
43:DW:59:VAL:O	43:DW:63:ASP:N	2.45	0.45
44:DX:3:THR:O	44:DX:4:ALA:HB3	2.17	0.45
45:DY:94:LYS:CD	45:DY:101:LYS:HZ3	2.28	0.45
46:DZ:65:GLN:O	46:DZ:65:GLN:HG3	2.16	0.45
51:D4:3:GLU:HG3	51:D4:4:GLY:N	2.31	0.45
53:D6:11:LEU:HD13	53:D6:12:GLU:O	2.17	0.45
53:D6:19:ARG:CG	53:D6:20:ASN:H	2.09	0.45
1:AA:67:C:O2'	1:AA:171:A:N3	2.39	0.45
1:AA:176:C:H2'	1:AA:177:C:H6	1.82	0.45
1:AA:345:C:H4'	1:AA:346:G:O5'	2.17	0.45
1:AA:522:C:H41	12:AL:53:ARG:NH2	2.14	0.45
2:AB:60:ASP:O	2:AB:64:ARG:HG2	2.17	0.45
2:AB:102:LEU:O	2:AB:105:PHE:HB2	2.16	0.45
3:AC:40:ARG:CD	3:AC:55:VAL:HB	2.47	0.45
4:AD:93:PHE:C	4:AD:93:PHE:CD2	2.89	0.45
9:AI:31:GLN:HG3	9:AI:35:GLU:CD	2.37	0.45
12:AL:79:GLU:O	12:AL:80:HIS:CG	2.69	0.45
13:AM:90:LEU:C	13:AM:91:ARG:HG2	2.37	0.45
23:AW:34:G:C2	24:AX:14:A:N3	2.85	0.45
25:BA:184:C:H2'	25:BA:185:U:C6	2.51	0.45
25:BA:703:U:C2'	25:BA:704:G:H5'	2.47	0.45
25:BA:734:A:O2'	25:BA:1635:G:H5'	2.17	0.45
25:BA:773:U:H4'	28:BD:47:GLY:CA	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:783:A:H8	25:BA:784:A:H4'	1.82	0.45
25:BA:942:G:H5"	36:BP:33:ARG:O	2.17	0.45
25:BA:995:C:H42	34:BN:1:MET:CG	2.17	0.45
25:BA:1456:G:N3	25:BA:1457:A:C8	2.85	0.45
25:BA:1648:C:N4	25:BA:2010:G:N1	2.65	0.45
25:BA:2839:G:H5'	38:BR:46:GLY:HA2	1.98	0.45
27:BC:59:ARG:HH21	27:BC:199:HIS:H	1.65	0.45
27:BC:169:GLY:O	27:BC:171:ILE:N	2.49	0.45
28:BD:32:SER:O	28:BD:33:LEU:C	2.55	0.45
29:BE:19:ARG:O	29:BE:19:ARG:HG3	2.17	0.45
31:BG:8:LYS:O	31:BG:11:TYR:HB3	2.16	0.45
31:BG:66:GLN:O	31:BG:67:LYS:C	2.54	0.45
33:BI:41:GLU:O	33:BI:44:LEU:HB3	2.16	0.45
33:BI:64:GLU:C	33:BI:66:GLU:N	2.68	0.45
33:BI:75:LEU:HD21	33:BI:105:HIS:CD2	2.52	0.45
35:BO:8:LEU:HD13	35:BO:82:ASN:HB2	1.98	0.45
36:BP:118:GLY:O	36:BP:119:GLU:C	2.55	0.45
41:BU:94:ASN:C	41:BU:94:ASN:HD22	2.19	0.45
46:BZ:54:HIS:HB3	46:BZ:101:PRO:CD	2.47	0.45
51:B4:61:VAL:HG13	51:B4:62:CYS:O	2.17	0.45
52:B5:29:THR:O	52:B5:30:LEU:HD23	2.16	0.45
55:B8:23:VAL:HG13	55:B8:46:ARG:HB3	1.98	0.45
1:CA:49:U:O4	1:CA:364:A:C4	2.70	0.45
1:CA:414:A:OP2	1:CA:428:G:N2	2.35	0.45
1:CA:923:A:O2'	1:CA:1399:C:OP2	2.27	0.45
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.52	0.45
2:CB:220:ASP:O	2:CB:223:ILE:N	2.50	0.45
4:CD:18:LYS:HE3	4:CD:31:CYS:HB3	1.98	0.45
5:CE:33:VAL:HG21	5:CE:109:ILE:HG12	1.98	0.45
7:CG:51:GLN:HA	7:CG:51:GLN:OE1	2.16	0.45
7:CG:146:GLU:CA	7:CG:149:ARG:HB2	2.46	0.45
9:CI:3:GLN:O	9:CI:88:TYR:HE1	1.98	0.45
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	2.16	0.45
18:CR:50:ILE:O	18:CR:51:LEU:C	2.55	0.45
23:CW:55:U:C6	23:CW:58:A:N7	2.85	0.45
24:CX:20:U:O2'	24:CX:21:C:H5'	2.17	0.45
23:CY:36:A:H5"	23:CY:36:A:H8	1.79	0.45
25:DA:64:A:O3'	44:DX:71:GLY:HA3	2.16	0.45
25:DA:613:G:C6	25:DA:615:G:O6	2.69	0.45
25:DA:768:G:C4	25:DA:769:G:C8	3.05	0.45
25:DA:1140:C:O4'	25:DA:1143:A:C2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1558:A:N7	25:DA:1560:G:C8	2.85	0.45
25:DA:1566:A:O2'	28:DD:58:HIS:CD2	2.69	0.45
25:DA:1614:A:H62	43:DW:93:ALA:HB2	1.82	0.45
25:DA:2133:G:H21	25:DA:2158:A:H62	1.64	0.45
25:DA:2445:G:OP1	30:DF:74:ARG:NH2	2.38	0.45
29:DE:4:ILE:O	29:DE:4:ILE:CG2	2.65	0.45
29:DE:101:ARG:HH21	29:DE:171:GLU:N	2.14	0.45
33:DI:101:LEU:CD2	33:DI:107:VAL:HB	2.42	0.45
34:DN:59:LYS:O	34:DN:60:ILE:C	2.55	0.45
37:DQ:141:GLN:CB	46:DZ:98:MET:HA	2.45	0.45
39:DS:25:ARG:HB3	39:DS:25:ARG:NH1	2.32	0.45
39:DS:106:ARG:O	39:DS:107:GLU:CB	2.64	0.45
40:DT:62:THR:HG22	40:DT:75:ILE:HG23	1.99	0.45
41:DU:27:LEU:N	41:DU:27:LEU:HD23	2.31	0.45
42:DV:25:LEU:H	42:DV:92:THR:CG2	2.30	0.45
42:DV:75:PHE:CD1	42:DV:75:PHE:C	2.90	0.45
45:DY:4:LYS:O	45:DY:5:MET:O	2.35	0.45
46:DZ:23:LYS:CE	46:DZ:38:TYR:HE1	2.28	0.45
46:DZ:116:VAL:N	46:DZ:174:VAL:HG13	2.32	0.45
48:D1:86:SER:O	48:D1:90:ILE:N	2.50	0.45
56:D9:2:LYS:O	56:D9:34:GLN:HA	2.17	0.45
1:AA:436:C:H2'	1:AA:437:U:C6	2.52	0.45
1:AA:532:A:C2'	1:AA:533:A:OP1	2.63	0.45
1:AA:1002:G:N2	1:AA:1003:G:H1'	2.32	0.45
1:AA:1280:A:O4'	10:AJ:41:PRO:HG3	2.16	0.45
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.34	0.45
1:AA:1325:C:O3'	21:AU:17:THR:HG21	2.16	0.45
3:AC:29:TYR:CD2	3:AC:29:TYR:C	2.90	0.45
3:AC:55:VAL:O	3:AC:57:ILE:HG13	2.16	0.45
7:AG:73:MET:CA	7:AG:91:VAL:HG23	2.45	0.45
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.98	0.45
12:AL:6:THR:O	12:AL:9:GLN:HB2	2.16	0.45
16:AP:52:ASP:OD2	16:AP:54:GLU:HB2	2.16	0.45
17:AQ:29:HIS:HA	17:AQ:30:PRO:HD3	1.84	0.45
19:AS:29:ARG:NH1	19:AS:30:LEU:H	2.10	0.45
23:AY:28:G:H2'	23:AY:29:G:H8	1.81	0.45
25:BA:481:G:HO2'	25:BA:482:A:P	2.40	0.45
25:BA:492:A:H2'	25:BA:493:G:O4'	2.16	0.45
25:BA:500:G:N2	25:BA:502:A:H3'	2.32	0.45
25:BA:574:C:O2	29:BE:145:LYS:NZ	2.35	0.45
25:BA:774:A:H2	25:BA:787:U:O2'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1554:A:H4'	25:BA:1555:G:OP1	2.15	0.45
25:BA:2046:G:O5'	52:B5:19:ARG:HA	2.17	0.45
25:BA:2119:A:H8	25:BA:2119:A:OP1	2.00	0.45
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.51	0.45
25:BA:2712:U:O2'	25:BA:2712(A):A:O5'	2.31	0.45
27:BC:72:VAL:HG12	27:BC:74:VAL:HG23	1.99	0.45
28:BD:107:ALA:HA	28:BD:108:PRO:HD2	1.88	0.45
28:BD:232:PRO:HD2	28:BD:249:PRO:HA	1.98	0.45
29:BE:117:MET:HG3	29:BE:122:PHE:O	2.17	0.45
30:BF:23:ASP:C	30:BF:24:LEU:HD22	2.36	0.45
31:BG:28:VAL:O	31:BG:31:VAL:N	2.39	0.45
32:BH:66:GLY:N	32:BH:69:ARG:HB2	2.32	0.45
37:BQ:17:LEU:HD23	37:BQ:17:LEU:N	2.32	0.45
38:BR:72:ASP:HB3	38:BR:75:LEU:CB	2.40	0.45
40:BT:57:PHE:O	40:BT:58:ASN:C	2.55	0.45
44:BX:12:VAL:H	44:BX:28:PHE:HA	1.82	0.45
46:BZ:119:GLU:HB2	46:BZ:122:ARG:CG	2.47	0.45
49:B2:50:ILE:O	49:B2:53:LEU:N	2.50	0.45
1:CA:64:G:H5"	1:CA:65:U:OP1	2.17	0.45
1:CA:80:G:H22	1:CA:90:U:H4'	1.82	0.45
1:CA:254:G:OP1	17:CQ:68:ARG:HB3	2.15	0.45
1:CA:321:A:H62	1:CA:328:C:HO2'	1.63	0.45
1:CA:324:G:OP1	20:CT:22:ARG:HD3	2.16	0.45
1:CA:765:G:N2	1:CA:812:C:O2'	2.49	0.45
1:CA:1201:A:O2'	1:CA:1202:G:P	2.75	0.45
2:CB:97:TRP:CH2	2:CB:176:GLU:OE2	2.69	0.45
6:CF:1:MET:HE1	6:CF:66:GLU:O	2.17	0.45
7:CG:66:VAL:HG12	7:CG:70:LYS:HE3	1.98	0.45
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.16	0.45
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.37	0.45
12:CL:69:TYR:O	12:CL:71:PRO:HD3	2.17	0.45
13:CM:14:ARG:H	13:CM:44:ARG:HD2	1.81	0.45
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.82	0.45
22:CV:42:C:C2	22:CV:43:G:C8	3.04	0.45
22:CV:48:U:C5'	22:CV:49:C:H5'	2.47	0.45
24:CX:19:U:C2'	24:CX:20:U:H5'	2.47	0.45
25:DA:412:A:N7	25:DA:2411:A:H2	2.15	0.45
25:DA:819:A:C4	25:DA:1189:A:C2	3.04	0.45
25:DA:1223:G:H5'	25:DA:1224:C:OP2	2.16	0.45
25:DA:1648:C:C4	25:DA:2010:G:C2	3.05	0.45
25:DA:2249:U:H1'	25:DA:2275:C:N4	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2287:A:O2'	25:DA:2288:A:P	2.74	0.45
25:DA:2386:C:H4'	47:D0:55:ARG:O	2.17	0.45
28:DD:271:ILE:O	28:DD:272:ALA:HB2	2.16	0.45
29:DE:47:VAL:HG12	29:DE:48:GLN:N	2.30	0.45
33:DI:114:LEU:HD22	33:DI:130:TYR:HD1	1.79	0.45
34:DN:112:LEU:O	34:DN:115:ARG:N	2.50	0.45
36:DP:124:LYS:HG3	36:DP:143:GLY:C	2.37	0.45
38:DR:18:LEU:HD21	38:DR:22:ARG:HE	1.80	0.45
38:DR:92:GLY:HA2	38:DR:94:TYR:CE1	2.52	0.45
41:DU:88:ILE:O	41:DU:88:ILE:CG1	2.64	0.45
43:DW:86:LEU:HG	43:DW:88:ARG:HD3	1.98	0.45
46:DZ:14:LYS:HZ2	46:DZ:14:LYS:N	2.09	0.45
47:D0:66:VAL:O	47:D0:81:VAL:HA	2.16	0.45
49:D2:32:LEU:HB2	49:D2:53:LEU:HD13	1.99	0.45
1:AA:511:C:O2'	1:AA:512:U:P	2.75	0.45
1:AA:620:C:H2'	1:AA:621:A:O4'	2.17	0.45
2:AB:63:MET:HG3	2:AB:64:ARG:N	2.32	0.45
3:AC:19:GLU:O	3:AC:19:GLU:HG2	2.16	0.45
5:AE:75:THR:HA	5:AE:115:VAL:CG1	2.44	0.45
7:AG:44:TYR:C	7:AG:46:ALA:N	2.70	0.45
9:AI:43:ALA:C	9:AI:45:ALA:H	2.19	0.45
12:AL:7:ILE:C	12:AL:9:GLN:N	2.70	0.45
22:AV:19:G:C6	22:AV:58:A:C6	3.04	0.45
25:BA:449:A:OP1	30:BF:84:VAL:O	2.35	0.45
25:BA:549:G:H2'	25:BA:551:G:H5"	1.99	0.45
25:BA:627:A:O2'	25:BA:628:G:C8	2.69	0.45
25:BA:1310:G:H2'	25:BA:1311:G:O4'	2.17	0.45
25:BA:1653:G:HO2'	25:BA:1654:A:P	2.38	0.45
25:BA:2097:C:H2'	25:BA:2098:U:O4'	2.16	0.45
25:BA:2114:A:H2'	25:BA:2115:G:O4'	2.17	0.45
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.52	0.45
30:BF:102:PRO:O	30:BF:105:VAL:N	2.48	0.45
30:BF:185:ASP:HA	30:BF:188:ARG:HB2	1.99	0.45
31:BG:51:ARG:HH11	31:BG:53:LEU:HD21	1.82	0.45
32:BH:34:GLU:O	32:BH:36:PRO:HD3	2.17	0.45
33:BI:42:SER:O	33:BI:45:LYS:HG2	2.17	0.45
34:BN:14:VAL:HG11	34:BN:137:LYS:HG3	1.95	0.45
34:BN:70:LYS:O	34:BN:71:ILE:HD12	2.17	0.45
35:BO:53:LYS:HD2	35:BO:53:LYS:N	2.32	0.45
35:BO:119:PRO:HB2	40:BT:68:TYR:HE1	1.80	0.45
37:BQ:140:ALA:HA	46:BZ:99:TYR:CD2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:63:ARG:NH2	38:BR:80:PHE:HD2	2.15	0.45
40:BT:16:ARG:O	40:BT:17:THR:HB	2.16	0.45
40:BT:36:GLU:C	40:BT:38:ASN:H	2.20	0.45
40:BT:59:THR:O	40:BT:77:PRO:O	2.34	0.45
40:BT:64:ARG:HD2	40:BT:73:GLU:CG	2.47	0.45
41:BU:39:LEU:O	41:BU:41:ALA:N	2.50	0.45
42:BV:54:GLY:O	42:BV:101:GLY:HA2	2.17	0.45
42:BV:97:LYS:HD3	42:BV:97:LYS:HA	1.68	0.45
44:BX:29:TRP:CZ2	44:BX:76:ARG:NH2	2.85	0.45
45:BY:28:LYS:HB2	45:BY:37:VAL:CA	2.40	0.45
46:BZ:39:VAL:HG21	46:BZ:44:PHE:CD2	2.51	0.45
54:B7:12:ARG:HE	54:B7:46:VAL:CG2	2.29	0.45
54:B7:13:ALA:O	54:B7:17:GLY:HA3	2.17	0.45
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.31	0.45
1:CA:687:A:C2	1:CA:704:A:C4	3.04	0.45
1:CA:715:A:H2'	1:CA:716:A:C8	2.51	0.45
1:CA:860:A:H2'	1:CA:861:G:O4'	2.17	0.45
2:CB:57:PHE:CD2	2:CB:185:ILE:HD11	2.52	0.45
3:CC:172:ARG:NH2	3:CC:174:PRO:HG3	2.32	0.45
4:CD:94:LEU:HD23	4:CD:97:LEU:HD12	1.97	0.45
4:CD:206:PHE:CD2	4:CD:207:TYR:HE2	2.33	0.45
7:CG:137:LYS:HE2	7:CG:137:LYS:HB3	1.62	0.45
15:CO:74:ASP:HB3	15:CO:77:ARG:HG2	1.98	0.45
17:CQ:9:VAL:HA	17:CQ:55:ASP:O	2.17	0.45
18:CR:86:VAL:C	18:CR:87:ARG:HD3	2.36	0.45
23:CW:19:G:C2	23:CW:57:G:O6	2.70	0.45
25:DA:242:G:O2'	25:DA:243:U:OP2	2.30	0.45
25:DA:331:A:O2'	25:DA:332:A:OP1	2.33	0.45
25:DA:452:G:H5'	30:DF:59:TYR:CE2	2.52	0.45
25:DA:1113:U:H2'	25:DA:1114:G:C8	2.51	0.45
25:DA:1485:G:H2'	25:DA:1486:A:C8	2.52	0.45
25:DA:1790:C:H5"	25:DA:1791:A:OP1	2.16	0.45
25:DA:2021:C:H4'	25:DA:2022:U:OP1	2.10	0.45
25:DA:2331:G:O2'	25:DA:2336:A:N1	2.41	0.45
27:DC:59:ARG:HB2	27:DC:62:VAL:CG2	2.40	0.45
27:DC:208:PHE:O	27:DC:209:LEU:CB	2.65	0.45
29:DE:3:GLY:CA	29:DE:81:ILE:HG21	2.38	0.45
30:DF:155:LEU:HD12	30:DF:174:VAL:HG22	1.99	0.45
32:DH:124:GLU:CB	32:DH:132:ARG:HD2	2.41	0.45
34:DN:112:LEU:HD12	34:DN:112:LEU:HA	1.70	0.45
35:DO:2:ILE:HD11	35:DO:82:ASN:HD22	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:18:LYS:HD2	35:DO:45:GLU:CD	2.37	0.45
35:DO:34:THR:HG22	35:DO:37:ASP:OD2	2.17	0.45
36:DP:106:LEU:HD11	36:DP:112:LEU:CD2	2.40	0.45
39:DS:85:VAL:HG23	39:DS:112:PHE:CE1	2.51	0.45
46:DZ:166:SER:HB2	46:DZ:168:GLU:HB2	1.99	0.45
53:D6:48:VAL:O	53:D6:49:HIS:HB2	2.16	0.45
55:D8:49:VAL:O	55:D8:53:PRO:HG3	2.16	0.45
56:D9:19:ARG:O	56:D9:24:TYR:CE1	2.70	0.45
1:AA:80:G:N2	1:AA:90:U:H4'	2.32	0.45
1:AA:460:G:N2	1:AA:471:G:OP2	2.45	0.45
1:AA:640:A:O2'	8:AH:115:SER:O	2.28	0.45
1:AA:1086:U:H3	1:AA:1099:G:H22	1.65	0.45
1:AA:1373:G:H5"	7:AG:36:LYS:HB2	1.99	0.45
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.51	0.45
2:AB:52:GLU:HG3	2:AB:56:ARG:CZ	2.47	0.45
2:AB:190:THR:C	2:AB:192:SER:H	2.19	0.45
4:AD:39:PRO:O	4:AD:44:GLY:HA3	2.17	0.45
4:AD:158:ILE:O	4:AD:159:ARG:C	2.55	0.45
5:AE:42:GLY:HA2	5:AE:66:MET:HA	1.99	0.45
5:AE:110:LEU:O	5:AE:111:GLU:C	2.53	0.45
5:AE:113:ALA:HB3	5:AE:115:VAL:HG23	1.98	0.45
9:AI:4:TYR:CB	9:AI:19:LEU:HD12	2.47	0.45
14:AN:46:GLU:O	14:AN:49:HIS:HB2	2.17	0.45
17:AQ:17:LYS:O	17:AQ:46:ASP:N	2.49	0.45
20:AT:96:GLY:O	20:AT:97:ALA:O	2.34	0.45
22:AV:57:C:O2	31:BG:78:SER:HB2	2.17	0.45
25:BA:196:A:N3	25:BA:805:G:C6	2.85	0.45
25:BA:474:G:O2'	25:BA:475:U:OP1	2.31	0.45
25:BA:669:G:H5"	25:BA:670:A:OP2	2.17	0.45
25:BA:675:A:OP1	30:BF:76:GLY:HA2	2.16	0.45
25:BA:1111:A:O3'	25:BA:1112:G:H4'	2.16	0.45
25:BA:1246:A:C2	25:BA:1247:A:H1'	2.52	0.45
25:BA:1721:G:N1	25:BA:1739:U:OP2	2.50	0.45
25:BA:2118:U:H5	25:BA:2149:G:H5'	1.81	0.45
25:BA:2161:C:H2'	25:BA:2162:G:H8	1.81	0.45
25:BA:2364:C:H4'	47:B0:56:ASP:OD2	2.16	0.45
28:BD:146:GLU:HA	28:BD:152:GLY:O	2.16	0.45
28:BD:147:LEU:HD13	28:BD:155:LEU:HD21	1.99	0.45
31:BG:16:ARG:HD3	31:BG:16:ARG:HA	1.75	0.45
31:BG:63:ILE:HD12	31:BG:141:PHE:CG	2.51	0.45
32:BH:26:VAL:O	32:BH:79:VAL:HG11	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:88:ILE:HD13	33:BI:123:LEU:HG	1.99	0.45
35:BO:47:ILE:HG13	35:BO:48:PRO:HD2	1.97	0.45
38:BR:52:ILE:O	38:BR:55:ALA:HB3	2.16	0.45
45:BY:47:LYS:HD2	45:BY:47:LYS:H	1.82	0.45
46:BZ:125:LEU:HD12	46:BZ:126:VAL:H	1.81	0.45
50:B3:31:LEU:O	50:B3:32:GLN:HB2	2.17	0.45
53:B6:19:ARG:H	53:B6:19:ARG:CD	2.24	0.45
1:CA:46:G:H2'	1:CA:366:C:H41	1.81	0.45
1:CA:324:G:P	20:CT:22:ARG:HD3	2.57	0.45
1:CA:407:G:H1	1:CA:435:C:N4	2.11	0.45
1:CA:451:A:H4'	1:CA:452:A:O4'	2.17	0.45
1:CA:484:G:HO2'	1:CA:485:G:P	2.39	0.45
1:CA:901:A:C5	1:CA:902:G:H1'	2.52	0.45
1:CA:1064:G:O6	1:CA:1193:G:C2	2.70	0.45
1:CA:1298:C:H1'	1:CA:1299:A:C6	2.52	0.45
2:CB:19:HIS:CE1	2:CB:20:GLU:CG	3.00	0.45
3:CC:118:GLN:HA	3:CC:121:ALA:HB3	1.99	0.45
8:CH:106:GLY:O	8:CH:122:ARG:NH2	2.50	0.45
11:CK:57:THR:HG22	11:CK:58:PRO:HD2	1.99	0.45
23:CY:36:A:C8	23:CY:36:A:C4'	3.00	0.45
25:DA:340:A:H2'	25:DA:341:G:C5'	2.47	0.45
25:DA:613:G:N2	25:DA:615:G:C8	2.85	0.45
25:DA:1266:G:O2'	25:DA:2012:G:N1	2.45	0.45
25:DA:2391:G:HO2'	25:DA:2424:C:N4	2.15	0.45
27:DC:122:ALA:HB1	27:DC:129:ARG:CB	2.46	0.45
27:DC:154:ARG:C	27:DC:156:ILE:H	2.20	0.45
28:DD:31:LYS:O	28:DD:32:SER:C	2.55	0.45
28:DD:232:PRO:HD2	28:DD:249:PRO:HA	1.99	0.45
31:DG:41:GLN:HB3	31:DG:43:LEU:HD11	1.99	0.45
32:DH:35:VAL:CG2	32:DH:75:ALA:HB2	2.47	0.45
34:DN:66:LYS:O	34:DN:70:LYS:HB3	2.17	0.45
36:DP:49:ARG:NH2	36:DP:50:ARG:HH22	2.15	0.45
36:DP:118:GLY:O	36:DP:119:GLU:C	2.55	0.45
38:DR:33:ARG:HG3	38:DR:115:GLU:HB3	1.99	0.45
39:DS:38:GLN:HG3	39:DS:47:THR:HG21	1.98	0.45
40:DT:130:ALA:O	40:DT:131:ALA:C	2.55	0.45
41:DU:15:LYS:HD3	41:DU:15:LYS:N	2.30	0.45
42:DV:35:LEU:C	42:DV:37:VAL:H	2.20	0.45
43:DW:19:LEU:O	52:D5:25:LEU:HD12	2.16	0.45
43:DW:88:ARG:NH1	43:DW:94:ASP:OD1	2.50	0.45
55:D8:44:LYS:HD2	55:D8:44:LYS:N	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:33:A:H61	1:AA:551:U:H3	1.64	0.45
1:AA:368:U:OP1	33:DI:91:SER:OG	2.30	0.45
1:AA:779:C:O2'	11:AK:120:ARG:HD3	2.17	0.45
1:AA:1299:A:N7	1:AA:1301:U:C2	2.85	0.45
1:AA:1368:G:H2'	1:AA:1369:C:C6	2.52	0.45
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.17	0.45
5:AE:76:ILE:CG1	5:AE:142:LEU:HD13	2.44	0.45
5:AE:139:LEU:C	5:AE:141:GLN:N	2.70	0.45
8:AH:4:ASP:CG	8:AH:85:ARG:HH12	2.20	0.45
8:AH:86:ILE:CG1	8:AH:133:LEU:HD22	2.47	0.45
9:AI:55:ALA:HB1	9:AI:59:PHE:CE1	2.52	0.45
10:AJ:5:ARG:HA	10:AJ:73:ASP:CG	2.37	0.45
12:AL:83:VAL:HG21	12:AL:100:ILE:HD13	1.99	0.45
15:AO:17:ARG:N	15:AO:21:ASP:OD1	2.44	0.45
16:AP:72:ARG:O	16:AP:75:ARG:N	2.50	0.45
18:AR:58:LEU:H	18:AR:58:LEU:CD1	2.30	0.45
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.17	0.45
22:AV:70:C:H2'	22:AV:71:G:O4'	2.16	0.45
24:AX:16:A:H2'	24:AX:17:U:O4'	2.17	0.45
25:BA:636:G:O2'	25:BA:638:G:O2'	2.28	0.45
25:BA:1149:G:H2'	25:BA:1150:C:C6	2.52	0.45
25:BA:1312:U:H4'	25:BA:1313:U:O5'	2.16	0.45
25:BA:1331:A:HO2'	25:BA:1332:G:H8	1.65	0.45
25:BA:1414:G:H1	25:BA:1588:C:H42	1.65	0.45
25:BA:1488:G:H5'	25:BA:1489:U:OP2	2.17	0.45
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.52	0.45
25:BA:2346:A:C2	25:BA:2383:G:C2	3.05	0.45
25:BA:2444:G:P	30:BF:68:LYS:HE2	2.57	0.45
25:BA:2578:G:C2	25:BA:2579:C:C4	3.05	0.45
30:BF:53:THR:HG23	30:BF:56:GLU:CG	2.44	0.45
30:BF:64:ILE:CG2	30:BF:65:TRP:CE2	3.00	0.45
31:BG:131:TYR:HE2	31:BG:133:LEU:HD22	1.82	0.45
36:BP:83:VAL:CG2	36:BP:105:LEU:HD22	2.45	0.45
36:BP:138:LEU:HD13	36:BP:144:GLU:HG2	1.98	0.45
39:BS:53:SER:HG	39:BS:54:LEU:CD2	2.29	0.45
39:BS:103:GLU:O	39:BS:104:GLY:C	2.56	0.45
41:BU:88:ILE:C	41:BU:90:VAL:H	2.21	0.45
48:B1:41:ARG:HD3	48:B1:43:TYR:OH	2.17	0.45
55:B8:13:ARG:O	55:B8:14:VAL:HB	2.16	0.45
1:CA:197:A:O2'	1:CA:220:G:N2	2.50	0.45
1:CA:993:G:H2'	1:CA:995:C:H41	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1067:A:H1'	1:CA:1068:G:C1'	2.46	0.45
1:CA:1080:A:H4'	5:CE:16:THR:HB	1.97	0.45
3:CC:132:ARG:O	3:CC:136:GLN:CB	2.62	0.45
4:CD:7:PRO:CB	4:CD:10:ARG:HD2	2.28	0.45
4:CD:162:LEU:O	4:CD:165:MET:N	2.50	0.45
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.32	0.45
9:CI:11:LYS:C	9:CI:13:ALA:H	2.19	0.45
10:CJ:54:PHE:CZ	10:CJ:55:LYS:NZ	2.85	0.45
12:CL:39:VAL:CG1	12:CL:40:VAL:N	2.80	0.45
12:CL:40:VAL:HG22	12:CL:56:ALA:HB2	1.98	0.45
12:CL:119:LYS:HB2	12:CL:120:TYR:CE1	2.52	0.45
13:CM:88:ARG:HD3	13:CM:98:VAL:CG1	2.47	0.45
13:CM:120:LYS:N	13:CM:120:LYS:CD	2.60	0.45
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.17	0.45
20:CT:14:LYS:C	20:CT:16:HIS:N	2.69	0.45
22:CV:22:A:C5	22:CV:49:C:N4	2.85	0.45
23:CY:28:G:C4	23:CY:29:G:C8	3.05	0.45
25:DA:13:A:C5	25:DA:525:U:C4	3.05	0.45
25:DA:480:A:H5"	45:DY:46:LYS:HE2	1.99	0.45
25:DA:1103:A:H2'	25:DA:1104:C:H5'	1.99	0.45
25:DA:1453:U:H1'	38:DR:60:LEU:HD21	1.98	0.45
25:DA:1568:G:P	28:DD:63:ARG:HH12	2.40	0.45
25:DA:2751:G:P	25:DA:2751:G:C8	3.09	0.45
27:DC:20:TYR:CE1	27:DC:22:ILE:HD13	2.52	0.45
28:DD:31:LYS:O	28:DD:35:LYS:CB	2.56	0.45
28:DD:270:ILE:C	28:DD:271:ILE:HG12	2.37	0.45
31:DG:110:ALA:O	31:DG:111:LEU:C	2.56	0.45
32:DH:153:LYS:CE	32:DH:153:LYS:HA	2.47	0.45
41:DU:29:SER:OG	41:DU:30:LYS:HE2	2.17	0.45
45:DY:51:VAL:HG22	45:DY:57:GLN:HA	1.99	0.45
46:DZ:38:TYR:CD1	46:DZ:38:TYR:O	2.70	0.45
47:D0:25:ARG:HG3	47:D0:31:VAL:CG1	2.47	0.45
50:D3:1:MET:HE2	50:D3:41:PRO:HD3	1.99	0.45
1:AA:452:A:H4'	16:AP:72:ARG:CZ	2.47	0.44
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.82	0.44
2:AB:15:VAL:N	2:AB:16:HIS:ND1	2.60	0.44
2:AB:100:GLY:HA2	2:AB:176:GLU:OE1	2.17	0.44
2:AB:178:ARG:HG3	8:AH:72:PRO:HA	1.99	0.44
3:AC:11:ARG:HH21	3:AC:180:ALA:CB	2.26	0.44
4:AD:103:ASN:O	4:AD:107:ARG:HG2	2.17	0.44
5:AE:91:LEU:HD23	5:AE:138:ALA:HB1	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:53:VAL:HB	9:AI:92:TYR:CE2	2.51	0.44
10:AJ:45:ARG:HG3	10:AJ:45:ARG:NH1	2.31	0.44
10:AJ:91:PRO:HB3	10:AJ:94:VAL:HB	1.99	0.44
14:AN:2:ALA:O	14:AN:6:LEU:HD12	2.17	0.44
16:AP:19:ILE:CG2	16:AP:36:ILE:HG13	2.47	0.44
16:AP:82:GLN:O	16:AP:83:GLU:CB	2.65	0.44
17:AQ:75:ARG:HG3	17:AQ:75:ARG:HH11	1.82	0.44
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.37	0.44
25:BA:242:G:N2	25:BA:254:G:C5	2.85	0.44
25:BA:534:U:O2	41:BU:49:HIS:HE1	2.00	0.44
25:BA:669:G:H5"	25:BA:670:A:P	2.57	0.44
25:BA:1620:G:HO2'	54:B7:2:LYS:HG3	1.81	0.44
25:BA:1653:G:O2'	25:BA:1654:A:O5'	2.35	0.44
25:BA:1654:A:C8	25:BA:2823:A:O4'	2.70	0.44
25:BA:1778:U:O4	25:BA:1784:A:H1'	2.18	0.44
27:BC:77:ILE:O	27:BC:77:ILE:CG2	2.65	0.44
28:BD:12:SER:HB2	28:BD:208:LYS:HB3	1.98	0.44
28:BD:206:LEU:HD23	28:BD:206:LEU:HA	1.72	0.44
29:BE:4:ILE:HG22	29:BE:198:VAL:O	2.18	0.44
30:BF:42:ALA:O	30:BF:45:ARG:HB2	2.15	0.44
31:BG:91:ARG:HD2	31:BG:92:VAL:N	2.33	0.44
31:BG:126:ASP:O	31:BG:128:ARG:NE	2.50	0.44
32:BH:58:GLU:O	32:BH:61:HIS:N	2.50	0.44
32:BH:102:ALA:CB	32:BH:117:PRO:HD3	2.38	0.44
33:BI:136:VAL:HA	33:BI:137:PRO:HD3	1.61	0.44
34:BN:123:TYR:CD1	34:BN:129:PRO:HD2	2.52	0.44
35:BO:20:MET:HG2	35:BO:21:CYS:N	2.32	0.44
36:BP:101:VAL:HG21	36:BP:108:LYS:H	1.81	0.44
36:BP:110:TYR:HD2	36:BP:111:ARG:HH21	1.64	0.44
38:BR:117:VAL:O	38:BR:118:GLU:HB2	2.16	0.44
41:BU:18:LEU:O	41:BU:19:LYS:C	2.55	0.44
41:BU:45:TYR:O	41:BU:46:ALA:C	2.53	0.44
53:B6:26:ASN:OD1	53:B6:32:ASN:OD1	2.35	0.44
1:CA:500:G:N2	1:CA:546:G:H1'	2.32	0.44
1:CA:738:C:H5"	6:CF:69:GLU:HB2	1.99	0.44
1:CA:747:C:H3'	1:CA:748:C:C5	2.51	0.44
1:CA:1358:U:OP1	14:CN:35:ARG:HG2	2.18	0.44
1:CA:1397:C:O2'	1:CA:1398:A:P	2.75	0.44
2:CB:28:PHE:HE2	2:CB:31:TYR:CD1	2.35	0.44
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.99	0.44
3:CC:203:PHE:HZ	3:CC:206:GLU:OE1	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.17	0.44
4:CD:201:GLN:O	4:CD:205:GLU:HG3	2.16	0.44
5:CE:20:GLN:O	5:CE:21:ALA:C	2.55	0.44
5:CE:79:GLU:H	5:CE:79:GLU:HG3	1.42	0.44
7:CG:111:ARG:HG2	7:CG:112:PRO:HD2	1.99	0.44
13:CM:84:ILE:HD11	19:CS:66:MET:HG2	1.98	0.44
15:CO:65:ARG:O	15:CO:68:ARG:N	2.51	0.44
17:CQ:90:ILE:O	17:CQ:93:GLN:HB2	2.17	0.44
18:CR:59:SER:HB3	18:CR:62:GLU:CB	2.47	0.44
19:CS:49:ILE:HD13	19:CS:71:LEU:HD21	1.99	0.44
20:CT:51:GLU:O	20:CT:55:ILE:N	2.44	0.44
23:CW:40:C:O5'	23:CW:40:C:H6	2.00	0.44
25:DA:205:G:HO2'	25:DA:206:U:H5	1.64	0.44
25:DA:955:C:H5'	25:DA:956:G:OP2	2.18	0.44
25:DA:1681:G:H4'	25:DA:1682:G:OP1	2.17	0.44
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.32	0.44
25:DA:2097:C:H2'	25:DA:2098:U:O4'	2.17	0.44
25:DA:2405:G:HO2'	25:DA:2406:U:P	2.40	0.44
25:DA:2517:C:N3	25:DA:2542:A:N6	2.65	0.44
25:DA:2892:A:C5	25:DA:2893:G:H1'	2.52	0.44
28:DD:34:VAL:HG22	28:DD:34:VAL:O	2.17	0.44
28:DD:43:ARG:H	28:DD:43:ARG:HG3	1.60	0.44
29:DE:56:PRO:O	29:DE:57:LYS:C	2.55	0.44
31:DG:151:ALA:HB3	31:DG:153:ARG:HH11	1.80	0.44
33:DI:10:GLU:OE2	33:DI:11:ASN:N	2.50	0.44
33:DI:72:LEU:CD1	33:DI:107:VAL:HG11	2.43	0.44
34:DN:99:LEU:HD12	34:DN:122:VAL:HG21	1.98	0.44
35:DO:10:VAL:HG21	35:DO:16:ALA:O	2.17	0.44
35:DO:20:MET:O	35:DO:41:ALA:CB	2.65	0.44
44:DX:64:LYS:HD3	44:DX:73:ARG:NE	2.31	0.44
44:DX:84:ALA:HB1	44:DX:85:PRO:HD2	1.97	0.44
45:DY:63:LYS:HA	45:DY:63:LYS:HZ3	1.81	0.44
52:D5:20:ARG:HA	52:D5:23:HIS:HD1	1.82	0.44
52:D5:40:LYS:HD2	52:D5:40:LYS:C	2.37	0.44
1:AA:802:A:H3'	1:AA:803:G:C8	2.51	0.44
1:AA:1002:G:N3	1:AA:1002:G:H2'	2.32	0.44
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.51	0.44
2:AB:52:GLU:O	2:AB:53:ARG:C	2.54	0.44
3:AC:6:HIS:CE1	14:AN:49:HIS:HB3	2.52	0.44
4:AD:169:LYS:O	4:AD:170:VAL:HG23	2.16	0.44
7:AG:57:GLU:O	7:AG:58:PRO:C	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:97:VAL:CG1	8:AH:98:LYS:N	2.81	0.44
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.15	0.44
10:AJ:38:ILE:HA	10:AJ:39:PRO:HD3	1.78	0.44
13:AM:58:GLU:O	13:AM:62:ASN:ND2	2.47	0.44
15:AO:62:GLN:HA	15:AO:62:GLN:OE1	2.17	0.44
20:AT:37:SER:CB	20:AT:84:LEU:HD21	2.35	0.44
23:AW:43:C:O2'	23:AW:44:G:H5'	2.17	0.44
23:AY:32:U:O2	23:AY:32:U:C2'	2.56	0.44
25:BA:34:C:O2'	25:BA:35:G:P	2.74	0.44
25:BA:94(A):G:H2'	25:BA:95:G:O4'	2.16	0.44
25:BA:350:U:H2'	25:BA:351:G:O4'	2.17	0.44
25:BA:504:U:H5"	25:BA:505:A:H5'	1.99	0.44
25:BA:729:G:O2'	25:BA:763:G:H4'	2.18	0.44
25:BA:1468:C:H2'	25:BA:1469:A:H8	1.82	0.44
25:BA:1912:A:C2	25:BA:1919:A:C5	3.04	0.44
27:BC:51:PRO:CG	27:BC:204:ALA:HB2	2.46	0.44
28:BD:35:LYS:NZ	28:BD:103:ARG:HA	2.32	0.44
29:BE:101:ARG:HH22	29:BE:171:GLU:HB2	1.81	0.44
29:BE:107:THR:O	29:BE:190:GLY:HA2	2.16	0.44
32:BH:103:LEU:H	32:BH:103:LEU:HD23	1.82	0.44
33:BI:64:GLU:O	33:BI:66:GLU:N	2.50	0.44
34:BN:1:MET:HE2	34:BN:1:MET:HB3	1.57	0.44
34:BN:57:ALA:O	34:BN:58:ASP:C	2.56	0.44
34:BN:62:VAL:HG11	34:BN:66:LYS:HB3	2.00	0.44
35:BO:102:VAL:O	35:BO:102:VAL:HG23	2.16	0.44
37:BQ:3:MET:HE2	37:BQ:3:MET:HB3	1.88	0.44
37:BQ:56:ARG:CZ	37:BQ:56:ARG:CA	2.89	0.44
40:BT:56:GLY:C	40:BT:59:THR:HG22	2.38	0.44
42:BV:39:LEU:O	42:BV:40:LEU:CB	2.65	0.44
44:BX:13:LEU:HD23	44:BX:13:LEU:HA	1.69	0.44
55:B8:21:LYS:HZ3	55:B8:48:PHE:HZ	1.62	0.44
1:CA:109:A:C6	1:CA:326:G:C6	3.05	0.44
1:CA:484:G:H5'	1:CA:486:U:H5'	1.99	0.44
1:CA:1211:U:H1'	1:CA:1213:A:C2	2.52	0.44
1:CA:1232:U:OP1	9:CI:124:GLN:NE2	2.50	0.44
2:CB:25:ASN:HA	2:CB:26:PRO:HD2	1.77	0.44
2:CB:178:ARG:HH12	2:CB:196:LEU:C	2.20	0.44
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.17	0.44
9:CI:89:ASN:C	9:CI:91:ASP:N	2.71	0.44
16:CP:82:GLN:N	16:CP:82:GLN:NE2	2.57	0.44
22:CV:55:U:H2'	22:CV:56:U:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:311:A:H1'	25:DA:332:A:C8	2.52	0.44
25:DA:404:C:H1'	25:DA:406:G:C8	2.52	0.44
25:DA:859:G:O2'	25:DA:860:U:OP2	2.28	0.44
25:DA:1952:A:OP1	35:DO:42:SER:OG	2.34	0.44
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.97	0.44
28:DD:70:TRP:CZ3	28:DD:146:GLU:OE2	2.70	0.44
29:DE:51:PHE:O	29:DE:74:PRO:HB2	2.16	0.44
29:DE:85:ASN:HA	29:DE:86:PRO:HD3	1.84	0.44
30:DF:95:ARG:NH2	30:DF:97:TYR:HE1	2.15	0.44
31:DG:67:LYS:CE	51:D4:6:HIS:CE1	2.86	0.44
32:DH:54:ARG:NH2	32:DH:57:ASP:OD1	2.47	0.44
34:DN:57:ALA:N	34:DN:124:ALA:HA	2.32	0.44
35:DO:50:GLY:C	35:DO:52:VAL:N	2.70	0.44
36:DP:31:ALA:C	36:DP:32:THR:CG2	2.86	0.44
39:DS:15:ARG:HG3	39:DS:19:LYS:HE2	2.00	0.44
40:DT:87:ASP:O	40:DT:87:ASP:OD1	2.35	0.44
40:DT:132:LYS:C	40:DT:134:GLU:N	2.69	0.44
46:DZ:119:GLU:HA	46:DZ:171:ILE:O	2.17	0.44
52:D5:47:PRO:HG2	52:D5:48:GLU:OE1	2.18	0.44
1:AA:243:A:C5	1:AA:281:G:C2	3.06	0.44
1:AA:376:G:H5"	16:AP:5:ARG:HB2	1.99	0.44
1:AA:499:A:O2'	1:AA:500:G:C8	2.70	0.44
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.17	0.44
2:AB:57:PHE:O	2:AB:61:LEU:HB3	2.17	0.44
2:AB:70:PHE:CE2	2:AB:163:PHE:CD1	3.05	0.44
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.38	0.44
3:AC:184:TYR:CE1	3:AC:199:LYS:HB3	2.51	0.44
7:AG:51:GLN:OE1	7:AG:51:GLN:HA	2.16	0.44
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.38	0.44
10:AJ:50:ILE:H	10:AJ:50:ILE:CD1	2.30	0.44
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.99	0.44
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	2.00	0.44
22:AV:4:G:O2'	22:AV:5:G:P	2.75	0.44
25:BA:636:G:C4	36:BP:115:LEU:HD11	2.52	0.44
25:BA:710:G:H2'	25:BA:711:G:H8	1.83	0.44
25:BA:1299:G:C5'	25:BA:1301:A:O4'	2.64	0.44
25:BA:1300:U:H5"	25:BA:1301:A:O5'	2.18	0.44
25:BA:1902:C:H4'	28:BD:244:ARG:HA	1.98	0.44
28:BD:61:LEU:HD12	28:BD:61:LEU:HA	1.64	0.44
29:BE:37:ARG:C	29:BE:38:THR:O	2.55	0.44
29:BE:116:VAL:CG2	29:BE:117:MET:N	2.77	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:9:ILE:CG2	30:BF:11:VAL:O	2.65	0.44
31:BG:2:PRO:HG2	51:B4:51:TYR:CD2	2.52	0.44
32:BH:54:ARG:NH2	32:BH:57:ASP:OD1	2.50	0.44
32:BH:97:ARG:O	32:BH:98:LEU:HB2	2.18	0.44
34:BN:133:GLN:O	34:BN:134:ARG:HG3	2.17	0.44
35:BO:47:ILE:O	35:BO:48:PRO:O	2.35	0.44
35:BO:87:ILE:HG23	35:BO:91:LEU:HA	1.98	0.44
41:BU:17:ILE:HG21	41:BU:32:PHE:CE1	2.53	0.44
42:BV:3:ALA:CB	42:BV:99:ILE:HG21	2.47	0.44
43:BW:64:MET:O	43:BW:65:LEU:HB3	2.17	0.44
45:BY:46:LYS:HD2	45:BY:47:LYS:HZ3	1.82	0.44
46:BZ:4:ARG:HG3	46:BZ:58:VAL:HB	2.00	0.44
1:CA:401:C:H2'	1:CA:402:G:C8	2.52	0.44
1:CA:483:C:C4	1:CA:484:G:C6	3.06	0.44
1:CA:1000:U:H2'	1:CA:1001:A:C8	2.52	0.44
1:CA:1229:A:H4'	22:CV:31:G:OP1	2.18	0.44
2:CB:114:ARG:HH11	2:CB:118:LEU:HD11	1.82	0.44
3:CC:73:PRO:C	3:CC:75:VAL:H	2.20	0.44
8:CH:114:THR:HG22	8:CH:130:GLY:C	2.38	0.44
23:CW:36:A:N1	23:CW:37:A:C6	2.86	0.44
23:CY:41:C:H2'	23:CY:42:C:C6	2.52	0.44
25:DA:764:A:O2'	25:DA:781:A:N6	2.50	0.44
25:DA:796:C:H2'	25:DA:797:C:C6	2.51	0.44
25:DA:893:C:H2'	25:DA:894:C:C6	2.52	0.44
25:DA:1157:G:O2'	50:D3:31:LEU:HD12	2.17	0.44
25:DA:1341:U:H3'	25:DA:1397:U:O2	2.17	0.44
25:DA:1342:A:C6	25:DA:1397:U:C6	3.06	0.44
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.53	0.44
26:DB:40:U:H1'	26:DB:45:A:N6	2.33	0.44
27:DC:36:LYS:CD	27:DC:37:PHE:H	2.30	0.44
27:DC:83:ILE:HG22	27:DC:83:ILE:O	2.18	0.44
28:DD:209:ALA:C	28:DD:210:GLY:O	2.54	0.44
29:DE:176:ILE:HB	29:DE:181:LEU:HB2	2.00	0.44
30:DF:74:ARG:HG2	30:DF:74:ARG:O	2.17	0.44
33:DI:9:LEU:O	33:DI:10:GLU:HG3	2.17	0.44
34:DN:104:LYS:HB2	34:DN:117:PHE:CE1	2.52	0.44
35:DO:101:PRO:HG3	40:DT:67:SER:OG	2.17	0.44
41:DU:61:TRP:O	41:DU:62:ILE:C	2.55	0.44
45:DY:84:ARG:HH12	45:DY:97:ARG:HB3	1.80	0.44
46:DZ:23:LYS:CG	46:DZ:38:TYR:CE1	2.99	0.44
48:D1:46:LEU:H	48:D1:46:LEU:HD22	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D2:17:SER:HA	49:D2:18:PRO:HD2	1.83	0.44
49:D2:67:LYS:C	49:D2:69:ARG:H	2.21	0.44
53:D6:14:THR:O	53:D6:49:HIS:HA	2.17	0.44
53:D6:44:ARG:HD3	53:D6:44:ARG:HA	1.31	0.44
54:D7:31:LEU:HA	54:D7:31:LEU:HD23	1.63	0.44
1:AA:339:C:H2'	1:AA:340:U:C6	2.52	0.44
1:AA:405:U:OP1	1:AA:406:G:O2'	2.26	0.44
1:AA:668:G:C2'	15:AO:46:HIS:HD2	2.31	0.44
1:AA:742:G:P	15:AO:35:ARG:HH22	2.41	0.44
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.82	0.44
2:AB:36:ARG:HE	2:AB:36:ARG:H	1.65	0.44
4:AD:105:VAL:HG12	4:AD:105:VAL:O	2.17	0.44
5:AE:6:PHE:CD1	5:AE:6:PHE:N	2.85	0.44
5:AE:139:LEU:O	5:AE:142:LEU:HG	2.18	0.44
7:AG:5:ARG:C	7:AG:7:ALA:H	2.20	0.44
7:AG:69:VAL:O	7:AG:69:VAL:CG1	2.65	0.44
7:AG:75:VAL:O	7:AG:75:VAL:HG23	2.18	0.44
10:AJ:61:GLU:HG3	14:AN:58:LYS:HZ3	1.82	0.44
18:AR:76:LEU:HD13	18:AR:76:LEU:HA	1.84	0.44
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.61	0.44
22:AV:1:C:C5	22:AV:2:G:C8	3.05	0.44
22:AV:20:G:H3'	22:AV:21:U:O2	2.18	0.44
23:AW:45:U:H6	23:AW:45:U:H3'	1.81	0.44
23:AY:29:G:H5'	23:AY:30:G:OP2	2.17	0.44
25:BA:469:G:O6	54:B7:39:ARG:NH2	2.51	0.44
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.44
25:BA:1127:A:H2'	25:BA:1128:A:H5"	1.99	0.44
25:BA:1237:A:H4'	25:BA:1238:G:O5'	2.18	0.44
25:BA:1409:C:H2'	25:BA:1410:G:C8	2.52	0.44
25:BA:1455:G:C8	38:BR:60:LEU:HD11	2.53	0.44
25:BA:1799:G:O6	28:BD:178:PRO:HD2	2.17	0.44
25:BA:2437:U:H2'	25:BA:2438:U:C6	2.52	0.44
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.52	0.44
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.17	0.44
25:BA:2612:C:C4	25:BA:2613:U:H5	2.35	0.44
25:BA:2681:C:C4	25:BA:2724:C:C5	3.06	0.44
28:BD:11:PRO:O	28:BD:13:ARG:N	2.50	0.44
28:BD:248:SER:HB2	28:BD:250:TRP:CE3	2.51	0.44
29:BE:117:MET:HA	29:BE:122:PHE:N	2.30	0.44
32:BH:20:ALA:HB2	32:BH:25:LYS:HE3	1.98	0.44
36:BP:49:ARG:NH2	36:BP:50:ARG:HH22	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:15:ARG:HA	39:BS:18:ILE:HB	1.98	0.44
41:BU:95:LEU:HD13	42:BV:4:ILE:HG21	1.96	0.44
42:BV:99:ILE:HD13	42:BV:99:ILE:N	2.32	0.44
46:BZ:30:ASN:C	46:BZ:32:HIS:H	2.20	0.44
46:BZ:128:VAL:HG22	46:BZ:132:ASN:HB2	1.99	0.44
47:B0:26:TYR:O	47:B0:29:GLN:HG3	2.18	0.44
49:B2:63:VAL:CA	49:B2:66:GLU:HG2	2.46	0.44
55:B8:62:LEU:N	55:B8:63:PRO:CD	2.80	0.44
1:CA:321:A:N6	1:CA:328:C:O2'	2.38	0.44
1:CA:426:G:H2'	1:CA:427:U:C6	2.52	0.44
1:CA:728:A:H2'	1:CA:729:A:C8	2.52	0.44
1:CA:971:G:OP1	1:CA:971:G:H3'	2.17	0.44
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.51	0.44
1:CA:1363(A):A:H1'	1:CA:1365:G:N7	2.32	0.44
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.71	0.44
3:CC:90:GLU:HA	3:CC:93:LYS:HB3	1.98	0.44
3:CC:91:LEU:O	3:CC:95:THR:HB	2.17	0.44
5:CE:48:ALA:HB3	5:CE:54:ALA:H	1.76	0.44
5:CE:118:ILE:HG13	5:CE:119:LEU:N	2.33	0.44
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.17	0.44
8:CH:116:LYS:HD2	8:CH:129:VAL:CG1	2.38	0.44
10:CJ:23:ILE:HG23	10:CJ:85:LEU:HD21	1.98	0.44
15:CO:67:LEU:HA	15:CO:67:LEU:HD23	1.71	0.44
17:CQ:29:HIS:N	17:CQ:33:GLY:O	2.48	0.44
19:CS:46:GLY:N	19:CS:62:ILE:HG21	2.30	0.44
20:CT:92:LEU:N	20:CT:92:LEU:HD23	2.31	0.44
23:CW:14:A:N1	23:CW:15:G:H1'	2.32	0.44
23:CW:37:A:C5	23:CW:38:A:C6	3.05	0.44
25:DA:9274:U:O2'	25:DA:9275:C:P	2.75	0.44
25:DA:530:G:N2	25:DA:2021:C:O2'	2.51	0.44
25:DA:555:U:O2'	25:DA:556:G:C8	2.70	0.44
25:DA:606:U:H4'	25:DA:658:C:H4'	1.99	0.44
25:DA:910:A:C4	37:DQ:13:GLN:OE1	2.70	0.44
25:DA:1332:G:H5'	25:DA:1333:C:OP2	2.18	0.44
25:DA:1339:G:N1	25:DA:1340:U:O4	2.50	0.44
25:DA:1449:A:C2	25:DA:1529:G:H1'	2.53	0.44
25:DA:2848:G:N2	25:DA:2867:G:N9	2.66	0.44
28:DD:28:GLU:N	28:DD:29:PRO:CD	2.79	0.44
29:DE:6:GLY:O	29:DE:195:LEU:HD12	2.17	0.44
30:DF:46:ARG:CG	30:DF:46:ARG:NH1	2.72	0.44
30:DF:52:LYS:HG2	30:DF:56:GLU:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:103:LEU:CD1	32:DH:131:VAL:HG11	2.48	0.44
32:DH:126:PRO:HB2	32:DH:130:ARG:NH1	2.32	0.44
32:DH:127:GLU:CB	32:DH:130:ARG:HB3	2.47	0.44
33:DI:25:TYR:CE2	33:DI:29:TYR:CD2	2.95	0.44
34:DN:102:ALA:O	34:DN:106:MET:CE	2.66	0.44
39:DS:78:LEU:HD11	39:DS:107:GLU:O	2.18	0.44
42:DV:89:GLN:HE21	42:DV:89:GLN:CA	2.07	0.44
45:DY:56:PRO:O	45:DY:57:GLN:O	2.36	0.44
46:DZ:14:LYS:C	46:DZ:16:SER:N	2.71	0.44
46:DZ:66:SER:C	46:DZ:67:LEU:HD12	2.38	0.44
49:D2:57:ILE:H	49:D2:57:ILE:HG12	1.56	0.44
53:D6:9:LEU:HD23	53:D6:10:LEU:O	2.17	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.51	0.44
1:AA:422:C:H1'	1:AA:423:G:C2	2.52	0.44
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.16	0.44
1:AA:1507:A:H61	1:AA:1528:U:H3	1.65	0.44
2:AB:51:LEU:O	2:AB:55:PHE:HD2	2.00	0.44
2:AB:200:ILE:HG22	2:AB:202:PRO:CD	2.47	0.44
2:AB:212:GLN:NE2	2:AB:235:SER:HB3	2.32	0.44
4:AD:194:LEU:N	4:AD:194:LEU:CD2	2.81	0.44
5:AE:121:LYS:C	5:AE:122:GLU:HG3	2.38	0.44
6:AF:14:LEU:HA	6:AF:14:LEU:HD23	1.58	0.44
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.17	0.44
6:AF:72:VAL:CG1	6:AF:73:ASN:H	2.18	0.44
9:AI:114:TYR:HD1	10:AJ:60:ARG:HD2	1.83	0.44
10:AJ:81:THR:OG1	10:AJ:82:ILE:N	2.51	0.44
16:AP:39:TYR:CZ	16:AP:41:PRO:HB3	2.53	0.44
18:AR:59:SER:O	18:AR:60:ALA:C	2.56	0.44
19:AS:15:LEU:O	19:AS:16:LEU:C	2.54	0.44
25:BA:90:U:HO2'	25:BA:92:A:H8	1.61	0.44
25:BA:811:U:H3'	36:BP:22:GLY:CA	2.48	0.44
25:BA:817:C:H2'	25:BA:818:G:O4'	2.18	0.44
25:BA:845:G:H8	25:BA:845:G:OP2	2.01	0.44
25:BA:919:G:H2'	25:BA:920:G:H8	1.82	0.44
25:BA:1314:C:OP1	25:BA:1332:G:H5"	2.17	0.44
25:BA:1762:A:H5'	25:BA:1763:G:OP2	2.18	0.44
25:BA:1769:G:O2'	25:BA:1958:C:OP1	2.25	0.44
25:BA:2022:U:OP2	52:B5:15:ARG:NH2	2.50	0.44
25:BA:2875:C:H2'	25:BA:2876:G:O4'	2.18	0.44
27:BC:37:PHE:C	27:BC:39:GLU:H	2.20	0.44
27:BC:51:PRO:HB2	27:BC:203:GLY:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:213:ARG:O	28:BD:216:GLY:N	2.36	0.44
30:BF:13:SER:O	30:BF:14:PRO:O	2.35	0.44
36:BP:106:LEU:HD11	36:BP:112:LEU:CD2	2.40	0.44
39:BS:20:ARG:HD3	39:BS:20:ARG:HA	1.36	0.44
39:BS:28:VAL:CG1	39:BS:89:ARG:CG	2.96	0.44
39:BS:92:TYR:CD2	39:BS:94:TYR:HB2	2.53	0.44
43:BW:29:LEU:O	43:BW:33:ARG:HG3	2.18	0.44
45:BY:28:LYS:HB3	45:BY:37:VAL:HG23	2.00	0.44
46:BZ:150:LEU:HD22	46:BZ:150:LEU:N	2.33	0.44
49:B2:21:LEU:O	49:B2:22:GLU:C	2.55	0.44
49:B2:40:SER:C	49:B2:42:GLY:H	2.19	0.44
52:B5:56:LYS:HG3	52:B5:59:GLU:CG	2.47	0.44
1:CA:1205:U:H5"	3:CC:190:ARG:NH2	2.32	0.44
2:CB:15:VAL:CG2	2:CB:209:ARG:HE	2.27	0.44
3:CC:43:LEU:CD2	3:CC:47:LEU:HD22	2.48	0.44
5:CE:122:GLU:HG2	5:CE:131:ILE:CD1	2.47	0.44
9:CI:46:ALA:HB1	9:CI:77:ILE:CG2	2.47	0.44
10:CJ:82:ILE:HG23	10:CJ:86:MET:HE2	2.00	0.44
12:CL:31:PRO:O	12:CL:32:PHE:CG	2.69	0.44
12:CL:79:GLU:N	12:CL:79:GLU:OE2	2.50	0.44
13:CM:25:ILE:HG13	13:CM:66:LEU:HD23	2.00	0.44
22:CV:4:G:O2'	22:CV:5:G:P	2.76	0.44
22:CV:20:G:C5	22:CV:58:A:C2	3.05	0.44
25:DA:532:A:N6	25:DA:2020:A:H1'	2.32	0.44
25:DA:587:C:O2'	25:DA:588:U:OP2	2.32	0.44
25:DA:589:C:H2'	25:DA:590:A:C8	2.53	0.44
25:DA:747:U:H5	52:D5:3:LYS:HB2	1.79	0.44
25:DA:1301:A:HO2'	25:DA:1302:A:C5'	2.30	0.44
25:DA:1902:C:H1'	28:DD:244:ARG:HG3	1.99	0.44
25:DA:2020:A:O2'	25:DA:2021:C:O5'	2.33	0.44
25:DA:2331:G:H4'	47:D0:43:THR:N	2.29	0.44
25:DA:2335:A:C8	25:DA:2337:G:C5	3.06	0.44
30:DF:165:ARG:HH11	30:DF:165:ARG:HB3	1.83	0.44
32:DH:9:ILE:O	32:DH:10:PRO:O	2.36	0.44
32:DH:23:ARG:HD2	32:DH:34:GLU:OE2	2.17	0.44
33:DI:112:LYS:O	33:DI:113:ARG:CB	2.65	0.44
39:DS:83:LYS:HE2	39:DS:84:GLN:HG3	1.99	0.44
41:DU:42:ALA:O	41:DU:43:GLY:C	2.56	0.44
41:DU:92:ARG:CD	42:DV:11:GLN:NE2	2.58	0.44
42:DV:98:GLU:HA	42:DV:98:GLU:OE1	2.18	0.44
43:DW:22:ASP:HA	43:DW:25:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:12:VAL:CG1	44:DX:27:THR:OG1	2.57	0.44
45:DY:46:LYS:NZ	45:DY:63:LYS:HG2	2.33	0.44
46:DZ:14:LYS:HB2	46:DZ:17:ALA:HB3	1.99	0.44
46:DZ:25:PRO:O	46:DZ:85:HIS:CD2	2.70	0.44
47:D0:54:GLY:O	47:D0:56:ASP:N	2.50	0.44
50:D3:19:GLN:HE22	50:D3:52:HIS:CE1	2.35	0.44
52:D5:36:CYS:HB2	52:D5:49:CYS:SG	2.58	0.44
56:D9:24:TYR:CE2	56:D9:35:ARG:HG3	2.51	0.44
1:AA:913:A:C4'	1:AA:914:A:O5'	2.43	0.44
5:AE:47:LYS:O	5:AE:57:LYS:NZ	2.41	0.44
8:AH:25:ASP:N	8:AH:25:ASP:OD1	2.50	0.44
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.98	0.44
10:AJ:99:LYS:O	10:AJ:100:THR:HG23	2.17	0.44
13:AM:60:VAL:HG12	13:AM:66:LEU:HD11	1.99	0.44
17:AQ:68:ARG:CG	17:AQ:68:ARG:HH11	2.30	0.44
17:AQ:68:ARG:HH11	17:AQ:68:ARG:HG2	1.83	0.44
25:BA:319:C:C2	25:BA:333:G:N2	2.86	0.44
25:BA:613:G:C2	25:BA:615:G:C5	3.05	0.44
25:BA:1394:U:O4	25:BA:1395:A:N6	2.51	0.44
25:BA:1395:A:O2'	25:BA:1397:U:C6	2.71	0.44
25:BA:1654:A:OP2	38:BR:3:HIS:CG	2.71	0.44
25:BA:2155:G:H2'	25:BA:2156:G:O4'	2.17	0.44
25:BA:2225:A:H4'	25:BA:2226:C:H5'	2.00	0.44
25:BA:2561:A:H2	35:BO:23:ARG:NH1	2.16	0.44
25:BA:2575:C:H2'	25:BA:2578:G:O6	2.17	0.44
25:BA:2875:C:O2'	40:BT:5:ALA:HB3	2.17	0.44
28:BD:85:ASP:OD2	28:BD:88:ARG:NH1	2.40	0.44
28:BD:268:ARG:O	28:BD:268:ARG:NH1	2.51	0.44
29:BE:47:VAL:HG23	29:BE:84:PHE:O	2.18	0.44
30:BF:11:VAL:C	30:BF:13:SER:N	2.71	0.44
33:BI:127:VAL:CG2	33:BI:139:GLN:HG3	2.48	0.44
34:BN:35:ARG:C	34:BN:37:LYS:H	2.21	0.44
36:BP:46:LYS:HB3	36:BP:51:PHE:CD2	2.53	0.44
38:BR:51:LEU:CD2	38:BR:66:VAL:HG13	2.48	0.44
43:BW:46:PHE:O	43:BW:50:VAL:HG12	2.18	0.44
45:BY:13:VAL:HG21	45:BY:72:VAL:HG11	2.00	0.44
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HD2	1.83	0.44
47:B0:50:ASN:C	47:B0:62:LEU:HB2	2.38	0.44
1:CA:527:G:O2'	1:CA:535:A:N1	2.34	0.44
1:CA:992:U:O2'	1:CA:993:G:O5'	2.35	0.44
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1151:A:H5"	10:CJ:42:THR:OG1	2.17	0.44
2:CB:32:ILE:HD11	2:CB:40:HIS:HB3	2.00	0.44
4:CD:12:CYS:SG	4:CD:21:LEU:HD12	2.58	0.44
4:CD:198:VAL:CG1	4:CD:199:ASN:N	2.76	0.44
5:CE:115:VAL:CG1	5:CE:116:THR:N	2.81	0.44
8:CH:56:LYS:HA	8:CH:57:PRO:HD2	1.83	0.44
13:CM:11:ARG:NH1	13:CM:11:ARG:HB2	2.32	0.44
13:CM:45:VAL:O	13:CM:48:LEU:HD22	2.17	0.44
13:CM:125:ARG:O	13:CM:126:LYS:C	2.54	0.44
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.53	0.44
17:CQ:26:GLN:HB3	17:CQ:37:LYS:HG2	2.00	0.44
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.48	0.44
19:CS:45:VAL:CA	19:CS:62:ILE:HG23	2.46	0.44
25:DA:17:G:H4'	41:DU:25:TRP:CZ3	2.53	0.44
25:DA:144:C:H2'	25:DA:145:G:H8	1.83	0.44
25:DA:196:A:H2'	25:DA:805:G:O6	2.18	0.44
25:DA:709:U:H2'	25:DA:710:G:C8	2.53	0.44
25:DA:987:G:O2'	25:DA:1000:A:N3	2.44	0.44
25:DA:995:C:O2'	25:DA:996:A:OP2	2.31	0.44
25:DA:1359:A:OP2	25:DA:1371:G:N2	2.43	0.44
25:DA:2010:G:H5"	43:DW:42:ARG:HB2	1.98	0.44
25:DA:2330:G:O3'	47:D0:44:ARG:NH1	2.49	0.44
28:DD:28:GLU:H	28:DD:29:PRO:CD	2.24	0.44
31:DG:181:ARG:O	31:DG:181:ARG:CG	2.65	0.44
34:DN:9:VAL:CG1	34:DN:10:GLU:H	2.23	0.44
39:DS:35:ILE:CG2	39:DS:69:VAL:HG11	2.48	0.44
40:DT:76:PHE:HA	40:DT:77:PRO:HD3	1.70	0.44
40:DT:115:ARG:HA	40:DT:115:ARG:HE	1.83	0.44
41:DU:69:CYS:CB	41:DU:79:PHE:CD1	3.00	0.44
41:DU:103:PRO:O	41:DU:106:PHE:CB	2.66	0.44
46:DZ:5:LEU:HB3	46:DZ:59:LEU:CD2	2.48	0.44
46:DZ:86:VAL:HG12	46:DZ:87:ASP:O	2.17	0.44
48:D1:51:VAL:O	48:D1:57:GLU:O	2.35	0.44
51:D4:4:GLY:O	51:D4:5:ILE:CB	2.64	0.44
1:AA:583:A:H2'	1:AA:584:G:O4'	2.17	0.44
1:AA:1048:G:C2'	1:AA:1049:U:OP2	2.65	0.44
3:AC:22:TRP:CH2	3:AC:32:LEU:O	2.70	0.44
3:AC:54:ARG:HG2	3:AC:56:ASP:H	1.83	0.44
4:AD:98:GLU:O	4:AD:103:ASN:ND2	2.51	0.44
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.52	0.44
5:AE:43:LEU:HD12	5:AE:44:GLY:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:21:LEU:HD13	6:AF:24:GLU:HG2	1.98	0.44
6:AF:45:LEU:HA	6:AF:45:LEU:HD13	1.67	0.44
7:AG:49:ILE:HG23	7:AG:53:LYS:HG3	2.00	0.44
7:AG:52:GLU:O	7:AG:54:THR:N	2.51	0.44
7:AG:61:VAL:O	7:AG:64:GLN:N	2.50	0.44
10:AJ:40:LEU:CB	10:AJ:41:PRO:HD2	2.29	0.44
11:AK:59:TYR:CZ	11:AK:63:LEU:HD11	2.52	0.44
13:AM:53:VAL:CG1	13:AM:57:ARG:HH21	2.30	0.44
20:AT:20:LEU:HD23	20:AT:20:LEU:HA	1.66	0.44
22:AV:3:C:H6	22:AV:3:C:O5'	2.00	0.44
22:AV:24:C:H2'	22:AV:25:U:H6	1.83	0.44
22:AV:30:G:C2'	22:AV:31:G:H5'	2.48	0.44
23:AY:30:G:H2'	23:AY:30:G:N3	2.33	0.44
25:BA:958:U:O4	37:BQ:41:TRP:HB2	2.17	0.44
25:BA:1204:A:O2'	25:BA:1205:U:P	2.75	0.44
25:BA:1252:G:C5	25:BA:1253:A:N1	2.86	0.44
25:BA:2225:A:O2'	25:BA:2226:C:OP2	2.32	0.44
26:BB:50:G:OP1	39:BS:62:LYS:HB2	2.17	0.44
27:BC:49:ILE:O	27:BC:51:PRO:HD3	2.18	0.44
28:BD:69:ARG:HH21	28:BD:192:THR:HG21	1.82	0.44
32:BH:150:ALA:C	32:BH:152:ARG:H	2.20	0.44
34:BN:104:LYS:HB2	34:BN:117:PHE:HE1	1.82	0.44
34:BN:128:HIS:O	34:BN:128:HIS:CG	2.71	0.44
36:BP:59:LEU:HD11	55:B8:13:ARG:HH21	1.83	0.44
39:BS:34:HIS:CE1	39:BS:54:LEU:CG	3.00	0.44
39:BS:53:SER:C	39:BS:55:ALA:N	2.69	0.44
40:BT:88:ILE:HG22	40:BT:89:VAL:N	2.33	0.44
42:BV:20:LEU:N	42:BV:20:LEU:HD12	2.33	0.44
46:BZ:163:LEU:H	46:BZ:163:LEU:HD12	1.82	0.44
1:CA:48:C:C4'	1:CA:49:U:OP2	2.65	0.44
1:CA:61:G:OP2	20:CT:10:LEU:CD2	2.65	0.44
1:CA:129:U:H4'	1:CA:130:A:OP1	2.18	0.44
1:CA:608:A:H2'	1:CA:609:A:O4'	2.18	0.44
1:CA:1295:G:O3'	13:CM:14:ARG:NH1	2.50	0.44
2:CB:87:ARG:O	2:CB:87:ARG:HD2	2.17	0.44
3:CC:15:THR:CG2	3:CC:16:ARG:H	2.28	0.44
4:CD:49:ARG:HH11	4:CD:50:ARG:H	1.64	0.44
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.33	0.44
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	2.00	0.44
7:CG:66:VAL:O	7:CG:70:LYS:HG3	2.17	0.44
8:CH:92:ARG:HD2	8:CH:92:ARG:HA	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.17	0.44
15:CO:59:MET:O	15:CO:62:GLN:HB3	2.18	0.44
16:CP:53:VAL:CG1	16:CP:79:VAL:HG22	2.47	0.44
21:CU:6:ARG:HG3	21:CU:15:ARG:NH1	2.33	0.44
22:CV:34:U:O2'	22:CV:36:A:N7	2.41	0.44
22:CV:40:C:C2	22:CV:41:C:C5	3.06	0.44
25:DA:314:A:H2'	25:DA:315:G:C8	2.53	0.44
25:DA:570:G:H2'	25:DA:2030:A:C5	2.53	0.44
25:DA:1142(A):A:C5	25:DA:1144:G:C5	3.05	0.44
25:DA:1953:A:O2'	25:DA:2559:C:O2	2.35	0.44
26:DB:15:A:OP1	26:DB:108:U:O2'	2.20	0.44
27:DC:39:GLU:HG2	27:DC:180:PHE:CB	2.48	0.44
28:DD:24:ILE:HD12	28:DD:84:TYR:HB2	2.00	0.44
31:DG:25:TYR:CE2	31:DG:31:VAL:HA	2.53	0.44
32:DH:83:TYR:HB2	32:DH:84:SER:H	1.46	0.44
33:DI:114:LEU:HD22	33:DI:130:TYR:CE1	2.53	0.44
36:DP:46:LYS:HB3	36:DP:51:PHE:CD2	2.53	0.44
38:DR:2:ARG:HG3	38:DR:2:ARG:HH11	1.83	0.44
40:DT:48:ILE:HD12	40:DT:48:ILE:N	2.32	0.44
40:DT:53:ARG:HG2	40:DT:53:ARG:NH1	2.31	0.44
42:DV:69:LYS:HA	42:DV:87:HIS:O	2.17	0.44
43:DW:1:MET:CE	43:DW:2:GLU:H	2.30	0.44
43:DW:14:PRO:O	43:DW:15:ARG:C	2.56	0.44
46:DZ:53:ILE:O	46:DZ:54:HIS:CG	2.71	0.44
46:DZ:161:VAL:HG12	46:DZ:162:GLU:N	2.33	0.44
46:DZ:169:GLU:HG2	46:DZ:170:THR:H	1.82	0.44
1:AA:382:A:H2'	1:AA:383:A:C8	2.52	0.44
1:AA:618:C:N3	1:AA:622:A:N6	2.64	0.44
1:AA:637:G:H2'	1:AA:638:G:C8	2.53	0.44
1:AA:1000:U:H2'	1:AA:1001:A:C8	2.52	0.44
1:AA:1054:C:O2	1:AA:1054:C:H3'	2.18	0.44
1:AA:1095:U:P	1:AA:1108:G:H1	2.41	0.44
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.83	0.44
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.53	0.44
3:AC:17:ASP:O	3:AC:18:TRP:O	2.35	0.44
3:AC:164:ARG:HG2	3:AC:165:THR:H	1.83	0.44
4:AD:106:TYR:CD2	4:AD:106:TYR:C	2.91	0.44
4:AD:150:GLU:CD	4:AD:150:GLU:N	2.71	0.44
4:AD:152:SER:O	4:AD:158:ILE:HG13	2.18	0.44
5:AE:53:LEU:HD12	5:AE:53:LEU:H	1.81	0.44
9:AI:95:LYS:O	9:AI:99:LEU:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.99	0.44
22:AV:72:C:O5'	22:AV:72:C:H6	2.01	0.44
25:BA:142(A):C:H2'	25:BA:143:G:O4'	2.17	0.44
25:BA:636:G:H2'	36:BP:115:LEU:HD11	1.98	0.44
25:BA:1275:A:N9	38:BR:16:HIS:CD2	2.86	0.44
25:BA:1286:A:H5'	25:BA:1287:A:OP2	2.18	0.44
25:BA:1458:C:H5"	25:BA:1459:G:OP1	2.18	0.44
25:BA:2050:C:H2'	25:BA:2051:A:O4'	2.18	0.44
25:BA:2258:C:H4'	25:BA:2259:G:OP2	2.12	0.44
25:BA:2503:A:O2'	25:BA:2504:U:OP1	2.36	0.44
29:BE:132:HIS:CA	29:BE:135:HIS:NE2	2.81	0.44
30:BF:132:VAL:CG1	30:BF:133:ASN:H	2.20	0.44
33:BI:2:LYS:HB2	33:BI:39:ALA:CB	2.47	0.44
35:BO:122:LEU:HA	40:BT:33:LYS:NZ	2.33	0.44
36:BP:59:LEU:O	36:BP:59:LEU:CG	2.66	0.44
39:BS:98:VAL:HG22	39:BS:100:ALA:H	1.83	0.44
41:BU:74:LEU:CD1	41:BU:78:THR:HB	2.47	0.44
42:BV:89:GLN:HA	42:BV:90:PRO:HD2	1.85	0.44
45:BY:44:ILE:HG22	45:BY:45:VAL:N	2.33	0.44
46:BZ:72:ARG:HD3	46:BZ:72:ARG:HA	1.71	0.44
53:B6:19:ARG:CG	53:B6:20:ASN:N	2.79	0.44
1:CA:8:A:H1'	5:CE:103:GLY:HA2	2.00	0.44
1:CA:401:C:H2'	1:CA:402:G:H8	1.83	0.44
1:CA:461:A:N6	1:CA:471:G:N1	2.66	0.44
1:CA:532:A:C2'	1:CA:533:A:OP1	2.63	0.44
1:CA:1268:A:N3	1:CA:1326:C:O2'	2.40	0.44
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.53	0.44
1:CA:1297:C:O2'	7:CG:114:ARG:NH2	2.51	0.44
2:CB:87:ARG:HH11	2:CB:223:ILE:HD11	1.82	0.44
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.16	0.44
3:CC:111:LEU:HD12	3:CC:204:LEU:CD2	2.48	0.44
5:CE:106:PRO:O	5:CE:108:ALA:N	2.51	0.44
5:CE:116:THR:HB	5:CE:117:ASP:OD2	2.17	0.44
6:CF:48:LEU:HG	6:CF:57:GLN:HA	1.98	0.44
7:CG:24:THR:O	7:CG:27:ILE:HB	2.17	0.44
7:CG:43:PHE:CE1	7:CG:47:CYS:SG	3.11	0.44
8:CH:104:ARG:HB3	8:CH:107:LEU:HB2	2.00	0.44
9:CI:4:TYR:CD2	9:CI:88:TYR:CG	3.06	0.44
12:CL:110:VAL:CG2	12:CL:120:TYR:HB3	2.47	0.44
16:CP:9:PHE:CD2	16:CP:9:PHE:N	2.85	0.44
19:CS:10:PHE:CE1	19:CS:70:LYS:HE2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:586:A:H5'	30:DF:89:VAL:HG21	1.99	0.44
25:DA:1128:A:C5	25:DA:2518:A:N6	2.85	0.44
25:DA:2145:C:H4'	25:DA:2146:C:OP2	2.18	0.44
25:DA:2377:A:C4'	39:DS:112:PHE:HA	2.47	0.44
25:DA:2838:G:H2'	25:DA:2839:G:H8	1.82	0.44
29:DE:43:GLY:O	29:DE:44:TYR:HB3	2.17	0.44
29:DE:46:ALA:HA	29:DE:82:ARG:O	2.18	0.44
29:DE:79:ARG:HH11	29:DE:79:ARG:HG2	1.83	0.44
31:DG:2:PRO:O	31:DG:4:ASP:N	2.50	0.44
32:DH:16:SER:OG	32:DH:17:VAL:N	2.51	0.44
32:DH:41:MET:HA	32:DH:53:GLU:O	2.18	0.44
34:DN:3:THR:C	34:DN:5:VAL:H	2.21	0.44
39:DS:59:LYS:CG	39:DS:60:GLY:N	2.71	0.44
42:DV:41:GLY:CA	42:DV:46:VAL:CG1	2.96	0.44
45:DY:50:ARG:C	45:DY:53:PRO:HD2	2.38	0.44
46:DZ:48:PHE:HE2	46:DZ:71:VAL:HG21	1.82	0.44
46:DZ:61:LEU:HG	46:DZ:67:LEU:CD1	2.47	0.44
48:D1:52:ARG:HG3	48:D1:53:VAL:N	2.25	0.44
1:AA:109:A:C6	1:AA:327:A:C6	3.05	0.44
1:AA:251:G:H1'	1:AA:252:U:H6	1.80	0.44
1:AA:1004:A:H5"	1:AA:1025:U:H3	1.83	0.44
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.17	0.44
4:AD:99:SER:O	4:AD:140:VAL:HG23	2.17	0.44
5:AE:79:GLU:H	5:AE:79:GLU:HG3	1.47	0.44
5:AE:112:LEU:C	5:AE:114:GLY:N	2.70	0.44
7:AG:152:ALA:C	7:AG:154:TYR:H	2.21	0.44
8:AH:97:VAL:HG13	8:AH:98:LYS:HG3	2.00	0.44
13:AM:35:GLU:O	13:AM:38:GLY:N	2.51	0.44
22:AV:60:A:H2'	22:AV:61:U:C5'	2.48	0.44
23:AW:34:G:N3	24:AX:14:A:C2	2.78	0.44
25:BA:1212:G:H1'	25:BA:1237:A:N6	2.33	0.44
25:BA:1287:A:OP1	38:BR:104:ARG:HG3	2.18	0.44
25:BA:1353:A:H4'	28:BD:38:LYS:HE3	2.00	0.44
25:BA:2236:C:H2'	25:BA:2237:G:O4'	2.18	0.44
25:BA:2447:G:H1'	25:BA:2501:C:N4	2.32	0.44
26:BB:83:G:H5"	50:B3:52:HIS:NE2	2.32	0.44
27:BC:22:ILE:HD13	27:BC:24:GLU:OE2	2.17	0.44
27:BC:41:VAL:HG23	27:BC:178:ALA:HB3	2.00	0.44
30:BF:10:PRO:HD2	30:BF:13:SER:O	2.17	0.44
34:BN:120:LEU:HD22	34:BN:121:LYS:N	2.33	0.44
35:BO:29:ASN:O	35:BO:29:ASN:ND2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:59:LEU:CD1	55:B8:13:ARG:NH2	2.80	0.44
38:BR:100:LEU:CB	38:BR:111:LEU:O	2.44	0.44
39:BS:28:VAL:HG12	39:BS:89:ARG:HG2	2.00	0.44
40:BT:36:GLU:C	40:BT:38:ASN:N	2.70	0.44
42:BV:2:PHE:HB3	42:BV:42:GLY:H	1.81	0.44
43:BW:65:LEU:CD2	43:BW:67:ASP:HB2	2.47	0.44
45:BY:19:LYS:HB2	45:BY:19:LYS:HZ3	1.83	0.44
1:CA:821:G:H2'	1:CA:822:C:C6	2.53	0.44
1:CA:914:A:H2'	1:CA:915:A:H8	1.83	0.44
1:CA:1054:C:H2'	1:CA:1055:A:H5"	1.99	0.44
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.53	0.44
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.99	0.44
3:CC:127:ARG:HH11	3:CC:127:ARG:HG2	1.82	0.44
4:CD:166:LYS:HE3	4:CD:166:LYS:HB2	1.60	0.44
5:CE:16:THR:O	5:CE:17:ALA:CB	2.65	0.44
8:CH:27:PRO:N	8:CH:58:TYR:HD2	2.15	0.44
10:CJ:38:ILE:HG13	10:CJ:71:LEU:HB3	2.00	0.44
11:CK:58:PRO:HB3	11:CK:90:GLY:HA2	2.00	0.44
11:CK:59:TYR:O	11:CK:63:LEU:HB2	2.18	0.44
13:CM:40:ASN:ND2	13:CM:42:ALA:HB3	2.33	0.44
13:CM:54:VAL:O	13:CM:58:GLU:HG3	2.17	0.44
13:CM:67:GLU:CD	13:CM:68:GLY:N	2.71	0.44
13:CM:123:ALA:HA	13:CM:124:PRO:HD3	1.75	0.44
14:CN:13:THR:O	14:CN:15:LYS:N	2.50	0.44
19:CS:35:SER:C	19:CS:37:ARG:N	2.71	0.44
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.81	0.44
20:CT:98:PRO:C	20:CT:100:ILE:N	2.71	0.44
25:DA:271(R):G:H2'	25:DA:271(S):G:H8	1.83	0.44
25:DA:943:U:OP2	36:DP:36:LYS:HD3	2.18	0.44
25:DA:1427:A:H4'	25:DA:1428:C:OP1	2.18	0.44
25:DA:1782:C:H1'	25:DA:2609:U:O4'	2.18	0.44
25:DA:2228:G:P	28:DD:263:ARG:HH12	2.40	0.44
28:DD:26:LYS:HZ3	28:DD:27:THR:HG22	1.82	0.44
28:DD:61:LEU:HB3	28:DD:63:ARG:NH1	2.33	0.44
29:DE:200:GLU:OE2	29:DE:200:GLU:N	2.40	0.44
29:DE:201:THR:OG1	29:DE:202:LYS:N	2.50	0.44
30:DF:135:LYS:O	30:DF:138:GLU:N	2.49	0.44
30:DF:179:GLU:CD	30:DF:179:GLU:N	2.72	0.44
31:DG:34:LEU:HD12	31:DG:100:TRP:CH2	2.53	0.44
31:DG:47:LYS:HD3	31:DG:81:LYS:CB	2.35	0.44
32:DH:124:GLU:HB2	32:DH:132:ARG:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:146:ALA:O	32:DH:150:ALA:N	2.43	0.44
37:DQ:51:ARG:HH11	37:DQ:51:ARG:HB3	1.83	0.44
37:DQ:133:ARG:HG3	37:DQ:133:ARG:NH1	2.33	0.44
38:DR:77:ARG:C	38:DR:79:LEU:N	2.70	0.44
40:DT:28:VAL:CG2	40:DT:46:GLU:HG3	2.48	0.44
42:DV:62:LEU:HD12	42:DV:62:LEU:N	2.32	0.44
46:DZ:77:ASP:O	46:DZ:78:LYS:C	2.56	0.44
1:AA:579:G:H5'	1:AA:728:A:H1'	2.00	0.43
1:AA:641:U:O2'	1:AA:642:A:N7	2.39	0.43
1:AA:914:A:C5	1:AA:915:A:N7	2.86	0.43
1:AA:991:U:O2'	1:AA:992:U:O5'	2.30	0.43
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.33	0.43
2:AB:158:LEU:HD12	2:AB:158:LEU:N	2.29	0.43
2:AB:187:LEU:HD22	2:AB:187:LEU:O	2.18	0.43
3:AC:11:ARG:O	3:AC:14:ILE:O	2.36	0.43
4:AD:120:LEU:O	4:AD:121:VAL:C	2.54	0.43
4:AD:168:ARG:NH2	6:CF:18:GLN:NE2	2.65	0.43
5:AE:51:VAL:O	5:AE:52:PRO:C	2.55	0.43
5:AE:83:GLU:HA	5:AE:88:LYS:HA	2.00	0.43
7:AG:95:ARG:O	7:AG:96:GLN:C	2.56	0.43
12:AL:34:ARG:HA	12:AL:84:LEU:HD23	2.00	0.43
13:AM:22:ILE:HB	13:AM:25:ILE:HD13	1.99	0.43
13:AM:66:LEU:O	13:AM:67:GLU:C	2.56	0.43
19:AS:28:LYS:HB3	19:AS:29:ARG:H	1.47	0.43
20:AT:71:THR:CG2	20:AT:72:LEU:N	2.57	0.43
22:AV:56:U:C5	22:AV:58:A:OP2	2.70	0.43
25:BA:181:A:N3	25:BA:435:C:OP1	2.51	0.43
25:BA:468:G:H5"	30:BF:60:SER:HB2	2.00	0.43
25:BA:708:C:H5'	25:BA:709:U:OP2	2.18	0.43
25:BA:1161:C:H2'	25:BA:1162:G:H8	1.83	0.43
25:BA:1670:C:O2	29:BE:129:HIS:NE2	2.48	0.43
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.53	0.43
25:BA:2352:A:N6	25:BA:2365:G:O2'	2.51	0.43
25:BA:2500:U:C2	25:BA:2504:U:C4	3.06	0.43
25:BA:2725:A:O2'	25:BA:2726:U:C2	2.71	0.43
25:BA:2745:C:C6	25:BA:2746:U:C5	3.06	0.43
28:BD:233:HIS:CE1	28:BD:247:ALA:H	2.36	0.43
29:BE:7:VAL:HG22	29:BE:27:LEU:HB3	1.99	0.43
34:BN:36:GLY:HA3	34:BN:48:MET:O	2.18	0.43
34:BN:133:GLN:HG2	34:BN:135:PRO:CD	2.48	0.43
37:BQ:65:PHE:N	37:BQ:65:PHE:CD2	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:47:PHE:CD2	38:BR:47:PHE:C	2.91	0.43
39:BS:74:ALA:HB1	39:BS:103:GLU:CB	2.48	0.43
42:BV:3:ALA:CB	42:BV:38:LEU:HD21	2.47	0.43
45:BY:55:TYR:HB2	45:BY:56:PRO:CD	2.12	0.43
46:BZ:76:LEU:N	46:BZ:76:LEU:CD2	2.81	0.43
48:B1:45:ASN:ND2	48:B1:45:ASN:C	2.68	0.43
1:CA:275:G:H2'	1:CA:276:G:H8	1.82	0.43
1:CA:1292:U:H5'	9:CI:38:GLN:NE2	2.32	0.43
1:CA:1367:C:H5'	10:CJ:60:ARG:NH2	2.33	0.43
2:CB:62:ALA:HB3	2:CB:225:ALA:HB3	1.99	0.43
2:CB:71:VAL:HB	2:CB:164:VAL:HG13	2.00	0.43
2:CB:106:LYS:O	2:CB:110:GLN:HG3	2.17	0.43
3:CC:7:PRO:HG2	3:CC:184:TYR:HB3	1.99	0.43
3:CC:193:TYR:CD2	3:CC:193:TYR:N	2.86	0.43
4:CD:33:MET:O	4:CD:33:MET:HG3	2.18	0.43
4:CD:93:PHE:HB3	4:CD:94:LEU:H	1.54	0.43
4:CD:106:TYR:HE1	4:CD:113:SER:HA	1.79	0.43
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.53	0.43
6:CF:15:ASP:O	6:CF:15:ASP:OD1	2.35	0.43
6:CF:99:ALA:HB3	18:CR:29:PHE:CE2	2.53	0.43
7:CG:145:ALA:C	7:CG:147:ALA:N	2.71	0.43
9:CI:19:LEU:HD22	9:CI:59:PHE:CG	2.47	0.43
9:CI:58:HIS:CB	9:CI:59:PHE:HD1	2.26	0.43
12:CL:28:LYS:O	12:CL:29:GLY:C	2.57	0.43
13:CM:44:ARG:C	13:CM:46:LYS:H	2.21	0.43
13:CM:108:ARG:NH1	13:CM:112:GLY:O	2.51	0.43
14:CN:37:PHE:HE1	14:CN:53:LEU:HD13	1.83	0.43
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.33	0.43
16:CP:48:TRP:O	16:CP:48:TRP:HE3	2.01	0.43
25:DA:63:U:O2'	25:DA:64:A:N7	2.51	0.43
25:DA:250:G:O6	25:DA:251:A:C6	2.71	0.43
25:DA:271(D):G:H1	25:DA:271(T):C:N4	2.15	0.43
25:DA:458:G:H1'	25:DA:459:U:C5	2.49	0.43
25:DA:1043:C:H2'	25:DA:1044:G:H5"	2.00	0.43
25:DA:1142(A):A:N7	25:DA:1144:G:C6	2.86	0.43
25:DA:1803:A:H4'	28:DD:259:THR:HG23	1.99	0.43
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.53	0.43
25:DA:2161:C:H2'	25:DA:2162:G:C8	2.53	0.43
25:DA:2258:C:C4'	25:DA:2259:G:OP2	2.63	0.43
25:DA:2620:C:H1'	29:DE:156:MET:HB2	1.99	0.43
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:56:G:H5'	31:DG:27:ASN:ND2	2.33	0.43
28:DD:168:ARG:HA	28:DD:173:VAL:HA	2.00	0.43
29:DE:176:ILE:HG22	29:DE:179:GLU:H	1.82	0.43
30:DF:110:LEU:HD11	30:DF:181:LEU:HD13	2.00	0.43
31:DG:51:ARG:NH1	31:DG:51:ARG:CB	2.81	0.43
33:DI:74:ASN:ND2	33:DI:74:ASN:N	2.61	0.43
36:DP:96:THR:O	36:DP:100:LEU:HD23	2.19	0.43
38:DR:12:ARG:HH11	38:DR:12:ARG:CG	2.26	0.43
40:DT:78:LEU:O	40:DT:78:LEU:HD23	2.17	0.43
41:DU:79:PHE:HE1	41:DU:106:PHE:CZ	2.36	0.43
41:DU:92:ARG:C	41:DU:94:ASN:N	2.70	0.43
42:DV:61:VAL:C	42:DV:62:LEU:HD12	2.37	0.43
42:DV:66:ARG:HH11	42:DV:66:ARG:CG	2.30	0.43
45:DY:47:LYS:C	45:DY:49:VAL:N	2.69	0.43
46:DZ:53:ILE:H	46:DZ:71:VAL:HG21	1.80	0.43
1:AA:204:U:H4'	1:AA:216:G:N7	2.33	0.43
1:AA:604:G:H2'	1:AA:605:U:O4'	2.18	0.43
1:AA:828:A:H2'	1:AA:829:G:O4'	2.18	0.43
1:AA:1064:G:HO2'	1:AA:1065:U:P	2.40	0.43
1:AA:1189:C:O2'	3:AC:176:HIS:HD2	2.00	0.43
4:AD:13:ARG:HH22	4:AD:36:ARG:HD3	1.82	0.43
4:AD:110:PHE:CD2	4:AD:148:VAL:CG2	3.01	0.43
6:AF:89:MET:CE	18:AR:76:LEU:HD22	2.48	0.43
6:AF:100:ASN:HD22	18:AR:23:LYS:HE3	1.83	0.43
11:AK:59:TYR:CZ	11:AK:63:LEU:CD1	3.02	0.43
17:AQ:31:LEU:HG	17:AQ:32:TYR:CD2	2.54	0.43
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.18	0.43
22:AV:53:G:C2'	22:AV:54:G:C5'	2.96	0.43
25:BA:434:U:H2'	25:BA:436:C:H41	1.82	0.43
25:BA:563:G:C6	25:BA:564:C:C4	3.05	0.43
25:BA:943:U:OP1	36:BP:36:LYS:HG3	2.17	0.43
25:BA:1006:C:H1'	34:BN:106:MET:HG2	1.99	0.43
25:BA:1171:G:H5"	25:BA:1173:G:H4'	2.00	0.43
25:BA:1187:G:OP1	42:BV:81:TYR:OH	2.25	0.43
25:BA:1578:U:C2'	25:BA:1579:A:H5'	2.48	0.43
25:BA:1688:U:H1'	25:BA:1701:A:C6	2.53	0.43
25:BA:2343:C:O2	25:BA:2343:C:C2'	2.66	0.43
28:BD:143:HIS:HD2	28:BD:144:ALA:HB2	1.83	0.43
29:BE:1:MET:O	29:BE:2:LYS:C	2.57	0.43
29:BE:61:ARG:CB	29:BE:62:PRO:HD3	2.48	0.43
29:BE:170:LEU:HB3	29:BE:184:VAL:HG12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:63:LYS:HG3	30:BF:75:HIS:O	2.18	0.43
34:BN:41:ASP:O	34:BN:42:TRP:C	2.56	0.43
35:BO:80:ASP:HB2	40:BT:70:VAL:CG1	2.48	0.43
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.30	0.43
37:BQ:108:GLY:HA3	46:BZ:116:VAL:HG11	1.99	0.43
42:BV:47:VAL:O	42:BV:49:THR:O	2.36	0.43
43:BW:69:LEU:O	43:BW:70:TYR:HB3	2.17	0.43
44:BX:11:PRO:HB2	44:BX:12:VAL:HG22	2.00	0.43
1:CA:337:C:H2'	1:CA:338:A:H8	1.83	0.43
1:CA:963:G:H21	10:CJ:55:LYS:NZ	2.16	0.43
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.52	0.43
1:CA:1342:C:O3'	9:CI:125:TYR:HB3	2.18	0.43
1:CA:1442:G:C6	1:CA:1442(B):A:N6	2.86	0.43
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.18	0.43
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.19	0.43
8:CH:27:PRO:HG3	8:CH:58:TYR:HE2	1.84	0.43
12:CL:83:VAL:CG2	12:CL:100:ILE:HD13	2.47	0.43
12:CL:90:VAL:CG1	12:CL:93:LEU:HG	2.45	0.43
15:CO:24:SER:OG	15:CO:25:THR:N	2.50	0.43
17:CQ:60:ILE:O	17:CQ:60:ILE:HG23	2.17	0.43
18:CR:22:VAL:O	18:CR:23:LYS:C	2.56	0.43
19:CS:6:LYS:C	19:CS:7:LYS:HD3	2.38	0.43
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.18	0.43
22:CV:24:C:N3	22:CV:25:U:C4	2.86	0.43
23:CW:4:C:N4	23:CW:5:G:O6	2.51	0.43
23:CW:5:G:N2	23:CW:6:G:C4	2.86	0.43
25:DA:456:C:C4	44:DX:69:TYR:CE2	3.06	0.43
25:DA:585:G:O6	25:DA:1251:C:H2'	2.18	0.43
25:DA:2146:C:H4'	25:DA:2147:G:O5'	2.19	0.43
25:DA:2425:A:H1'	25:DA:2427:C:C4	2.52	0.43
29:DE:7:VAL:HA	29:DE:194:GLY:O	2.18	0.43
30:DF:34:TRP:CE3	36:DP:8:PRO:HB3	2.53	0.43
31:DG:111:LEU:N	31:DG:112:PRO:CD	2.81	0.43
31:DG:146:TYR:O	31:DG:149:VAL:N	2.50	0.43
32:DH:4:ILE:O	32:DH:6:ARG:N	2.42	0.43
32:DH:155:SER:O	32:DH:156:ALA:O	2.36	0.43
33:DI:110:ASP:OD2	33:DI:130:TYR:CE1	2.71	0.43
40:DT:93:ARG:HH11	40:DT:93:ARG:CG	2.31	0.43
42:DV:38:LEU:N	42:DV:51:VAL:HG13	2.33	0.43
43:DW:92:ARG:O	43:DW:93:ALA:HB3	2.18	0.43
45:DY:43:ASN:CA	45:DY:64:GLU:HA	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:77:PRO:O	45:DY:78:ALA:CB	2.66	0.43
46:DZ:23:LYS:HD3	46:DZ:23:LYS:HA	1.66	0.43
47:D0:27:GLU:HG3	47:D0:68:GLU:HA	1.99	0.43
48:D1:64:ALA:C	48:D1:66:HIS:N	2.71	0.43
52:D5:41:PRO:HA	52:D5:42:PRO:HD2	1.79	0.43
55:D8:6:THR:HG21	55:D8:63:PRO:HD3	2.00	0.43
1:AA:242:C:H6	1:AA:242:C:C3'	2.26	0.43
1:AA:346:G:OP1	40:BT:41:ARG:NH2	2.51	0.43
1:AA:591:U:H2'	1:AA:592:G:C8	2.53	0.43
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.53	0.43
2:AB:221:LEU:O	2:AB:222:ILE:C	2.56	0.43
4:AD:133:VAL:HG13	4:AD:135:LEU:H	1.83	0.43
5:AE:142:LEU:O	5:AE:143:ARG:CD	2.66	0.43
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.99	0.43
7:AG:92:SER:HB3	7:AG:95:ARG:HB3	2.00	0.43
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	2.01	0.43
8:AH:25:ASP:C	8:AH:26:VAL:HG12	2.37	0.43
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.99	0.43
9:AI:58:HIS:CB	9:AI:59:PHE:CD1	3.01	0.43
13:AM:5:ALA:O	13:AM:7:VAL:N	2.51	0.43
13:AM:66:LEU:HD23	13:AM:66:LEU:HA	1.73	0.43
15:AO:36:ILE:O	15:AO:37:ASN:C	2.57	0.43
16:AP:58:TYR:C	16:AP:61:SER:HB3	2.39	0.43
20:AT:43:LEU:O	20:AT:47:GLY:N	2.50	0.43
20:AT:69:GLY:C	20:AT:71:THR:H	2.22	0.43
22:AV:38:A:C2	24:AX:16:A:C5	3.07	0.43
25:BA:89:G:H3'	25:BA:90:U:H5"	2.01	0.43
25:BA:506:G:O3'	25:BA:507:A:H8	2.01	0.43
25:BA:907:U:OP1	37:BQ:24:GLY:N	2.50	0.43
25:BA:994:C:O2'	25:BA:996:A:OP1	2.24	0.43
25:BA:1456:G:C4	25:BA:1457:A:C8	3.06	0.43
25:BA:1647:G:C4'	25:BA:1648:C:O5'	2.58	0.43
25:BA:1814:G:H4'	28:BD:51:VAL:HG21	2.01	0.43
28:BD:31:LYS:HZ2	28:BD:102:LYS:NZ	2.16	0.43
28:BD:211:ARG:HA	28:BD:214:TRP:CD2	2.53	0.43
30:BF:63:LYS:HA	30:BF:76:GLY:O	2.19	0.43
31:BG:47:LYS:HZ2	31:BG:82:LEU:HD12	1.83	0.43
31:BG:152:LEU:HG	31:BG:153:ARG:H	1.81	0.43
32:BH:37:VAL:HG11	32:BH:68:THR:HG21	2.00	0.43
36:BP:31:ALA:C	36:BP:32:THR:CG2	2.86	0.43
37:BQ:133:ARG:O	37:BQ:134:ARG:CB	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:20:LEU:HB2	42:BV:21:ARG:H	1.47	0.43
43:BW:10:VAL:HG21	43:BW:103:ILE:HG13	2.00	0.43
45:BY:54:LYS:O	45:BY:54:LYS:CG	2.64	0.43
1:CA:324:G:H22	1:CA:327:A:P	2.41	0.43
1:CA:1059:C:H2'	1:CA:1060:C:H6	1.83	0.43
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.54	0.43
4:CD:17:VAL:HG12	4:CD:18:LYS:N	2.33	0.43
8:CH:105:ARG:HA	8:CH:105:ARG:HD3	1.65	0.43
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.45	0.43
12:CL:126:LYS:NZ	12:CL:127:GLU:HB2	2.34	0.43
16:CP:57:ARG:O	16:CP:58:TYR:C	2.56	0.43
25:DA:271(J):C:H5'	25:DA:271(K):U:OP2	2.18	0.43
25:DA:845:G:O2'	25:DA:846:C:H5	2.02	0.43
25:DA:1336:A:OP1	44:DX:64:LYS:HE3	2.18	0.43
25:DA:2615:U:C2	25:DA:2616:C:C5	3.06	0.43
26:DB:31:C:H2'	26:DB:53:A:H61	1.83	0.43
28:DD:79:VAL:HG21	28:DD:111:LEU:CD1	2.42	0.43
28:DD:168:ARG:O	28:DD:169:GLU:HB2	2.18	0.43
29:DE:1:MET:O	29:DE:2:LYS:C	2.57	0.43
29:DE:47:VAL:CG1	29:DE:48:GLN:N	2.81	0.43
30:DF:9:ILE:CG2	30:DF:20:LEU:O	2.66	0.43
30:DF:115:ALA:O	30:DF:116:ASP:C	2.55	0.43
31:DG:32:PRO:HA	31:DG:162:THR:OG1	2.18	0.43
31:DG:125:PHE:CD2	31:DG:166:ASP:HB2	2.53	0.43
33:DI:86:THR:O	33:DI:87:LYS:HB2	2.18	0.43
33:DI:94:ALA:H	33:DI:116:LEU:HD13	1.83	0.43
33:DI:121:LYS:O	33:DI:122:GLU:HB2	2.19	0.43
35:DO:26:LYS:HB3	35:DO:27:GLY:H	1.59	0.43
35:DO:77:ILE:HD11	40:DT:72:VAL:HG12	2.00	0.43
35:DO:105:GLU:OE1	35:DO:105:GLU:N	2.44	0.43
36:DP:52:GLU:O	36:DP:54:GLY:N	2.51	0.43
38:DR:12:ARG:NH1	38:DR:12:ARG:CG	2.80	0.43
39:DS:89:ARG:O	39:DS:90:GLY:C	2.57	0.43
43:DW:61:ASN:N	43:DW:61:ASN:ND2	2.66	0.43
46:DZ:28:MET:HE1	46:DZ:59:LEU:HD12	1.99	0.43
48:D1:29:GLY:C	48:D1:31:GLY:H	2.22	0.43
50:D3:6:VAL:HG13	50:D3:56:VAL:HG13	2.00	0.43
55:D8:62:LEU:H	55:D8:62:LEU:HG	1.68	0.43
1:AA:652:U:C5	1:AA:752:G:N3	2.86	0.43
1:AA:737:A:O2'	6:AF:72:VAL:HG11	2.18	0.43
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1305:G:O2'	1:AA:1306:A:H8	2.01	0.43
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.53	0.43
2:AB:155:LEU:HD22	2:AB:155:LEU:HA	1.88	0.43
8:AH:56:LYS:HB2	8:AH:58:TYR:HE1	1.84	0.43
8:AH:109:ILE:HG22	8:AH:137:VAL:O	2.18	0.43
10:AJ:3:LYS:N	10:AJ:74:ILE:O	2.51	0.43
10:AJ:64:GLU:OE2	10:AJ:66:ARG:HG3	2.18	0.43
11:AK:127:LYS:HE2	11:AK:127:LYS:CA	2.46	0.43
25:BA:34:C:H2'	25:BA:35:G:C5'	2.49	0.43
25:BA:83:G:N2	25:BA:102:G:H2'	2.33	0.43
25:BA:196:A:H5"	36:BP:46:LYS:CE	2.49	0.43
25:BA:974:G:C4	25:BA:989:G:C2	3.07	0.43
25:BA:1044:G:H1'	25:BA:1111:A:N1	2.32	0.43
25:BA:1964:G:H4'	25:BA:1965:C:OP2	2.18	0.43
25:BA:2078:C:H2'	25:BA:2079:U:C6	2.54	0.43
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.53	0.43
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.54	0.43
25:BA:2847:U:OP1	40:BT:98:LYS:HD3	2.19	0.43
25:BA:2867:G:HO2'	25:BA:2868:A:P	2.39	0.43
28:BD:168:ARG:O	28:BD:169:GLU:HB2	2.18	0.43
29:BE:175:VAL:C	29:BE:176:ILE:HD12	2.38	0.43
30:BF:7:TYR:HD2	30:BF:16:GLY:H	1.66	0.43
30:BF:102:PRO:HB2	30:BF:105:VAL:HG23	1.99	0.43
30:BF:160:ASN:HB3	30:BF:163:VAL:HG23	1.99	0.43
33:BI:10:GLU:O	33:BI:11:ASN:HB3	2.17	0.43
33:BI:81:VAL:HG11	33:BI:88:ILE:HD12	2.01	0.43
35:BO:64:ARG:HG2	35:BO:79:PHE:CD1	2.52	0.43
36:BP:47:ASP:CG	36:BP:49:ARG:HB2	2.39	0.43
36:BP:70:GLN:CA	36:BP:72:PRO:HD2	2.47	0.43
36:BP:147:LEU:C	36:BP:148:LEU:HD23	2.39	0.43
38:BR:113:LEU:HD12	38:BR:113:LEU:HA	1.44	0.43
39:BS:34:HIS:CE1	39:BS:54:LEU:CD2	3.02	0.43
40:BT:12:SER:C	40:BT:13:ARG:CZ	2.86	0.43
40:BT:28:VAL:HG12	40:BT:29:ARG:NH2	2.33	0.43
40:BT:129:ARG:HG3	40:BT:129:ARG:O	2.18	0.43
43:BW:8:ARG:HH11	43:BW:8:ARG:CG	2.32	0.43
45:BY:13:VAL:CG2	45:BY:28:LYS:HE2	2.43	0.43
45:BY:87:LYS:O	45:BY:88:LYS:HB2	2.17	0.43
45:BY:96:ILE:HD12	45:BY:99:CYS:HB2	2.01	0.43
47:B0:9:SER:OG	47:B0:10:THR:N	2.52	0.43
47:B0:46:LYS:O	47:B0:78:TYR:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B2:69:ARG:NH1	49:B2:69:ARG:CG	2.80	0.43
54:B7:24:THR:HG23	54:B7:27:GLY:CA	2.47	0.43
1:CA:100:C:H2'	1:CA:101:A:C1'	2.47	0.43
1:CA:246:A:H61	1:CA:281:G:C1'	2.30	0.43
1:CA:1238:A:N7	1:CA:1301:U:O4	2.52	0.43
3:CC:69:HIS:O	3:CC:70:VAL:HG22	2.18	0.43
3:CC:110:ASN:O	3:CC:111:LEU:HD22	2.18	0.43
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.48	0.43
6:CF:99:ALA:HB2	18:CR:31:LEU:HD11	2.01	0.43
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	2.00	0.43
9:CI:55:ALA:CB	9:CI:58:HIS:CG	3.01	0.43
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	2.00	0.43
13:CM:10:PRO:O	13:CM:11:ARG:HB3	2.18	0.43
20:CT:16:HIS:O	20:CT:19:SER:N	2.52	0.43
20:CT:43:LEU:HA	20:CT:46:GLU:HB3	2.00	0.43
25:DA:142:A:H5'	25:DA:142(A):C:OP2	2.18	0.43
25:DA:272(D):G:H1	25:DA:364:C:H42	1.65	0.43
25:DA:404:C:H4'	25:DA:405:U:H5'	2.00	0.43
25:DA:1024:G:C6	25:DA:1025:G:C6	3.07	0.43
25:DA:1525:G:H2'	25:DA:1526:G:C8	2.54	0.43
25:DA:1698:A:C8	25:DA:1700:A:H5"	2.54	0.43
25:DA:2257:U:H2'	25:DA:2258:C:C6	2.53	0.43
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	2.18	0.43
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.53	0.43
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.18	0.43
28:DD:206:LEU:HD23	28:DD:206:LEU:HA	1.79	0.43
31:DG:115:ARG:O	31:DG:116:ASP:HB2	2.18	0.43
32:DH:9:ILE:HD12	32:DH:49:VAL:HG11	2.00	0.43
32:DH:144:VAL:O	32:DH:148:ILE:HG12	2.19	0.43
33:DI:31:LEU:N	33:DI:32:PRO:CD	2.82	0.43
33:DI:73:GLU:HB2	33:DI:136:VAL:CG2	2.48	0.43
35:DO:2:ILE:HD11	35:DO:82:ASN:ND2	2.33	0.43
35:DO:18:LYS:HD2	35:DO:45:GLU:OE1	2.17	0.43
35:DO:80:ASP:OD2	40:DT:64:ARG:NH2	2.51	0.43
37:DQ:16:ARG:O	37:DQ:17:LEU:HD23	2.18	0.43
37:DQ:30:GLY:O	37:DQ:134:ARG:NH1	2.50	0.43
41:DU:12:ARG:C	41:DU:14:HIS:H	2.19	0.43
41:DU:55:ARG:HA	41:DU:58:ARG:CG	2.49	0.43
41:DU:88:ILE:C	41:DU:90:VAL:H	2.21	0.43
42:DV:52:VAL:O	42:DV:52:VAL:HG23	2.19	0.43
45:DY:30:VAL:HG13	45:DY:37:VAL:HG12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:23:LYS:N	46:DZ:41:LEU:HG	2.33	0.43
46:DZ:139:VAL:HG23	46:DZ:139:VAL:O	2.19	0.43
47:D0:46:LYS:HD2	47:D0:78:TYR:CZ	2.54	0.43
56:D9:9:ARG:HB3	56:D9:9:ARG:HH11	1.76	0.43
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.19	0.43
1:AA:748:C:O2'	1:AA:749:C:OP2	2.30	0.43
1:AA:994:A:H2	14:AN:4:LYS:HG3	1.82	0.43
1:AA:1278:U:H5"	1:AA:1279:A:O4'	2.18	0.43
2:AB:18:GLY:O	2:AB:204:ASN:HB2	2.18	0.43
2:AB:37:ASN:C	2:AB:39:ILE:H	2.21	0.43
2:AB:154:LEU:O	2:AB:156:LYS:HG3	2.18	0.43
2:AB:166:ASP:HA	2:AB:167:PRO:HD2	1.59	0.43
2:AB:168:THR:CG2	2:AB:192:SER:HA	2.48	0.43
3:AC:24:ALA:HB1	3:AC:28:GLN:O	2.18	0.43
4:AD:72:GLU:O	4:AD:73:ARG:C	2.56	0.43
7:AG:16:LEU:HD13	9:AI:44:VAL:CG2	2.47	0.43
8:AH:23:SER:HA	8:AH:63:LEU:HD23	2.01	0.43
9:AI:14:VAL:HG12	9:AI:15:ALA:H	1.83	0.43
9:AI:77:ILE:O	9:AI:81:ILE:HG12	2.18	0.43
10:AJ:4:ILE:HG23	10:AJ:100:THR:HG23	2.00	0.43
11:AK:34:ASP:O	11:AK:35:PRO:C	2.57	0.43
11:AK:73:MET:CG	11:AK:103:LEU:HD21	2.49	0.43
15:AO:69:TYR:CD2	15:AO:70:LEU:N	2.87	0.43
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	2.01	0.43
22:AV:15:G:C2	22:AV:49:C:H5	2.34	0.43
22:AV:65:G:H2'	22:AV:66:C:O4'	2.18	0.43
23:AW:2:C:H42	23:AW:71:G:H1	1.66	0.43
23:AW:21:A:C2	23:AW:48:C:C2	3.07	0.43
25:BA:250:G:C6	25:BA:251:A:C6	3.07	0.43
25:BA:769:G:H4'	25:BA:1379:A:C6	2.52	0.43
25:BA:861:A:N3	26:BB:79:C:O2'	2.49	0.43
25:BA:1010:A:H1'	25:BA:1153:C:H1'	2.00	0.43
25:BA:1497:U:H5'	25:BA:1498:C:C5	2.54	0.43
25:BA:1748:G:H2'	25:BA:1749:A:O4'	2.19	0.43
25:BA:1789:A:OP1	28:BD:221:VAL:HA	2.17	0.43
25:BA:2123:G:H2'	25:BA:2124:G:H8	1.83	0.43
25:BA:2846:G:OP2	40:BT:54:ARG:HB2	2.18	0.43
28:BD:264:LYS:CG	28:BD:265:PRO:HD2	2.49	0.43
29:BE:16:ARG:O	29:BE:17:ASP:CB	2.60	0.43
30:BF:89:VAL:O	30:BF:91:GLY:N	2.47	0.43
31:BG:58:GLN:HG3	31:BG:59:GLU:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:64:THR:OG1	31:BG:94:LEU:HD21	2.18	0.43
31:BG:125:PHE:CB	31:BG:166:ASP:OD2	2.66	0.43
34:BN:27:ALA:HA	34:BN:30:ILE:CG1	2.47	0.43
35:BO:63:VAL:O	35:BO:64:ARG:HG3	2.19	0.43
38:BR:59:ASP:OD1	38:BR:61:HIS:HB3	2.19	0.43
40:BT:132:LYS:O	40:BT:134:GLU:N	2.50	0.43
43:BW:68:ARG:HD2	43:BW:110:LYS:CB	2.49	0.43
44:BX:92:LEU:HD21	49:B2:37:PHE:HE2	1.83	0.43
49:B2:42:GLY:O	49:B2:43:GLN:C	2.57	0.43
53:B6:15:GLU:O	53:B6:18:ARG:HG2	2.18	0.43
55:B8:50:LEU:CA	55:B8:53:PRO:CD	2.97	0.43
1:CA:49:U:C2	1:CA:362:G:H1'	2.54	0.43
1:CA:243:A:H5'	1:CA:245:C:OP1	2.18	0.43
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.99	0.43
1:CA:764:C:H2'	1:CA:765:G:O4'	2.19	0.43
1:CA:790:A:OP1	22:CV:39:A:O2'	2.32	0.43
1:CA:828:A:H62	1:CA:858:G:N2	2.14	0.43
1:CA:991:U:O2	1:CA:993:G:H8	2.02	0.43
1:CA:1198:G:O2'	10:CJ:54:PHE:HD2	2.00	0.43
1:CA:1247:U:H3	1:CA:1290:G:H1	1.65	0.43
1:CA:1302:U:H5"	1:CA:1303:C:OP2	2.18	0.43
2:CB:98:LEU:HB2	2:CB:101:MET:HG3	2.00	0.43
4:CD:133:VAL:CG1	4:CD:138:TYR:CD1	3.01	0.43
5:CE:43:LEU:HD12	5:CE:44:GLY:N	2.34	0.43
5:CE:101:ILE:O	5:CE:120:THR:HB	2.18	0.43
10:CJ:62:HIS:CD2	10:CJ:62:HIS:H	2.37	0.43
11:CK:61:ALA:O	11:CK:64:ALA:N	2.51	0.43
12:CL:36:VAL:O	12:CL:58:VAL:HA	2.19	0.43
20:CT:53:LEU:HD21	20:CT:100:ILE:CG1	2.48	0.43
21:CU:6:ARG:NE	21:CU:15:ARG:NH1	2.66	0.43
22:CV:24:C:H2'	22:CV:25:U:H5'	1.97	0.43
22:CV:29:C:O2'	22:CV:30:G:H5"	2.15	0.43
25:DA:1111:A:O2'	25:DA:1112:G:H4'	2.18	0.43
25:DA:1331:A:C6	25:DA:1333:C:C2	3.06	0.43
25:DA:1641:A:H2'	25:DA:1642:G:O4'	2.18	0.43
25:DA:2014:A:O2'	52:D5:2:ALA:HB2	2.18	0.43
25:DA:2170:A:H8	25:DA:2170:A:O5'	2.01	0.43
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.17	0.43
25:DA:2725:A:N3	25:DA:2726:U:C5	2.86	0.43
29:DE:78:LEU:C	29:DE:79:ARG:HD2	2.38	0.43
30:DF:9:ILE:HD12	30:DF:123:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:32:LEU:CD2	30:DF:108:LYS:HB3	2.48	0.43
30:DF:57:VAL:HG13	30:DF:58:ALA:N	2.33	0.43
31:DG:106:LEU:O	31:DG:110:ALA:HB3	2.18	0.43
31:DG:146:TYR:O	31:DG:148:MET:N	2.52	0.43
32:DH:6:ARG:HA	32:DH:66:GLY:HA2	2.00	0.43
33:DI:60:GLU:CG	33:DI:61:ARG:HH22	2.27	0.43
33:DI:79:ILE:HD13	33:DI:79:ILE:HA	1.87	0.43
35:DO:87:ILE:HG23	35:DO:91:LEU:HA	2.01	0.43
37:DQ:38:GLU:HG3	37:DQ:127:ILE:HB	2.00	0.43
37:DQ:64:ILE:HG23	37:DQ:106:VAL:HG12	2.00	0.43
39:DS:95:HIS:O	39:DS:96:GLY:C	2.56	0.43
40:DT:61:PHE:CD2	40:DT:61:PHE:N	2.86	0.43
40:DT:78:LEU:HB3	40:DT:79:HIS:ND1	2.34	0.43
41:DU:21:ALA:HB1	41:DU:24:TYR:CE1	2.53	0.43
42:DV:72:VAL:O	42:DV:72:VAL:HG13	2.19	0.43
43:DW:9:TYR:N	43:DW:9:TYR:CD2	2.83	0.43
46:DZ:128:VAL:HB	46:DZ:161:VAL:HG13	1.99	0.43
48:D1:52:ARG:CG	48:D1:53:VAL:H	2.21	0.43
49:D2:22:GLU:O	49:D2:26:ARG:HG3	2.19	0.43
52:D5:31:VAL:HG13	52:D5:42:PRO:HD3	2.00	0.43
55:D8:32:LEU:HB3	55:D8:36:LYS:NZ	2.32	0.43
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.52	0.43
1:AA:752:G:O2'	1:AA:753:A:OP2	2.30	0.43
1:AA:798:G:OP1	11:AK:122:LYS:NZ	2.52	0.43
1:AA:981:U:C4	1:AA:982:U:C2	3.06	0.43
1:AA:1186:G:H21	14:AN:61:TRP:C	2.21	0.43
1:AA:1274:G:N2	1:AA:1275:A:H62	2.16	0.43
1:AA:1286:A:C2	21:AU:22:ARG:NH2	2.87	0.43
3:AC:6:HIS:HD2	3:AC:7:PRO:CD	2.31	0.43
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.81	0.43
4:AD:176:LEU:HD12	4:AD:177:ASP:N	2.34	0.43
5:AE:100:VAL:HA	5:AE:118:ILE:HG22	1.99	0.43
6:AF:17:SER:O	6:AF:20:ALA:HB3	2.18	0.43
6:AF:21:LEU:C	6:AF:23:LYS:H	2.22	0.43
8:AH:9:MET:SD	8:AH:32:LYS:HD3	2.58	0.43
8:AH:21:LYS:O	8:AH:22:GLU:C	2.56	0.43
14:AN:59:ALA:HB1	14:AN:61:TRP:HZ3	1.82	0.43
20:AT:81:LYS:H	20:AT:81:LYS:HG3	1.58	0.43
22:AV:50:G:H1	22:AV:66:C:H42	1.64	0.43
23:AW:9:A:C8	23:AW:46:G:N2	2.87	0.43
23:AW:34:G:N7	24:AX:14:A:N1	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:75:C:H6	23:AW:75:C:O5'	2.02	0.43
25:BA:17:G:H4'	41:BU:25:TRP:CZ2	2.52	0.43
25:BA:30:G:O2'	25:BA:1214:A:N3	2.38	0.43
25:BA:592:G:H2'	55:B8:4:MET:HE2	2.01	0.43
25:BA:1204:A:H2	25:BA:1241:A:N1	2.16	0.43
25:BA:1385:G:H1'	25:BA:1386:C:C6	2.54	0.43
25:BA:1600:C:OP1	44:BX:58:HIS:NE2	2.36	0.43
25:BA:1638:C:O2	25:BA:2698:U:O2'	2.36	0.43
25:BA:2300:G:H1	25:BA:2316:C:H42	1.66	0.43
25:BA:2675:A:H61	25:BA:2732:G:H1	1.66	0.43
28:BD:44:ASN:HB2	28:BD:45:ASN:H	1.66	0.43
30:BF:18:ARG:HG3	30:BF:19:GLU:H	1.84	0.43
30:BF:69:HIS:ND1	30:BF:69:HIS:N	2.66	0.43
30:BF:135:LYS:HB3	30:BF:138:GLU:HG3	1.99	0.43
33:BI:92:VAL:HG13	33:BI:120:ILE:HG13	2.01	0.43
42:BV:40:LEU:CD2	42:BV:40:LEU:N	2.82	0.43
45:BY:46:LYS:HG2	45:BY:47:LYS:HZ2	1.82	0.43
55:B8:41:ILE:HD12	55:B8:41:ILE:N	2.32	0.43
1:CA:128:G:H22	1:CA:130:A:N6	2.16	0.43
1:CA:407:G:C5'	4:CD:3:ARG:HH12	2.31	0.43
1:CA:953:G:H2'	1:CA:954:G:O4'	2.18	0.43
2:CB:216:SER:O	2:CB:218:ALA:N	2.52	0.43
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.45	0.43
4:CD:108:LEU:HB2	4:CD:110:PHE:HD1	1.66	0.43
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.34	0.43
7:CG:27:ILE:O	7:CG:30:ILE:N	2.47	0.43
15:CO:66:LEU:HD12	15:CO:66:LEU:N	2.32	0.43
23:CW:4:C:H2'	23:CW:5:G:H8	1.84	0.43
23:CW:34:G:C5	24:CX:14:A:C6	3.06	0.43
23:CY:28:G:C5	23:CY:29:G:N7	2.87	0.43
25:DA:297:C:O2'	25:DA:298:G:OP1	2.32	0.43
25:DA:527:C:H1'	25:DA:528:A:C6	2.52	0.43
25:DA:644:A:H4'	25:DA:645:C:C4	2.49	0.43
25:DA:755:C:H2'	25:DA:756:C:C6	2.54	0.43
25:DA:887:A:C1'	25:DA:889:C:H41	2.11	0.43
25:DA:913:U:O2'	25:DA:914:C:C6	2.70	0.43
25:DA:1218:C:H5"	41:DU:19:LYS:NZ	2.33	0.43
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.67	0.43
25:DA:1558:A:H1'	25:DA:1560:G:OP2	2.18	0.43
25:DA:2090:G:C6	25:DA:2091:U:C4	3.06	0.43
25:DA:2437:U:O2'	25:DA:2438:U:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:264:LYS:HD3	28:DD:266:SER:CB	2.45	0.43
29:DE:93:VAL:HG21	29:DE:180:ASN:C	2.38	0.43
30:DF:37:VAL:HG12	30:DF:41:LEU:HD12	2.00	0.43
31:DG:34:LEU:HD22	31:DG:35:GLU:N	2.33	0.43
31:DG:83:ARG:HG2	31:DG:83:ARG:NH1	2.34	0.43
33:DI:93:THR:HG22	33:DI:119:PRO:CB	2.39	0.43
33:DI:124:GLY:N	33:DI:142:VAL:HG21	2.33	0.43
37:DQ:25:ASP:OD1	37:DQ:25:ASP:N	2.52	0.43
41:DU:92:ARG:NH2	42:DV:11:GLN:O	2.51	0.43
41:DU:109:LEU:HD23	41:DU:109:LEU:HA	1.82	0.43
42:DV:1:MET:HE2	42:DV:43:GLU:HB2	1.99	0.43
42:DV:37:VAL:CG2	42:DV:37:VAL:O	2.66	0.43
42:DV:91:TYR:C	42:DV:91:TYR:HD1	2.21	0.43
44:DX:57:LEU:HD21	44:DX:78:LYS:HE2	2.01	0.43
46:DZ:56:VAL:HG12	46:DZ:57:ILE:N	2.32	0.43
48:D1:83:GLU:O	48:D1:84:GLY:O	2.36	0.43
50:D3:23:LEU:HB3	50:D3:28:LEU:HB2	2.00	0.43
50:D3:26:LEU:O	50:D3:35:ARG:HD3	2.18	0.43
53:D6:32:ASN:CG	53:D6:33:LYS:N	2.69	0.43
56:D9:19:ARG:HG2	56:D9:24:TYR:CD1	2.54	0.43
1:AA:1125:U:H2'	1:AA:1126:U:OP2	2.19	0.43
2:AB:102:LEU:HD12	2:AB:102:LEU:N	2.34	0.43
3:AC:91:LEU:O	3:AC:99:VAL:HG11	2.18	0.43
3:AC:113:ALA:C	3:AC:115:LEU:H	2.22	0.43
4:AD:89:THR:O	4:AD:90:GLY:C	2.56	0.43
4:AD:175:SER:HB3	4:AD:186:LEU:HD11	1.99	0.43
7:AG:94:ARG:HE	7:AG:94:ARG:HB2	1.70	0.43
7:AG:153:HIS:CE1	11:AK:57:THR:HG23	2.52	0.43
9:AI:40:LEU:C	9:AI:42:ARG:N	2.71	0.43
10:AJ:50:ILE:HA	10:AJ:60:ARG:HG2	2.00	0.43
12:AL:45:PRO:HG2	12:AL:50:SER:HA	2.01	0.43
12:AL:126:LYS:CE	12:AL:127:GLU:H	2.21	0.43
14:AN:21:TYR:C	14:AN:22:THR:O	2.57	0.43
14:AN:27:CYS:SG	14:AN:40:CYS:SG	3.16	0.43
15:AO:80:ALA:O	15:AO:83:GLU:OE1	2.36	0.43
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HD12	2.00	0.43
19:AS:16:LEU:HD11	19:AS:41:VAL:HG21	2.00	0.43
25:BA:127:A:H5"	25:BA:128:C:C6	2.53	0.43
25:BA:305:U:H2'	25:BA:306:U:C6	2.53	0.43
25:BA:320:A:H4'	25:BA:322:A:N7	2.33	0.43
25:BA:747:U:C4	52:B5:2:ALA:N	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:752:A:O2'	25:BA:753:C:OP2	2.30	0.43
25:BA:1397:U:C4	25:BA:1602:U:O2	2.72	0.43
25:BA:1426:G:O2'	25:BA:1572:A:N6	2.45	0.43
25:BA:1943:U:C1'	25:BA:1945:G:H5'	2.49	0.43
25:BA:1991:U:H2'	25:BA:1992:G:H5"	2.00	0.43
25:BA:2051:A:H8	25:BA:2051:A:OP2	2.02	0.43
25:BA:2127:G:C6	25:BA:2162:G:N3	2.87	0.43
28:BD:48:ARG:NH1	28:BD:48:ARG:HG3	2.33	0.43
28:BD:80:ALA:HB1	28:BD:96:HIS:NE2	2.30	0.43
28:BD:180:GLY:O	28:BD:181:GLU:O	2.36	0.43
29:BE:167:VAL:HG22	29:BE:168:MET:H	1.84	0.43
32:BH:98:LEU:HB2	32:BH:125:VAL:CG2	2.35	0.43
32:BH:111:HIS:HA	32:BH:112:PRO:HD2	1.73	0.43
32:BH:138:LYS:O	32:BH:141:VAL:N	2.49	0.43
34:BN:1:MET:C	34:BN:2:LYS:HD2	2.38	0.43
34:BN:57:ALA:C	34:BN:58:ASP:OD1	2.57	0.43
34:BN:62:VAL:CG1	34:BN:66:LYS:HB3	2.49	0.43
34:BN:99:LEU:HD22	34:BN:99:LEU:O	2.18	0.43
34:BN:123:TYR:CZ	34:BN:130:HIS:NE2	2.86	0.43
35:BO:17:ARG:HA	35:BO:17:ARG:HD2	1.77	0.43
40:BT:23:ARG:O	40:BT:24:PRO:C	2.56	0.43
42:BV:35:LEU:C	42:BV:37:VAL:N	2.72	0.43
44:BX:12:VAL:HG23	44:BX:13:LEU:N	2.34	0.43
45:BY:81:LYS:HB3	45:BY:96:ILE:HG22	2.01	0.43
48:B1:19:GLN:O	48:B1:35:THR:HG22	2.18	0.43
48:B1:46:LEU:H	48:B1:46:LEU:CD2	2.32	0.43
49:B2:61:LEU:HA	49:B2:64:LEU:HB3	2.00	0.43
1:CA:253:U:O2	1:CA:275:G:H1'	2.18	0.43
1:CA:710:G:C5'	6:CF:54:LYS:HE2	2.44	0.43
1:CA:1002:G:N2	1:CA:1003:G:H1'	2.34	0.43
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.19	0.43
2:CB:122:PHE:HA	2:CB:139:LYS:HZ2	1.84	0.43
2:CB:136:VAL:O	2:CB:140:HIS:HB2	2.18	0.43
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.19	0.43
5:CE:37:ARG:C	5:CE:38:GLN:HG2	2.39	0.43
5:CE:120:THR:CG2	5:CE:121:LYS:N	2.81	0.43
7:CG:25:ALA:O	7:CG:28:ASN:N	2.51	0.43
8:CH:116:LYS:HD3	8:CH:127:LEU:HD12	2.00	0.43
9:CI:55:ALA:HB1	9:CI:58:HIS:CG	2.53	0.43
10:CJ:44:VAL:HG13	10:CJ:45:ARG:N	2.32	0.43
12:CL:27:LEU:O	12:CL:29:GLY:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:29:ARG:HD3	13:CM:64:TRP:CE2	2.54	0.43
13:CM:65:LYS:HB2	13:CM:69:GLU:HB2	2.01	0.43
13:CM:88:ARG:HD3	13:CM:98:VAL:HG11	1.99	0.43
14:CN:4:LYS:O	14:CN:5:ALA:C	2.56	0.43
16:CP:57:ARG:O	16:CP:60:LEU:HB2	2.19	0.43
18:CR:59:SER:HB3	18:CR:62:GLU:HG3	2.00	0.43
23:CW:38:A:H2'	23:CW:39:U:C5'	2.49	0.43
25:DA:265:A:N6	25:DA:428:A:H1'	2.34	0.43
25:DA:528:A:H2	25:DA:2043:C:C5'	2.31	0.43
25:DA:706:A:H2'	25:DA:707:G:O4'	2.19	0.43
25:DA:869:G:O2'	37:DQ:8:LYS:HG3	2.19	0.43
25:DA:876:C:H2'	25:DA:877:U:O4'	2.19	0.43
25:DA:943:U:OP2	36:DP:36:LYS:CD	2.67	0.43
25:DA:1264:G:H5'	52:D5:11:THR:OG1	2.19	0.43
25:DA:1340:U:H1'	25:DA:1603:A:H5'	2.01	0.43
25:DA:2208:A:N3	25:DA:2219:G:N2	2.66	0.43
30:DF:119:ARG:HH11	30:DF:119:ARG:HG2	1.83	0.43
31:DG:67:LYS:HG3	51:D4:6:HIS:ND1	2.32	0.43
32:DH:43:VAL:O	32:DH:43:VAL:HG23	2.19	0.43
32:DH:147:ASN:ND2	32:DH:147:ASN:H	2.15	0.43
34:DN:3:THR:HG22	34:DN:5:VAL:HG12	2.00	0.43
37:DQ:2:LEU:O	37:DQ:2:LEU:HG	2.18	0.43
39:DS:88:ASP:CG	39:DS:89:ARG:N	2.71	0.43
41:DU:8:VAL:HG11	41:DU:12:ARG:NE	2.34	0.43
46:DZ:112:ARG:HH11	46:DZ:112:ARG:HG2	1.84	0.43
46:DZ:116:VAL:O	46:DZ:118:GLN:N	2.51	0.43
48:D1:44:PRO:HB2	48:D1:46:LEU:HD13	2.00	0.43
1:AA:299:A:H2'	1:AA:300:A:C8	2.54	0.43
1:AA:1067:A:N6	1:AA:1109:C:H4'	2.33	0.43
1:AA:1281:U:O2'	1:AA:1282:C:H5'	2.19	0.43
2:AB:67:THR:O	2:AB:68:ILE:HD13	2.19	0.43
7:AG:41:ARG:O	7:AG:43:PHE:N	2.52	0.43
9:AI:27:THR:HG23	9:AI:31:GLN:H	1.84	0.43
11:AK:54:ARG:HH12	23:AW:40:C:P	2.41	0.43
12:AL:55:VAL:CG1	12:AL:56:ALA:N	2.82	0.43
14:AN:22:THR:OG1	14:AN:33:VAL:HG21	2.18	0.43
16:AP:8:ARG:C	16:AP:9:PHE:HD2	2.22	0.43
17:AQ:64:PRO:HA	17:AQ:70:ARG:HG3	2.01	0.43
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	2.00	0.43
20:AT:33:ILE:O	20:AT:37:SER:OG	2.36	0.43
25:BA:139(A):G:N2	44:BX:44:GLU:OE1	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1512:U:H2'	25:BA:1513:C:C6	2.54	0.43
25:BA:1795:C:C4	25:BA:1796:U:C4	3.07	0.43
25:BA:1889:A:H2'	25:BA:1890:A:C8	2.54	0.43
26:BB:65:C:C5	26:BB:109:C:C4	3.06	0.43
26:BB:90:A:C5	26:BB:91:C:H1'	2.54	0.43
29:BE:24:THR:HG21	29:BE:188:VAL:HB	2.00	0.43
29:BE:137:HIS:CB	29:BE:138:PRO:HD2	2.43	0.43
33:BI:72:LEU:HD13	33:BI:73:GLU:HA	2.01	0.43
33:BI:93:THR:O	33:BI:96:ASP:HB2	2.19	0.43
33:BI:97:ILE:HD12	33:BI:114:LEU:CD1	2.41	0.43
34:BN:53:VAL:HG11	34:BN:128:HIS:HB2	2.01	0.43
35:BO:7:TYR:HE1	35:BO:20:MET:HB2	1.82	0.43
35:BO:86:ILE:HD12	35:BO:86:ILE:H	1.82	0.43
36:BP:24:GLY:O	36:BP:25:SER:HB3	2.18	0.43
37:BQ:3:MET:HG2	37:BQ:3:MET:O	2.16	0.43
38:BR:4:LEU:HD21	38:BR:8:ARG:HH21	1.83	0.43
38:BR:34:ILE:HB	38:BR:114:VAL:HG12	2.01	0.43
40:BT:1:MET:H1	40:BT:7:ILE:CG1	2.32	0.43
40:BT:51:ARG:O	40:BT:61:PHE:HA	2.19	0.43
40:BT:102:ILE:O	40:BT:106:SER:HB3	2.18	0.43
42:BV:21:ARG:CB	42:BV:91:TYR:HB2	2.48	0.43
48:B1:64:ALA:HA	48:B1:67:ILE:HG13	1.99	0.43
48:B1:83:GLU:HB3	48:B1:84:GLY:H	1.43	0.43
50:B3:51:ALA:O	50:B3:53:LEU:N	2.51	0.43
53:B6:40:CYS:SG	53:B6:45:LYS:HB3	2.58	0.43
54:B7:30:VAL:O	54:B7:32:LYS:N	2.52	0.43
55:B8:37:SER:OG	55:B8:40:GLU:HG3	2.19	0.43
1:CA:61:G:C5	1:CA:107:G:N2	2.87	0.43
1:CA:689:C:OP1	11:CK:27:ASN:ND2	2.50	0.43
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.53	0.43
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.84	0.43
3:CC:155:GLY:HA2	3:CC:164:ARG:O	2.18	0.43
4:CD:61:LYS:HD3	4:CD:62:GLN:N	2.34	0.43
4:CD:62:GLN:HA	4:CD:62:GLN:OE1	2.19	0.43
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.19	0.43
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	2.01	0.43
10:CJ:47:PHE:HZ	14:CN:37:PHE:HZ	1.67	0.43
10:CJ:48:THR:OG1	10:CJ:62:HIS:HB3	2.19	0.43
11:CK:33:THR:HG21	11:CK:37:GLY:O	2.19	0.43
11:CK:97:ALA:O	11:CK:101:SER:HB3	2.18	0.43
12:CL:82:VAL:HG12	12:CL:83:VAL:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:39:TYR:CZ	16:CP:41:PRO:HA	2.52	0.43
16:CP:70:ALA:O	16:CP:74:LEU:CD1	2.66	0.43
17:CQ:16:GLN:O	17:CQ:17:LYS:HB2	2.18	0.43
23:CY:36:A:C5	23:CY:37:A:N7	2.87	0.43
25:DA:443:A:OP2	25:DA:614(B):G:N2	2.27	0.43
25:DA:1011:G:H5"	41:DU:77:SER:HB3	2.01	0.43
25:DA:1694:C:H5'	25:DA:1695:G:C5	2.54	0.43
25:DA:1799:G:C5	25:DA:1819:A:N6	2.86	0.43
25:DA:2015:A:C1'	52:D5:2:ALA:HA	2.46	0.43
25:DA:2043:C:H1'	25:DA:2779:U:O4	2.19	0.43
25:DA:2330:G:H21	47:D0:42:GLY:HA2	1.84	0.43
25:DA:2712:U:H2'	25:DA:2713:A:H5"	2.00	0.43
29:DE:9:VAL:CG1	29:DE:25:VAL:O	2.67	0.43
29:DE:52:LEU:CD2	29:DE:76:ARG:HB2	2.47	0.43
29:DE:72:VAL:O	29:DE:73:GLU:O	2.35	0.43
33:DI:96:ASP:C	33:DI:98:ALA:N	2.71	0.43
35:DO:104:ARG:NH1	40:DT:35:LYS:CE	2.47	0.43
37:DQ:25:ASP:CG	46:DZ:78:LYS:HD2	2.39	0.43
40:DT:7:ILE:O	40:DT:10:VAL:HB	2.18	0.43
41:DU:83:LEU:HD12	41:DU:113:ALA:CB	2.47	0.43
44:DX:44:GLU:C	44:DX:46:ALA:H	2.22	0.43
45:DY:50:ARG:C	45:DY:52:SER:N	2.72	0.43
47:D0:45:PHE:CD1	47:D0:45:PHE:N	2.85	0.43
47:D0:63:VAL:O	47:D0:63:VAL:HG23	2.17	0.43
48:D1:29:GLY:C	48:D1:31:GLY:N	2.72	0.43
51:D4:13:ARG:O	51:D4:31:ILE:HB	2.18	0.43
1:AA:778:G:H2'	1:AA:779:C:O4'	2.19	0.43
1:AA:1100:C:O2'	1:AA:1102:A:OP1	2.28	0.43
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.84	0.43
1:AA:1179:A:O3'	9:AI:103:THR:HG23	2.19	0.43
1:AA:1250:A:H2	1:AA:1353:G:H21	1.66	0.43
1:AA:1329:A:H4'	13:AM:24:GLY:HA2	1.99	0.43
2:AB:15:VAL:N	2:AB:16:HIS:CE1	2.87	0.43
4:AD:101:LEU:HA	4:AD:101:LEU:HD12	1.81	0.43
4:AD:113:SER:O	4:AD:114:ARG:C	2.56	0.43
5:AE:71:LEU:HD22	5:AE:115:VAL:HG22	2.01	0.43
6:AF:72:VAL:O	6:AF:73:ASN:C	2.57	0.43
7:AG:87:VAL:CG1	7:AG:88:PRO:HD2	2.49	0.43
10:AJ:33:GLN:N	10:AJ:75:ILE:HD11	2.34	0.43
12:AL:77:LEU:CD1	12:AL:83:VAL:HG21	2.49	0.43
15:AO:21:ASP:OD2	15:AO:24:SER:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:57:VAL:HG12	17:AQ:76:LEU:CD1	2.49	0.43
20:AT:64:ASP:HA	20:AT:67:ALA:HB2	2.00	0.43
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.72	0.43
22:AV:20:G:H21	22:AV:58:A:H1'	1.84	0.43
22:AV:60:A:C2'	22:AV:61:U:H5'	2.49	0.43
23:AW:9:A:N6	23:AW:22:G:C5	2.87	0.43
23:AW:39:U:O2	23:AW:39:U:C3'	2.67	0.43
25:BA:519:U:H2'	25:BA:520:G:C8	2.54	0.43
25:BA:619:G:H3'	25:BA:620:G:H21	1.83	0.43
25:BA:668:G:C8	25:BA:670:A:C8	3.07	0.43
25:BA:952:G:P	37:BQ:16:ARG:NH2	2.92	0.43
25:BA:1224:C:H4'	42:BV:86:GLY:O	2.19	0.43
25:BA:1434:A:H61	25:BA:1558:A:H62	1.65	0.43
25:BA:1567:A:H2	28:BD:28:GLU:HB3	1.84	0.43
25:BA:2631:G:N2	29:BE:61:ARG:HH12	2.16	0.43
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.19	0.43
29:BE:60:ASN:CG	29:BE:62:PRO:HD2	2.37	0.43
32:BH:85:LYS:HD3	32:BH:133:VAL:CB	2.43	0.43
34:BN:123:TYR:HH	34:BN:130:HIS:CD2	2.37	0.43
35:BO:2:ILE:HD13	35:BO:2:ILE:HA	1.87	0.43
36:BP:96:THR:O	36:BP:100:LEU:HD23	2.19	0.43
37:BQ:55:VAL:HG12	37:BQ:64:ILE:CD1	2.49	0.43
37:BQ:114:ALA:C	37:BQ:116:GLU:N	2.73	0.43
38:BR:39:PRO:C	38:BR:41:ALA:N	2.71	0.43
41:BU:39:LEU:HD23	41:BU:39:LEU:HA	1.77	0.43
48:B1:86:SER:O	48:B1:90:ILE:HG12	2.18	0.43
2:CB:215:LEU:HA	2:CB:215:LEU:HD23	1.79	0.43
5:CE:60:TYR:CE1	5:CE:64:ARG:HD3	2.51	0.43
11:CK:62:GLN:CG	11:CK:63:LEU:N	2.79	0.43
15:CO:82:ILE:CD1	15:CO:87:ILE:HB	2.49	0.43
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.18	0.43
20:CT:72:LEU:HD22	20:CT:73:HIS:N	2.34	0.43
23:CW:13:C:N3	23:CW:23:A:N1	2.67	0.43
25:DA:483:A:O2'	45:DY:59:GLY:HA2	2.19	0.43
25:DA:724:U:H2'	25:DA:725:G:O4'	2.19	0.43
25:DA:753:C:OP2	25:DA:753:C:H6	1.99	0.43
25:DA:995:C:N3	34:DN:1:MET:CG	2.76	0.43
25:DA:1287:A:N6	25:DA:1288:U:C4	2.86	0.43
25:DA:1453:U:O2'	25:DA:1455:G:C8	2.65	0.43
25:DA:2208:A:H1'	25:DA:2219:G:C2	2.53	0.43
25:DA:2824:C:H2'	25:DA:2825:C:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:191:ALA:O	27:DC:195:ALA:HB3	2.18	0.43
28:DD:26:LYS:NZ	28:DD:82:ILE:O	2.44	0.43
28:DD:35:LYS:HD3	28:DD:35:LYS:HA	1.89	0.43
30:DF:40:GLN:HE22	30:DF:184:TYR:HB3	1.84	0.43
31:DG:68:PRO:HG2	31:DG:90:LEU:CD1	2.49	0.43
31:DG:137:GLU:HB2	31:DG:152:LEU:HD22	2.00	0.43
33:DI:78:THR:HG22	33:DI:141:LYS:HD2	2.00	0.43
33:DI:112:LYS:H	33:DI:112:LYS:HG2	1.67	0.43
34:DN:34:LEU:HD12	34:DN:34:LEU:HA	1.79	0.43
39:DS:69:VAL:HG13	39:DS:101:LEU:CD2	2.49	0.43
40:DT:39:ARG:C	40:DT:40:THR:CG2	2.87	0.43
41:DU:65:ILE:HD11	41:DU:96:ALA:HB3	2.00	0.43
45:DY:75:ILE:HB	45:DY:80:GLY:HA2	2.00	0.43
46:DZ:8:TYR:HB2	46:DZ:38:TYR:CZ	2.54	0.43
49:D2:10:LEU:HD23	49:D2:10:LEU:HA	1.83	0.43
1:AA:246:A:N6	1:AA:279:A:C4	2.87	0.43
1:AA:323:U:H5'	20:AT:23:ARG:HB2	2.00	0.43
1:AA:668:G:O2'	15:AO:46:HIS:HD2	2.01	0.43
1:AA:939:G:H5"	7:AG:102:ARG:CZ	2.47	0.43
1:AA:1276:G:C2'	1:AA:1277:C:H5'	2.49	0.43
1:AA:1342:C:H1'	9:AI:124:GLN:OE1	2.19	0.43
2:AB:15:VAL:H	2:AB:16:HIS:CE1	2.37	0.43
2:AB:70:PHE:CE2	2:AB:163:PHE:HD1	2.37	0.43
3:AC:29:TYR:C	3:AC:29:TYR:HD2	2.21	0.43
3:AC:196:LEU:HB3	3:AC:197:GLY:H	1.66	0.43
4:AD:80:GLU:OE2	4:AD:80:GLU:HA	2.18	0.43
5:AE:105:VAL:N	5:AE:106:PRO:CD	2.82	0.43
7:AG:60:LYS:HA	7:AG:60:LYS:HZ2	1.80	0.43
9:AI:50:LEU:O	9:AI:54:ASP:N	2.50	0.43
9:AI:97:LYS:HE2	9:AI:97:LYS:HB2	1.77	0.43
10:AJ:50:ILE:O	10:AJ:51:ARG:C	2.58	0.43
12:AL:6:THR:O	12:AL:10:LEU:HD12	2.18	0.43
12:AL:10:LEU:HB3	17:AQ:32:TYR:CE1	2.54	0.43
19:AS:14:HIS:CD2	19:AS:15:LEU:HD22	2.53	0.43
23:AW:53:G:N1	23:AW:54:U:C4	2.87	0.43
25:BA:1273:U:H5'	25:BA:1274:A:OP1	2.19	0.43
25:BA:1654:A:OP2	38:BR:3:HIS:ND1	2.52	0.43
25:BA:1952:A:N3	25:BA:2560:C:O2'	2.48	0.43
25:BA:2847:U:C4	25:BA:2848:G:C2	3.07	0.43
27:BC:54:SER:O	27:BC:55:ASP:HB3	2.18	0.43
28:BD:264:LYS:HG2	28:BD:265:PRO:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:75:LYS:HB2	31:BG:77:ILE:HD11	2.00	0.43
33:BI:15:VAL:C	33:BI:17:GLN:H	2.22	0.43
34:BN:15:LEU:HD12	34:BN:16:ILE:H	1.82	0.43
35:BO:3:GLN:CB	35:BO:4:PRO:HD2	2.42	0.43
35:BO:104:ARG:HH22	40:BT:35:LYS:HZ1	1.65	0.43
38:BR:103:ARG:O	38:BR:104:ARG:C	2.56	0.43
39:BS:98:VAL:HG22	39:BS:100:ALA:N	2.33	0.43
40:BT:88:ILE:HG22	40:BT:89:VAL:CG2	2.34	0.43
41:BU:74:LEU:HD11	41:BU:79:PHE:HB2	2.01	0.43
42:BV:57:VAL:HG23	42:BV:98:GLU:O	2.18	0.43
43:BW:51:LEU:HD13	43:BW:52:GLU:HA	2.01	0.43
49:B2:63:VAL:O	49:B2:64:LEU:C	2.58	0.43
50:B3:39:ASP:OD1	50:B3:44:ARG:CG	2.65	0.43
55:B8:2:PRO:O	55:B8:3:LYS:C	2.57	0.43
55:B8:16:ILE:CG2	55:B8:64:TYR:HD2	2.32	0.43
55:B8:64:TYR:N	55:B8:64:TYR:CD1	2.86	0.43
1:CA:244:U:O4	1:CA:906:G:H1'	2.18	0.43
1:CA:511:C:C2	1:CA:512:U:C4	3.07	0.43
1:CA:815:A:H4'	1:CA:817:C:C4	2.54	0.43
1:CA:859:A:H2'	1:CA:860:A:O4'	2.19	0.43
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.52	0.43
1:CA:950:U:H2'	1:CA:951:G:C8	2.54	0.43
1:CA:1151:A:H2'	1:CA:1152:A:C8	2.54	0.43
3:CC:134:ILE:N	3:CC:134:ILE:HD13	2.33	0.43
4:CD:19:LEU:CB	4:CD:21:LEU:HD11	2.48	0.43
4:CD:122:ARG:HD2	4:CD:122:ARG:HA	1.71	0.43
9:CI:84:ALA:O	9:CI:87:GLN:HB3	2.19	0.43
12:CL:46:LYS:CG	12:CL:47:LYS:N	2.54	0.43
12:CL:115:LYS:O	12:CL:117:ARG:N	2.52	0.43
18:CR:56:THR:CB	18:CR:58:LEU:CD1	2.97	0.43
23:CW:21:A:C6	23:CW:46:G:C4	3.07	0.43
25:DA:197:A:N6	25:DA:2430:A:H2'	2.34	0.43
25:DA:286:C:C2'	25:DA:287:C:H5'	2.49	0.43
25:DA:670:A:H4'	25:DA:671:C:O5'	2.18	0.43
25:DA:1288:U:O2'	25:DA:1647:G:N2	2.52	0.43
25:DA:2111:C:O4'	25:DA:2118:U:H1'	2.18	0.43
25:DA:2457:U:O4	25:DA:2458:G:C6	2.72	0.43
25:DA:2820:A:O4'	38:DR:4:LEU:HD23	2.18	0.43
28:DD:81:ALA:HA	28:DD:113:VAL:CG1	2.49	0.43
28:DD:231:HIS:CG	28:DD:232:PRO:HD2	2.54	0.43
30:DF:9:ILE:CD1	30:DF:125:LEU:HG	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:34:TRP:HD1	36:DP:6:LEU:HB3	1.84	0.43
31:DG:14:GLU:O	31:DG:17:PRO:HG2	2.19	0.43
32:DH:12:PRO:HD3	32:DH:48:GLY:O	2.19	0.43
32:DH:41:MET:CE	32:DH:64:LEU:HB2	2.49	0.43
36:DP:112:LEU:C	36:DP:112:LEU:HD13	2.39	0.43
36:DP:114:ILE:HG23	36:DP:127:ALA:HB2	2.01	0.43
37:DQ:16:ARG:HG2	37:DQ:17:LEU:H	1.83	0.43
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CD2	2.54	0.43
38:DR:52:ILE:HD13	38:DR:79:LEU:HD21	2.01	0.43
39:DS:18:ILE:HD12	39:DS:88:ASP:HA	2.00	0.43
40:DT:134:GLU:O	40:DT:135:ALA:HB3	2.19	0.43
44:DX:12:VAL:CG2	44:DX:13:LEU:N	2.82	0.43
45:DY:19:LYS:O	45:DY:20:TYR:CD1	2.72	0.43
46:DZ:58:VAL:HG13	46:DZ:67:LEU:N	2.34	0.43
46:DZ:70:LEU:HD23	46:DZ:70:LEU:HA	1.87	0.43
49:D2:56:GLN:HE21	49:D2:56:GLN:HA	1.84	0.43
55:D8:23:VAL:HG11	55:D8:46:ARG:HH11	1.81	0.43
1:AA:533:A:O2'	1:AA:534:U:O5'	2.37	0.42
1:AA:1135:U:H2'	1:AA:1137:C:H1'	2.01	0.42
1:AA:1214:C:H4'	1:AA:1215:G:OP1	2.19	0.42
2:AB:19:HIS:CE1	2:AB:205:ASP:OD1	2.72	0.42
2:AB:174:VAL:HG13	2:AB:184:VAL:HG11	2.01	0.42
2:AB:212:GLN:C	2:AB:212:GLN:OE1	2.58	0.42
3:AC:132:ARG:O	3:AC:133:ALA:C	2.57	0.42
4:AD:12:CYS:O	4:AD:17:VAL:O	2.37	0.42
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	2.01	0.42
4:AD:202:LEU:O	4:AD:205:GLU:HB2	2.19	0.42
8:AH:19:VAL:O	8:AH:19:VAL:HG23	2.18	0.42
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.33	0.42
12:AL:92:ASP:O	12:AL:93:LEU:HD23	2.19	0.42
14:AN:15:LYS:HD2	14:AN:16:PHE:CZ	2.54	0.42
17:AQ:50:LYS:HG3	17:AQ:51:TYR:N	2.34	0.42
17:AQ:74:LEU:O	17:AQ:75:ARG:HB3	2.19	0.42
25:BA:844:C:H2'	25:BA:845:G:O4'	2.19	0.42
25:BA:958:U:H5	37:BQ:41:TRP:CE3	2.36	0.42
25:BA:994:C:OP2	41:BU:54:LYS:NZ	2.52	0.42
25:BA:1385:G:O6	25:BA:1403:C:N3	2.51	0.42
25:BA:1652:A:N6	25:BA:1653:G:C2	2.87	0.42
25:BA:2660:A:H2'	25:BA:2661:G:O4'	2.19	0.42
26:BB:83:G:H4'	50:B3:52:HIS:CD2	2.53	0.42
28:BD:33:LEU:CD2	28:BD:102:LYS:HE3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:48:GLN:HG2	29:BE:48:GLN:O	2.18	0.42
31:BG:115:ARG:HH22	31:BG:136:ARG:NH1	2.16	0.42
34:BN:93:THR:O	34:BN:94:HIS:CB	2.67	0.42
34:BN:134:ARG:O	34:BN:136:GLU:N	2.52	0.42
36:BP:112:LEU:HD13	36:BP:112:LEU:C	2.39	0.42
37:BQ:35:VAL:HG22	37:BQ:36:ALA:O	2.19	0.42
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	2.01	0.42
39:BS:14:VAL:HG12	39:BS:17:ARG:HG2	2.00	0.42
40:BT:50:ILE:O	40:BT:99:LEU:HD12	2.19	0.42
40:BT:128:GLU:H	40:BT:128:GLU:HG3	1.66	0.42
41:BU:61:TRP:O	41:BU:62:ILE:C	2.56	0.42
43:BW:31:GLU:O	43:BW:34:ASN:HB2	2.19	0.42
45:BY:27:VAL:HG12	45:BY:29:GLU:H	1.84	0.42
47:B0:27:GLU:HB2	47:B0:69:PHE:CD1	2.42	0.42
53:B6:33:LYS:HE2	53:B6:33:LYS:HA	2.00	0.42
53:B6:41:PRO:HB2	53:B6:42:TRP:H	1.52	0.42
1:CA:60:A:C2	1:CA:378:G:H1'	2.54	0.42
1:CA:129:U:O2'	1:CA:130:A:OP1	2.30	0.42
1:CA:381:C:H2'	1:CA:382:A:O4'	2.19	0.42
1:CA:1031:G:H2'	1:CA:1032:G:C8	2.54	0.42
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.54	0.42
2:CB:19:HIS:CG	2:CB:20:GLU:N	2.86	0.42
3:CC:107:GLN:N	3:CC:107:GLN:OE1	2.49	0.42
9:CI:43:ALA:C	9:CI:45:ALA:H	2.21	0.42
10:CJ:26:ALA:HA	10:CJ:29:ARG:HH21	1.84	0.42
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	2.00	0.42
17:CQ:33:GLY:O	17:CQ:34:LYS:O	2.36	0.42
19:CS:63:THR:HG22	19:CS:66:MET:HG3	1.86	0.42
22:CV:35:C:N4	24:CX:18:G:H1	2.16	0.42
24:CX:16:A:C2	24:CX:17:U:C6	3.06	0.42
23:CY:36:A:C8	23:CY:36:A:C5'	2.99	0.42
25:DA:127:A:H5"	25:DA:128:C:C6	2.54	0.42
25:DA:345:A:O2'	25:DA:346:A:N7	2.49	0.42
25:DA:1236:G:O2'	25:DA:1237:A:H8	2.02	0.42
25:DA:1342:A:O4'	25:DA:1397:U:C4'	2.68	0.42
25:DA:1542:A:HO2'	25:DA:1543:C:P	2.41	0.42
25:DA:2124:G:H1	25:DA:2174:C:H42	1.67	0.42
25:DA:2517:C:C4	25:DA:2542:A:C6	3.07	0.42
28:DD:118:VAL:HG22	28:DD:119:ALA:H	1.81	0.42
31:DG:47:LYS:NZ	31:DG:81:LYS:HG2	2.34	0.42
32:DH:80:SER:C	32:DH:81:GLU:OE1	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:26:LYS:O	35:DO:27:GLY:O	2.37	0.42
36:DP:34:GLY:O	36:DP:36:LYS:HB2	2.19	0.42
36:DP:46:LYS:HG2	36:DP:51:PHE:CE1	2.54	0.42
37:DQ:56:ARG:CZ	37:DQ:56:ARG:HA	2.49	0.42
41:DU:8:VAL:HG12	41:DU:12:ARG:HG3	2.00	0.42
46:DZ:28:MET:HA	46:DZ:88:PHE:O	2.18	0.42
1:AA:397:A:H3'	1:AA:397:A:N3	2.33	0.42
1:AA:963:G:N2	1:AA:972:C:O2	2.52	0.42
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.34	0.42
5:AE:109:ILE:HD12	5:AE:135:THR:HB	2.01	0.42
6:AF:61:LEU:HB3	6:AF:62:TRP:H	1.51	0.42
6:AF:82:ARG:HA	6:AF:82:ARG:HD2	1.46	0.42
7:AG:3:ARG:NH1	7:AG:3:ARG:HG3	2.33	0.42
7:AG:62:PHE:HA	7:AG:124:LEU:HD21	2.01	0.42
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	2.01	0.42
8:AH:26:VAL:HG22	8:AH:27:PRO:O	2.19	0.42
8:AH:42:GLU:HG3	8:AH:109:ILE:CD1	2.48	0.42
10:AJ:55:LYS:O	10:AJ:56:HIS:CG	2.72	0.42
10:AJ:62:HIS:O	14:AN:59:ALA:CB	2.62	0.42
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.49	0.42
12:AL:64:TYR:HB3	12:AL:65:GLU:H	1.15	0.42
13:AM:67:GLU:C	13:AM:67:GLU:CD	2.77	0.42
17:AQ:21:VAL:HG12	17:AQ:23:VAL:HG23	2.00	0.42
20:AT:10:LEU:HD22	20:AT:12:ALA:HB2	2.01	0.42
20:AT:43:LEU:HB3	20:AT:48:LYS:HB2	2.01	0.42
20:AT:53:LEU:HD22	20:AT:53:LEU:HA	1.76	0.42
22:AV:73:A:N6	22:AV:74:A:C6	2.88	0.42
23:AW:70:G:H2'	23:AW:70:G:N3	2.34	0.42
23:AY:37:A:O2'	25:BA:1913:A:N1	2.50	0.42
25:BA:197:A:H62	25:BA:2430:A:H2'	1.84	0.42
25:BA:271(F):C:H2'	25:BA:271(G):C:H6	1.83	0.42
25:BA:272:G:O2'	25:BA:272(A):U:O5'	2.25	0.42
25:BA:663:G:H5"	36:BP:18:ARG:HG3	2.00	0.42
25:BA:1385:G:C6	25:BA:1403:C:N3	2.87	0.42
25:BA:1386:C:O2'	25:BA:1387:C:H5'	2.19	0.42
25:BA:1747(A):G:C2'	25:BA:1748:G:H5"	2.47	0.42
25:BA:1846:G:H5'	25:BA:1847:A:OP2	2.19	0.42
25:BA:2344:U:O2'	25:BA:2345:G:O5'	2.32	0.42
28:BD:61:LEU:O	28:BD:63:ARG:NH1	2.52	0.42
28:BD:181:GLU:HG2	28:BD:182:LEU:N	2.33	0.42
29:BE:7:VAL:CG2	29:BE:27:LEU:HB3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:39:PRO:O	29:BE:43:GLY:N	2.52	0.42
29:BE:72:VAL:O	29:BE:73:GLU:O	2.38	0.42
29:BE:119:ARG:HG2	29:BE:160:TYR:HB2	2.01	0.42
29:BE:150:VAL:HG12	29:BE:151:TYR:N	2.32	0.42
31:BG:47:LYS:HZ3	31:BG:82:LEU:HD12	1.82	0.42
32:BH:144:VAL:O	32:BH:148:ILE:HG12	2.18	0.42
33:BI:92:VAL:HG13	33:BI:120:ILE:HB	2.01	0.42
34:BN:18:ALA:CB	34:BN:21:LYS:HB3	2.48	0.42
37:BQ:59:ARG:H	37:BQ:59:ARG:HG2	1.67	0.42
42:BV:98:GLU:CD	42:BV:100:ARG:HD3	2.38	0.42
45:BY:44:ILE:O	45:BY:62:GLU:HG2	2.19	0.42
46:BZ:23:LYS:HB3	46:BZ:38:TYR:CD1	2.54	0.42
48:B1:64:ALA:C	48:B1:66:HIS:N	2.72	0.42
49:B2:53:LEU:O	49:B2:54:LYS:C	2.57	0.42
49:B2:61:LEU:HA	49:B2:61:LEU:HD23	1.71	0.42
54:B7:11:LYS:O	54:B7:15:THR:HB	2.19	0.42
2:CB:103:THR:OG1	2:CB:176:GLU:CG	2.68	0.42
2:CB:159:PRO:C	2:CB:161:ALA:H	2.21	0.42
2:CB:223:ILE:HA	2:CB:226:ARG:CG	2.46	0.42
3:CC:102:ASN:O	3:CC:103:VAL:CG2	2.67	0.42
3:CC:188:LEU:HD12	3:CC:195:VAL:HG13	2.02	0.42
5:CE:118:ILE:HG13	5:CE:119:LEU:H	1.84	0.42
9:CI:121:ARG:NH1	9:CI:122:ALA:O	2.48	0.42
12:CL:117:ARG:O	12:CL:119:LYS:O	2.38	0.42
17:CQ:5:VAL:HG22	17:CQ:60:ILE:HG13	2.02	0.42
18:CR:63:GLN:O	18:CR:66:LEU:HB3	2.18	0.42
19:CS:10:PHE:HZ	19:CS:70:LYS:NZ	2.17	0.42
25:DA:221:A:O2'	25:DA:222:A:OP2	2.30	0.42
25:DA:459:U:H4'	54:D7:40:TRP:CZ3	2.54	0.42
25:DA:526:A:O2'	25:DA:2043:C:O2	2.31	0.42
25:DA:1022:G:O2'	25:DA:1024:G:N7	2.52	0.42
25:DA:1455:G:C2	25:DA:1456:G:C8	3.07	0.42
25:DA:1818:U:C5	28:DD:157:ARG:CZ	3.02	0.42
25:DA:2449:U:O2'	25:DA:2450:A:C8	2.72	0.42
25:DA:2449:U:O2'	25:DA:2450:A:H8	2.02	0.42
27:DC:83:ILE:HA	27:DC:94:VAL:CG2	2.50	0.42
27:DC:86:ALA:O	27:DC:91:ALA:HB3	2.19	0.42
28:DD:211:ARG:HA	28:DD:214:TRP:CG	2.54	0.42
29:DE:38:THR:HA	29:DE:39:PRO:HD3	1.86	0.42
29:DE:95:ILE:N	29:DE:95:ILE:CD1	2.82	0.42
31:DG:81:LYS:N	31:DG:81:LYS:CD	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:128:LEU:HD13	33:DI:128:LEU:C	2.39	0.42
34:DN:10:GLU:OE2	34:DN:11:PRO:HD2	2.19	0.42
34:DN:26:LEU:HG	34:DN:30:ILE:CD1	2.49	0.42
34:DN:128:HIS:C	34:DN:130:HIS:H	2.23	0.42
36:DP:38:GLN:HG2	36:DP:45:LEU:CD1	2.49	0.42
37:DQ:20:ALA:H	46:DZ:79:ARG:HD2	1.84	0.42
37:DQ:76:LYS:HB3	37:DQ:91:GLU:HG3	2.01	0.42
37:DQ:81:VAL:CG2	37:DQ:82:ARG:N	2.82	0.42
38:DR:70:LEU:HD13	38:DR:75:LEU:HD12	2.01	0.42
45:DY:50:ARG:C	45:DY:52:SER:H	2.22	0.42
45:DY:81:LYS:HZ3	45:DY:98:VAL:CG1	2.29	0.42
49:D2:34:GLU:O	49:D2:38:GLN:CG	2.67	0.42
50:D3:29:ARG:HG3	50:D3:29:ARG:NH1	2.33	0.42
1:AA:664:G:OP1	18:AR:64:ARG:NE	2.49	0.42
1:AA:687:A:O2'	1:AA:688:G:P	2.78	0.42
1:AA:791:G:H5"	1:AA:792:A:OP2	2.19	0.42
1:AA:811:C:O2'	1:AA:901:A:N1	2.49	0.42
1:AA:1060:C:H5"	10:AJ:51:ARG:HD2	2.01	0.42
1:AA:1316:G:N2	1:AA:1319:A:OP2	2.51	0.42
2:AB:114:ARG:HA	2:AB:117:GLU:HB2	2.01	0.42
2:AB:124:SER:C	2:AB:126:GLU:H	2.22	0.42
2:AB:168:THR:HG23	2:AB:192:SER:CB	2.49	0.42
3:AC:122:GLU:O	3:AC:126:ARG:HG3	2.19	0.42
4:AD:20:TYR:CE2	4:AD:27:TYR:CE2	3.02	0.42
8:AH:138:TRP:OXT	8:AH:138:TRP:HE3	2.02	0.42
9:AI:87:GLN:O	9:AI:90:PRO:HD3	2.20	0.42
9:AI:95:LYS:NZ	9:AI:96:LEU:HD13	2.33	0.42
11:AK:82:VAL:HG12	11:AK:82:VAL:O	2.18	0.42
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	2.01	0.42
19:AS:17:GLU:O	19:AS:21:GLU:HG3	2.20	0.42
20:AT:44:ALA:C	20:AT:91:LEU:HB3	2.39	0.42
21:AU:2:GLY:C	21:AU:4:GLY:N	2.62	0.42
23:AY:39:U:H2'	23:AY:40:C:C6	2.49	0.42
25:BA:34:C:C6	25:BA:34:C:C3'	3.02	0.42
25:BA:171:G:H2'	25:BA:172:C:C6	2.54	0.42
25:BA:591:C:H1'	55:B8:2:PRO:HA	1.99	0.42
25:BA:995:C:OP2	41:BU:54:LYS:NZ	2.41	0.42
25:BA:1009:A:P	34:BN:37:LYS:HZ1	2.39	0.42
25:BA:1300:U:O4'	25:BA:1626:G:C2	2.73	0.42
25:BA:1390:U:C2	25:BA:1395:A:N6	2.88	0.42
25:BA:2122:U:H2'	25:BA:2123:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2712(A):A:H4'	38:BR:13:HIS:CB	2.49	0.42
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.53	0.42
25:BA:2876:G:H4'	40:BT:2:ASN:O	2.19	0.42
27:BC:73:ARG:HG2	27:BC:92:ASP:OD1	2.19	0.42
27:BC:77:ILE:HD11	27:BC:100:ILE:HD11	2.02	0.42
27:BC:194:ARG:C	27:BC:196:LEU:H	2.23	0.42
28:BD:31:LYS:HD3	28:BD:94:LEU:HD11	2.01	0.42
28:BD:165:ILE:HG22	28:BD:166:GLN:N	2.34	0.42
28:BD:172:TYR:CD2	28:BD:184:LYS:HD2	2.53	0.42
28:BD:233:HIS:NE2	28:BD:247:ALA:N	2.65	0.42
29:BE:176:ILE:N	29:BE:176:ILE:CD1	2.82	0.42
29:BE:177:PRO:HG2	29:BE:178:GLU:H	1.84	0.42
31:BG:7:LEU:HD12	31:BG:104:GLU:N	2.34	0.42
32:BH:62:LYS:C	32:BH:64:LEU:H	2.21	0.42
33:BI:133:HIS:O	33:BI:134:PRO:C	2.57	0.42
34:BN:12:ARG:O	34:BN:13:TRP:C	2.58	0.42
34:BN:42:TRP:CZ3	34:BN:48:MET:HE3	2.54	0.42
39:BS:42:ASP:C	39:BS:44:LYS:N	2.73	0.42
41:BU:111:GLU:O	41:BU:113:ALA:N	2.52	0.42
44:BX:12:VAL:HA	44:BX:27:THR:OG1	2.20	0.42
44:BX:35:THR:O	44:BX:37:THR:N	2.52	0.42
45:BY:67:LEU:CD1	45:BY:71:LYS:CG	2.92	0.42
45:BY:77:PRO:O	45:BY:78:ALA:HB2	2.19	0.42
46:BZ:132:ASN:HB3	46:BZ:159:PRO:O	2.19	0.42
50:B3:4:LEU:HD23	50:B3:57:GLU:O	2.18	0.42
55:B8:23:VAL:HA	55:B8:47:LYS:O	2.17	0.42
1:CA:246:A:C4	1:CA:282:A:N6	2.87	0.42
1:CA:251:G:C4	1:CA:252:U:H5	2.37	0.42
1:CA:261:U:OP2	20:CT:79:ARG:NH2	2.51	0.42
1:CA:371:G:O2'	1:CA:373:A:N7	2.49	0.42
1:CA:473:G:H5"	16:CP:81:ARG:HH21	1.84	0.42
1:CA:855:G:O5'	1:CA:871:U:O4	2.37	0.42
1:CA:1504:G:P	1:CA:1504:G:C3'	3.05	0.42
4:CD:198:VAL:CG1	4:CD:199:ASN:H	2.28	0.42
5:CE:90:VAL:HG23	5:CE:121:LYS:N	2.33	0.42
6:CF:48:LEU:HD13	6:CF:52:ILE:HG12	2.01	0.42
9:CI:10:ARG:CD	9:CI:75:ASP:HB3	2.48	0.42
9:CI:102:LEU:HD22	9:CI:102:LEU:HA	1.85	0.42
10:CJ:22:LYS:O	10:CJ:24:VAL:N	2.44	0.42
10:CJ:47:PHE:CE2	14:CN:37:PHE:CE2	3.08	0.42
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:28:LYS:C	12:CL:30:ALA:N	2.72	0.42
14:CN:44:LEU:C	14:CN:44:LEU:CD1	2.85	0.42
18:CR:23:LYS:HB3	18:CR:56:THR:O	2.18	0.42
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.20	0.42
25:DA:517:C:OP1	52:D5:16:ARG:NH2	2.52	0.42
25:DA:784:A:C5	28:DD:229:VAL:HG21	2.53	0.42
25:DA:890:A:C5	25:DA:892:G:C5	3.07	0.42
25:DA:1022:G:H4'	25:DA:1023:U:O5'	2.20	0.42
25:DA:1191:G:P	36:DP:32:THR:HB	2.60	0.42
25:DA:1363:C:H2'	25:DA:1364:G:H8	1.85	0.42
25:DA:1711:C:H2'	25:DA:1712:C:C6	2.54	0.42
25:DA:2198:A:H1'	33:DI:28:ASN:O	2.20	0.42
26:DB:42:C:O2'	31:DG:67:LYS:HD2	2.20	0.42
26:DB:66:A:C2	26:DB:109:C:C2	3.07	0.42
28:DD:69:ARG:NH2	28:DD:192:THR:HB	2.34	0.42
30:DF:178:PRO:HB3	30:DF:198:ALA:HB1	2.01	0.42
31:DG:35:GLU:O	31:DG:36:LYS:HB3	2.18	0.42
32:DH:45:VAL:O	32:DH:45:VAL:HG13	2.19	0.42
33:DI:52:ARG:HB3	33:DI:52:ARG:CZ	2.49	0.42
33:DI:92:VAL:O	33:DI:92:VAL:CG2	2.67	0.42
34:DN:23:LEU:HB3	34:DN:60:ILE:CG2	2.44	0.42
36:DP:61:ARG:NH1	55:D8:13:ARG:CD	2.82	0.42
40:DT:3:ARG:O	40:DT:7:ILE:HG12	2.19	0.42
46:DZ:99:TYR:HB3	46:DZ:123:ASP:OD1	2.20	0.42
49:D2:20:GLU:O	49:D2:23:LYS:HB2	2.19	0.42
1:AA:35:G:H2'	1:AA:36:C:C6	2.55	0.42
1:AA:198:G:H2'	1:AA:199:G:H8	1.83	0.42
1:AA:324:G:N2	1:AA:327:A:C8	2.87	0.42
1:AA:806:C:H2'	1:AA:807:A:C8	2.54	0.42
1:AA:885:G:HO2'	1:AA:914:A:H2	1.67	0.42
1:AA:1189:C:H5"	3:AC:5:ILE:CG2	2.49	0.42
1:AA:1343:G:C4'	9:AI:122:ALA:HB3	2.47	0.42
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.22	0.42
2:AB:188:ALA:O	2:AB:189:ASP:HB3	2.20	0.42
3:AC:135:LYS:O	3:AC:139:GLN:HB2	2.20	0.42
4:AD:120:LEU:HD23	4:AD:120:LEU:HA	1.74	0.42
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	2.00	0.42
14:AN:25:VAL:HG12	14:AN:26:ARG:N	2.34	0.42
17:AQ:16:GLN:O	17:AQ:17:LYS:HB2	2.20	0.42
18:AR:25:THR:O	18:AR:25:THR:HG22	2.19	0.42
18:AR:37:VAL:HG12	18:AR:79:LEU:HD23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:28:LYS:HD3	19:AS:28:LYS:HA	1.78	0.42
23:AW:51:U:C4	23:AW:52:G:N7	2.87	0.42
24:AX:13:A:N1	24:AX:14:A:C8	2.86	0.42
25:BA:35:G:C5	25:BA:454:A:C2	3.07	0.42
25:BA:1212:G:O2'	25:BA:1236:G:N2	2.53	0.42
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.55	0.42
25:BA:2320:A:H1'	25:BA:2321:G:C6	2.54	0.42
28:BD:165:ILE:HA	28:BD:175:LEU:HD23	2.01	0.42
29:BE:13:ARG:NH2	40:BT:77:PRO:HB3	2.35	0.42
29:BE:56:PRO:O	29:BE:57:LYS:HB2	2.18	0.42
29:BE:179:GLU:HA	29:BE:179:GLU:OE1	2.20	0.42
30:BF:64:ILE:N	30:BF:76:GLY:O	2.44	0.42
32:BH:75:ALA:O	32:BH:79:VAL:HG13	2.18	0.42
33:BI:66:GLU:HA	33:BI:69:LYS:HB3	2.01	0.42
33:BI:78:THR:HG23	33:BI:141:LYS:HB2	2.00	0.42
33:BI:132:PRO:HD2	33:BI:133:HIS:CE1	2.54	0.42
34:BN:26:LEU:CG	34:BN:30:ILE:HD11	2.50	0.42
35:BO:63:VAL:CG1	35:BO:106:LEU:HD11	2.49	0.42
35:BO:98:VAL:HG12	35:BO:117:LEU:CD2	2.45	0.42
36:BP:124:LYS:HE3	36:BP:145:PRO:HD3	2.02	0.42
38:BR:107:ASP:C	38:BR:107:ASP:OD2	2.58	0.42
40:BT:57:PHE:O	40:BT:59:THR:HG22	2.18	0.42
43:BW:12:ILE:O	43:BW:12:ILE:CG2	2.66	0.42
43:BW:20:VAL:O	43:BW:21:VAL:C	2.54	0.42
46:BZ:3:TYR:O	46:BZ:57:ILE:HA	2.18	0.42
46:BZ:29:TYR:O	46:BZ:29:TYR:HD1	2.02	0.42
46:BZ:159:PRO:C	46:BZ:161:VAL:H	2.23	0.42
49:B2:63:VAL:HA	49:B2:66:GLU:CG	2.49	0.42
50:B3:23:LEU:HD23	50:B3:28:LEU:HB2	2.01	0.42
52:B5:16:ARG:NH1	52:B5:17:ASP:OD1	2.52	0.42
52:B5:36:CYS:HB2	52:B5:49:CYS:HG	1.80	0.42
55:B8:61:LEU:N	55:B8:63:PRO:HD2	2.35	0.42
1:CA:31:G:N7	1:CA:48:C:C2	2.88	0.42
1:CA:765:G:N2	1:CA:812:C:HO2'	2.17	0.42
1:CA:1226:C:O2'	1:CA:1227:A:O5'	2.30	0.42
1:CA:1446:U:O2	1:CA:1457:G:C6	2.72	0.42
1:CA:1456:G:N3	1:CA:1456:G:C5'	2.77	0.42
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.20	0.42
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.93	0.42
2:CB:90:MET:HA	2:CB:90:MET:HE2	2.01	0.42
4:CD:162:LEU:O	4:CD:163:GLU:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.34	0.42
6:CF:82:ARG:HD2	6:CF:82:ARG:HA	1.81	0.42
7:CG:146:GLU:O	7:CG:149:ARG:CB	2.67	0.42
8:CH:112:LEU:HD12	8:CH:112:LEU:C	2.40	0.42
10:CJ:63:PHE:HD1	14:CN:58:LYS:HG2	1.85	0.42
10:CJ:71:LEU:O	10:CJ:72:VAL:HG23	2.20	0.42
13:CM:87:TYR:C	13:CM:89:GLY:N	2.73	0.42
16:CP:4:ILE:HB	16:CP:66:PRO:CB	2.45	0.42
19:CS:25:LYS:O	19:CS:27:GLU:OE1	2.37	0.42
23:CW:50:U:C4	23:CW:65:G:N2	2.87	0.42
25:DA:51:G:H1'	25:DA:118:A:N6	2.34	0.42
25:DA:195:A:OP1	36:DP:46:LYS:HE2	2.19	0.42
25:DA:9271:G:H2'	25:DA:9272:G:C8	2.54	0.42
25:DA:307:G:N2	25:DA:310:A:OP2	2.52	0.42
25:DA:752:A:C4'	25:DA:753:C:O5'	2.58	0.42
25:DA:1042:G:H1	25:DA:1113:U:H3	1.67	0.42
25:DA:1408:C:H2'	25:DA:1409:C:C6	2.54	0.42
25:DA:1637:A:H4'	25:DA:2711:A:O2'	2.19	0.42
25:DA:2116:G:O2'	25:DA:2117:A:OP1	2.36	0.42
25:DA:2438:U:O5'	25:DA:2438:U:H6	2.03	0.42
25:DA:2867:G:C5	40:DT:23:ARG:NH1	2.87	0.42
27:DC:214:VAL:C	27:DC:216:THR:N	2.73	0.42
28:DD:149:PRO:O	28:DD:150:LYS:HB2	2.18	0.42
28:DD:218:ARG:HG3	28:DD:218:ARG:NH1	2.31	0.42
29:DE:39:PRO:HA	29:DE:43:GLY:CA	2.49	0.42
29:DE:47:VAL:HG21	29:DE:86:PRO:HD3	2.00	0.42
30:DF:59:TYR:HD1	30:DF:78:ILE:HB	1.83	0.42
30:DF:133:ASN:O	30:DF:135:LYS:HB2	2.20	0.42
33:DI:11:ASN:C	33:DI:12:LEU:HD13	2.40	0.42
33:DI:56:LYS:HG3	33:DI:57:ARG:N	2.34	0.42
34:DN:10:GLU:HA	34:DN:11:PRO:HD2	1.79	0.42
36:DP:47:ASP:CG	36:DP:49:ARG:HB2	2.39	0.42
36:DP:147:LEU:C	36:DP:148:LEU:HD23	2.38	0.42
37:DQ:18:LYS:O	37:DQ:98:LYS:HD3	2.19	0.42
39:DS:26:LEU:HD22	39:DS:87:PHE:CD1	2.54	0.42
39:DS:49:VAL:CG1	39:DS:76:LYS:HB2	2.49	0.42
46:DZ:38:TYR:HD1	46:DZ:39:VAL:O	2.03	0.42
50:D3:1:MET:CE	50:D3:41:PRO:HD3	2.49	0.42
52:D5:57:VAL:C	52:D5:58:LEU:CD2	2.69	0.42
1:AA:189(F):U:H2'	17:AQ:63:ARG:NH2	2.30	0.42
1:AA:591:U:OP2	8:AH:30:ARG:NH1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:607:A:C2	16:AP:31:LYS:HB2	2.54	0.42
1:AA:828:A:H62	1:AA:858:G:H21	1.68	0.42
1:AA:1240:U:C5	7:AG:109:ASN:OD1	2.73	0.42
1:AA:1277:C:O2'	1:AA:1278:U:C5'	2.68	0.42
1:AA:1442(A):G:H22	40:BT:119:LYS:HB2	1.85	0.42
3:AC:101:LEU:HD23	3:AC:101:LEU:C	2.39	0.42
3:AC:154:SER:OG	3:AC:155:GLY:N	2.51	0.42
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.19	0.42
8:AH:104:ARG:CZ	8:AH:138:TRP:CZ2	3.02	0.42
9:AI:118:LYS:HB2	9:AI:121:ARG:CB	2.50	0.42
10:AJ:35:SER:O	10:AJ:36:GLY:C	2.57	0.42
10:AJ:38:ILE:CG1	10:AJ:71:LEU:O	2.67	0.42
11:AK:12:ARG:CG	11:AK:13:GLN:N	2.82	0.42
11:AK:33:THR:HA	11:AK:40:ILE:HG12	2.01	0.42
13:AM:3:ARG:HD3	31:BG:113:ARG:HH21	1.85	0.42
14:AN:25:VAL:HB	14:AN:39:LEU:HD21	2.02	0.42
20:AT:58:LYS:O	20:AT:58:LYS:HG3	2.19	0.42
20:AT:81:LYS:C	20:AT:85:MET:HG3	2.39	0.42
25:BA:181:A:C2	25:BA:434:U:O2'	2.72	0.42
25:BA:320:A:H3'	30:BF:136:THR:CG2	2.50	0.42
25:BA:589:C:H2'	25:BA:590:A:H8	1.84	0.42
25:BA:1568:G:C5'	28:BD:61:LEU:HB2	2.48	0.42
25:BA:1854:A:H3'	25:BA:1855:G:H8	1.84	0.42
25:BA:1902:C:H5'	28:BD:246:PRO:HD3	2.01	0.42
25:BA:2079:U:O3'	48:B1:35:THR:OG1	2.32	0.42
25:BA:2262:U:H2'	25:BA:2263:C:C6	2.55	0.42
25:BA:2415:G:H4'	36:BP:66:GLY:HA3	2.01	0.42
25:BA:2638:G:P	29:BE:82:ARG:HH22	2.42	0.42
25:BA:2712:U:O2'	25:BA:2712(A):A:H3'	2.19	0.42
25:BA:2848:G:C5'	25:BA:2849:U:OP1	2.67	0.42
26:BB:20:C:C2'	26:BB:21:G:H5'	2.50	0.42
26:BB:20:C:H2'	26:BB:21:G:H5'	2.01	0.42
28:BD:12:SER:HB2	28:BD:208:LYS:CB	2.49	0.42
28:BD:175:LEU:HD12	28:BD:185:VAL:HG21	2.01	0.42
29:BE:18:ASP:O	29:BE:19:ARG:HB3	2.20	0.42
31:BG:29:TRP:C	31:BG:31:VAL:N	2.73	0.42
32:BH:89:ILE:O	32:BH:161:GLY:O	2.37	0.42
33:BI:79:ILE:HA	33:BI:80:PRO:HD2	1.84	0.42
34:BN:34:LEU:HD12	34:BN:34:LEU:HA	1.63	0.42
34:BN:65:LYS:H	34:BN:65:LYS:HD2	1.84	0.42
37:BQ:26:TYR:CE1	37:BQ:28:ALA:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:48:ALA:O	43:BW:51:LEU:N	2.52	0.42
45:BY:20:TYR:CE1	45:BY:42:VAL:CA	3.01	0.42
46:BZ:56:VAL:HG12	46:BZ:57:ILE:N	2.34	0.42
47:B0:84:LEU:H	47:B0:84:LEU:HD12	1.84	0.42
52:B5:32:PRO:O	52:B5:33:CYS:CB	2.63	0.42
1:CA:280:C:H1'	17:CQ:38:ARG:CD	2.49	0.42
1:CA:337:C:H2'	1:CA:338:A:C8	2.55	0.42
1:CA:1286:A:H5"	21:CU:25:LYS:HZ1	1.84	0.42
2:CB:8:LYS:HD3	2:CB:217:ARG:NH2	2.34	0.42
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	2.02	0.42
3:CC:95:THR:HG22	3:CC:97:LYS:HB2	2.01	0.42
4:CD:120:LEU:HD23	4:CD:120:LEU:HA	1.78	0.42
9:CI:35:GLU:O	9:CI:38:GLN:HB2	2.19	0.42
10:CJ:30:SER:HB3	10:CJ:80:LYS:CE	2.49	0.42
13:CM:108:ARG:HH11	13:CM:108:ARG:HG3	1.85	0.42
16:CP:9:PHE:HB3	16:CP:10:GLY:H	1.56	0.42
18:CR:40:LEU:O	18:CR:41:LYS:C	2.58	0.42
19:CS:15:LEU:O	19:CS:16:LEU:C	2.58	0.42
22:CV:4:G:O2'	22:CV:5:G:H8	2.02	0.42
22:CV:19:G:C1'	22:CV:59:A:C2	3.03	0.42
23:CY:36:A:C6	23:CY:37:A:N7	2.88	0.42
25:DA:74:A:O2'	25:DA:75:G:OP2	2.33	0.42
25:DA:265:A:H5'	25:DA:265:A:N3	2.35	0.42
25:DA:352:G:H2'	25:DA:352:G:N3	2.35	0.42
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.32	0.42
25:DA:1230:C:H2'	25:DA:1231:G:H8	1.83	0.42
25:DA:1301:A:O2'	25:DA:1302:A:H3'	2.20	0.42
25:DA:2197:U:O2'	25:DA:2198:A:O5'	2.38	0.42
25:DA:2466:C:H5"	56:D9:6:SER:HB2	2.01	0.42
25:DA:2489:G:O6	25:DA:2490:G:N1	2.52	0.42
25:DA:2507:C:H5'	25:DA:2573:C:N4	2.35	0.42
25:DA:2577:A:H5"	25:DA:2578:G:C5'	2.47	0.42
25:DA:2811:G:N2	25:DA:2891:G:H1'	2.35	0.42
28:DD:65:ILE:H	28:DD:65:ILE:HD13	1.84	0.42
28:DD:165:ILE:HD13	28:DD:175:LEU:CD2	2.49	0.42
28:DD:263:ARG:NH1	28:DD:263:ARG:HB2	2.34	0.42
30:DF:203:GLN:HE21	30:DF:203:GLN:HB2	1.66	0.42
31:DG:7:LEU:CD2	31:DG:176:LEU:HD22	2.36	0.42
31:DG:53:LEU:CD2	31:DG:54:GLU:N	2.77	0.42
31:DG:122:PRO:HG3	31:DG:182:LYS:OXT	2.20	0.42
32:DH:24:VAL:CG2	32:DH:35:VAL:HB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:89:ILE:O	32:DH:90:LYS:C	2.58	0.42
32:DH:143:GLN:O	32:DH:146:ALA:HB3	2.20	0.42
33:DI:81:VAL:O	33:DI:83:ALA:N	2.52	0.42
38:DR:44:LEU:HD11	38:DR:48:VAL:HG21	2.02	0.42
39:DS:52:SER:O	39:DS:56:LEU:HD22	2.19	0.42
45:DY:94:LYS:NZ	45:DY:101:LYS:HZ1	2.17	0.42
1:AA:818:G:H3'	1:AA:819:A:C5'	2.50	0.42
1:AA:967:C:H2'	1:AA:968:A:N7	2.34	0.42
1:AA:1134:G:N2	1:AA:1141:C:O2	2.52	0.42
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.19	0.42
2:AB:19:HIS:HD1	2:AB:20:GLU:HG2	1.83	0.42
2:AB:30:ARG:H	2:AB:30:ARG:HG2	1.52	0.42
2:AB:214:ILE:HG22	2:AB:214:ILE:O	2.20	0.42
3:AC:91:LEU:HD12	3:AC:101:LEU:HD12	2.02	0.42
3:AC:109:PRO:HA	3:AC:115:LEU:HD12	2.01	0.42
3:AC:147:LYS:CB	3:AC:203:PHE:CD2	3.03	0.42
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.20	0.42
7:AG:85:TYR:CD1	7:AG:154:TYR:CE1	3.08	0.42
10:AJ:9:ARG:HG2	10:AJ:69:ASN:OD1	2.19	0.42
10:AJ:22:LYS:HZ2	10:AJ:23:ILE:HG23	1.84	0.42
10:AJ:63:PHE:HB3	14:AN:59:ALA:N	2.35	0.42
15:AO:54:ARG:O	15:AO:58:MET:HG3	2.20	0.42
16:AP:67:THR:HG22	16:AP:68:ASP:H	1.84	0.42
20:AT:30:LYS:HD3	20:AT:30:LYS:C	2.39	0.42
22:AV:7:G:H3'	22:AV:8:U:C5'	2.50	0.42
23:AW:15:G:N2	23:AW:59:U:H1'	2.33	0.42
24:AX:20:U:O4	24:AX:21:C:N4	2.52	0.42
25:BA:746:A:C5	25:BA:2611:U:H5"	2.54	0.42
25:BA:857:C:OP2	47:B0:77:ARG:NH2	2.53	0.42
25:BA:969:U:OP1	50:B3:17:LYS:N	2.51	0.42
25:BA:991:C:C5	25:BA:1185:C:C4	3.07	0.42
25:BA:1618:A:H5"	25:BA:1619:G:OP2	2.19	0.42
25:BA:1668:A:OP1	35:BO:5:GLN:HG3	2.19	0.42
25:BA:1937:A:N7	25:BA:1939:U:H2'	2.35	0.42
25:BA:2140:C:H2'	25:BA:2141:G:H8	1.85	0.42
25:BA:2345:G:N3	25:BA:2345:G:C2'	2.83	0.42
25:BA:2725:A:O2'	25:BA:2726:U:O5'	2.36	0.42
27:BC:41:VAL:HA	27:BC:213:TYR:HA	2.02	0.42
29:BE:81:ILE:O	29:BE:81:ILE:CG2	2.63	0.42
30:BF:10:PRO:HG2	30:BF:11:VAL:HG23	2.01	0.42
32:BH:158:HIS:NE2	32:BH:169:VAL:O	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:99:GLU:O	33:BI:103:ARG:HG3	2.20	0.42
37:BQ:2:LEU:O	37:BQ:70:PRO:CG	2.67	0.42
39:BS:74:ALA:O	39:BS:77:ALA:HB3	2.19	0.42
40:BT:12:SER:O	40:BT:15:VAL:HG12	2.19	0.42
41:BU:95:LEU:HD13	42:BV:4:ILE:HG12	1.97	0.42
41:BU:115:ALA:C	41:BU:117:GLN:N	2.73	0.42
44:BX:34:ALA:HA	44:BX:38:GLU:OE1	2.18	0.42
46:BZ:76:LEU:CD2	46:BZ:76:LEU:H	2.33	0.42
49:B2:65:ASN:CB	49:B2:69:ARG:HH22	2.33	0.42
51:B4:59:VAL:HG12	51:B4:61:VAL:N	2.34	0.42
53:B6:15:GLU:O	53:B6:16:CYS:C	2.57	0.42
1:CA:61:G:C6	1:CA:107:G:C6	3.08	0.42
1:CA:193:C:H5'	20:CT:57:ARG:HG2	2.01	0.42
1:CA:298:A:H2'	1:CA:299:A:O4'	2.19	0.42
1:CA:687:A:N6	1:CA:703:G:H1'	2.35	0.42
1:CA:1065:U:C5'	1:CA:1066:C:H5"	2.37	0.42
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.84	0.42
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.44	0.42
3:CC:129:ALA:HB3	3:CC:132:ARG:HB2	2.01	0.42
4:CD:124:GLY:C	4:CD:126:ILE:H	2.23	0.42
5:CE:30:ALA:O	5:CE:45:PHE:HD1	2.02	0.42
6:CF:29:ALA:O	6:CF:30:LEU:C	2.58	0.42
7:CG:6:ARG:O	7:CG:6:ARG:CG	2.68	0.42
7:CG:69:VAL:CG2	7:CG:135:VAL:HG22	2.50	0.42
9:CI:25:LYS:HG2	9:CI:60:ASP:OD1	2.20	0.42
10:CJ:3:LYS:O	10:CJ:100:THR:HA	2.20	0.42
10:CJ:9:ARG:HB3	10:CJ:10:GLY:H	1.71	0.42
13:CM:87:TYR:HA	13:CM:90:LEU:CG	2.48	0.42
18:CR:54:ARG:H	18:CR:54:ARG:HG3	1.60	0.42
19:CS:10:PHE:CZ	19:CS:70:LYS:CE	3.02	0.42
19:CS:58:VAL:O	19:CS:58:VAL:HG22	2.20	0.42
19:CS:58:VAL:HA	19:CS:59:PRO:HD2	1.89	0.42
20:CT:29:LYS:HD3	20:CT:66:ALA:CA	2.50	0.42
25:DA:1204:A:C4	25:DA:1206:G:C6	3.07	0.42
25:DA:1676:A:H2'	25:DA:1677:A:O4'	2.20	0.42
25:DA:2116:G:O2'	25:DA:2117:A:P	2.78	0.42
25:DA:2158:A:O2'	25:DA:2159:G:C8	2.72	0.42
25:DA:2593:U:H2'	25:DA:2594:C:H6	1.84	0.42
27:DC:47:LEU:HB2	27:DC:207:THR:CB	2.50	0.42
28:DD:147:LEU:CD1	28:DD:155:LEU:HD21	2.49	0.42
28:DD:241:PRO:O	28:DD:242:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:89:VAL:O	30:DF:91:GLY:N	2.49	0.42
30:DF:117:ARG:HH11	30:DF:117:ARG:HG3	1.83	0.42
30:DF:129:PHE:O	30:DF:142:TRP:CD1	2.73	0.42
30:DF:149:ASP:OD1	30:DF:149:ASP:N	2.49	0.42
31:DG:61:ALA:HA	31:DG:64:THR:HG23	2.02	0.42
31:DG:99:MET:HE2	31:DG:103:LEU:HD12	2.01	0.42
33:DI:81:VAL:HG22	33:DI:143:SER:O	2.19	0.42
34:DN:24:GLY:H	34:DN:27:ALA:H	1.67	0.42
38:DR:118:GLU:HA	38:DR:118:GLU:OE1	2.20	0.42
41:DU:78:THR:HG22	41:DU:79:PHE:N	2.33	0.42
42:DV:44:LYS:O	42:DV:46:VAL:HG12	2.20	0.42
42:DV:47:VAL:HG13	42:DV:48:GLY:H	1.85	0.42
45:DY:48:ALA:CB	45:DY:61:ILE:HD13	2.49	0.42
45:DY:50:ARG:CA	45:DY:53:PRO:HD2	2.49	0.42
47:D0:72:ARG:NE	47:D0:75:LEU:HD13	2.35	0.42
53:D6:17:LYS:O	53:D6:18:ARG:HD3	2.19	0.42
55:D8:16:ILE:HG22	55:D8:64:TYR:CD2	2.55	0.42
1:AA:254:G:O3’	17:AQ:69:LYS:NZ	2.49	0.42
1:AA:327:A:C4	1:AA:329:A:N7	2.88	0.42
1:AA:1066:C:H2’	1:AA:1067:A:O5’	2.20	0.42
1:AA:1213:A:N6	1:AA:1215:G:N3	2.68	0.42
1:AA:1223:C:H5”	1:AA:1224:G:H5”	2.02	0.42
1:AA:1226:C:H42	13:AM:104:ARG:HB2	1.81	0.42
1:AA:1513:A:H2’	1:AA:1514:C:C6	2.54	0.42
5:AE:41:VAL:O	5:AE:67:VAL:HG12	2.19	0.42
6:AF:48:LEU:HD21	6:AF:58:GLY:HA3	2.02	0.42
7:AG:141:VAL:O	7:AG:144:MET:HB2	2.20	0.42
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.55	0.42
13:AM:94:ARG:CG	19:AS:82:GLY:N	2.81	0.42
17:AQ:31:LEU:HG	17:AQ:32:TYR:CE2	2.55	0.42
25:BA:500:G:N1	25:BA:503:A:OP2	2.52	0.42
25:BA:571:A:O4’	25:BA:2030:A:N6	2.53	0.42
25:BA:636:G:N3	36:BP:115:LEU:HD11	2.34	0.42
25:BA:973:A:O2’	25:BA:1186:G:N2	2.52	0.42
25:BA:1820:U:C2	28:BD:202:LYS:HB3	2.55	0.42
25:BA:2443:C:H2’	25:BA:2444:G:C8	2.54	0.42
26:BB:80:U:H2’	26:BB:81:G:C8	2.55	0.42
27:BC:62:VAL:HG11	27:BC:193:ILE:O	2.19	0.42
28:BD:44:ASN:CB	28:BD:48:ARG:O	2.68	0.42
28:BD:63:ARG:NH2	28:BD:86:PRO:HD3	2.34	0.42
31:BG:83:ARG:HD3	31:BG:84:LYS:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:102:ALA:HB2	32:BH:116:GLU:HA	2.00	0.42
33:BI:12:LEU:O	33:BI:12:LEU:HG	2.19	0.42
35:BO:19:ILE:O	35:BO:19:ILE:CG1	2.67	0.42
35:BO:31:LYS:HD3	35:BO:31:LYS:HA	1.90	0.42
36:BP:46:LYS:HG2	36:BP:51:PHE:CD1	2.54	0.42
40:BT:3:ARG:C	40:BT:5:ALA:N	2.72	0.42
40:BT:92:GLY:HA2	40:BT:114:LEU:CB	2.42	0.42
41:BU:17:ILE:HD13	41:BU:17:ILE:HA	1.74	0.42
41:BU:60:LEU:O	41:BU:61:TRP:C	2.58	0.42
45:BY:16:ALA:O	45:BY:17:SER:O	2.37	0.42
50:B3:40:THR:HB	50:B3:41:PRO:CD	2.50	0.42
53:B6:17:LYS:HD3	53:B6:17:LYS:HA	1.90	0.42
55:B8:63:PRO:HB2	55:B8:64:TYR:CD1	2.51	0.42
1:CA:279:A:OP2	17:CQ:95:TYR:OH	2.37	0.42
1:CA:691:G:O5'	11:CK:26:ASN:ND2	2.52	0.42
1:CA:950:U:C1'	1:CA:971:G:C5	3.02	0.42
1:CA:1051:C:O2'	1:CA:1052:U:H5'	2.19	0.42
3:CC:117:ALA:O	3:CC:120:VAL:HB	2.20	0.42
7:CG:50:ILE:O	7:CG:54:THR:O	2.37	0.42
7:CG:104:LEU:HD13	7:CG:104:LEU:HA	1.50	0.42
8:CH:85:ARG:HD2	8:CH:88:LYS:HG3	2.02	0.42
10:CJ:4:ILE:HG12	10:CJ:100:THR:CG2	2.50	0.42
10:CJ:16:LEU:HA	10:CJ:16:LEU:HD23	1.70	0.42
10:CJ:30:SER:HB3	10:CJ:80:LYS:HE3	2.00	0.42
12:CL:53:ARG:HB2	12:CL:93:LEU:HD11	2.00	0.42
16:CP:60:LEU:HA	16:CP:60:LEU:HD23	1.66	0.42
17:CQ:4:LYS:C	17:CQ:5:VAL:CG2	2.88	0.42
21:CU:6:ARG:NE	21:CU:15:ARG:HH22	1.95	0.42
22:CV:19:G:N3	22:CV:59:A:C4	2.87	0.42
23:CW:37:A:C6	23:CW:38:A:N1	2.87	0.42
23:CW:55:U:H6	23:CW:58:A:N7	2.18	0.42
25:DA:413:C:H2'	25:DA:414:C:H6	1.84	0.42
25:DA:604:G:C5	25:DA:605:C:N4	2.88	0.42
25:DA:740:U:H2'	25:DA:741:G:C8	2.55	0.42
25:DA:839:U:H2'	25:DA:840:C:C6	2.54	0.42
25:DA:849:A:C2	50:D3:24:LYS:HG2	2.55	0.42
25:DA:1204:A:C1'	25:DA:1206:G:C5	3.00	0.42
25:DA:1455:G:N7	38:DR:64:ARG:NH1	2.67	0.42
25:DA:1778:U:O4	25:DA:1784:A:H1'	2.19	0.42
25:DA:1987:G:H5"	25:DA:1987:G:H8	1.84	0.42
25:DA:2287:A:H62	25:DA:2344:U:H3	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2320:A:H61	25:DA:2333:A:H2'	1.85	0.42
25:DA:2632:A:N3	29:DE:61:ARG:HD3	2.35	0.42
30:DF:124:LEU:HG	30:DF:126:VAL:HG13	2.00	0.42
30:DF:181:LEU:HA	30:DF:181:LEU:HD22	1.80	0.42
31:DG:55:LYS:HZ1	31:DG:148:MET:CG	2.32	0.42
32:DH:111:HIS:CE1	32:DH:112:PRO:O	2.73	0.42
33:DI:29:TYR:CE1	33:DI:33:ARG:NE	2.88	0.42
33:DI:99:GLU:HG2	33:DI:103:ARG:HH21	1.80	0.42
33:DI:145:VAL:HG23	33:DI:146:ALA:H	1.85	0.42
34:DN:96:GLU:OE2	34:DN:96:GLU:N	2.39	0.42
36:DP:14:LYS:O	36:DP:16:ARG:N	2.52	0.42
36:DP:46:LYS:HG2	36:DP:51:PHE:CD1	2.54	0.42
38:DR:1:MET:SD	38:DR:1:MET:N	2.79	0.42
43:DW:71:VAL:O	43:DW:71:VAL:HG12	2.19	0.42
46:DZ:38:TYR:CD1	46:DZ:38:TYR:C	2.92	0.42
47:D0:51:VAL:HG22	47:D0:81:VAL:HG23	2.01	0.42
48:D1:5:CYS:SG	48:D1:62:VAL:CG2	3.07	0.42
48:D1:67:ILE:HG13	48:D1:67:ILE:H	1.62	0.42
51:D4:11:PRO:O	51:D4:29:PRO:HG3	2.19	0.42
53:D6:10:LEU:N	53:D6:10:LEU:HD22	2.34	0.42
1:AA:1059:C:O2'	10:AJ:52:GLY:HA2	2.20	0.42
3:AC:22:TRP:CD2	3:AC:59:ARG:HD2	2.55	0.42
5:AE:41:VAL:HG11	5:AE:113:ALA:N	2.34	0.42
6:AF:23:LYS:HE2	6:AF:23:LYS:HB3	1.77	0.42
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	2.01	0.42
12:AL:58:VAL:O	12:AL:65:GLU:HA	2.20	0.42
12:AL:68:ALA:HA	12:AL:98:TYR:O	2.20	0.42
13:AM:20:THR:C	13:AM:22:ILE:N	2.72	0.42
15:AO:56:LEU:C	15:AO:58:MET:N	2.73	0.42
18:AR:86:VAL:O	18:AR:87:ARG:O	2.37	0.42
25:BA:74:A:O2'	25:BA:75:G:OP2	2.30	0.42
25:BA:92:A:H2'	25:BA:93:G:C8	2.55	0.42
25:BA:362(F):A:HO2'	25:BA:364:C:H5	1.68	0.42
25:BA:1966:A:H8	25:BA:1966:A:O5'	2.03	0.42
25:BA:2145:C:HO2'	25:BA:2146:C:P	2.41	0.42
28:BD:69:ARG:HD2	28:BD:119:ALA:HB2	2.02	0.42
29:BE:82:ARG:HD3	29:BE:82:ARG:HA	1.78	0.42
30:BF:22:ALA:O	30:BF:26:ALA:CB	2.54	0.42
30:BF:33:LEU:HD12	30:BF:33:LEU:HA	1.78	0.42
30:BF:64:ILE:C	30:BF:65:TRP:HD1	2.12	0.42
31:BG:38:VAL:O	31:BG:38:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:47:LYS:HE3	31:BG:81:LYS:HD2	2.02	0.42
32:BH:80:SER:O	32:BH:81:GLU:HB2	2.20	0.42
33:BI:77:LEU:HD12	33:BI:77:LEU:HA	1.86	0.42
33:BI:93:THR:HG22	33:BI:94:ALA:H	1.85	0.42
35:BO:9:GLU:O	35:BO:83:ALA:HA	2.19	0.42
35:BO:34:THR:HG23	35:BO:35:VAL:N	2.35	0.42
36:BP:46:LYS:HG2	36:BP:51:PHE:CE1	2.54	0.42
37:BQ:104:PHE:O	37:BQ:105:GLU:HB3	2.19	0.42
38:BR:41:ALA:C	38:BR:43:GLU:N	2.73	0.42
38:BR:78:LYS:O	38:BR:83:ILE:HG13	2.20	0.42
41:BU:62:ILE:HD12	41:BU:93:LYS:HG2	2.02	0.42
41:BU:95:LEU:HD11	42:BV:4:ILE:HG23	1.99	0.42
42:BV:21:ARG:HD3	42:BV:21:ARG:N	2.34	0.42
43:BW:70:TYR:O	43:BW:107:LEU:HD12	2.20	0.42
44:BX:5:TYR:CE2	49:B2:30:ARG:HB2	2.55	0.42
1:CA:13:U:H5'	1:CA:14:U:OP2	2.20	0.42
1:CA:128:G:O2'	1:CA:129:U:H5'	2.20	0.42
1:CA:234:C:H2'	1:CA:235:C:C6	2.55	0.42
1:CA:279:A:C5'	1:CA:281:G:H5'	2.50	0.42
1:CA:473:G:H2'	1:CA:474:G:C8	2.55	0.42
1:CA:1249:C:O2'	9:CI:73:GLN:NE2	2.53	0.42
1:CA:1256:A:H5'	1:CA:1258:G:O4'	2.19	0.42
1:CA:1309:G:N7	13:CM:99:ARG:NH2	2.68	0.42
2:CB:47:THR:O	2:CB:48:MET:C	2.58	0.42
2:CB:178:ARG:HH21	8:CH:74:PRO:HB3	1.85	0.42
3:CC:16:ARG:HA	3:CC:16:ARG:HH11	1.84	0.42
3:CC:129:ALA:HB1	3:CC:132:ARG:HB2	2.02	0.42
5:CE:60:TYR:C	5:CE:60:TYR:CD1	2.92	0.42
9:CI:33:PHE:C	9:CI:35:GLU:H	2.23	0.42
10:CJ:97:GLU:HA	10:CJ:97:GLU:OE2	2.20	0.42
11:CK:61:ALA:O	11:CK:62:GLN:C	2.56	0.42
14:CN:4:LYS:CD	14:CN:7:ILE:HD11	2.41	0.42
22:CV:15:G:N1	22:CV:49:C:C5	2.60	0.42
23:CW:7:A:O2'	23:CW:49:C:OP2	2.27	0.42
25:DA:82:G:O6	25:DA:83:G:O6	2.38	0.42
25:DA:383:U:H2'	25:DA:385:C:H5	1.84	0.42
25:DA:481:G:O2'	25:DA:482:A:P	2.77	0.42
25:DA:971:C:H2'	25:DA:972:G:O4'	2.19	0.42
25:DA:1155:A:H4'	41:DU:55:ARG:HH12	1.85	0.42
25:DA:1419:A:N6	25:DA:1494:A:N1	2.56	0.42
25:DA:1508:A:H4'	25:DA:1509(A):A:C4	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1952:A:C6	25:DA:1953:A:N1	2.87	0.42
25:DA:2282:G:O2'	25:DA:2390:U:O4	2.37	0.42
25:DA:2489:G:C6	25:DA:2490:G:C2	3.08	0.42
25:DA:2638:G:O2'	25:DA:2639:A:C8	2.73	0.42
25:DA:2645:G:H4'	25:DA:2732:G:O2'	2.20	0.42
29:DE:119:ARG:HD2	29:DE:120:TRP:CD1	2.55	0.42
30:DF:117:ARG:NH2	30:DF:189:THR:O	2.53	0.42
30:DF:127:GLU:OE1	30:DF:127:GLU:CA	2.68	0.42
30:DF:134:GLY:H	30:DF:162:LEU:CD2	2.31	0.42
32:DH:12:PRO:CG	32:DH:13:LYS:N	2.83	0.42
32:DH:88:LEU:O	32:DH:163:TYR:N	2.43	0.42
32:DH:94:TYR:N	32:DH:94:TYR:CD1	2.88	0.42
33:DI:29:TYR:CD1	33:DI:33:ARG:NE	2.86	0.42
36:DP:10:PRO:HB2	36:DP:11:GLY:H	1.69	0.42
37:DQ:42:ILE:HD12	37:DQ:42:ILE:N	2.35	0.42
37:DQ:133:ARG:O	37:DQ:134:ARG:CB	2.65	0.42
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.20	0.42
42:DV:24:LYS:HA	42:DV:92:THR:HG23	2.01	0.42
42:DV:35:LEU:N	42:DV:35:LEU:CD2	2.81	0.42
43:DW:44:ALA:O	43:DW:45:TYR:C	2.58	0.42
45:DY:33:LYS:HG3	45:DY:34:LYS:N	2.33	0.42
46:DZ:24:LEU:O	46:DZ:24:LEU:HD23	2.19	0.42
49:D2:14:ARG:HD3	49:D2:66:GLU:OE2	2.19	0.42
49:D2:28:LYS:HB3	49:D2:57:ILE:CD1	2.50	0.42
49:D2:60:LEU:HD23	49:D2:60:LEU:HA	1.82	0.42
52:D5:58:LEU:C	52:D5:59:GLU:HG2	2.40	0.42
54:D7:42:LEU:HA	54:D7:42:LEU:HD23	1.84	0.42
1:AA:406:G:C4	1:AA:495:A:C6	3.08	0.42
1:AA:833:U:H2'	1:AA:834:C:H6	1.85	0.42
1:AA:1181:G:C2	1:AA:1182:G:N2	2.88	0.42
1:AA:1239:A:H4'	1:AA:1240:U:O5'	2.20	0.42
2:AB:96:ARG:HH12	2:AB:147:LYS:NZ	2.17	0.42
2:AB:143:GLU:O	2:AB:147:LYS:N	2.53	0.42
3:AC:141:VAL:CG1	3:AC:149:ALA:HB2	2.48	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.54	0.42
4:AD:149:ALA:HB3	4:AD:152:SER:CB	2.49	0.42
4:AD:196:LEU:HB3	4:AD:197:PRO:HD2	2.01	0.42
7:AG:150:ALA:O	7:AG:153:HIS:HE1	2.02	0.42
9:AI:27:THR:CG2	9:AI:31:GLN:H	2.32	0.42
11:AK:29:ILE:HA	11:AK:44:SER:HA	2.01	0.42
14:AN:16:PHE:CD2	14:AN:16:PHE:N	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:8:ARG:HH21	16:AP:15:PRO:HG3	1.84	0.42
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.19	0.42
18:AR:75:ILE:C	18:AR:77:GLY:N	2.71	0.42
20:AT:63:ILE:HG22	20:AT:77:ALA:HB1	2.01	0.42
20:AT:80:ARG:H	20:AT:80:ARG:HG2	1.68	0.42
25:BA:481:G:O2'	25:BA:482:A:P	2.78	0.42
25:BA:1301:A:HO2'	25:BA:1302:A:P	2.41	0.42
25:BA:1602:U:H4'	25:BA:1603:A:OP2	2.20	0.42
25:BA:1637:A:H4'	25:BA:2711:A:O2'	2.20	0.42
25:BA:1658:C:OP1	29:BE:132:HIS:O	2.38	0.42
25:BA:2012:G:OP1	43:BW:11:ARG:NH2	2.39	0.42
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.85	0.42
25:BA:2814:C:O2'	52:B5:29:THR:HG21	2.20	0.42
25:BA:2849:U:O4	40:BT:23:ARG:NH2	2.52	0.42
28:BD:58:HIS:ND1	28:BD:59:LYS:O	2.52	0.42
29:BE:34:VAL:HG22	29:BE:48:GLN:NE2	2.35	0.42
29:BE:78:LEU:O	29:BE:78:LEU:HD12	2.20	0.42
29:BE:167:VAL:HG22	29:BE:168:MET:N	2.35	0.42
31:BG:29:TRP:C	31:BG:31:VAL:H	2.23	0.42
31:BG:56:ALA:HA	31:BG:59:GLU:HG2	2.02	0.42
33:BI:60:GLU:C	33:BI:62:LYS:H	2.22	0.42
33:BI:120:ILE:HG22	33:BI:121:LYS:N	2.34	0.42
34:BN:42:TRP:CD1	41:BU:63:VAL:HG11	2.55	0.42
35:BO:104:ARG:NH1	35:BO:104:ARG:HB2	2.34	0.42
35:BO:115:VAL:HG12	35:BO:116:SER:N	2.34	0.42
36:BP:101:VAL:CG1	36:BP:102:ARG:N	2.83	0.42
37:BQ:42:ILE:N	37:BQ:42:ILE:CD1	2.82	0.42
38:BR:97:VAL:HG22	38:BR:114:VAL:HG23	2.01	0.42
39:BS:28:VAL:HB	39:BS:89:ARG:HA	2.01	0.42
44:BX:52:VAL:HG23	44:BX:82:GLN:O	2.20	0.42
49:B2:59:ARG:O	49:B2:62:THR:HB	2.19	0.42
53:B6:9:LEU:HD23	53:B6:9:LEU:C	2.40	0.42
53:B6:13:CYS:HB3	53:B6:14:THR:H	1.74	0.42
53:B6:19:ARG:O	53:B6:20:ASN:O	2.37	0.42
55:B8:41:ILE:N	55:B8:41:ILE:CD1	2.83	0.42
1:CA:132:C:O3'	20:CT:74:LYS:NZ	2.52	0.42
1:CA:329:A:C6	1:CA:332:G:C2	3.08	0.42
1:CA:674:G:H2'	1:CA:675:A:C8	2.54	0.42
1:CA:1238:A:C8	1:CA:1301:U:O4	2.73	0.42
1:CA:1240:U:O2'	1:CA:1241:G:OP1	2.36	0.42
1:CA:1301:U:C4	1:CA:1303:C:H1'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:79:PHE:CE2	4:CD:207:TYR:HD1	2.36	0.42
8:CH:1:MET:HG2	8:CH:2:LEU:N	2.35	0.42
8:CH:14:ARG:O	8:CH:18:ARG:HD3	2.20	0.42
8:CH:23:SER:HA	8:CH:61:VAL:O	2.20	0.42
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.19	0.42
15:CO:82:ILE:HD13	15:CO:87:ILE:HB	2.01	0.42
19:CS:16:LEU:HD13	19:CS:16:LEU:N	2.35	0.42
20:CT:38:LYS:O	20:CT:40:ALA:N	2.53	0.42
25:DA:271(Q):G:H2'	25:DA:271(R):G:C8	2.55	0.42
25:DA:635:C:O2'	25:DA:639:U:OP1	2.38	0.42
25:DA:931:G:O2'	50:D3:24:LYS:HD3	2.19	0.42
25:DA:1902:C:H4'	28:DD:244:ARG:HA	2.02	0.42
26:DB:89:G:H2'	26:DB:90:A:O4'	2.20	0.42
28:DD:82:ILE:O	28:DD:82:ILE:HG22	2.20	0.42
28:DD:154:LYS:HB2	28:DD:155:LEU:HD12	2.01	0.42
30:DF:59:TYR:N	30:DF:59:TYR:CD2	2.85	0.42
30:DF:153:SER:OG	30:DF:190:GLU:N	2.53	0.42
31:DG:63:ILE:HG22	31:DG:144:ILE:HD11	2.02	0.42
31:DG:122:PRO:HG3	31:DG:182:LYS:C	2.40	0.42
31:DG:126:ASP:OD2	31:DG:130:ASN:HB2	2.20	0.42
32:DH:105:LEU:CD2	32:DH:113:VAL:HB	2.50	0.42
32:DH:125:VAL:N	32:DH:126:PRO:HD3	2.32	0.42
32:DH:139:GLN:HG3	32:DH:140:LYS:N	2.35	0.42
34:DN:18:ALA:HB1	34:DN:21:LYS:HB3	1.99	0.42
35:DO:10:VAL:HG13	35:DO:17:ARG:O	2.19	0.42
37:DQ:50:ALA:O	37:DQ:53:ALA:HB3	2.20	0.42
38:DR:42:LYS:O	38:DR:45:ARG:HG2	2.20	0.42
43:DW:6:ILE:O	43:DW:6:ILE:HG22	2.17	0.42
43:DW:84:ARG:HB2	43:DW:96:ILE:CG2	2.44	0.42
46:DZ:29:TYR:CE2	46:DZ:87:ASP:HB2	2.54	0.42
46:DZ:105:VAL:O	46:DZ:140:ASP:HB3	2.19	0.42
52:D5:34:PRO:HB2	52:D5:35:GLU:H	1.65	0.42
53:D6:12:GLU:HA	53:D6:23:THR:HA	2.00	0.42
1:AA:34:C:H2'	1:AA:35:G:C8	2.55	0.42
1:AA:154:C:O2'	1:AA:155:C:OP1	2.36	0.42
1:AA:176:C:H2'	1:AA:177:C:C6	2.55	0.42
1:AA:540:G:C6	1:AA:541:G:C5	3.08	0.42
1:AA:806:C:H2'	1:AA:807:A:H8	1.84	0.42
1:AA:919:A:H2'	1:AA:920:U:H5'	2.01	0.42
1:AA:927:G:H1	1:AA:1390:U:H3	1.68	0.42
1:AA:979:C:H3'	1:AA:980:C:C5'	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1517:G:N3	25:BA:1919:A:O2'	2.49	0.42
2:AB:35:GLU:C	2:AB:36:ARG:HH21	2.23	0.42
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.24	0.42
3:AC:133:ALA:O	3:AC:136:GLN:HB2	2.20	0.42
4:AD:32:ALA:HA	4:AD:35:ARG:HD3	2.01	0.42
4:AD:94:LEU:H	4:AD:94:LEU:HG	1.34	0.42
6:AF:33:TYR:C	6:AF:71:ARG:HH21	2.23	0.42
9:AI:36:TYR:CE2	9:AI:37:PHE:CE2	3.07	0.42
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD11	2.01	0.42
23:AW:18:G:N2	23:AW:55:U:H6	2.17	0.42
23:AW:50:U:C4	23:AW:51:U:C4	3.07	0.42
25:BA:120:U:H1'	25:BA:149:A:C4	2.55	0.42
25:BA:181:A:C2	25:BA:435:C:H5	2.34	0.42
25:BA:467:G:OP1	54:B7:33:ARG:HD2	2.20	0.42
25:BA:605:C:O2	25:BA:657:U:O2'	2.37	0.42
25:BA:958:U:O4	37:BQ:41:TRP:CG	2.73	0.42
25:BA:1251:C:C2'	25:BA:1252:G:H5"	2.49	0.42
25:BA:1310:G:OP2	54:B7:9:ARG:NH1	2.53	0.42
25:BA:1328:G:H8	25:BA:1328:G:O5'	2.03	0.42
25:BA:2021:C:H4'	25:BA:2022:U:OP1	2.17	0.42
25:BA:2576:G:O2'	25:BA:2579:C:OP2	2.30	0.42
31:BG:72:ARG:CD	31:BG:86:MET:CA	2.94	0.42
31:BG:110:ALA:CA	31:BG:140:ILE:CG2	2.98	0.42
35:BO:8:LEU:N	35:BO:8:LEU:CD2	2.83	0.42
35:BO:49:ARG:N	35:BO:49:ARG:HD3	2.35	0.42
36:BP:114:ILE:HG23	36:BP:127:ALA:HB2	2.01	0.42
38:BR:13:HIS:O	38:BR:14:SER:CB	2.45	0.42
40:BT:3:ARG:HG3	40:BT:6:LEU:CB	2.38	0.42
40:BT:53:ARG:HG2	40:BT:53:ARG:HH11	1.84	0.42
41:BU:12:ARG:HA	41:BU:15:LYS:HD2	2.02	0.42
43:BW:55:ALA:C	43:BW:57:ASN:N	2.73	0.42
1:CA:8:A:H1'	5:CE:103:GLY:N	2.34	0.42
1:CA:429:U:C4'	1:CA:430:A:H8	2.32	0.42
1:CA:484:G:C1'	1:CA:486:U:C6	3.02	0.42
1:CA:484:G:C4	1:CA:486:U:C4	3.08	0.42
1:CA:1068:G:O2'	1:CA:1069:C:H5'	2.20	0.42
1:CA:1084:G:C5	1:CA:1085:U:C4	3.08	0.42
1:CA:1457:G:C8	1:CA:1457:G:O5'	2.66	0.42
5:CE:122:GLU:HG2	5:CE:131:ILE:HD11	2.01	0.42
8:CH:114:THR:HG21	8:CH:129:VAL:HG23	2.02	0.42
13:CM:2:ALA:O	13:CM:4:ILE:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:15:VAL:CG1	13:CM:19:LEU:HD21	2.50	0.42
13:CM:122:LYS:HG3	13:CM:123:ALA:N	2.35	0.42
15:CO:70:LEU:HD12	15:CO:70:LEU:HA	1.81	0.42
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.84	0.42
16:CP:17:TYR:HD1	16:CP:41:PRO:HD3	1.84	0.42
18:CR:44:LEU:HD23	18:CR:44:LEU:HA	1.84	0.42
19:CS:47:HIS:N	19:CS:62:ILE:HG21	2.35	0.42
23:CW:12:U:H6	23:CW:12:U:O5'	2.02	0.42
23:CW:30:G:C2	23:CW:41:C:N3	2.88	0.42
25:DA:572:A:N3	25:DA:573:G:H1'	2.35	0.42
25:DA:614(A):U:C3'	25:DA:614(A):U:C6	3.03	0.42
25:DA:729:G:C6	28:DD:208:LYS:HB2	2.55	0.42
25:DA:996:A:O2'	41:DU:92:ARG:HB3	2.19	0.42
25:DA:1301:A:H4'	25:DA:1302:A:OP1	2.20	0.42
25:DA:1453:U:O4	25:DA:2702:U:O4	2.37	0.42
25:DA:1458:C:H5"	25:DA:1459:G:OP1	2.20	0.42
25:DA:1819:A:O2'	25:DA:1820:U:OP2	2.30	0.42
25:DA:1826:G:O2'	28:DD:242:ARG:NH2	2.52	0.42
25:DA:2114:A:H2'	25:DA:2115:G:O4'	2.20	0.42
25:DA:2615:U:H6	25:DA:2615:U:O5'	2.03	0.42
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.55	0.42
25:DA:2749:A:H4'	32:DH:62:LYS:HB3	2.02	0.42
28:DD:6:PHE:HE1	28:DD:18:VAL:CG2	2.33	0.42
28:DD:13:ARG:O	28:DD:13:ARG:CG	2.67	0.42
29:DE:169:ASN:OD1	29:DE:203:LYS:HB3	2.19	0.42
31:DG:2:PRO:C	31:DG:4:ASP:N	2.73	0.42
31:DG:115:ARG:HG2	31:DG:115:ARG:NH1	2.34	0.42
32:DH:84:SER:O	32:DH:133:VAL:O	2.38	0.42
34:DN:46:VAL:O	34:DN:47:ALA:CB	2.62	0.42
35:DO:68:GLU:OE2	35:DO:78:ARG:NH1	2.52	0.42
37:DQ:1:MET:O	37:DQ:2:LEU:HB2	2.20	0.42
38:DR:3:HIS:C	38:DR:5:LYS:H	2.15	0.42
40:DT:19:LEU:CD2	40:DT:85:LYS:HD3	2.49	0.42
41:DU:31:SER:HB3	41:DU:34:LYS:HB2	2.00	0.42
42:DV:65:GLY:HA3	42:DV:91:TYR:CZ	2.55	0.42
45:DY:6:HIS:O	45:DY:7:VAL:HG13	2.19	0.42
45:DY:42:VAL:HG12	45:DY:65:ALA:H	1.83	0.42
45:DY:88:LYS:C	45:DY:90:LEU:N	2.73	0.42
46:DZ:150:LEU:H	46:DZ:150:LEU:CD1	2.33	0.42
55:D8:57:ARG:O	55:D8:58:ILE:C	2.59	0.42
1:AA:453:A:N6	1:AA:454:C:N4	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:768:A:N3	1:AA:1512:U:O2'	2.51	0.41
1:AA:925:G:H1	1:AA:1391:U:H3	1.67	0.41
2:AB:144:ARG:C	2:AB:147:LYS:H	2.24	0.41
2:AB:231:GLU:H	2:AB:231:GLU:HG2	1.53	0.41
4:AD:77:ASN:O	4:AD:80:GLU:HB2	2.20	0.41
6:AF:54:LYS:HA	6:AF:54:LYS:HD3	1.95	0.41
7:AG:99:LEU:O	7:AG:102:ARG:HB3	2.20	0.41
15:AO:63:ARG:HG2	15:AO:67:LEU:CD1	2.50	0.41
20:AT:36:LEU:O	20:AT:55:ILE:CG2	2.68	0.41
23:AW:38:A:C6	23:AW:39:U:C4	3.08	0.41
23:AW:55:U:HO2'	23:AW:56:C:H5	1.62	0.41
25:BA:28:A:N6	25:BA:512:G:H1'	2.34	0.41
25:BA:411:G:H5"	25:BA:412:A:OP1	2.20	0.41
25:BA:603:A:O2'	25:BA:604:G:O5'	2.32	0.41
25:BA:627:A:N6	36:BP:116:GLY:HA2	2.35	0.41
25:BA:1264:G:H2'	25:BA:2014:A:N6	2.35	0.41
25:BA:1456:G:C4	25:BA:1457:A:N7	2.87	0.41
25:BA:1472:A:H2'	25:BA:1473:G:O4'	2.20	0.41
28:BD:69:ARG:HE	28:BD:69:ARG:HB2	1.68	0.41
30:BF:7:TYR:OH	30:BF:10:PRO:HG3	2.20	0.41
30:BF:22:ALA:C	30:BF:24:LEU:N	2.71	0.41
30:BF:64:ILE:HG22	30:BF:65:TRP:N	2.34	0.41
30:BF:182:ASN:O	30:BF:182:ASN:OD1	2.37	0.41
30:BF:199:TRP:CH2	30:BF:203:GLN:HG2	2.55	0.41
34:BN:12:ARG:O	34:BN:13:TRP:O	2.37	0.41
38:BR:28:LEU:HD23	38:BR:28:LEU:HA	1.62	0.41
39:BS:28:VAL:CG1	39:BS:89:ARG:HG3	2.50	0.41
42:BV:20:LEU:CB	42:BV:21:ARG:HD3	2.49	0.41
44:BX:63:LYS:HA	44:BX:72:LYS:HA	2.02	0.41
45:BY:30:VAL:HG12	45:BY:31:LEU:H	1.85	0.41
46:BZ:33:LEU:HD12	46:BZ:33:LEU:HA	1.86	0.41
46:BZ:141:VAL:O	46:BZ:141:VAL:HG13	2.20	0.41
48:B1:64:ALA:C	48:B1:66:HIS:H	2.24	0.41
48:B1:75:GLU:OE2	48:B1:75:GLU:HA	2.18	0.41
51:B4:60:GLU:O	51:B4:61:VAL:CB	2.64	0.41
52:B5:57:VAL:HG23	52:B5:58:LEU:N	2.32	0.41
54:B7:23:ARG:O	54:B7:28:ARG:NH1	2.52	0.41
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.55	0.41
1:CA:486:U:H2'	1:CA:487:A:O4'	2.20	0.41
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.20	0.41
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.34	0.41
3:CC:22:TRP:CH2	3:CC:32:LEU:HB3	2.55	0.41
4:CD:94:LEU:H	4:CD:94:LEU:HG	1.59	0.41
5:CE:63:ARG:C	5:CE:65:ASN:H	2.22	0.41
5:CE:153:LYS:HB3	5:CE:154:GLY:H	1.62	0.41
6:CF:1:MET:CE	6:CF:67:MET:HA	2.50	0.41
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.83	0.41
11:CK:31:THR:HG23	11:CK:31:THR:O	2.19	0.41
13:CM:100:GLY:O	13:CM:101:GLN:O	2.38	0.41
14:CN:50:LYS:O	14:CN:52:GLN:N	2.52	0.41
19:CS:29:ARG:N	19:CS:29:ARG:HD2	2.35	0.41
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	2.02	0.41
23:CW:5:G:C2	23:CW:69:G:N2	2.88	0.41
25:DA:61:G:C4	49:D2:47:ASN:OD1	2.73	0.41
25:DA:1022:G:O6	34:DN:66:LYS:HE3	2.20	0.41
25:DA:1251:C:OP1	41:DU:10:ARG:HG3	2.19	0.41
25:DA:2208:A:H1'	25:DA:2219:G:N3	2.35	0.41
25:DA:2286:A:H5"	25:DA:2287:A:O4'	2.19	0.41
25:DA:2398:U:H5'	25:DA:2399:G:OP2	2.20	0.41
25:DA:2422:A:H4'	25:DA:2423:U:OP1	2.20	0.41
25:DA:2838:G:C1'	38:DR:45:ARG:HH11	2.33	0.41
26:DB:13:A:O2'	26:DB:14:U:H5"	2.20	0.41
26:DB:56:G:H5"	26:DB:57:A:OP1	2.20	0.41
28:DD:69:ARG:HD2	28:DD:119:ALA:HB2	2.02	0.41
28:DD:182:LEU:HD23	28:DD:182:LEU:HA	1.79	0.41
30:DF:107:LYS:CE	30:DF:206:ILE:HD13	2.50	0.41
31:DG:80:PHE:C	31:DG:81:LYS:HG2	2.40	0.41
31:DG:102:PHE:HZ	31:DG:157:ILE:HD13	1.85	0.41
32:DH:107:VAL:HG23	32:DH:109:PHE:CE1	2.55	0.41
34:DN:2:LYS:O	34:DN:4:TYR:CE1	2.73	0.41
34:DN:120:LEU:HD11	34:DN:122:VAL:CG2	2.50	0.41
36:DP:56:SER:O	36:DP:57:THR:HG22	2.20	0.41
36:DP:106:LEU:O	36:DP:107:LYS:CB	2.68	0.41
36:DP:131:SER:O	36:DP:132:LYS:C	2.59	0.41
37:DQ:5:ARG:HG3	37:DQ:5:ARG:H	1.50	0.41
37:DQ:85:LYS:CG	47:D0:7:LEU:HD13	2.49	0.41
43:DW:5:ALA:HB1	43:DW:50:VAL:CG2	2.50	0.41
43:DW:82:LEU:HD23	43:DW:82:LEU:HA	1.63	0.41
44:DX:59:VAL:O	44:DX:59:VAL:HG12	2.20	0.41
53:D6:41:PRO:HD3	53:D6:46:HIS:HA	2.02	0.41
55:D8:6:THR:HA	55:D8:61:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:442:C:H42	1:AA:492:G:H1	1.68	0.41
1:AA:1278:U:H6	1:AA:1278:U:H3'	1.85	0.41
2:AB:18:GLY:O	2:AB:204:ASN:OD1	2.38	0.41
2:AB:20:GLU:HG2	2:AB:20:GLU:H	1.53	0.41
2:AB:93:VAL:O	2:AB:93:VAL:CG2	2.67	0.41
2:AB:118:LEU:HB3	2:AB:142:LEU:HD13	2.02	0.41
4:AD:23:GLY:O	4:AD:27:TYR:CD1	2.73	0.41
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.19	0.41
13:AM:60:VAL:C	13:AM:62:ASN:H	2.23	0.41
15:AO:71:GLN:HG2	15:AO:78:TYR:CE2	2.55	0.41
16:AP:8:ARG:C	16:AP:9:PHE:CD2	2.93	0.41
17:AQ:85:VAL:CG1	17:AQ:89:LEU:HD12	2.47	0.41
20:AT:37:SER:O	20:AT:40:ALA:HB3	2.20	0.41
23:AW:24:G:C6	23:AW:25:C:C4	3.08	0.41
23:AW:43:C:H2'	23:AW:43:C:O2	2.19	0.41
23:AW:71:G:N3	23:AW:71:G:H2'	2.35	0.41
25:BA:141:A:H8	25:BA:1408:C:HO2'	1.65	0.41
25:BA:196:A:C2	25:BA:805:G:C6	3.09	0.41
25:BA:215:G:H4'	25:BA:216:A:H4'	2.01	0.41
25:BA:241:A:H8	25:BA:241:A:O5'	2.03	0.41
25:BA:242:G:C8	55:B8:5:LYS:HA	2.55	0.41
25:BA:311:A:N7	25:BA:332:A:C6	2.88	0.41
25:BA:333:G:C6	25:BA:334:C:N4	2.88	0.41
25:BA:873:G:H4'	37:BQ:63:LYS:HE3	2.03	0.41
25:BA:1549:C:O2'	25:BA:1550:C:H5'	2.20	0.41
25:BA:2448:A:H5'	25:BA:2449:U:OP2	2.20	0.41
25:BA:2503:A:O2'	25:BA:2504:U:P	2.79	0.41
26:BB:66:A:C6	26:BB:108:U:C2	3.08	0.41
28:BD:24:ILE:CG1	28:BD:25:THR:N	2.72	0.41
28:BD:45:ASN:OD1	28:BD:45:ASN:N	2.52	0.41
28:BD:155:LEU:HD23	28:BD:177:LEU:CD2	2.48	0.41
30:BF:1:MET:HE2	30:BF:27:GLU:HG3	2.01	0.41
32:BH:43:VAL:HG11	32:BH:52:VAL:HA	2.01	0.41
33:BI:101:LEU:HD13	33:BI:101:LEU:HA	1.78	0.41
34:BN:33:LEU:O	34:BN:35:ARG:O	2.38	0.41
36:BP:1:MET:HB2	36:BP:2:LYS:H	1.66	0.41
36:BP:111:ARG:HA	36:BP:128:HIS:CE1	2.56	0.41
37:BQ:84:GLY:O	37:BQ:85:LYS:HB2	2.19	0.41
40:BT:27:THR:O	40:BT:28:VAL:CB	2.65	0.41
40:BT:30:VAL:HG21	40:BT:83:ILE:HG13	2.02	0.41
43:BW:19:LEU:HD23	52:B5:25:LEU:HG	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:14:LEU:HG	45:BY:15:VAL:H	1.81	0.41
45:BY:100:ALA:O	45:BY:101:LYS:O	2.38	0.41
46:BZ:129:SER:O	46:BZ:133:ILE:HG13	2.20	0.41
53:B6:15:GLU:HB3	53:B6:18:ARG:HG2	2.02	0.41
1:CA:119:A:H5'	1:CA:120:A:C4	2.55	0.41
1:CA:250:A:O2'	1:CA:251:G:OP2	2.39	0.41
1:CA:274:A:O2'	1:CA:275:G:H5"	2.20	0.41
1:CA:708:C:H2'	1:CA:709:G:H8	1.85	0.41
1:CA:792:A:N3	1:CA:794:A:C5	2.88	0.41
1:CA:913:A:O2'	1:CA:914:A:O5'	2.37	0.41
1:CA:947:G:C6	1:CA:948:C:C4	3.08	0.41
1:CA:1029:C:O2'	1:CA:1032:G:N2	2.41	0.41
4:CD:156:GLU:O	4:CD:159:ARG:HB2	2.19	0.41
4:CD:171:GLY:HA3	4:CD:173:TRP:CZ3	2.55	0.41
8:CH:33:GLU:O	8:CH:34:GLU:C	2.59	0.41
9:CI:86:VAL:HB	9:CI:96:LEU:HD22	2.02	0.41
11:CK:21:ILE:CA	11:CK:30:VAL:HG12	2.49	0.41
13:CM:53:VAL:HG12	13:CM:57:ARG:HH12	1.84	0.41
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.19	0.41
16:CP:71:ARG:HG3	16:CP:72:ARG:N	2.35	0.41
17:CQ:27:PHE:HB2	17:CQ:28:PRO:CD	2.50	0.41
20:CT:82:SER:O	20:CT:85:MET:CG	2.65	0.41
25:DA:77:C:P	49:D2:59:ARG:HH11	2.43	0.41
25:DA:301:G:H2'	25:DA:302:C:C6	2.55	0.41
25:DA:498:G:N2	45:DY:47:LYS:NZ	2.69	0.41
25:DA:553:G:H2'	25:DA:554:U:O4'	2.19	0.41
25:DA:859:G:O2'	25:DA:860:U:H5	2.03	0.41
25:DA:1020:A:H4'	25:DA:1021:A:O5'	2.19	0.41
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.55	0.41
25:DA:1364:G:OP2	48:D1:3:LYS:HD2	2.21	0.41
25:DA:2296:U:HO2'	25:DA:2333:A:H2	1.67	0.41
27:DC:212:VAL:O	27:DC:213:TYR:CB	2.68	0.41
29:DE:108:SER:O	29:DE:162:ALA:HA	2.20	0.41
31:DG:83:ARG:HG2	31:DG:83:ARG:HH11	1.85	0.41
32:DH:136:ILE:O	32:DH:136:ILE:CG2	2.68	0.41
36:DP:101:VAL:CG1	36:DP:102:ARG:N	2.83	0.41
39:DS:88:ASP:CG	39:DS:89:ARG:H	2.22	0.41
43:DW:82:LEU:HB2	43:DW:98:LYS:HB2	2.01	0.41
46:DZ:98:MET:O	46:DZ:98:MET:HG3	2.20	0.41
46:DZ:119:GLU:O	46:DZ:119:GLU:HG3	2.20	0.41
46:DZ:151:HIS:HB3	46:DZ:170:THR:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:83:GLU:HB2	48:D1:84:GLY:H	1.63	0.41
51:D4:14:ILE:HA	51:D4:31:ILE:HB	2.01	0.41
55:D8:29:LYS:HD3	55:D8:44:LYS:HG2	2.02	0.41
55:D8:57:ARG:O	55:D8:59:LYS:N	2.53	0.41
1:AA:324:G:P	20:AT:70:SER:HB2	2.60	0.41
2:AB:36:ARG:NE	2:AB:36:ARG:CA	2.83	0.41
2:AB:144:ARG:HA	2:AB:147:LYS:HB2	2.01	0.41
3:AC:29:TYR:O	3:AC:33:LEU:N	2.51	0.41
3:AC:175:LEU:H	3:AC:175:LEU:CD1	2.21	0.41
4:AD:7:PRO:HB3	4:AD:10:ARG:HD2	2.03	0.41
4:AD:25:ARG:C	4:AD:27:TYR:N	2.72	0.41
4:AD:133:VAL:HG21	4:AD:138:TYR:CD1	2.56	0.41
5:AE:147:ASP:HA	5:AE:150:ARG:NE	2.36	0.41
9:AI:33:PHE:CZ	9:AI:47:LEU:HD13	2.55	0.41
11:AK:80:VAL:O	11:AK:80:VAL:HG23	2.19	0.41
11:AK:87:THR:CG2	11:AK:88:GLY:N	2.83	0.41
16:AP:39:TYR:CD2	16:AP:73:LEU:HD11	2.54	0.41
19:AS:6:LYS:HE3	19:AS:6:LYS:HB3	1.55	0.41
25:BA:49:A:N6	25:BA:177:G:C4	2.88	0.41
25:BA:330:A:O2'	25:BA:331:A:C8	2.72	0.41
25:BA:548:A:C5	25:BA:549:G:H1'	2.56	0.41
25:BA:668:G:C5	25:BA:670:A:C5	3.08	0.41
25:BA:797:C:OP1	30:BF:60:SER:OG	2.30	0.41
25:BA:890:A:H2'	25:BA:892:G:H5'	2.01	0.41
25:BA:1020:A:N1	25:BA:1141:U:H2'	2.35	0.41
25:BA:1248:G:H2'	41:BU:3:ARG:HA	2.01	0.41
25:BA:1288:U:C2	25:BA:1327:C:C2	3.08	0.41
25:BA:1464:C:O2'	25:BA:1528:A:H8	2.01	0.41
25:BA:1963:U:C4'	25:BA:1964:G:OP1	2.67	0.41
25:BA:2198:A:C1'	33:BI:28:ASN:O	2.63	0.41
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.55	0.41
25:BA:2313:C:H5'	31:BG:40:ASN:ND2	2.36	0.41
25:BA:2334:G:H1'	39:BS:15:ARG:HG3	2.01	0.41
29:BE:119:ARG:HG2	29:BE:160:TYR:CB	2.50	0.41
30:BF:168:ARG:HA	30:BF:175:THR:HG21	2.02	0.41
33:BI:72:LEU:HD11	33:BI:138:ILE:CA	2.50	0.41
34:BN:135:PRO:O	34:BN:136:GLU:O	2.38	0.41
38:BR:20:LEU:HD12	38:BR:20:LEU:HA	1.57	0.41
39:BS:39:ILE:O	39:BS:47:THR:HG23	2.21	0.41
40:BT:29:ARG:CD	40:BT:85:LYS:C	2.88	0.41
42:BV:52:VAL:O	42:BV:55:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:38:TYR:HE2	52:B5:40:LYS:HA	1.85	0.41
48:B1:40:ARG:HD3	48:B1:40:ARG:O	2.20	0.41
48:B1:75:GLU:O	48:B1:77:ALA:N	2.52	0.41
55:B8:13:ARG:O	55:B8:13:ARG:HG3	2.20	0.41
1:CA:243:A:O2'	1:CA:244:U:OP2	2.30	0.41
1:CA:529:G:O6	12:CL:49:ASN:HA	2.20	0.41
1:CA:1251:A:H2'	1:CA:1252:A:O4'	2.21	0.41
2:CB:92:TYR:CE2	2:CB:151:GLY:HA2	2.55	0.41
2:CB:105:PHE:C	2:CB:107:THR:H	2.24	0.41
3:CC:8:ILE:C	3:CC:10:PHE:N	2.74	0.41
3:CC:83:ARG:C	3:CC:85:ARG:H	2.22	0.41
4:CD:19:LEU:HB3	4:CD:21:LEU:HD11	1.99	0.41
4:CD:58:LEU:HD22	4:CD:58:LEU:O	2.20	0.41
5:CE:115:VAL:CG1	5:CE:116:THR:H	2.28	0.41
6:CF:1:MET:HE3	6:CF:67:MET:C	2.40	0.41
7:CG:99:LEU:HD23	7:CG:99:LEU:HA	1.91	0.41
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.21	0.41
9:CI:9:ARG:CD	9:CI:104:ARG:HH11	2.33	0.41
9:CI:44:VAL:O	9:CI:44:VAL:HG23	2.20	0.41
10:CJ:56:HIS:O	10:CJ:57:LYS:C	2.57	0.41
13:CM:27:LYS:O	13:CM:31:LYS:HG3	2.20	0.41
15:CO:39:LEU:HD23	15:CO:39:LEU:HA	1.80	0.41
15:CO:75:PRO:O	15:CO:76:GLU:HB2	2.20	0.41
17:CQ:29:HIS:CE1	17:CQ:31:LEU:HB3	2.54	0.41
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.41	0.41
20:CT:29:LYS:HD3	20:CT:66:ALA:HB2	1.97	0.41
22:CV:19:G:C4	22:CV:59:A:C6	3.09	0.41
22:CV:30:G:O6	22:CV:43:G:O6	2.38	0.41
23:CW:16:U:H6	23:CW:17:C:H5'	1.84	0.41
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.20	0.41
25:DA:2259:G:C8	25:DA:2427:C:C4	3.08	0.41
25:DA:2292:C:OP1	39:DS:17:ARG:NH2	2.53	0.41
27:DC:168:THR:HA	27:DC:173:ALA:CB	2.50	0.41
28:DD:24:ILE:CG1	28:DD:25:THR:H	2.12	0.41
29:DE:54:GLN:O	29:DE:55:ASN:HB2	2.20	0.41
29:DE:94:GLU:HG2	29:DE:177:PRO:HB3	2.02	0.41
31:DG:63:ILE:CG2	31:DG:144:ILE:HD11	2.51	0.41
32:DH:26:VAL:CG1	32:DH:27:LYS:N	2.83	0.41
33:DI:67:ARG:HD2	33:DI:68:LEU:HD13	2.01	0.41
33:DI:109:ILE:HG13	33:DI:110:ASP:N	2.35	0.41
36:DP:38:GLN:H	36:DP:41:ARG:HG2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:61:ARG:O	36:DP:61:ARG:CD	2.68	0.41
36:DP:135:LEU:HD13	36:DP:135:LEU:O	2.20	0.41
37:DQ:141:GLN:NE2	46:DZ:72:ARG:HD3	2.35	0.41
39:DS:46:VAL:CG1	39:DS:47:THR:N	2.82	0.41
41:DU:66:ASN:HB2	41:DU:76:TYR:CB	2.45	0.41
45:DY:78:ALA:HB3	45:DY:81:LYS:CE	2.49	0.41
48:D1:46:LEU:C	48:D1:47:GLN:HG2	2.40	0.41
52:D5:58:LEU:O	52:D5:59:GLU:OE2	2.39	0.41
54:D7:41:ARG:HB2	54:D7:41:ARG:HH11	1.84	0.41
55:D8:4:MET:O	55:D8:62:LEU:CD1	2.67	0.41
1:AA:706:A:H5"	11:AK:22:HIS:CE1	2.56	0.41
1:AA:860:A:H3'	1:AA:861:G:H8	1.85	0.41
1:AA:862:C:H42	1:AA:867:G:H1	1.68	0.41
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.55	0.41
1:AA:1301:U:O2'	1:AA:1302:U:OP1	2.22	0.41
1:AA:1422:G:O3'	35:BO:49:ARG:NH1	2.54	0.41
2:AB:52:GLU:HG2	2:AB:56:ARG:HG2	2.02	0.41
3:AC:174:PRO:C	3:AC:176:HIS:H	2.23	0.41
4:AD:206:PHE:O	4:AD:206:PHE:CD1	2.73	0.41
5:AE:100:VAL:HG13	5:AE:118:ILE:HG21	2.02	0.41
7:AG:44:TYR:C	7:AG:46:ALA:H	2.24	0.41
7:AG:99:LEU:O	7:AG:100:ALA:C	2.58	0.41
7:AG:155:ARG:O	7:AG:156:TRP:C	2.59	0.41
8:AH:127:LEU:HD22	8:AH:127:LEU:HA	1.87	0.41
12:AL:60:LEU:HD13	12:AL:60:LEU:HA	1.78	0.41
13:AM:96:LEU:CD2	13:AM:97:PRO:HD2	2.47	0.41
13:AM:120:LYS:HA	13:AM:120:LYS:HD3	1.77	0.41
17:AQ:74:LEU:O	17:AQ:74:LEU:HD22	2.21	0.41
23:AW:16:U:C5	23:AW:18:G:H3'	2.55	0.41
23:AY:31:A:C4	23:AY:32:U:C5	3.07	0.41
25:BA:795:C:H2'	25:BA:796:C:H6	1.86	0.41
25:BA:1114:G:H2'	25:BA:1115:G:H5"	2.02	0.41
25:BA:1278:A:C5'	38:BR:36:THR:HG22	2.50	0.41
25:BA:1598:C:O3'	44:BX:35:THR:HG22	2.20	0.41
25:BA:1820:U:HO2'	28:BD:201:HIS:HD2	1.68	0.41
25:BA:1826:G:C5	25:BA:1827:C:C4	3.09	0.41
25:BA:2676:C:O2	25:BA:2732:G:N2	2.50	0.41
25:BA:2724:C:OP2	29:BE:111:ARG:NH1	2.53	0.41
30:BF:182:ASN:C	30:BF:184:TYR:N	2.74	0.41
32:BH:70:THR:O	32:BH:72:ILE:HD12	2.20	0.41
36:BP:34:GLY:O	36:BP:36:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:57:THR:HG23	36:BP:59:LEU:CB	2.46	0.41
40:BT:2:ASN:HB2	40:BT:3:ARG:HE	1.85	0.41
40:BT:66:VAL:HG22	40:BT:71:GLY:CA	2.50	0.41
43:BW:22:ASP:HA	43:BW:25:ARG:NH1	2.35	0.41
48:B1:7:ILE:HB	48:B1:62:VAL:HG23	2.01	0.41
49:B2:29:LYS:CD	49:B2:57:ILE:HD13	2.45	0.41
1:CA:31:G:C6	1:CA:48:C:N1	2.89	0.41
1:CA:120:A:O2'	1:CA:122:G:OP1	2.38	0.41
1:CA:189(K):U:H2'	1:CA:189(L):G:H8	1.84	0.41
1:CA:383:A:C5	1:CA:384:G:H1'	2.55	0.41
1:CA:460:G:C6	1:CA:470:C:H5'	2.56	0.41
1:CA:511:C:OP1	1:CA:511:C:C4'	2.67	0.41
1:CA:1059:C:O2'	10:CJ:53:PRO:HD3	2.19	0.41
1:CA:1270:C:OP2	21:CU:24:ARG:NH2	2.53	0.41
1:CA:1297:C:H1'	1:CA:1298:C:H5	1.86	0.41
1:CA:1346:A:H5"	9:CI:120:ARG:NH1	2.35	0.41
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.21	0.41
2:CB:55:PHE:C	2:CB:57:PHE:N	2.72	0.41
2:CB:90:MET:HA	2:CB:91:PRO:HD3	1.88	0.41
4:CD:73:ARG:HA	4:CD:73:ARG:HD3	1.70	0.41
4:CD:101:LEU:HD23	4:CD:121:VAL:HG13	2.02	0.41
4:CD:107:ARG:NH2	4:CD:194:LEU:HD12	2.35	0.41
4:CD:154:ASN:O	4:CD:155:LEU:HD23	2.20	0.41
7:CG:69:VAL:HG12	7:CG:100:ALA:HA	2.03	0.41
9:CI:77:ILE:HG22	9:CI:81:ILE:HG12	2.02	0.41
10:CJ:27:ALA:HA	10:CJ:30:SER:OG	2.20	0.41
11:CK:88:GLY:O	11:CK:90:GLY:N	2.53	0.41
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.70	0.41
13:CM:82:MET:O	13:CM:83:ASP:HB2	2.19	0.41
22:CV:9:G:O2'	22:CV:10:G:N7	2.48	0.41
22:CV:35:C:H2'	22:CV:36:A:O5'	2.20	0.41
22:CV:41:C:H4'	23:CW:36:A:OP1	2.20	0.41
23:CW:14:A:C6	23:CW:15:G:H1'	2.56	0.41
25:DA:856:C:H1'	47:D0:27:GLU:HB3	2.02	0.41
25:DA:1169:G:H1	25:DA:1180:C:H42	1.69	0.41
25:DA:1191:G:OP1	36:DP:32:THR:HB	2.21	0.41
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.55	0.41
25:DA:1865:G:H5'	25:DA:1866:C:OP2	2.20	0.41
25:DA:2371:G:O4'	53:D6:45:LYS:HD3	2.21	0.41
25:DA:2637:U:H5"	29:DE:82:ARG:NH2	2.34	0.41
25:DA:2668:G:H2'	25:DA:2669:G:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:24:ILE:CD1	28:DD:84:TYR:HB2	2.51	0.41
29:DE:17:ASP:O	29:DE:18:ASP:CB	2.69	0.41
31:DG:106:LEU:HD12	31:DG:110:ALA:CB	2.50	0.41
31:DG:180:PHE:O	31:DG:182:LYS:N	2.53	0.41
32:DH:32:GLU:O	32:DH:33:LEU:HD23	2.20	0.41
34:DN:39:ARG:HG2	34:DN:39:ARG:NH1	2.35	0.41
34:DN:51:PHE:CZ	34:DN:119:ARG:CD	3.03	0.41
34:DN:78:TYR:N	34:DN:78:TYR:CD1	2.88	0.41
35:DO:87:ILE:HG21	35:DO:91:LEU:HA	2.02	0.41
36:DP:91:PHE:HD1	36:DP:91:PHE:N	2.18	0.41
36:DP:97:PRO:O	36:DP:98:GLU:CB	2.62	0.41
38:DR:92:GLY:HA2	38:DR:94:TYR:HE1	1.85	0.41
39:DS:110:LEU:HA	39:DS:112:PHE:CZ	2.54	0.41
40:DT:77:PRO:O	40:DT:78:LEU:CB	2.69	0.41
42:DV:58:VAL:HG21	42:DV:100:ARG:HH12	1.84	0.41
45:DY:12:THR:HG23	45:DY:26:LYS:CE	2.50	0.41
46:DZ:73:GLN:HB3	46:DZ:87:ASP:OD1	2.20	0.41
46:DZ:80:ARG:HD2	46:DZ:80:ARG:HA	1.78	0.41
46:DZ:168:GLU:HA	46:DZ:168:GLU:OE2	2.20	0.41
55:D8:22:VAL:O	55:D8:49:VAL:HG22	2.19	0.41
1:AA:21:G:H21	1:AA:914:A:H62	1.68	0.41
1:AA:381:C:H2'	1:AA:382:A:O4'	2.20	0.41
1:AA:687:A:H4'	1:AA:688:G:O5'	2.20	0.41
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.85	0.41
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.35	0.41
2:AB:51:LEU:O	2:AB:55:PHE:CD2	2.73	0.41
3:AC:21:ARG:O	3:AC:22:TRP:CD1	2.74	0.41
3:AC:34:LEU:O	3:AC:34:LEU:HG	2.19	0.41
4:AD:18:LYS:HG3	4:AD:31:CYS:SG	2.59	0.41
4:AD:149:ALA:O	4:AD:152:SER:N	2.45	0.41
4:AD:172:PRO:O	4:AD:187:ARG:NH1	2.51	0.41
4:AD:192:GLU:OE2	4:AD:192:GLU:HA	2.21	0.41
5:AE:30:ALA:O	5:AE:45:PHE:HA	2.21	0.41
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.20	0.41
9:AI:8:GLY:HA2	9:AI:79:LEU:CD1	2.46	0.41
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD13	2.02	0.41
11:AK:73:MET:HG2	11:AK:103:LEU:HD21	2.02	0.41
13:AM:50:GLU:H	13:AM:50:GLU:HG2	1.62	0.41
16:AP:70:ALA:O	16:AP:71:ARG:C	2.59	0.41
25:BA:464:U:H4'	54:B7:5:TRP:CZ3	2.55	0.41
25:BA:565:C:H4'	25:BA:1253:A:N6	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:740:U:H5”	25:BA:1784:A:H3’	2.02	0.41
25:BA:974:G:C2	25:BA:989:G:C4	3.08	0.41
25:BA:1022:G:O2’	25:BA:1024:G:N7	2.52	0.41
25:BA:1291:C:H2’	25:BA:1292:U:C6	2.56	0.41
25:BA:1487:G:O6	25:BA:1502:C:N4	2.49	0.41
25:BA:2038:G:H2’	25:BA:2039:C:O4’	2.21	0.41
26:BB:108:U:O5’	26:BB:108:U:H6	2.03	0.41
28:BD:102:LYS:C	28:BD:103:ARG:HG2	2.41	0.41
28:BD:270:ILE:HD12	28:BD:270:ILE:N	2.25	0.41
29:BE:17:ASP:HB3	29:BE:18:ASP:H	1.52	0.41
29:BE:110:GLY:HA2	29:BE:162:ALA:N	2.35	0.41
30:BF:89:VAL:C	30:BF:91:GLY:H	2.24	0.41
31:BG:106:LEU:O	31:BG:106:LEU:HG	2.16	0.41
32:BH:167:GLU:HA	32:BH:168:PRO:HD2	1.66	0.41
34:BN:57:ALA:H	34:BN:124:ALA:HA	1.86	0.41
35:BO:31:LYS:HB3	35:BO:32:TYR:CE2	2.56	0.41
36:BP:50:ARG:HD3	55:B8:59:LYS:HD3	2.01	0.41
36:BP:59:LEU:HD21	55:B8:13:ARG:NH2	2.30	0.41
36:BP:131:SER:O	36:BP:132:LYS:C	2.59	0.41
36:BP:135:LEU:HD13	36:BP:135:LEU:O	2.20	0.41
37:BQ:14:ARG:CG	37:BQ:14:ARG:HH11	2.33	0.41
38:BR:116:LEU:O	38:BR:117:VAL:O	2.38	0.41
40:BT:30:VAL:HG21	40:BT:84:GLN:CD	2.38	0.41
40:BT:123:GLN:HG3	40:BT:123:GLN:O	2.20	0.41
54:B7:39:ARG:HD3	54:B7:39:ARG:HA	1.87	0.41
55:B8:15:LYS:HG2	55:B8:16:ILE:N	2.35	0.41
56:B9:29:ASN:HD22	56:B9:29:ASN:C	2.22	0.41
1:CA:129(A):G:H5”	1:CA:130:A:O5’	2.21	0.41
1:CA:687:A:H2	1:CA:704:A:C4	2.38	0.41
1:CA:965:A:H5”	1:CA:966:G:OP1	2.20	0.41
1:CA:1327:C:H2’	1:CA:1328:C:C6	2.56	0.41
2:CB:211:ILE:H	2:CB:211:ILE:HG13	1.54	0.41
8:CH:100:ILE:HA	8:CH:101:PRO:HD3	1.79	0.41
9:CI:4:TYR:CE2	9:CI:88:TYR:CD2	3.09	0.41
16:CP:3:LYS:HG2	16:CP:65:GLN:O	2.21	0.41
22:CV:70:C:H2’	22:CV:71:G:O4’	2.20	0.41
23:CW:38:A:C2’	23:CW:39:U:OP1	2.68	0.41
25:DA:271(U):G:O2’	25:DA:9271:G:H5’	2.20	0.41
25:DA:555:U:O2’	25:DA:556:G:N7	2.50	0.41
25:DA:572:A:H5”	25:DA:573:G:OP2	2.20	0.41
25:DA:573:G:O6	25:DA:2030:A:H3’	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:889:C:HO2'	25:DA:890:A:P	2.41	0.41
25:DA:1022:G:HO2'	25:DA:1023:U:P	2.42	0.41
25:DA:1027:A:N6	25:DA:1126:A:H1'	2.35	0.41
25:DA:1101:U:H2'	25:DA:1102:C:H6	1.86	0.41
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.56	0.41
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.21	0.41
25:DA:1523:U:H2'	25:DA:1524:G:C8	2.55	0.41
25:DA:1615:C:H2'	25:DA:1617:C:H5	1.86	0.41
25:DA:1930:G:N2	25:DA:1968:G:H2'	2.35	0.41
25:DA:2013:A:H4'	43:DW:96:ILE:HD12	2.02	0.41
25:DA:2131:G:N7	25:DA:2158:A:N6	2.68	0.41
25:DA:2415:G:H4'	36:DP:67:MET:N	2.35	0.41
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.20	0.41
25:DA:2880:C:HO2'	38:DR:90:ARG:HH11	1.60	0.41
30:DF:24:LEU:O	30:DF:25:PRO:C	2.58	0.41
31:DG:31:VAL:O	31:DG:31:VAL:HG13	2.20	0.41
31:DG:58:GLN:NE2	31:DG:148:MET:HE2	2.36	0.41
36:DP:83:VAL:HG12	36:DP:112:LEU:CD2	2.41	0.41
36:DP:124:LYS:HE3	36:DP:145:PRO:HD3	2.01	0.41
37:DQ:81:VAL:HG23	37:DQ:82:ARG:N	2.36	0.41
39:DS:8:GLU:HG3	39:DS:8:GLU:H	1.67	0.41
40:DT:102:ILE:HB	40:DT:110:ILE:CD1	2.49	0.41
40:DT:133:GLU:OE2	40:DT:137:LYS:HB2	2.20	0.41
41:DU:65:ILE:C	41:DU:67:ALA:N	2.74	0.41
41:DU:111:GLU:C	41:DU:113:ALA:N	2.72	0.41
42:DV:22:VAL:HG12	42:DV:23:GLU:N	2.35	0.41
42:DV:44:LYS:HE2	42:DV:44:LYS:HB3	1.81	0.41
43:DW:78:GLU:OE2	43:DW:99:ARG:NH1	2.50	0.41
43:DW:87:PRO:O	43:DW:88:ARG:HD2	2.20	0.41
44:DX:65:ARG:HH11	44:DX:65:ARG:HG2	1.85	0.41
46:DZ:128:VAL:CG2	46:DZ:129:SER:N	2.84	0.41
46:DZ:158:PRO:O	46:DZ:160:GLY:N	2.53	0.41
48:D1:3:LYS:HG2	48:D1:4:VAL:H	1.84	0.41
54:D7:25:PRO:HB3	54:D7:28:ARG:NH2	2.35	0.41
1:AA:189(D):C:H1'	1:AA:189(H):G:N2	2.36	0.41
1:AA:242:C:O2'	1:AA:243:A:H5'	2.20	0.41
1:AA:528:C:H4'	1:AA:535:A:C6	2.56	0.41
1:AA:675:A:H1'	11:AK:116:HIS:CD2	2.56	0.41
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.94	0.41
1:AA:1442(B):A:C6	40:BT:118:ARG:CZ	3.04	0.41
3:AC:180:ALA:O	3:AC:205:GLY:O	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:92:VAL:HG12	4:AD:96:LEU:HD13	2.01	0.41
4:AD:169:LYS:HB3	4:AD:169:LYS:HE2	1.76	0.41
7:AG:85:TYR:O	7:AG:87:VAL:HG23	2.21	0.41
9:AI:3:GLN:O	9:AI:88:TYR:HE1	2.02	0.41
9:AI:20:ARG:O	9:AI:60:ASP:HB2	2.20	0.41
17:AQ:7:THR:HA	17:AQ:58:GLU:HA	2.03	0.41
17:AQ:51:TYR:CD1	17:AQ:73:VAL:HG11	2.56	0.41
20:AT:29:LYS:HD3	20:AT:66:ALA:HB2	2.03	0.41
21:AU:6:ARG:HD3	21:AU:15:ARG:CZ	2.50	0.41
25:BA:139:G:H2'	25:BA:140:G:N7	2.36	0.41
25:BA:570:G:H2'	25:BA:2030:A:C5	2.55	0.41
25:BA:602:G:N2	25:BA:656:G:C5	2.88	0.41
25:BA:660:G:H21	36:BP:12:ALA:CA	2.34	0.41
25:BA:747:U:O2	25:BA:2014:A:H1'	2.20	0.41
25:BA:801:G:H5"	25:BA:802:A:OP2	2.21	0.41
25:BA:813:U:H2'	25:BA:814:C:C6	2.56	0.41
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.36	0.41
25:BA:1286:A:C6	25:BA:1289:C:C2	3.07	0.41
25:BA:1297:C:HO2'	25:BA:1302:A:N6	2.19	0.41
25:BA:1332:G:N2	25:BA:1609:A:H2'	2.35	0.41
25:BA:1720:U:O5'	25:BA:1720:U:H6	2.03	0.41
25:BA:2056:G:C8	25:BA:2577:A:C6	3.08	0.41
25:BA:2198:A:H8	25:BA:2198:A:O5'	2.03	0.41
25:BA:2458:G:N7	25:BA:2490:G:C6	2.87	0.41
25:BA:2758:A:H2'	25:BA:2759:G:O4'	2.21	0.41
26:BB:7:G:H3'	26:BB:8:U:H5"	2.02	0.41
27:BC:18:LYS:HD3	27:BC:19:VAL:H	1.85	0.41
28:BD:48:ARG:CG	28:BD:48:ARG:HH11	2.34	0.41
28:BD:131:LEU:HB2	28:BD:136:ILE:CD1	2.49	0.41
28:BD:168:ARG:HA	28:BD:173:VAL:HA	2.03	0.41
28:BD:231:HIS:ND1	28:BD:249:PRO:HA	2.35	0.41
31:BG:28:VAL:C	31:BG:30:GLU:N	2.73	0.41
36:BP:38:GLN:HG2	36:BP:45:LEU:CD1	2.49	0.41
39:BS:66:ALA:O	39:BS:69:VAL:N	2.54	0.41
41:BU:24:TYR:O	41:BU:29:SER:HB3	2.21	0.41
41:BU:92:ARG:HH12	42:BV:11:GLN:H	1.69	0.41
44:BX:49:VAL:HA	44:BX:87:GLN:HE22	1.86	0.41
45:BY:14:LEU:HA	45:BY:24:VAL:HG22	2.02	0.41
45:BY:90:LEU:CD1	45:BY:91:GLU:HB2	2.43	0.41
46:BZ:168:GLU:O	46:BZ:169:GLU:C	2.58	0.41
47:B0:70:GLN:HE21	47:B0:80:HIS:HE2	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:80:LEU:HD23	48:B1:80:LEU:HA	1.77	0.41
1:CA:173:U:O2'	1:CA:174:C:OP1	2.30	0.41
1:CA:280:C:H1'	17:CQ:38:ARG:HD3	2.03	0.41
1:CA:627:G:H2'	1:CA:628:G:H8	1.85	0.41
1:CA:1065:U:O4'	1:CA:1066:C:C5'	2.56	0.41
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.55	0.41
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.54	0.41
4:CD:45:GLN:HE21	4:CD:45:GLN:HB3	1.64	0.41
4:CD:59:ARG:HA	4:CD:59:ARG:NE	2.35	0.41
4:CD:98:GLU:O	4:CD:103:ASN:ND2	2.54	0.41
4:CD:138:TYR:HE2	4:CD:139:ARG:O	2.03	0.41
12:CL:10:LEU:HD23	12:CL:10:LEU:HA	1.93	0.41
12:CL:24:VAL:HA	12:CL:25:PRO:HD2	2.01	0.41
12:CL:34:ARG:HE	12:CL:34:ARG:HB3	1.56	0.41
12:CL:69:TYR:HB2	12:CL:90:VAL:HG23	2.01	0.41
13:CM:15:VAL:HG12	13:CM:19:LEU:CD2	2.50	0.41
15:CO:33:THR:O	15:CO:36:ILE:N	2.54	0.41
15:CO:34:LEU:HD12	15:CO:34:LEU:C	2.41	0.41
22:CV:4:G:HO2'	22:CV:5:G:P	2.44	0.41
22:CV:19:G:N2	22:CV:59:A:C8	2.89	0.41
22:CV:41:C:H5'	23:CW:35:A:O3'	2.20	0.41
25:DA:841:A:H2'	25:DA:842:G:C8	2.56	0.41
25:DA:848:G:O6	25:DA:928:G:H2'	2.21	0.41
25:DA:870:A:OP1	37:DQ:6:ARG:NH2	2.40	0.41
25:DA:1835:G:H2'	25:DA:1835:G:N3	2.36	0.41
25:DA:2396:G:OP1	48:D1:25:LYS:NZ	2.49	0.41
25:DA:2563:U:H4'	35:DO:28:SER:HA	2.03	0.41
25:DA:2740:A:H2'	25:DA:2741:A:C8	2.55	0.41
28:DD:125:ILE:HG22	28:DD:125:ILE:O	2.21	0.41
28:DD:245:PRO:O	28:DD:246:PRO:C	2.59	0.41
28:DD:253:GLN:H	28:DD:253:GLN:HG2	1.60	0.41
31:DG:7:LEU:HD22	31:DG:100:TRP:CE3	2.56	0.41
31:DG:111:LEU:HD13	31:DG:120:LEU:HD21	2.03	0.41
32:DH:103:LEU:O	32:DH:103:LEU:HD23	2.21	0.41
33:DI:9:LEU:C	33:DI:10:GLU:O	2.57	0.41
33:DI:47:LEU:O	33:DI:51:ILE:HG13	2.20	0.41
34:DN:76:SER:O	34:DN:78:TYR:N	2.54	0.41
37:DQ:26:TYR:CD1	37:DQ:26:TYR:C	2.94	0.41
37:DQ:77:LYS:O	37:DQ:78:PRO:O	2.37	0.41
38:DR:27:SER:HB3	38:DR:34:ILE:HD12	2.02	0.41
38:DR:80:PHE:HD1	38:DR:80:PHE:HA	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:86:ALA:O	39:DS:87:PHE:CB	2.64	0.41
40:DT:33:LYS:HG3	40:DT:43:GLN:HB2	1.98	0.41
40:DT:38:ASN:O	40:DT:39:ARG:CB	2.68	0.41
41:DU:79:PHE:CE1	41:DU:106:PHE:CZ	3.09	0.41
44:DX:18:TYR:O	44:DX:20:GLY:N	2.53	0.41
46:DZ:39:VAL:CG1	46:DZ:88:PHE:HE1	2.33	0.41
46:DZ:41:LEU:O	46:DZ:43:GLU:N	2.53	0.41
54:D7:19:ARG:HG2	54:D7:19:ARG:NH1	2.36	0.41
55:D8:2:PRO:O	55:D8:3:LYS:C	2.58	0.41
1:AA:736:C:H2'	1:AA:737:A:C8	2.55	0.41
1:AA:1049:U:C2	1:AA:1201:A:C1'	3.04	0.41
1:AA:1067:A:H1'	1:AA:1068:G:C8	2.55	0.41
1:AA:1231:G:C5'	9:AI:128:ARG:HG3	2.50	0.41
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.55	0.41
3:AC:147:LYS:HG3	3:AC:204:LEU:O	2.21	0.41
5:AE:147:ASP:HA	5:AE:150:ARG:HE	1.85	0.41
8:AH:36:LEU:CA	8:AH:39:LEU:HD23	2.48	0.41
10:AJ:87:THR:OG1	10:AJ:88:LEU:N	2.54	0.41
11:AK:98:LEU:O	11:AK:99:GLN:C	2.58	0.41
12:AL:46:LYS:HD3	12:AL:47:LYS:HG3	2.02	0.41
13:AM:83:ASP:OD2	13:AM:83:ASP:N	2.51	0.41
15:AO:32:LEU:HD13	15:AO:63:ARG:HB2	2.02	0.41
15:AO:64:ARG:HG2	15:AO:65:ARG:N	2.35	0.41
15:AO:67:LEU:O	15:AO:68:ARG:C	2.59	0.41
22:AV:4:G:HO2'	22:AV:5:G:P	2.44	0.41
23:AY:36:A:C4	23:AY:37:A:C8	3.08	0.41
25:BA:196:A:C2	25:BA:805:G:N1	2.89	0.41
25:BA:319:C:H2'	25:BA:320:A:C8	2.56	0.41
25:BA:340:A:C8	25:BA:341:G:N7	2.89	0.41
25:BA:547:A:H2'	25:BA:548:A:C8	2.56	0.41
25:BA:586:A:H5'	30:BF:89:VAL:HG21	2.03	0.41
25:BA:636:G:C8	36:BP:115:LEU:HD21	2.56	0.41
25:BA:1754:C:H2'	25:BA:1755:A:O4'	2.20	0.41
25:BA:1803:A:H4'	28:BD:259:THR:CG2	2.50	0.41
25:BA:2166:G:H2'	25:BA:2167:U:O4'	2.21	0.41
25:BA:2250:G:C6	37:BQ:83:MET:HB3	2.56	0.41
25:BA:2331:G:O3'	47:B0:43:THR:HG22	2.20	0.41
26:BB:64:C:H2'	26:BB:65:C:C6	2.55	0.41
27:BC:58:VAL:CG2	27:BC:166:ASP:H	2.04	0.41
27:BC:73:ARG:O	27:BC:75:LEU:N	2.53	0.41
29:BE:3:GLY:CA	29:BE:81:ILE:HG21	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:13:ARG:HH21	40:BT:77:PRO:HB3	1.85	0.41
30:BF:9:ILE:O	30:BF:128:ALA:HB2	2.20	0.41
30:BF:142:TRP:CE3	30:BF:143:ALA:HA	2.55	0.41
31:BG:107:LEU:HD23	31:BG:111:LEU:CD1	2.48	0.41
32:BH:64:LEU:HD23	32:BH:67:LEU:HD23	2.03	0.41
32:BH:156:ALA:HB3	32:BH:159:GLU:CB	2.50	0.41
33:BI:77:LEU:HD22	33:BI:101:LEU:HD11	1.95	0.41
36:BP:91:PHE:HD1	36:BP:91:PHE:N	2.18	0.41
37:BQ:51:ARG:CG	37:BQ:51:ARG:HH11	2.33	0.41
38:BR:101:ALA:HB2	52:B5:44:THR:HB	2.02	0.41
40:BT:72:VAL:CG1	40:BT:73:GLU:N	2.84	0.41
41:BU:27:LEU:C	41:BU:34:LYS:HB3	2.41	0.41
43:BW:29:LEU:HD21	43:BW:33:ARG:NH1	2.36	0.41
43:BW:46:PHE:C	43:BW:48:ALA:N	2.74	0.41
46:BZ:4:ARG:HG3	46:BZ:58:VAL:O	2.21	0.41
46:BZ:5:LEU:CD1	46:BZ:6:LYS:H	2.28	0.41
46:BZ:70:LEU:HD23	46:BZ:70:LEU:HA	1.65	0.41
53:B6:28:ARG:O	53:B6:29:ASN:C	2.59	0.41
55:B8:16:ILE:O	55:B8:16:ILE:HG23	2.20	0.41
55:B8:59:LYS:HB2	55:B8:59:LYS:HE3	1.26	0.41
1:CA:17:U:O4’	1:CA:1080:A:H1’	2.21	0.41
1:CA:966:G:O2’	9:CI:127:LYS:O	2.39	0.41
1:CA:1065:U:H5’	1:CA:1066:C:C6	2.55	0.41
1:CA:1081:G:OP1	5:CE:18:ARG:HG2	2.21	0.41
1:CA:1128:C:H42	1:CA:1143:G:H1	1.68	0.41
1:CA:1213:A:N1	1:CA:1215:G:H1’	2.36	0.41
2:CB:51:LEU:HB3	2:CB:55:PHE:CE2	2.56	0.41
3:CC:60:ALA:O	3:CC:61:ALA:HB2	2.20	0.41
7:CG:93:PRO:O	7:CG:94:ARG:C	2.57	0.41
7:CG:149:ARG:O	7:CG:150:ALA:C	2.59	0.41
8:CH:112:LEU:HD11	8:CH:114:THR:HG23	2.03	0.41
9:CI:18:PHE:HD1	9:CI:62:TYR:CD2	2.39	0.41
10:CJ:23:ILE:H	10:CJ:23:ILE:HG13	1.71	0.41
13:CM:15:VAL:HG11	13:CM:34:LEU:HD21	2.03	0.41
13:CM:27:LYS:HB3	13:CM:31:LYS:HE3	2.03	0.41
13:CM:87:TYR:C	13:CM:89:GLY:H	2.23	0.41
20:CT:41:ILE:C	20:CT:43:LEU:N	2.73	0.41
25:DA:49:A:H5’	25:DA:51:G:O4’	2.21	0.41
25:DA:563:G:C6	25:DA:2018:G:C5	3.09	0.41
25:DA:593:G:H1’	55:D8:4:MET:HE1	2.03	0.41
25:DA:774:A:H2	25:DA:787:U:O2’	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2306:C:O5'	25:DA:2306:C:H6	2.03	0.41
25:DA:2370:G:H21	53:D6:45:LYS:HE2	1.85	0.41
25:DA:2481:G:O2'	25:DA:2482:G:P	2.79	0.41
25:DA:2581:G:H5"	25:DA:2582:G:OP1	2.21	0.41
25:DA:2835:A:H62	25:DA:2878:U:H3'	1.86	0.41
25:DA:2835:A:N6	25:DA:2878:U:H3'	2.36	0.41
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.56	0.41
26:DB:91:C:OP1	37:DQ:16:ARG:HG3	2.20	0.41
28:DD:94:LEU:CD2	28:DD:95:LEU:N	2.79	0.41
29:DE:78:LEU:H	29:DE:78:LEU:HG	1.62	0.41
30:DF:68:LYS:HG2	30:DF:69:HIS:CD2	2.55	0.41
31:DG:115:ARG:CG	31:DG:115:ARG:NH1	2.81	0.41
32:DH:135:GLY:HA3	32:DH:141:VAL:CG2	2.46	0.41
34:DN:123:TYR:CZ	34:DN:129:PRO:HD2	2.56	0.41
35:DO:110:GLY:HA2	35:DO:112:MET:HE3	2.02	0.41
36:DP:79:ARG:O	36:DP:111:ARG:CB	2.59	0.41
36:DP:95:VAL:HG23	36:DP:125:VAL:HG23	2.03	0.41
38:DR:63:ARG:NH1	38:DR:80:PHE:CD2	2.87	0.41
39:DS:102:ALA:O	39:DS:105:ALA:HB3	2.20	0.41
40:DT:27:THR:O	40:DT:28:VAL:HB	2.21	0.41
40:DT:131:ALA:O	40:DT:133:GLU:N	2.54	0.41
41:DU:80:ILE:HD13	41:DU:80:ILE:HA	1.93	0.41
42:DV:15:GLU:O	42:DV:18:LEU:HB2	2.21	0.41
45:DY:86:ARG:HD2	45:DY:86:ARG:HA	1.68	0.41
47:D0:46:LYS:HD2	47:D0:78:TYR:CE1	2.55	0.41
49:D2:32:LEU:CB	49:D2:53:LEU:HD13	2.51	0.41
49:D2:40:SER:C	49:D2:42:GLY:H	2.24	0.41
53:D6:15:GLU:O	53:D6:16:CYS:SG	2.76	0.41
1:AA:243:A:C6	1:AA:281:G:C2	3.09	0.41
1:AA:266:G:O2'	1:AA:267:C:OP2	2.30	0.41
1:AA:328:C:O2	1:AA:328:C:C2'	2.51	0.41
1:AA:362:G:N2	1:AA:365:U:OP2	2.52	0.41
1:AA:878:G:P	8:AH:88:LYS:HD3	2.60	0.41
1:AA:1048:G:N1	1:AA:1210:C:C4	2.89	0.41
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.20	0.41
1:AA:1139:G:H1'	1:AA:1141:C:N4	2.35	0.41
1:AA:1310:G:H5'	13:AM:77:ASN:OD1	2.21	0.41
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.20	0.41
2:AB:178:ARG:NH1	2:AB:196:LEU:O	2.45	0.41
3:AC:18:TRP:CE3	3:AC:18:TRP:N	2.86	0.41
3:AC:165:THR:O	3:AC:165:THR:HG22	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:138:TYR:HD2	4:AD:139:ARG:N	2.19	0.41
6:AF:25:ILE:HD13	6:AF:25:ILE:HA	1.86	0.41
8:AH:2:LEU:HD13	8:AH:3:THR:N	2.35	0.41
8:AH:127:LEU:HD12	8:AH:129:VAL:HG11	2.02	0.41
11:AK:33:THR:OG1	11:AK:37:GLY:CA	2.68	0.41
19:AS:47:HIS:O	19:AS:62:ILE:CG2	2.69	0.41
22:AV:21:U:H5"	22:AV:22:A:OP2	2.21	0.41
23:AW:16:U:O4	23:AW:18:G:H2'	2.21	0.41
25:BA:482:A:H1'	25:BA:498:G:N2	2.35	0.41
25:BA:494:G:O2'	43:BW:5:ALA:O	2.39	0.41
25:BA:571:A:H5"	25:BA:975:C:C4	2.55	0.41
25:BA:804:A:H2'	25:BA:806:C:N4	2.36	0.41
25:BA:811:U:H4'	25:BA:1251:C:O4'	2.21	0.41
25:BA:1264:G:C6	25:BA:1265:A:N6	2.88	0.41
25:BA:1339:G:H5"	44:BX:16:LYS:HD2	2.01	0.41
25:BA:2050:C:N4	25:BA:2051:A:C6	2.89	0.41
25:BA:2230:G:H1'	48:B1:45:ASN:CB	2.50	0.41
25:BA:2287:A:H2	25:BA:2346:A:H2	1.60	0.41
25:BA:2366:A:H3'	25:BA:2367:G:H8	1.86	0.41
25:BA:2453:A:C2	25:BA:2504:U:C4	3.08	0.41
25:BA:2619:C:H2'	25:BA:2620:C:H6	1.86	0.41
25:BA:2805:G:H2'	25:BA:2807:G:O4'	2.21	0.41
28:BD:2:ALA:O	28:BD:3:VAL:HB	2.21	0.41
28:BD:182:LEU:HD23	28:BD:182:LEU:HA	1.65	0.41
31:BG:25:TYR:CD1	31:BG:30:GLU:HG2	2.56	0.41
31:BG:96:ARG:O	31:BG:99:MET:HB3	2.21	0.41
32:BH:121:ILE:HG22	32:BH:133:VAL:HG12	2.02	0.41
32:BH:159:GLU:HG3	32:BH:160:LYS:HG3	2.03	0.41
33:BI:127:VAL:O	33:BI:127:VAL:HG12	2.21	0.41
33:BI:136:VAL:HG23	33:BI:137:PRO:N	2.35	0.41
34:BN:28:THR:CG2	34:BN:29:LYS:N	2.83	0.41
34:BN:87:LEU:O	34:BN:90:MET:HB2	2.21	0.41
34:BN:90:MET:HB3	34:BN:98:VAL:CG2	2.50	0.41
35:BO:3:GLN:O	35:BO:6:THR:OG1	2.24	0.41
35:BO:73:ASP:OD1	35:BO:73:ASP:C	2.58	0.41
35:BO:88:ASN:HB3	35:BO:94:ARG:HG2	2.03	0.41
38:BR:95:THR:O	38:BR:95:THR:CG2	2.68	0.41
40:BT:76:PHE:HA	40:BT:77:PRO:HD3	1.93	0.41
41:BU:103:PRO:O	41:BU:106:PHE:HB3	2.21	0.41
43:BW:88:ARG:HB2	43:BW:92:ARG:HB2	2.03	0.41
1:CA:177:C:OP1	20:CT:65:LYS:NZ	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:529:G:H4'	1:CA:533:A:C4	2.56	0.41
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.56	0.41
1:CA:1321:C:H3'	1:CA:1322:C:H5"	2.02	0.41
2:CB:188:ALA:C	2:CB:189:ASP:OD1	2.59	0.41
3:CC:90:GLU:HA	3:CC:90:GLU:OE1	2.20	0.41
5:CE:147:ASP:OD2	5:CE:147:ASP:N	2.47	0.41
13:CM:108:ARG:HH11	13:CM:108:ARG:CG	2.33	0.41
14:CN:7:ILE:HG12	14:CN:7:ILE:H	1.69	0.41
15:CO:57:LEU:HD23	15:CO:57:LEU:HA	1.81	0.41
16:CP:36:ILE:CG1	16:CP:37:GLY:N	2.83	0.41
17:CQ:74:LEU:HD22	17:CQ:74:LEU:HA	1.87	0.41
19:CS:60:VAL:HG22	19:CS:61:TYR:O	2.20	0.41
23:CW:36:A:C6	23:CW:37:A:C6	3.08	0.41
25:DA:42:G:H2'	25:DA:43:A:O4'	2.21	0.41
25:DA:144:C:H2'	25:DA:145:G:C8	2.55	0.41
25:DA:9271:G:C4	25:DA:9272:G:C8	3.08	0.41
25:DA:458:G:O3'	25:DA:459:U:C6	2.70	0.41
25:DA:1047:G:C5	25:DA:1110:G:O6	2.73	0.41
25:DA:1500:G:O2'	28:DD:100:GLY:O	2.32	0.41
25:DA:1665:A:H4'	35:DO:67:LYS:HB2	2.01	0.41
25:DA:1999:C:H5"	25:DA:2723:C:O2'	2.21	0.41
25:DA:2282:G:H5"	25:DA:2283:C:O4'	2.21	0.41
28:DD:270:ILE:C	28:DD:271:ILE:CG1	2.89	0.41
29:DE:108:SER:OG	29:DE:163:GLU:HG2	2.20	0.41
29:DE:116:VAL:HG23	29:DE:120:TRP:HB2	2.03	0.41
30:DF:150:GLY:HA2	30:DF:172:TRP:CE3	2.56	0.41
31:DG:39:ILE:HB	31:DG:92:VAL:HG13	2.03	0.41
31:DG:85:GLY:O	31:DG:86:MET:CB	2.68	0.41
33:DI:144:VAL:O	33:DI:145:VAL:HG22	2.21	0.41
36:DP:20:GLY:HA2	36:DP:27:HIS:O	2.21	0.41
36:DP:42:SER:O	36:DP:44:GLY:N	2.54	0.41
37:DQ:1:MET:HE2	37:DQ:1:MET:C	2.41	0.41
37:DQ:33:GLY:HA2	37:DQ:105:GLU:HA	2.02	0.41
39:DS:74:ALA:O	39:DS:75:GLU:C	2.59	0.41
39:DS:106:ARG:HG3	39:DS:106:ARG:H	1.67	0.41
40:DT:28:VAL:HG22	40:DT:46:GLU:HG3	2.01	0.41
40:DT:28:VAL:HG11	40:DT:46:GLU:OE1	2.21	0.41
41:DU:78:THR:O	41:DU:79:PHE:C	2.58	0.41
44:DX:35:THR:HG22	44:DX:36:LYS:N	2.36	0.41
44:DX:42:ALA:O	44:DX:46:ALA:HB2	2.21	0.41
46:DZ:51:ALA:O	46:DZ:52:SER:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:51:VAL:HG21	48:D1:74:VAL:HG21	2.03	0.41
49:D2:3:LEU:CD2	49:D2:7:ARG:HH11	2.33	0.41
49:D2:45:SER:O	49:D2:46:GLN:NE2	2.53	0.41
53:D6:30:THR:HB	53:D6:31:PRO:CD	2.42	0.41
54:D7:23:ARG:O	54:D7:28:ARG:NH1	2.53	0.41
55:D8:14:VAL:CG2	55:D8:22:VAL:CG1	2.99	0.41
1:AA:371:G:O2'	1:AA:373:A:N7	2.54	0.41
1:AA:617:G:H1	1:AA:623:C:H42	1.68	0.41
1:AA:644:G:H5'	8:AH:92:ARG:NH2	2.36	0.41
1:AA:913:A:HO2'	1:AA:914:A:P	2.42	0.41
1:AA:972:C:O3'	10:AJ:57:LYS:HG3	2.21	0.41
1:AA:1125:U:C2'	1:AA:1126:U:OP2	2.68	0.41
1:AA:1151:A:H2'	1:AA:1152:A:H8	1.83	0.41
1:AA:1329:A:OP1	13:AM:26:GLY:HA3	2.21	0.41
1:AA:1399:C:C2	1:AA:1502:A:N6	2.89	0.41
2:AB:27:LYS:C	2:AB:29:ALA:H	2.24	0.41
2:AB:69:LEU:HD13	2:AB:70:PHE:N	2.36	0.41
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	2.02	0.41
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.20	0.41
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	2.02	0.41
3:AC:178:LEU:HD13	3:AC:178:LEU:HA	1.94	0.41
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	2.01	0.41
7:AG:20:ASP:HB3	7:AG:23:VAL:HB	2.03	0.41
7:AG:113:GLU:HB2	7:AG:118:VAL:HG21	2.02	0.41
8:AH:35:ILE:HG23	8:AH:111:ILE:CD1	2.50	0.41
9:AI:53:VAL:O	9:AI:54:ASP:CB	2.68	0.41
9:AI:126:SER:O	9:AI:127:LYS:CB	2.69	0.41
11:AK:70:LYS:HA	11:AK:73:MET:HE2	2.02	0.41
12:AL:126:LYS:C	12:AL:128:ALA:H	2.25	0.41
13:AM:23:TYR:HE1	13:AM:71:ARG:HA	1.86	0.41
13:AM:57:ARG:HH12	51:B4:60:GLU:CA	2.33	0.41
13:AM:57:ARG:NH1	51:B4:60:GLU:CB	2.84	0.41
20:AT:91:LEU:C	20:AT:93:GLU:N	2.74	0.41
24:AX:15:A:H8	24:AX:15:A:O5'	2.04	0.41
25:BA:118:A:N3	25:BA:178:G:H1'	2.35	0.41
25:BA:214:G:H1'	25:BA:216:A:O2'	2.21	0.41
25:BA:448:U:O4	25:BA:583:G:H1'	2.19	0.41
25:BA:662:G:P	36:BP:15:ARG:HE	2.44	0.41
25:BA:700:G:H2'	25:BA:701:G:O4'	2.21	0.41
25:BA:747:U:C4	25:BA:2613:U:C4	3.08	0.41
25:BA:747:U:C6	52:B5:2:ALA:HB3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:959:A:C6	25:BA:960:A:C6	3.09	0.41
25:BA:1051:G:O2'	25:BA:1052:C:OP1	2.31	0.41
25:BA:1445:A:N3	25:BA:1445:A:H2'	2.35	0.41
25:BA:1554:A:H5"	25:BA:1555:G:OP2	2.20	0.41
25:BA:1826:G:H4'	28:BD:242:ARG:NH2	2.22	0.41
25:BA:2061:G:O2'	25:BA:2062:A:OP2	2.30	0.41
25:BA:2178:C:H1'	27:BC:172:HIS:CB	2.50	0.41
25:BA:2228:G:C5	25:BA:2229:C:C4	3.09	0.41
25:BA:2277:G:H5"	37:BQ:87:LYS:HB3	2.03	0.41
25:BA:2287:A:N6	25:BA:2289:G:C2	2.88	0.41
25:BA:2345:G:O2'	25:BA:2382:G:H5'	2.20	0.41
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.21	0.41
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.56	0.41
25:BA:2702:U:H6	25:BA:2702:U:OP1	2.03	0.41
25:BA:2892:A:C5	25:BA:2893:G:H1'	2.55	0.41
26:BB:50:G:OP2	39:BS:62:LYS:HG3	2.21	0.41
29:BE:103:ASP:CG	29:BE:201:THR:HA	2.41	0.41
29:BE:201:THR:HG21	29:BE:203:LYS:HG2	2.03	0.41
30:BF:36:VAL:HB	30:BF:183:VAL:HG21	2.01	0.41
30:BF:42:ALA:O	30:BF:45:ARG:CB	2.69	0.41
30:BF:83:PHE:O	30:BF:84:VAL:C	2.58	0.41
31:BG:19:LEU:HD21	31:BG:171:ALA:HB1	2.01	0.41
31:BG:60:LEU:CD1	31:BG:92:VAL:HG11	2.50	0.41
32:BH:55:PRO:HB2	32:BH:56:SER:H	1.61	0.41
32:BH:159:GLU:HG3	32:BH:160:LYS:HG2	2.02	0.41
33:BI:77:LEU:CD2	33:BI:101:LEU:HA	2.50	0.41
33:BI:77:LEU:HD13	33:BI:105:HIS:NE2	2.36	0.41
34:BN:133:GLN:HG2	34:BN:134:ARG:N	2.36	0.41
35:BO:35:VAL:HG21	35:BO:69:ILE:HD13	2.01	0.41
35:BO:64:ARG:HD3	35:BO:79:PHE:CD2	2.55	0.41
35:BO:112:MET:HA	35:BO:112:MET:CE	2.50	0.41
36:BP:42:SER:O	36:BP:44:GLY:N	2.54	0.41
36:BP:71:VAL:CG2	36:BP:72:PRO:CD	2.99	0.41
36:BP:79:ARG:O	36:BP:111:ARG:CB	2.59	0.41
36:BP:95:VAL:HG23	36:BP:125:VAL:HG23	2.03	0.41
36:BP:112:LEU:HD22	36:BP:112:LEU:C	2.41	0.41
36:BP:127:ALA:HB3	36:BP:130:PHE:CE2	2.56	0.41
37:BQ:42:ILE:HD13	37:BQ:97:VAL:CB	2.48	0.41
37:BQ:109:VAL:HG13	37:BQ:113:GLN:HB3	2.02	0.41
38:BR:103:ARG:HB2	38:BR:109:ALA:N	2.36	0.41
39:BS:26:LEU:HG	39:BS:39:ILE:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:86:ALA:N	39:BS:106:ARG:HG3	2.36	0.41
40:BT:57:PHE:C	40:BT:59:THR:N	2.74	0.41
40:BT:65:LYS:O	40:BT:72:VAL:N	2.49	0.41
40:BT:66:VAL:HG22	40:BT:71:GLY:HA2	2.03	0.41
43:BW:79:GLY:C	43:BW:100:THR:HG22	2.41	0.41
44:BX:23:GLU:C	44:BX:25:LYS:H	2.24	0.41
45:BY:3:VAL:C	45:BY:5:MET:H	2.23	0.41
46:BZ:5:LEU:HD12	46:BZ:6:LYS:N	2.28	0.41
46:BZ:97:GLU:HA	46:BZ:126:VAL:O	2.21	0.41
48:B1:23:LYS:HD3	48:B1:28:GLY:CA	2.50	0.41
49:B2:16:LEU:O	49:B2:17:SER:CB	2.68	0.41
50:B3:5:LYS:HG3	50:B3:36:VAL:HG12	2.02	0.41
50:B3:44:ARG:O	50:B3:48:GLU:HG2	2.21	0.41
52:B5:46:CYS:HB3	52:B5:49:CYS:HB2	2.03	0.41
1:CA:45:U:H2'	1:CA:46:G:C8	2.56	0.41
1:CA:59:A:H3'	1:CA:331:G:H22	1.86	0.41
1:CA:267:C:OP2	17:CQ:67:LYS:HD2	2.21	0.41
1:CA:985:C:H2'	1:CA:986:A:C8	2.56	0.41
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.21	0.41
1:CA:1456:G:C2	1:CA:1457:G:C4	3.09	0.41
3:CC:114:PRO:O	3:CC:118:GLN:HG3	2.21	0.41
4:CD:15:GLU:HG2	4:CD:63:LYS:HA	2.02	0.41
4:CD:176:LEU:HD12	4:CD:177:ASP:N	2.14	0.41
6:CF:23:LYS:HE2	6:CF:23:LYS:HB3	1.71	0.41
7:CG:22:LEU:HD12	7:CG:101:LEU:HD11	2.02	0.41
7:CG:25:ALA:HA	7:CG:28:ASN:HD22	1.86	0.41
8:CH:22:GLU:O	8:CH:63:LEU:HD22	2.20	0.41
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.50	0.41
8:CH:44:PHE:HE2	8:CH:109:ILE:HG21	1.85	0.41
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.35	0.41
10:CJ:13:HIS:O	10:CJ:13:HIS:CG	2.74	0.41
10:CJ:54:PHE:CG	10:CJ:55:LYS:HG2	2.56	0.41
10:CJ:89:ASP:C	10:CJ:91:PRO:HD3	2.42	0.41
11:CK:81:ASP:OD2	11:CK:107:SER:HB3	2.20	0.41
11:CK:85:ARG:HG2	11:CK:111:ASP:O	2.21	0.41
12:CL:77:LEU:HA	12:CL:77:LEU:HD23	1.70	0.41
13:CM:83:ASP:N	13:CM:93:ARG:NH2	2.65	0.41
13:CM:108:ARG:H	13:CM:108:ARG:CD	2.25	0.41
15:CO:56:LEU:HD21	25:DA:715:G:C4	2.55	0.41
16:CP:79:VAL:HB	16:CP:80:PHE:HD1	1.86	0.41
17:CQ:29:HIS:C	17:CQ:31:LEU:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:41:C:C2'	22:CV:42:C:C5'	2.96	0.41
23:CW:8:U:HO2'	23:CW:21:A:H2	1.65	0.41
23:CW:59:U:C4	23:CW:60:U:C4	3.09	0.41
25:DA:49:A:H5"	25:DA:50:U:O5'	2.20	0.41
25:DA:77:C:O4'	49:D2:62:THR:HG21	2.21	0.41
25:DA:241:A:O3'	25:DA:242:G:C4'	2.69	0.41
25:DA:247:G:N7	25:DA:249:C:C2	2.88	0.41
25:DA:9271:G:C2	25:DA:9272:G:C4	3.09	0.41
25:DA:272(E):G:C2	25:DA:364:C:N3	2.89	0.41
25:DA:329:G:H4'	25:DA:330:A:OP1	2.19	0.41
25:DA:818:G:H4'	25:DA:838:C:O3'	2.21	0.41
25:DA:978:G:C2	25:DA:986:C:C2	3.09	0.41
25:DA:1153:C:H2'	25:DA:1154:G:O4'	2.21	0.41
25:DA:1340:U:H1'	25:DA:1603:A:C5'	2.51	0.41
25:DA:1427:A:C4'	25:DA:1428:C:OP1	2.69	0.41
25:DA:1567:A:H1'	25:DA:1568:G:N1	2.36	0.41
25:DA:1667:G:N2	25:DA:1992:G:OP2	2.33	0.41
25:DA:2173:A:H3'	25:DA:2174:C:C6	2.56	0.41
25:DA:2177:C:H1'	27:DC:44:HIS:CD2	2.55	0.41
25:DA:2197:U:O2'	25:DA:2198:A:C8	2.69	0.41
26:DB:60:C:H2'	26:DB:61:G:H8	1.86	0.41
27:DC:58:VAL:HB	27:DC:59:ARG:H	1.76	0.41
27:DC:147:PHE:O	27:DC:148:ASN:CB	2.69	0.41
28:DD:10:THR:CG2	28:DD:13:ARG:HB3	2.29	0.41
28:DD:35:LYS:HB2	28:DD:36:PRO:HD3	2.03	0.41
29:DE:37:ARG:HA	29:DE:42:ASP:OD2	2.21	0.41
29:DE:84:PHE:O	29:DE:84:PHE:CG	2.73	0.41
29:DE:144:ARG:HB3	29:DE:145:LYS:H	1.32	0.41
29:DE:176:ILE:N	29:DE:176:ILE:HD12	2.36	0.41
30:DF:188:ARG:CG	36:DP:3:LEU:HD11	2.35	0.41
31:DG:16:ARG:NH1	31:DG:16:ARG:CG	2.75	0.41
31:DG:49:ASP:HB3	31:DG:52:ILE:CG1	2.51	0.41
32:DH:55:PRO:HG2	32:DH:61:HIS:CE1	2.55	0.41
32:DH:59:ARG:NH1	32:DH:59:ARG:CG	2.83	0.41
32:DH:86:GLU:HB2	32:DH:87:LEU:H	1.56	0.41
32:DH:89:ILE:CD1	32:DH:89:ILE:N	2.84	0.41
33:DI:29:TYR:O	33:DI:33:ARG:HB2	2.20	0.41
33:DI:37:VAL:CG1	33:DI:38:LEU:N	2.84	0.41
34:DN:18:ALA:O	34:DN:21:LYS:N	2.53	0.41
34:DN:57:ALA:O	34:DN:58:ASP:C	2.58	0.41
36:DP:95:VAL:HG23	36:DP:95:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:111:ARG:HA	36:DP:128:HIS:CE1	2.55	0.41
37:DQ:35:VAL:HA	37:DQ:102:VAL:HA	2.02	0.41
37:DQ:38:GLU:HB2	37:DQ:39:PRO:HD2	2.03	0.41
38:DR:18:LEU:HD11	38:DR:22:ARG:NH2	2.36	0.41
39:DS:52:SER:O	39:DS:56:LEU:HD21	2.21	0.41
40:DT:19:LEU:HA	40:DT:20:PRO:HD3	1.84	0.41
40:DT:24:PRO:HD2	40:DT:52:ILE:HD12	1.95	0.41
40:DT:50:ILE:HA	40:DT:99:LEU:CD1	2.51	0.41
40:DT:65:LYS:HD2	40:DT:65:LYS:HA	1.65	0.41
41:DU:61:TRP:O	41:DU:64:ARG:N	2.54	0.41
41:DU:111:GLU:O	41:DU:112:ARG:C	2.58	0.41
42:DV:98:GLU:HB3	42:DV:100:ARG:HG3	2.02	0.41
43:DW:20:VAL:HG11	43:DW:44:ALA:HA	2.03	0.41
45:DY:65:ALA:HA	45:DY:66:PRO:HD3	1.93	0.41
46:DZ:14:LYS:C	46:DZ:16:SER:H	2.22	0.41
46:DZ:29:TYR:OH	46:DZ:87:ASP:OD1	2.36	0.41
48:D1:90:ILE:O	48:D1:93:GLU:N	2.54	0.41
49:D2:16:LEU:HD23	49:D2:16:LEU:HA	1.82	0.41
55:D8:23:VAL:CG1	55:D8:46:ARG:NH1	2.82	0.41
1:AA:38:G:H4’	1:AA:547:A:N6	2.35	0.41
1:AA:103:C:O2’	1:AA:172:A:N1	2.38	0.41
1:AA:551:U:H2’	1:AA:552:U:C6	2.56	0.41
1:AA:1189:C:H5”	3:AC:5:ILE:HG21	2.03	0.41
2:AB:134:GLU:OE1	2:AB:137:ARG:HD2	2.21	0.41
2:AB:157:ARG:O	2:AB:158:LEU:C	2.59	0.41
2:AB:236:TYR:CD1	2:AB:236:TYR:N	2.88	0.41
3:AC:8:ILE:O	3:AC:10:PHE:N	2.54	0.41
4:AD:140:VAL:HG12	4:AD:141:ARG:N	2.36	0.41
4:AD:168:ARG:HH21	6:CF:18:GLN:HE21	1.66	0.41
7:AG:6:ARG:C	7:AG:7:ALA:O	2.59	0.41
7:AG:15:ASP:CA	7:AG:24:THR:CG2	2.99	0.41
8:AH:11:THR:O	8:AH:11:THR:HG22	2.21	0.41
11:AK:111:ASP:HA	18:AR:84:LYS:HD2	2.02	0.41
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.43	0.41
12:AL:53:ARG:NH1	12:AL:92:ASP:HB3	2.35	0.41
12:AL:110:VAL:O	12:AL:111:LYS:C	2.60	0.41
13:AM:18:ALA:CB	13:AM:45:VAL:HG21	2.51	0.41
15:AO:47:LYS:H	15:AO:47:LYS:HG2	1.58	0.41
19:AS:19:VAL:HG11	19:AS:44:MET:HG3	2.02	0.41
19:AS:45:VAL:HG23	19:AS:46:GLY:N	2.35	0.41
23:AW:15:G:H21	23:AW:59:U:H1’	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:372:G:O2'	25:BA:373:U:OP2	2.30	0.41
25:BA:601:C:C4'	30:BF:104:LYS:HZ3	2.34	0.41
25:BA:729:G:P	28:BD:208:LYS:NZ	2.94	0.41
25:BA:810:U:H6	25:BA:810:U:O5'	2.04	0.41
25:BA:1012:U:C4	34:BN:28:THR:HG21	2.55	0.41
25:BA:1819:A:C1'	25:BA:1821:A:C6	2.91	0.41
25:BA:1902:C:C2'	28:BD:244:ARG:HG3	2.51	0.41
25:BA:1964:G:O2'	25:BA:1967:C:OP2	2.39	0.41
25:BA:2077:A:H2'	25:BA:2078:C:H6	1.86	0.41
25:BA:2490:G:H4'	25:BA:2491:U:O5'	2.21	0.41
25:BA:2579:C:H2'	25:BA:2580:U:O4'	2.21	0.41
25:BA:2691:C:C5	25:BA:2872:G:N1	2.89	0.41
26:BB:51:G:H2'	26:BB:52:A:H1'	2.03	0.41
26:BB:105:A:OP1	46:BZ:72:ARG:NH1	2.54	0.41
27:BC:45:ALA:O	27:BC:46:LYS:HB2	2.21	0.41
28:BD:26:LYS:HZ3	28:BD:82:ILE:H	1.65	0.41
28:BD:33:LEU:C	28:BD:35:LYS:N	2.70	0.41
29:BE:91:VAL:CG1	29:BE:95:ILE:HG12	2.48	0.41
31:BG:11:TYR:O	31:BG:16:ARG:HB2	2.21	0.41
31:BG:117:PHE:CD1	31:BG:119:GLY:N	2.83	0.41
32:BH:61:HIS:O	32:BH:62:LYS:C	2.59	0.41
32:BH:88:LEU:HD23	32:BH:165:ALA:HA	2.03	0.41
33:BI:5:LEU:N	33:BI:5:LEU:HD12	2.36	0.41
34:BN:58:ASP:C	34:BN:60:ILE:N	2.65	0.41
34:BN:58:ASP:O	34:BN:59:LYS:HB2	2.21	0.41
36:BP:88:LEU:HD11	36:BP:95:VAL:CB	2.51	0.41
37:BQ:37:LEU:HD23	37:BQ:37:LEU:HA	1.90	0.41
41:BU:108:GLU:CD	42:BV:44:LYS:HD3	2.32	0.41
42:BV:23:GLU:O	42:BV:24:LYS:C	2.58	0.41
44:BX:13:LEU:HA	44:BX:18:TYR:HE1	1.86	0.41
46:BZ:103:ARG:O	46:BZ:138:GLU:HA	2.21	0.41
48:B1:49:VAL:HG21	48:B1:67:ILE:HG23	2.01	0.41
48:B1:57:GLU:C	48:B1:58:ILE:CG2	2.89	0.41
48:B1:84:GLY:O	48:B1:86:SER:N	2.54	0.41
53:B6:30:THR:O	53:B6:31:PRO:C	2.60	0.41
1:CA:32:A:OP2	1:CA:398:C:O2'	2.29	0.41
1:CA:119:A:H5"	1:CA:120:A:O5'	2.21	0.41
1:CA:160:A:N6	1:CA:347:G:H1'	2.36	0.41
1:CA:252:U:H2'	1:CA:275:G:N2	2.36	0.41
1:CA:751:U:H4'	15:CO:24:SER:HA	2.03	0.41
1:CA:1336:C:H1'	1:CA:1337:G:N1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.86	0.41
2:CB:224:GLN:HA	2:CB:229:VAL:CG2	2.48	0.41
3:CC:130:VAL:O	3:CC:130:VAL:HG12	2.21	0.41
3:CC:144:SER:O	3:CC:144:SER:OG	2.39	0.41
4:CD:4:TYR:O	4:CD:5:ILE:CB	2.65	0.41
4:CD:108:LEU:HD12	4:CD:108:LEU:HA	1.84	0.41
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	2.03	0.41
6:CF:100:ASN:ND2	18:CR:26:LEU:O	2.53	0.41
7:CG:126:ASP:O	7:CG:129:GLU:HB3	2.21	0.41
8:CH:81:HIS:HB2	8:CH:138:TRP:OXT	2.21	0.41
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.36	0.41
9:CI:33:PHE:HD2	9:CI:34:ASN:OD1	2.03	0.41
9:CI:104:ARG:O	9:CI:104:ARG:HD2	2.21	0.41
10:CJ:78:ASN:ND2	10:CJ:80:LYS:CB	2.65	0.41
11:CK:21:ILE:CG1	11:CK:30:VAL:HG12	2.50	0.41
12:CL:58:VAL:HG21	12:CL:85:ILE:HD11	2.04	0.41
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.35	0.41
17:CQ:95:TYR:HD1	17:CQ:95:TYR:HA	1.73	0.41
25:DA:242:G:O2'	25:DA:243:U:P	2.78	0.41
25:DA:307:G:H21	25:DA:330:A:N6	2.14	0.41
25:DA:685:A:O2'	25:DA:689:A:N6	2.54	0.41
25:DA:807:U:O2'	25:DA:2060:A:N1	2.40	0.41
25:DA:846:C:O2'	25:DA:847:U:O5'	2.31	0.41
25:DA:863:A:H2'	25:DA:864:G:C8	2.56	0.41
25:DA:1268:A:H2'	25:DA:1269:A:O4'	2.21	0.41
25:DA:1385:G:HO2'	25:DA:1386:C:C5'	2.34	0.41
25:DA:1472:A:H2'	25:DA:1473:G:O4'	2.21	0.41
25:DA:1694:C:O4'	25:DA:1695:G:C2	2.74	0.41
25:DA:1971:A:N9	28:DD:241:PRO:HB3	2.36	0.41
25:DA:2123:G:H2'	25:DA:2124:G:C8	2.56	0.41
25:DA:2735:G:H2'	25:DA:2736:G:C8	2.56	0.41
29:DE:54:GLN:O	29:DE:75:VAL:HG23	2.21	0.41
32:DH:83:TYR:HA	32:DH:135:GLY:H	1.86	0.41
32:DH:152:ARG:CG	32:DH:153:LYS:HE3	2.50	0.41
33:DI:21:VAL:O	33:DI:22:LYS:C	2.59	0.41
36:DP:55:ARG:O	36:DP:57:THR:N	2.54	0.41
37:DQ:57:HIS:CE1	37:DQ:116:GLU:HB3	2.56	0.41
38:DR:41:ALA:O	38:DR:44:LEU:N	2.54	0.41
39:DS:103:GLU:C	39:DS:105:ALA:N	2.73	0.41
42:DV:30:GLY:O	42:DV:60:GLU:OE2	2.39	0.41
45:DY:38:ILE:HG22	45:DY:66:PRO:CA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:94:LYS:CE	45:DY:101:LYS:NZ	2.84	0.41
46:DZ:112:ARG:HD2	46:DZ:112:ARG:N	2.36	0.41
47:D0:23:VAL:HG22	47:D0:38:VAL:HG22	2.02	0.41
51:D4:8:LYS:HE2	51:D4:8:LYS:HB2	1.81	0.41
55:D8:6:THR:CB	55:D8:63:PRO:HG3	2.50	0.41
55:D8:39:LYS:O	55:D8:43:GLN:HG3	2.21	0.41
1:AA:920:U:H2'	1:AA:921:U:C6	2.55	0.40
2:AB:24:TRP:CG	2:AB:40:HIS:NE2	2.89	0.40
2:AB:215:LEU:HA	2:AB:215:LEU:HD23	1.84	0.40
4:AD:50:ARG:HA	4:AD:51:PRO:HD3	1.86	0.40
4:AD:182:LYS:HB3	4:AD:182:LYS:HE2	1.79	0.40
8:AH:32:LYS:O	8:AH:33:GLU:C	2.59	0.40
12:AL:7:ILE:O	12:AL:10:LEU:N	2.53	0.40
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.86	0.40
12:AL:83:VAL:O	12:AL:83:VAL:HG12	2.21	0.40
15:AO:64:ARG:HH11	15:AO:64:ARG:HG3	1.85	0.40
23:AW:34:G:C8	24:AX:14:A:C2	3.08	0.40
23:AW:64:A:C6	23:AW:65:G:C6	3.08	0.40
25:BA:61:G:C5	49:B2:47:ASN:ND2	2.89	0.40
25:BA:297:C:H2'	25:BA:298:G:O4'	2.21	0.40
25:BA:671:C:O2'	25:BA:672:C:H5'	2.20	0.40
25:BA:900:A:H3'	25:BA:901:A:H8	1.85	0.40
25:BA:1011:G:O2'	25:BA:1013:C:O4'	2.32	0.40
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.09	0.40
25:BA:1340:U:O2'	25:BA:1602:U:H5"	2.21	0.40
25:BA:1568:G:O5'	28:BD:61:LEU:HB2	2.21	0.40
25:BA:2126:A:OP2	25:BA:2126:A:C8	2.73	0.40
25:BA:2415:G:H4'	36:BP:66:GLY:C	2.41	0.40
25:BA:2481:G:O2'	25:BA:2482:G:O5'	2.37	0.40
25:BA:2865:U:H3'	25:BA:2866:U:O2	2.20	0.40
26:BB:6:C:C2	26:BB:116:G:N2	2.89	0.40
26:BB:60:C:H2'	26:BB:61:G:H8	1.86	0.40
27:BC:64:LEU:O	27:BC:66:HIS:N	2.53	0.40
28:BD:84:TYR:CD2	28:BD:84:TYR:C	2.94	0.40
30:BF:51:THR:HG23	30:BF:92:PRO:C	2.41	0.40
33:BI:72:LEU:HD21	33:BI:138:ILE:HB	2.04	0.40
38:BR:103:ARG:HA	38:BR:111:LEU:HD22	2.02	0.40
41:BU:117:GLN:O	41:BU:118:GLY:C	2.59	0.40
42:BV:59:ALA:HB1	42:BV:94:LEU:HD13	2.02	0.40
45:BY:19:LYS:HG2	45:BY:20:TYR:CD2	2.56	0.40
45:BY:52:SER:O	45:BY:53:PRO:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:48:PHE:CZ	46:BZ:52:SER:HA	2.57	0.40
47:B0:25:ARG:HA	47:B0:29:GLN:HE22	1.85	0.40
53:B6:9:LEU:HD13	53:B6:28:ARG:HD2	2.03	0.40
55:B8:32:LEU:C	55:B8:33:ASN:CG	2.80	0.40
1:CA:119:A:H4'	1:CA:120:A:C8	2.56	0.40
1:CA:355:C:O4'	1:CA:388:G:O2'	2.36	0.40
1:CA:484:G:H1'	1:CA:486:U:C4	2.56	0.40
2:CB:113:HIS:C	2:CB:115:LEU:H	2.25	0.40
4:CD:22:LYS:HE3	4:CD:22:LYS:HB3	1.86	0.40
7:CG:30:ILE:HG22	7:CG:30:ILE:O	2.21	0.40
7:CG:147:ALA:C	7:CG:149:ARG:H	2.24	0.40
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.86	0.40
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	2.02	0.40
12:CL:6:THR:HG23	12:CL:9:GLN:OE1	2.21	0.40
12:CL:77:LEU:HD23	12:CL:77:LEU:N	2.34	0.40
12:CL:126:LYS:CE	12:CL:127:GLU:H	2.34	0.40
12:CL:126:LYS:HE2	12:CL:127:GLU:H	1.85	0.40
15:CO:62:GLN:O	15:CO:65:ARG:N	2.52	0.40
19:CS:28:LYS:HB3	19:CS:29:ARG:HD2	2.03	0.40
22:CV:54:G:C4	22:CV:55:U:H5	2.34	0.40
25:DA:271(M):G:H2'	25:DA:271(N):U:H5"	2.03	0.40
25:DA:272(B):G:H2'	25:DA:272(C):G:H8	1.87	0.40
25:DA:1270:C:N4	25:DA:1648:C:H41	2.19	0.40
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.56	0.40
25:DA:1550:C:H2'	25:DA:1551:C:H6	1.86	0.40
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.56	0.40
25:DA:1838:C:N4	25:DA:1898:U:H2'	2.36	0.40
25:DA:1995:U:H2'	25:DA:1996:C:C5	2.57	0.40
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.20	0.40
26:DB:13:A:H2'	26:DB:70:C:O2'	2.21	0.40
27:DC:20:TYR:CG	27:DC:21:THR:N	2.88	0.40
28:DD:250:TRP:HE3	28:DD:252:TRP:NE1	2.19	0.40
29:DE:116:VAL:HG22	29:DE:122:PHE:HB2	2.03	0.40
30:DF:36:VAL:HG11	30:DF:183:VAL:HG11	2.02	0.40
32:DH:26:VAL:HG11	32:DH:33:LEU:HB2	2.03	0.40
32:DH:85:LYS:HD2	32:DH:85:LYS:HA	1.70	0.40
32:DH:166:GLY:O	32:DH:167:GLU:C	2.59	0.40
33:DI:94:ALA:C	33:DI:96:ASP:N	2.73	0.40
33:DI:144:VAL:CG2	33:DI:145:VAL:N	2.82	0.40
36:DP:112:LEU:HD22	36:DP:112:LEU:C	2.41	0.40
39:DS:14:VAL:HG13	39:DS:15:ARG:N	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:35:LYS:O	40:DT:36:GLU:CB	2.67	0.40
41:DU:92:ARG:HH12	42:DV:11:GLN:H	1.67	0.40
44:DX:23:GLU:CD	44:DX:23:GLU:H	2.24	0.40
46:DZ:22:GLY:O	46:DZ:23:LYS:CG	2.69	0.40
46:DZ:150:LEU:C	46:DZ:150:LEU:HD22	2.41	0.40
50:D3:36:VAL:O	50:D3:36:VAL:CG2	2.67	0.40
1:AA:160:A:H1'	1:AA:344:A:C5	2.56	0.40
1:AA:530:G:O2'	23:AY:35:A:O4'	2.37	0.40
1:AA:925:G:H1'	1:AA:1502:A:N9	2.35	0.40
1:AA:1029:C:H4'	1:AA:1033:G:H22	1.86	0.40
1:AA:1287:A:H2	1:AA:1353:G:H1'	1.85	0.40
1:AA:1291:G:C6	1:AA:1292:U:C4	3.10	0.40
1:AA:1380:U:H1'	1:AA:1381:U:H5	1.86	0.40
1:AA:1442(B):A:N1	40:BT:118:ARG:CZ	2.85	0.40
2:AB:142:LEU:O	2:AB:146:GLN:HB2	2.22	0.40
2:AB:144:ARG:O	2:AB:147:LYS:N	2.55	0.40
2:AB:219:VAL:O	2:AB:220:ASP:C	2.59	0.40
3:AC:92:ALA:HB2	3:AC:99:VAL:HG11	2.03	0.40
7:AG:3:ARG:HH11	7:AG:3:ARG:CG	2.35	0.40
7:AG:6:ARG:O	7:AG:7:ALA:O	2.39	0.40
7:AG:24:THR:O	7:AG:27:ILE:N	2.54	0.40
7:AG:69:VAL:HG11	7:AG:104:LEU:HD22	2.03	0.40
8:AH:2:LEU:C	8:AH:2:LEU:CD1	2.89	0.40
8:AH:4:ASP:HA	8:AH:5:PRO:HD3	1.88	0.40
10:AJ:38:ILE:HG13	10:AJ:71:LEU:O	2.21	0.40
11:AK:70:LYS:HE3	11:AK:70:LYS:HB2	1.67	0.40
12:AL:85:ILE:HA	12:AL:85:ILE:HD12	1.83	0.40
13:AM:118:ALA:CB	22:AV:29:C:O3'	2.68	0.40
16:AP:11:SER:HB2	16:AP:14:ASN:CB	2.51	0.40
20:AT:56:MET:HE2	20:AT:56:MET:HB3	1.83	0.40
22:AV:55:U:C2'	22:AV:56:U:C5'	2.93	0.40
23:AW:72:C:N4	23:AW:73:A:C6	2.89	0.40
25:BA:210:C:OP1	54:B7:29:LYS:HE2	2.22	0.40
25:BA:533:G:N3	41:BU:45:TYR:CE1	2.89	0.40
25:BA:1043:C:H6	25:BA:1043:C:O5'	2.04	0.40
25:BA:1211:U:H4'	25:BA:1212:G:OP2	2.21	0.40
25:BA:2119:A:C6	25:BA:2171:A:C6	3.09	0.40
25:BA:2245:U:H5"	25:BA:2246:G:H5'	2.02	0.40
25:BA:2283:C:H5"	25:BA:2283:C:H6	1.86	0.40
25:BA:2561:A:H4'	35:BO:40:VAL:HG11	2.03	0.40
25:BA:2572:A:N7	29:BE:145:LYS:HB2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:75:G:H22	46:BZ:73:GLN:HE21	1.69	0.40
27:BC:56:GLN:NE2	27:BC:173:ALA:HB1	2.37	0.40
28:BD:19:ALA:CB	28:BD:21:PHE:CE2	2.99	0.40
28:BD:22:SER:O	28:BD:24:ILE:N	2.54	0.40
29:BE:12:THR:O	29:BE:23:VAL:CG2	2.67	0.40
30:BF:157:VAL:HA	30:BF:176:LEU:O	2.22	0.40
31:BG:117:PHE:CD1	31:BG:117:PHE:C	2.94	0.40
31:BG:150:ASP:O	31:BG:151:ALA:CB	2.69	0.40
33:BI:2:LYS:HA	33:BI:20:ASP:HB3	2.03	0.40
33:BI:72:LEU:HD13	33:BI:73:GLU:N	2.37	0.40
35:BO:26:LYS:HB3	35:BO:27:GLY:H	1.59	0.40
37:BQ:26:TYR:HB2	37:BQ:137:TYR:HD1	1.85	0.40
40:BT:113:LYS:O	40:BT:114:LEU:HD23	2.21	0.40
41:BU:83:LEU:HA	41:BU:83:LEU:HD12	1.75	0.40
42:BV:1:MET:SD	42:BV:42:GLY:HA3	2.62	0.40
42:BV:51:VAL:HG12	42:BV:52:VAL:N	2.35	0.40
43:BW:57:ASN:C	43:BW:59:VAL:N	2.70	0.40
45:BY:12:THR:O	45:BY:13:VAL:HG13	2.20	0.40
45:BY:12:THR:O	45:BY:13:VAL:CG1	2.70	0.40
46:BZ:29:TYR:O	46:BZ:29:TYR:CD1	2.74	0.40
49:B2:32:LEU:HG	49:B2:53:LEU:HD13	2.03	0.40
53:B6:19:ARG:CG	53:B6:20:ASN:H	2.29	0.40
54:B7:12:ARG:CD	54:B7:46:VAL:HG21	2.51	0.40
55:B8:51:ALA:CA	55:B8:53:PRO:HD2	2.51	0.40
55:B8:61:LEU:H	55:B8:61:LEU:HG	1.23	0.40
1:CA:136:C:O2'	16:CP:65:GLN:OE1	2.38	0.40
1:CA:452:A:H4'	16:CP:72:ARG:CZ	2.51	0.40
1:CA:495:A:H1'	1:CA:496:A:C8	2.57	0.40
1:CA:1002:G:H2'	1:CA:1002:G:N3	2.36	0.40
2:CB:178:ARG:NH2	8:CH:74:PRO:HG3	2.36	0.40
4:CD:105:VAL:HG21	4:CD:126:ILE:HG13	2.04	0.40
5:CE:11:ILE:O	5:CE:12:LEU:C	2.60	0.40
7:CG:80:VAL:HG21	7:CG:85:TYR:HD1	1.86	0.40
7:CG:111:ARG:HA	7:CG:112:PRO:HD3	1.91	0.40
10:CJ:40:LEU:H	10:CJ:40:LEU:HD23	1.86	0.40
12:CL:25:PRO:C	12:CL:27:LEU:N	2.69	0.40
12:CL:59:ARG:HA	12:CL:65:GLU:HA	2.03	0.40
13:CM:54:VAL:HG12	13:CM:58:GLU:OE2	2.21	0.40
15:CO:15:PHE:CE1	15:CO:30:ALA:HB1	2.57	0.40
17:CQ:63:ARG:O	17:CQ:64:PRO:C	2.60	0.40
18:CR:40:LEU:C	18:CR:42:ARG:H	2.23	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:6:ARG:CG	21:CU:15:ARG:NH1	2.84	0.40
22:CV:28:U:C2'	22:CV:29:C:H5'	2.50	0.40
23:CW:3:C:H2'	23:CW:3:C:O2	2.21	0.40
25:DA:271(R):G:H2'	25:DA:271(S):G:C8	2.55	0.40
25:DA:287:C:H2'	25:DA:288:C:O4'	2.22	0.40
25:DA:975:C:O2	25:DA:975:C:H2'	2.21	0.40
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.22	0.40
25:DA:1708:C:H42	25:DA:1750:G:H1	1.70	0.40
27:DC:47:LEU:H	27:DC:47:LEU:HD23	1.87	0.40
28:DD:147:LEU:HD13	28:DD:155:LEU:HD21	2.04	0.40
29:DE:2:LYS:O	29:DE:199:ARG:HA	2.21	0.40
29:DE:181:LEU:HA	29:DE:181:LEU:HD12	1.84	0.40
31:DG:115:ARG:HH11	31:DG:115:ARG:CB	2.33	0.40
32:DH:121:ILE:HG22	32:DH:122:THR:N	2.36	0.40
32:DH:126:PRO:HB2	32:DH:130:ARG:HH12	1.86	0.40
33:DI:77:LEU:HD13	33:DI:78:THR:O	2.21	0.40
33:DI:127:VAL:HG13	33:DI:139:GLN:CB	2.52	0.40
34:DN:29:LYS:C	34:DN:31:ALA:N	2.74	0.40
34:DN:117:PHE:CD2	34:DN:117:PHE:O	2.74	0.40
35:DO:104:ARG:NH2	40:DT:33:LYS:HE3	2.37	0.40
36:DP:127:ALA:HB3	36:DP:130:PHE:CE2	2.56	0.40
39:DS:24:LEU:CD1	39:DS:41:ASP:HB2	2.51	0.40
42:DV:35:LEU:O	42:DV:36:PRO:C	2.60	0.40
43:DW:87:PRO:HA	43:DW:93:ALA:HA	2.02	0.40
44:DX:60:ARG:CZ	54:D7:47:ARG:NH2	2.84	0.40
48:D1:4:VAL:HG22	48:D1:5:CYS:N	2.36	0.40
49:D2:16:LEU:HD12	49:D2:21:LEU:CD2	2.51	0.40
49:D2:36:ARG:C	49:D2:38:GLN:H	2.24	0.40
51:D4:7:PRO:O	51:D4:8:LYS:C	2.58	0.40
52:D5:56:LYS:HD2	52:D5:56:LYS:N	2.27	0.40
54:D7:34:ARG:NH1	54:D7:41:ARG:O	2.55	0.40
1:AA:246:A:O2'	1:AA:247:G:O4'	2.35	0.40
1:AA:945:G:C2	1:AA:1337:G:C2	3.09	0.40
2:AB:17:PHE:N	2:AB:17:PHE:CD2	2.90	0.40
2:AB:56:ARG:O	2:AB:60:ASP:HB3	2.21	0.40
2:AB:223:ILE:H	2:AB:223:ILE:HG12	1.47	0.40
3:AC:108:ASN:HA	3:AC:109:PRO:HD3	1.77	0.40
4:AD:101:LEU:HB3	4:AD:102:ASP:H	1.67	0.40
5:AE:55:VAL:HG12	5:AE:56:GLN:N	2.36	0.40
6:AF:23:LYS:NZ	6:AF:42:GLU:OE2	2.44	0.40
11:AK:97:ALA:O	11:AK:101:SER:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:81:SER:CA	12:AL:106:ASP:OD2	2.65	0.40
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.56	0.40
22:AV:67:C:H6	22:AV:67:C:O5'	2.04	0.40
23:AW:34:G:C8	24:AX:14:A:C6	3.10	0.40
23:AW:34:G:O2'	23:AW:35:A:H5'	2.21	0.40
23:AW:43:C:H2'	23:AW:44:G:H5'	2.04	0.40
24:AX:16:A:C2	24:AX:17:U:C2	3.10	0.40
25:BA:34:C:H3'	25:BA:34:C:C6	2.56	0.40
25:BA:74:A:C4'	25:BA:75:G:O5'	2.70	0.40
25:BA:287:C:H2'	25:BA:288:C:O4'	2.21	0.40
25:BA:354:G:H2'	25:BA:355:G:O4'	2.21	0.40
25:BA:435:C:C2'	25:BA:436:C:H5'	2.51	0.40
25:BA:670:A:OP2	25:BA:670:A:H8	2.01	0.40
25:BA:709:U:H2'	25:BA:710:G:C8	2.56	0.40
25:BA:747:U:N3	52:B5:2:ALA:N	2.69	0.40
25:BA:1299:G:C5	25:BA:1639:U:C5	3.09	0.40
25:BA:1314:C:H42	25:BA:1338:G:H1	1.70	0.40
25:BA:1464:C:H2'	25:BA:1465:G:H8	1.86	0.40
27:BC:41:VAL:C	27:BC:178:ALA:HB3	2.41	0.40
28:BD:70:TRP:CD1	28:BD:70:TRP:C	2.95	0.40
29:BE:57:LYS:HA	29:BE:57:LYS:HD2	1.46	0.40
29:BE:68:ALA:C	29:BE:70:ALA:N	2.62	0.40
30:BF:110:LEU:O	30:BF:111:ALA:C	2.60	0.40
32:BH:25:LYS:H	32:BH:25:LYS:CD	2.05	0.40
32:BH:88:LEU:H	32:BH:88:LEU:HD22	1.86	0.40
33:BI:23:PRO:O	33:BI:27:ARG:HB2	2.22	0.40
33:BI:58:LEU:HD23	33:BI:58:LEU:O	2.22	0.40
34:BN:62:VAL:O	34:BN:63:THR:C	2.60	0.40
35:BO:114:ILE:O	35:BO:115:VAL:O	2.38	0.40
36:BP:85:LEU:HD23	36:BP:85:LEU:N	2.32	0.40
37:BQ:42:ILE:HA	37:BQ:46:GLN:OE1	2.21	0.40
37:BQ:59:ARG:O	37:BQ:60:ARG:CB	2.69	0.40
40:BT:33:LYS:HD2	40:BT:43:GLN:OE1	2.21	0.40
42:BV:18:LEU:HD13	42:BV:96:ILE:HG12	2.04	0.40
42:BV:71:LEU:HD23	42:BV:71:LEU:HA	1.92	0.40
43:BW:15:ARG:O	43:BW:19:LEU:HD13	2.21	0.40
44:BX:65:ARG:HG3	44:BX:70:LEU:HA	2.02	0.40
46:BZ:76:LEU:HA	46:BZ:83:PRO:HA	2.03	0.40
47:B0:45:PHE:CE1	47:B0:77:ARG:NH1	2.89	0.40
49:B2:69:ARG:O	49:B2:70:GLN:HB3	2.22	0.40
54:B7:5:TRP:C	54:B7:6:GLN:HG2	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:16:ILE:CG2	55:B8:64:TYR:CD2	3.01	0.40
1:CA:90:U:H5"	1:CA:91:C:H5'	2.04	0.40
1:CA:240:C:H2'	1:CA:241:C:C6	2.55	0.40
1:CA:436:C:H2'	1:CA:437:U:C6	2.56	0.40
1:CA:470:C:H6	1:CA:470:C:O5'	2.04	0.40
1:CA:870:U:C5'	1:CA:871:U:H5'	2.47	0.40
1:CA:913:A:H1'	1:CA:914:A:C1'	2.50	0.40
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.36	0.40
2:CB:71:VAL:HA	2:CB:93:VAL:CG2	2.41	0.40
3:CC:31:HIS:HA	3:CC:34:LEU:HB3	2.04	0.40
4:CD:3:ARG:HB3	4:CD:118:ARG:NE	2.35	0.40
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.82	0.40
11:CK:123:LYS:O	11:CK:124:LYS:C	2.57	0.40
12:CL:64:TYR:HB3	12:CL:65:GLU:H	1.43	0.40
12:CL:68:ALA:HA	12:CL:98:TYR:O	2.22	0.40
16:CP:9:PHE:HD2	16:CP:9:PHE:N	2.14	0.40
19:CS:10:PHE:HZ	19:CS:70:LYS:CE	2.35	0.40
19:CS:45:VAL:C	19:CS:47:HIS:H	2.24	0.40
22:CV:1:C:O2'	22:CV:2:G:H5'	2.21	0.40
22:CV:41:C:H2'	22:CV:42:C:H6	1.86	0.40
25:DA:464:U:H2'	25:DA:465:G:O4'	2.20	0.40
25:DA:669:G:N3	25:DA:669:G:H2'	2.37	0.40
25:DA:738:G:C6	25:DA:739:G:C2	3.08	0.40
25:DA:1151:G:O2'	41:DU:77:SER:O	2.38	0.40
25:DA:1286:A:C4	25:DA:1329:U:C4	3.10	0.40
25:DA:1373:A:H2'	25:DA:1374:G:O4'	2.20	0.40
25:DA:1568:G:H5'	28:DD:60:ARG:HA	2.04	0.40
25:DA:2476:A:H3'	25:DA:2476:A:N3	2.36	0.40
27:DC:127:LEU:O	27:DC:129:ARG:N	2.55	0.40
31:DG:9:ARG:C	31:DG:11:TYR:N	2.75	0.40
31:DG:102:PHE:CZ	31:DG:157:ILE:HD13	2.56	0.40
33:DI:144:VAL:O	33:DI:145:VAL:CG2	2.69	0.40
36:DP:121:LYS:O	36:DP:123:LEU:HD23	2.21	0.40
42:DV:49:THR:O	42:DV:50:PRO:C	2.60	0.40
43:DW:69:LEU:HD23	43:DW:69:LEU:HA	1.82	0.40
45:DY:42:VAL:CG1	45:DY:43:ASN:N	2.83	0.40
45:DY:48:ALA:O	45:DY:49:VAL:C	2.59	0.40
1:AA:764:C:H2'	1:AA:765:G:O4'	2.21	0.40
2:AB:52:GLU:O	2:AB:56:ARG:N	2.55	0.40
2:AB:194:PRO:O	2:AB:196:LEU:N	2.54	0.40
3:AC:59:ARG:O	10:AJ:93:GLY:HA2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:97:LYS:HB3	3:AC:97:LYS:HZ2	1.87	0.40
6:AF:89:MET:HG2	6:AF:91:VAL:HG23	2.03	0.40
9:AI:85:LEU:HD11	9:AI:95:LYS:NZ	2.37	0.40
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.55	0.40
12:AL:43:VAL:HG23	12:AL:44:THR:N	2.37	0.40
13:AM:123:ALA:HA	13:AM:124:PRO:HD3	1.83	0.40
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.21	0.40
20:AT:45:GLN:C	20:AT:47:GLY:N	2.74	0.40
20:AT:45:GLN:HA	20:AT:91:LEU:HD13	2.00	0.40
23:AW:19:G:H4'	23:AW:20:U:OP2	2.21	0.40
23:AY:30:G:O6	23:AY:40:C:N4	2.50	0.40
25:BA:50:U:H5"	25:BA:51:G:OP2	2.20	0.40
25:BA:271(D):G:H1	25:BA:271(T):C:N4	2.09	0.40
25:BA:464:U:C2	25:BA:788:A:C6	3.10	0.40
25:BA:1813:G:H4'	28:BD:44:ASN:O	2.21	0.40
25:BA:2127:G:C6	25:BA:2162:G:C4	3.09	0.40
26:BB:24:G:H5'	26:BB:25:A:H8	1.86	0.40
27:BC:212:VAL:O	27:BC:213:TYR:CB	2.68	0.40
28:BD:139:GLY:HA2	28:BD:165:ILE:O	2.21	0.40
29:BE:85:ASN:HA	29:BE:86:PRO:HD3	1.76	0.40
29:BE:97:LYS:HE2	29:BE:97:LYS:HB3	1.70	0.40
30:BF:153:SER:N	30:BF:190:GLU:OE2	2.51	0.40
32:BH:88:LEU:HD22	32:BH:164:TYR:O	2.21	0.40
33:BI:69:LYS:HE3	33:BI:73:GLU:OE1	2.22	0.40
34:BN:15:LEU:HD22	34:BN:53:VAL:HB	2.03	0.40
35:BO:85:VAL:HG11	35:BO:114:ILE:CD1	2.31	0.40
36:BP:84:ASN:CB	36:BP:116:GLY:HA3	2.51	0.40
37:BQ:32:TYR:OH	37:BQ:111:GLU:HA	2.22	0.40
37:BQ:85:LYS:HG3	47:B0:7:LEU:HD22	2.04	0.40
38:BR:8:ARG:HB3	38:BR:9:LYS:H	1.64	0.40
40:BT:34:VAL:HG13	40:BT:39:ARG:CG	2.35	0.40
40:BT:102:ILE:HD12	40:BT:102:ILE:C	2.41	0.40
41:BU:10:ARG:HH11	41:BU:10:ARG:HD2	1.75	0.40
43:BW:70:TYR:N	43:BW:70:TYR:CD2	2.89	0.40
44:BX:64:LYS:NZ	44:BX:73:ARG:NE	2.53	0.40
45:BY:11:ASP:OD1	45:BY:12:THR:N	2.54	0.40
54:B7:15:THR:HG22	54:B7:16:HIS:CD2	2.56	0.40
1:CA:230:G:O2'	16:CP:25:ARG:NH2	2.54	0.40
1:CA:1502:A:H3'	1:CA:1504:G:N7	2.37	0.40
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.56	0.40
2:CB:28:PHE:CE2	2:CB:31:TYR:HB2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:168:THR:O	2:CB:169:LYS:C	2.60	0.40
3:CC:15:THR:HB	3:CC:16:ARG:H	1.41	0.40
4:CD:25:ARG:NH1	4:CD:30:LYS:HB2	2.35	0.40
5:CE:36:ASP:C	5:CE:36:ASP:OD2	2.58	0.40
8:CH:26:VAL:C	8:CH:58:TYR:HD2	2.25	0.40
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.90	0.40
11:CK:32:ILE:HD11	11:CK:68:ALA:HB1	2.02	0.40
14:CN:53:LEU:HD23	14:CN:53:LEU:HA	1.66	0.40
16:CP:19:ILE:HD13	16:CP:19:ILE:HA	1.81	0.40
16:CP:73:LEU:HD23	16:CP:73:LEU:N	2.36	0.40
18:CR:67:ALA:O	18:CR:68:LYS:C	2.59	0.40
18:CR:75:ILE:HG22	18:CR:76:LEU:HD22	2.03	0.40
22:CV:56:U:O2	22:CV:58:A:C8	2.75	0.40
23:CW:16:U:H6	23:CW:17:C:C5'	2.35	0.40
24:CX:16:A:O2'	24:CX:17:U:H5'	2.22	0.40
23:CY:37:A:H2'	23:CY:38:A:O4'	2.22	0.40
25:DA:13:A:C5	25:DA:525:U:N3	2.90	0.40
25:DA:185:U:H2'	25:DA:186:G:C8	2.57	0.40
25:DA:372:G:O2'	25:DA:373:U:OP2	2.40	0.40
25:DA:673:C:OP1	30:DF:54:ARG:HD2	2.21	0.40
25:DA:1022:G:O2'	25:DA:1023:U:P	2.79	0.40
25:DA:1024:G:H3'	25:DA:1025:G:H5"	2.03	0.40
25:DA:1110:G:H2'	25:DA:1111:A:C8	2.53	0.40
25:DA:1113:U:H2'	25:DA:1114:G:H8	1.85	0.40
25:DA:1565:C:O2'	25:DA:1566:A:C8	2.75	0.40
25:DA:2520:C:C4	25:DA:2567:G:C8	3.10	0.40
25:DA:2547:U:H2'	25:DA:2548:G:C8	2.56	0.40
25:DA:2668:G:HO2'	25:DA:2669:G:P	2.45	0.40
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.57	0.40
28:DD:142:VAL:CG2	28:DD:191:ALA:HB1	2.51	0.40
29:DE:10:GLY:HA3	40:DT:8:LYS:HD2	2.03	0.40
30:DF:12:LEU:O	30:DF:127:GLU:HB2	2.22	0.40
31:DG:53:LEU:HD23	31:DG:54:GLU:CA	2.52	0.40
31:DG:82:LEU:HA	31:DG:86:MET:SD	2.61	0.40
32:DH:92:ILE:H	32:DH:92:ILE:CD1	2.14	0.40
32:DH:101:ARG:HG2	32:DH:117:PRO:CG	2.46	0.40
33:DI:96:ASP:C	33:DI:98:ALA:H	2.25	0.40
33:DI:140:LEU:HD23	33:DI:140:LEU:N	2.36	0.40
34:DN:43:THR:HB	34:DN:46:VAL:HG11	2.04	0.40
35:DO:60:ALA:HB1	35:DO:85:VAL:O	2.21	0.40
35:DO:77:ILE:HD12	40:DT:73:GLU:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:104:ARG:HD3	38:DR:111:LEU:HD21	2.04	0.40
38:DR:117:VAL:O	38:DR:118:GLU:HB2	2.21	0.40
45:DY:101:LYS:HG2	45:DY:101:LYS:O	2.21	0.40
50:D3:26:LEU:HD21	50:D3:46:ASN:HB2	2.03	0.40
55:D8:10:ALA:HB2	55:D8:59:LYS:HZ1	1.87	0.40
1:AA:7:G:O2'	1:AA:8:A:OP1	2.31	0.40
1:AA:1029:C:C4'	1:AA:1033:G:H22	2.34	0.40
1:AA:1112:C:C2	3:AC:178:LEU:HB2	2.57	0.40
1:AA:1190:G:H5'	3:AC:176:HIS:NE2	2.37	0.40
1:AA:1265:G:H2'	1:AA:1266:G:H8	1.85	0.40
5:AE:143:ARG:NH1	8:AH:77:GLU:OE1	2.54	0.40
6:AF:60:PHE:CZ	18:AR:78:LEU:CD2	3.03	0.40
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.50	0.40
10:AJ:29:ARG:NH1	1:CA:1163:C:H5"	2.31	0.40
10:AJ:30:SER:CB	10:AJ:80:LYS:HD3	2.52	0.40
10:AJ:79:ARG:HD3	10:AJ:79:ARG:HA	1.79	0.40
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.90	0.40
12:AL:20:LYS:HB3	12:AL:20:LYS:HE2	1.88	0.40
13:AM:3:ARG:NE	31:BG:113:ARG:NH2	2.69	0.40
13:AM:76:ALA:O	13:AM:79:LYS:HB2	2.21	0.40
13:AM:91:ARG:HB2	13:AM:92:HIS:H	1.74	0.40
13:AM:91:ARG:O	13:AM:95:GLY:N	2.54	0.40
19:AS:7:LYS:HD3	19:AS:7:LYS:N	2.36	0.40
25:BA:196:A:O2'	25:BA:805:G:O6	2.24	0.40
25:BA:480:A:H1'	45:BY:44:ILE:HG21	2.04	0.40
25:BA:487:C:H1'	43:BW:53:SER:HB2	2.02	0.40
25:BA:708:C:N4	25:BA:723:G:H1	2.19	0.40
25:BA:932:G:H4'	25:BA:933:A:O5'	2.21	0.40
25:BA:1021:A:C2	25:BA:1023:U:C2	3.09	0.40
25:BA:1275:A:N9	38:BR:16:HIS:HD2	2.19	0.40
25:BA:1278:A:OP1	38:BR:36:THR:HG22	2.21	0.40
25:BA:1337:G:H2'	25:BA:1338:G:C8	2.56	0.40
25:BA:1673:U:H2'	25:BA:1674:G:H5'	2.04	0.40
25:BA:1721:G:C6	25:BA:1739:U:OP2	2.75	0.40
25:BA:2016:U:H2'	25:BA:2017:U:O4'	2.21	0.40
26:BB:66:A:N6	26:BB:108:U:C2	2.90	0.40
27:BC:20:TYR:N	27:BC:20:TYR:CD1	2.90	0.40
28:BD:7:LYS:O	28:BD:9:TYR:CD1	2.75	0.40
28:BD:24:ILE:HD12	28:BD:84:TYR:HB2	2.04	0.40
29:BE:82:ARG:HB3	29:BE:83:ASP:H	1.42	0.40
30:BF:45:ARG:HG3	30:BF:46:ARG:N	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:192:LEU:HD23	30:BF:193:VAL:H	1.86	0.40
32:BH:137:ASP:OD1	32:BH:138:LYS:N	2.50	0.40
32:BH:151:ILE:O	32:BH:152:ARG:CG	2.69	0.40
34:BN:55:VAL:O	34:BN:56:ASN:C	2.60	0.40
40:BT:50:ILE:HD12	40:BT:99:LEU:CD1	2.47	0.40
40:BT:122:ASP:C	40:BT:124:ASP:H	2.24	0.40
42:BV:52:VAL:HG13	42:BV:55:ALA:CB	2.50	0.40
45:BY:40:GLU:OE2	45:BY:40:GLU:CA	2.43	0.40
45:BY:47:LYS:O	45:BY:48:ALA:C	2.60	0.40
48:B1:27:GLU:HB2	48:B1:28:GLY:H	1.73	0.40
52:B5:34:PRO:HB2	52:B5:35:GLU:H	1.75	0.40
54:B7:29:LYS:HG2	54:B7:29:LYS:O	2.20	0.40
1:CA:458:C:H2'	1:CA:460:G:C8	2.55	0.40
1:CA:511:C:O2'	1:CA:512:U:O5'	2.40	0.40
1:CA:729:A:H2'	1:CA:730:G:C8	2.55	0.40
1:CA:979:C:OP1	1:CA:1223:C:N4	2.54	0.40
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.56	0.40
3:CC:131:ARG:NH2	3:CC:167:TRP:O	2.51	0.40
4:CD:101:LEU:CD1	4:CD:105:VAL:HG23	2.50	0.40
8:CH:10:LEU:N	8:CH:10:LEU:HD23	2.35	0.40
10:CJ:6:ILE:HD11	10:CJ:72:VAL:CG1	2.51	0.40
13:CM:108:ARG:O	13:CM:109:THR:C	2.59	0.40
14:CN:53:LEU:HA	14:CN:54:PRO:HD3	1.80	0.40
23:CY:36:A:H2'	23:CY:37:A:O5'	2.22	0.40
25:DA:76:C:O3'	49:D2:59:ARG:HG2	2.21	0.40
25:DA:207:A:H2'	25:DA:208:C:O4'	2.21	0.40
25:DA:613:G:N2	25:DA:615:G:C5	2.89	0.40
25:DA:814:C:N4	36:DP:24:GLY:O	2.50	0.40
25:DA:995:C:OP2	41:DU:54:LYS:NZ	2.50	0.40
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.21	0.40
25:DA:1116:C:H2'	25:DA:1117:G:C8	2.57	0.40
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.56	0.40
25:DA:1353:A:H4'	28:DD:38:LYS:NZ	2.37	0.40
25:DA:1540:U:O4	25:DA:1541:G:N1	2.54	0.40
25:DA:2296:U:H4'	25:DA:2297:C:OP1	2.21	0.40
28:DD:48:ARG:HG3	28:DD:48:ARG:HH11	1.87	0.40
29:DE:77:ILE:H	29:DE:77:ILE:HG13	1.63	0.40
29:DE:173:VAL:O	29:DE:174:ASP:C	2.59	0.40
30:DF:33:LEU:HD12	30:DF:33:LEU:HA	1.94	0.40
30:DF:119:ARG:HG2	30:DF:119:ARG:NH1	2.36	0.40
30:DF:122:LYS:HA	30:DF:122:LYS:HD3	1.91	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:157:VAL:HG11	30:DF:181:LEU:HD23	2.02	0.40
31:DG:2:PRO:C	31:DG:4:ASP:H	2.25	0.40
31:DG:54:GLU:HA	31:DG:57:ALA:HB3	2.02	0.40
31:DG:161:THR:HG22	31:DG:163:ALA:H	1.87	0.40
32:DH:117:PRO:HB3	32:DH:123:PHE:CD1	2.57	0.40
32:DH:121:ILE:CG2	32:DH:122:THR:N	2.84	0.40
33:DI:78:THR:O	33:DI:79:ILE:HB	2.21	0.40
34:DN:60:ILE:H	34:DN:60:ILE:HG13	1.63	0.40
34:DN:82:LEU:HD12	34:DN:82:LEU:HA	1.82	0.40
35:DO:29:ASN:O	35:DO:29:ASN:ND2	2.42	0.40
35:DO:47:ILE:CG2	35:DO:48:PRO:N	2.85	0.40
37:DQ:10:ARG:HG3	37:DQ:10:ARG:HH11	1.87	0.40
39:DS:103:GLU:OE1	39:DS:103:GLU:CA	2.70	0.40
40:DT:26:ASP:OD2	40:DT:26:ASP:C	2.60	0.40
42:DV:35:LEU:HD21	42:DV:57:VAL:CG2	2.29	0.40
46:DZ:101:PRO:HA	46:DZ:123:ASP:HB3	2.04	0.40
46:DZ:117:LEU:HD13	46:DZ:144:LEU:HB3	2.02	0.40
47:D0:27:GLU:HB2	47:D0:69:PHE:HD1	1.87	0.40
47:D0:45:PHE:N	47:D0:45:PHE:HD1	2.19	0.40
49:D2:67:LYS:O	49:D2:69:ARG:N	2.52	0.40
53:D6:41:PRO:CG	53:D6:46:HIS:N	2.84	0.40

All (8) 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)
50:B3:1:MET:N	36:DP:122:PRO:CG[3_455]	1.46	0.74
50:B3:1:MET:N	36:DP:122:PRO:CD[3_455]	1.64	0.56
42:DV:50:PRO:CG	52:D5:58:LEU:O[4_445]	1.80	0.40
42:DV:48:GLY:O	52:D5:58:LEU:CD1[4_445]	1.84	0.36
25:BA:1593:G:O2'	26:BB:54:G:OP1[1_655]	2.09	0.11
42:DV:6:LYS:CE	52:D5:60:VAL:CG1[4_445]	2.12	0.08
32:BH:130:ARG:NH1	1:CA:82:U:O2[2_455]	2.18	0.02
50:B3:1:MET:CG	36:DP:122:PRO:CG[3_455]	2.19	0.01

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
2	AB	233/256 (91%)	159 (68%)	53 (23%)	21 (9%)	1 9
2	CB	233/256 (91%)	158 (68%)	45 (19%)	30 (13%)	0 4
3	AC	205/239 (86%)	129 (63%)	54 (26%)	22 (11%)	0 6
3	CC	205/239 (86%)	135 (66%)	52 (25%)	18 (9%)	1 9
4	AD	206/209 (99%)	142 (69%)	43 (21%)	21 (10%)	0 7
4	CD	206/209 (99%)	141 (68%)	47 (23%)	18 (9%)	1 9
5	AE	149/162 (92%)	117 (78%)	20 (13%)	12 (8%)	1 10
5	CE	149/162 (92%)	113 (76%)	22 (15%)	14 (9%)	0 8
6	AF	99/101 (98%)	63 (64%)	29 (29%)	7 (7%)	1 13
6	CF	99/101 (98%)	80 (81%)	14 (14%)	5 (5%)	2 20
7	AG	153/156 (98%)	116 (76%)	26 (17%)	11 (7%)	1 13
7	CG	153/156 (98%)	117 (76%)	29 (19%)	7 (5%)	2 22
8	AH	136/138 (99%)	96 (71%)	35 (26%)	5 (4%)	3 28
8	CH	136/138 (99%)	102 (75%)	28 (21%)	6 (4%)	2 23
9	AI	125/128 (98%)	84 (67%)	32 (26%)	9 (7%)	1 13
9	CI	125/128 (98%)	87 (70%)	23 (18%)	15 (12%)	0 5
10	AJ	97/105 (92%)	59 (61%)	31 (32%)	7 (7%)	1 13
10	CJ	97/105 (92%)	60 (62%)	25 (26%)	12 (12%)	0 5
11	AK	117/129 (91%)	92 (79%)	19 (16%)	6 (5%)	2 20
11	CK	117/129 (91%)	92 (79%)	23 (20%)	2 (2%)	9 44
12	AL	123/132 (93%)	78 (63%)	25 (20%)	20 (16%)	0 3
12	CL	123/132 (93%)	91 (74%)	20 (16%)	12 (10%)	0 8
13	AM	123/126 (98%)	82 (67%)	23 (19%)	18 (15%)	0 3
13	CM	123/126 (98%)	78 (63%)	22 (18%)	23 (19%)	0 1
14	AN	58/61 (95%)	40 (69%)	11 (19%)	7 (12%)	0 5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	CN	58/61 (95%)	37 (64%)	14 (24%)	7 (12%)	0 5
15	AO	86/89 (97%)	65 (76%)	20 (23%)	1 (1%)	13 51
15	CO	86/89 (97%)	55 (64%)	25 (29%)	6 (7%)	1 14
16	AP	82/88 (93%)	53 (65%)	25 (30%)	4 (5%)	2 21
16	CP	82/88 (93%)	66 (80%)	13 (16%)	3 (4%)	3 28
17	AQ	98/105 (93%)	79 (81%)	13 (13%)	6 (6%)	1 16
17	CQ	98/105 (93%)	77 (79%)	15 (15%)	6 (6%)	1 16
18	AR	68/88 (77%)	49 (72%)	12 (18%)	7 (10%)	0 7
18	CR	68/88 (77%)	49 (72%)	11 (16%)	8 (12%)	0 5
19	AS	77/93 (83%)	56 (73%)	15 (20%)	6 (8%)	1 11
19	CS	77/93 (83%)	47 (61%)	17 (22%)	13 (17%)	0 2
20	AT	97/106 (92%)	68 (70%)	22 (23%)	7 (7%)	1 13
20	CT	97/106 (92%)	67 (69%)	18 (19%)	12 (12%)	0 5
21	AU	23/27 (85%)	15 (65%)	4 (17%)	4 (17%)	0 2
21	CU	23/27 (85%)	18 (78%)	3 (13%)	2 (9%)	1 9
27	BC	183/229 (80%)	85 (46%)	52 (28%)	46 (25%)	0 0
27	DC	183/229 (80%)	87 (48%)	45 (25%)	51 (28%)	0 0
28	BD	270/276 (98%)	200 (74%)	38 (14%)	32 (12%)	0 5
28	DD	270/276 (98%)	202 (75%)	44 (16%)	24 (9%)	1 9
29	BE	203/206 (98%)	145 (71%)	36 (18%)	22 (11%)	0 6
29	DE	203/206 (98%)	134 (66%)	36 (18%)	33 (16%)	0 3
30	BF	206/210 (98%)	142 (69%)	44 (21%)	20 (10%)	0 8
30	DF	200/210 (95%)	160 (80%)	29 (14%)	11 (6%)	2 19
31	BG	179/182 (98%)	121 (68%)	36 (20%)	22 (12%)	0 5
31	DG	179/182 (98%)	124 (69%)	30 (17%)	25 (14%)	0 4
32	BH	158/180 (88%)	96 (61%)	37 (23%)	25 (16%)	0 3
32	DH	166/180 (92%)	96 (58%)	42 (25%)	28 (17%)	0 2
33	BI	143/148 (97%)	101 (71%)	26 (18%)	16 (11%)	0 6
33	DI	144/148 (97%)	78 (54%)	39 (27%)	27 (19%)	0 1
34	BN	137/140 (98%)	91 (66%)	24 (18%)	22 (16%)	0 3
34	DN	137/140 (98%)	86 (63%)	39 (28%)	12 (9%)	1 9

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	BO	120/122 (98%)	95 (79%)	17 (14%)	8 (7%)	1 15
35	DO	120/122 (98%)	97 (81%)	18 (15%)	5 (4%)	3 24
36	BP	148/150 (99%)	86 (58%)	26 (18%)	36 (24%)	0 0
36	DP	148/150 (99%)	86 (58%)	23 (16%)	39 (26%)	0 0
37	BQ	139/141 (99%)	104 (75%)	24 (17%)	11 (8%)	1 11
37	DQ	139/141 (99%)	109 (78%)	18 (13%)	12 (9%)	1 9
38	BR	115/118 (98%)	78 (68%)	25 (22%)	12 (10%)	0 7
38	DR	116/118 (98%)	86 (74%)	20 (17%)	10 (9%)	1 9
39	BS	97/112 (87%)	53 (55%)	16 (16%)	28 (29%)	0 0
39	DS	109/112 (97%)	71 (65%)	21 (19%)	17 (16%)	0 3
40	BT	136/146 (93%)	90 (66%)	28 (21%)	18 (13%)	0 4
40	DT	136/146 (93%)	95 (70%)	19 (14%)	22 (16%)	0 3
41	BU	115/118 (98%)	73 (64%)	30 (26%)	12 (10%)	0 7
41	DU	115/118 (98%)	75 (65%)	30 (26%)	10 (9%)	1 9
42	BV	99/101 (98%)	75 (76%)	9 (9%)	15 (15%)	0 3
42	DV	99/101 (98%)	80 (81%)	9 (9%)	10 (10%)	0 7
43	BW	111/113 (98%)	81 (73%)	22 (20%)	8 (7%)	1 13
43	DW	111/113 (98%)	82 (74%)	19 (17%)	10 (9%)	1 9
44	BX	91/96 (95%)	69 (76%)	16 (18%)	6 (7%)	1 15
44	DX	91/96 (95%)	76 (84%)	11 (12%)	4 (4%)	2 23
45	BY	99/110 (90%)	50 (50%)	22 (22%)	27 (27%)	0 0
45	DY	100/110 (91%)	64 (64%)	11 (11%)	25 (25%)	0 0
46	BZ	175/206 (85%)	114 (65%)	40 (23%)	21 (12%)	0 5
46	DZ	175/206 (85%)	101 (58%)	46 (26%)	28 (16%)	0 3
47	B0	82/85 (96%)	64 (78%)	13 (16%)	5 (6%)	1 16
47	D0	82/85 (96%)	67 (82%)	8 (10%)	7 (8%)	1 10
48	B1	92/98 (94%)	68 (74%)	13 (14%)	11 (12%)	0 5
48	D1	92/98 (94%)	69 (75%)	12 (13%)	11 (12%)	0 5
49	B2	69/72 (96%)	49 (71%)	15 (22%)	5 (7%)	1 13
49	D2	69/72 (96%)	57 (83%)	5 (7%)	7 (10%)	0 7
50	B3	58/60 (97%)	48 (83%)	3 (5%)	7 (12%)	0 5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
50	D3	58/60 (97%)	46 (79%)	7 (12%)	5 (9%)	1 9
51	B4	29/71 (41%)	17 (59%)	8 (28%)	4 (14%)	0 4
51	D4	38/71 (54%)	21 (55%)	12 (32%)	5 (13%)	0 4
52	B5	57/60 (95%)	46 (81%)	6 (10%)	5 (9%)	1 9
52	D5	57/60 (95%)	46 (81%)	5 (9%)	6 (10%)	0 7
53	B6	43/54 (80%)	17 (40%)	14 (33%)	12 (28%)	0 0
53	D6	43/54 (80%)	18 (42%)	15 (35%)	10 (23%)	0 0
54	B7	47/49 (96%)	38 (81%)	5 (11%)	4 (8%)	1 10
54	D7	47/49 (96%)	43 (92%)	3 (6%)	1 (2%)	7 39
55	B8	62/65 (95%)	42 (68%)	14 (23%)	6 (10%)	0 8
55	D8	62/65 (95%)	41 (66%)	14 (23%)	7 (11%)	0 6
56	B9	34/37 (92%)	23 (68%)	10 (29%)	1 (3%)	4 33
56	D9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	4 33
All	All	11730/12586 (93%)	8097 (69%)	2283 (20%)	1350 (12%)	0 6

All (1350) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	195	ASP
2	AB	238	LEU
3	AC	18	TRP
3	AC	20	SER
3	AC	47	LEU
3	AC	61	ALA
3	AC	62	ASP
3	AC	154	SER
3	AC	207	VAL
4	AD	3	ARG
4	AD	109	GLY
4	AD	171	GLY
4	AD	178	VAL
4	AD	192	GLU
5	AE	6	PHE
5	AE	27	ARG
5	AE	85	GLY
5	AE	140	ARG

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Mol	Chain	Res	Type
5	AE	146	ALA
6	AF	42	GLU
6	AF	62	TRP
7	AG	7	ALA
7	AG	41	ARG
7	AG	42	ILE
7	AG	58	PRO
8	AH	41	ARG
8	AH	133	LEU
9	AI	56	LEU
9	AI	89	ASN
10	AJ	32	ALA
10	AJ	36	GLY
10	AJ	51	ARG
10	AJ	59	SER
12	AL	8	ASN
12	AL	22	SER
12	AL	23	LYS
12	AL	42	THR
12	AL	47	LYS
12	AL	62	SER
12	AL	64	TYR
12	AL	65	GLU
12	AL	76	ASN
12	AL	80	HIS
13	AM	12	ASN
13	AM	66	LEU
13	AM	83	ASP
13	AM	95	GLY
13	AM	100	GLY
13	AM	104	ARG
13	AM	113	PRO
13	AM	117	VAL
13	AM	125	ARG
14	AN	14	PRO
14	AN	16	PHE
14	AN	23	ARG
14	AN	24	CYS
16	AP	67	THR
17	AQ	34	LYS
17	AQ	53	LEU
17	AQ	80	GLY

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Mol	Chain	Res	Type
18	AR	20	ALA
18	AR	37	VAL
19	AS	28	LYS
19	AS	29	ARG
19	AS	61	TYR
19	AS	62	ILE
20	AT	49	ALA
21	AU	3	LYS
21	AU	7	ARG
27	BC	35	ALA
27	BC	55	ASP
27	BC	58	VAL
27	BC	74	VAL
27	BC	108	MET
27	BC	153	ILE
27	BC	171	ILE
27	BC	173	ALA
27	BC	174	PRO
27	BC	182	PRO
27	BC	209	LEU
27	BC	220	PRO
28	BD	25	THR
28	BD	169	GLU
28	BD	181	GLU
28	BD	211	ARG
28	BD	271	ILE
29	BE	4	ILE
29	BE	38	THR
29	BE	69	LYS
29	BE	71	GLY
29	BE	72	VAL
29	BE	73	GLU
29	BE	75	VAL
29	BE	76	ARG
29	BE	77	ILE
29	BE	130	GLY
29	BE	173	VAL
29	BE	187	ALA
29	BE	201	THR
30	BF	14	PRO
30	BF	20	LEU
30	BF	21	ALA

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Mol	Chain	Res	Type
30	BF	54	ARG
30	BF	115	ALA
30	BF	126	VAL
30	BF	127	GLU
30	BF	132	VAL
30	BF	166	ALA
31	BG	52	ILE
31	BG	55	LYS
31	BG	82	LEU
31	BG	86	MET
31	BG	87	PRO
31	BG	114	ILE
31	BG	115	ARG
32	BH	55	PRO
32	BH	83	TYR
32	BH	98	LEU
32	BH	156	ALA
32	BH	159	GLU
33	BI	42	SER
33	BI	120	ILE
33	BI	122	GLU
34	BN	13	TRP
34	BN	47	ALA
34	BN	57	ALA
34	BN	58	ASP
34	BN	63	THR
34	BN	134	ARG
34	BN	136	GLU
35	BO	5	GLN
35	BO	48	PRO
35	BO	115	VAL
35	BO	116	SER
35	BO	120	GLU
36	BP	10	PRO
36	BP	17	LYS
36	BP	19	VAL
36	BP	35	HIS
36	BP	47	ASP
36	BP	56	SER
36	BP	57	THR
36	BP	94	GLU
36	BP	108	LYS

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Mol	Chain	Res	Type
36	BP	110	TYR
36	BP	111	ARG
36	BP	147	LEU
37	BQ	2	LEU
37	BQ	47	ILE
37	BQ	134	ARG
37	BQ	135	ASP
38	BR	8	ARG
38	BR	12	ARG
38	BR	107	ASP
38	BR	117	VAL
39	BS	19	LYS
39	BS	23	ARG
39	BS	57	LYS
39	BS	58	LEU
39	BS	67	ARG
39	BS	83	LYS
39	BS	88	ASP
39	BS	89	ARG
39	BS	90	GLY
39	BS	97	ARG
39	BS	102	ALA
39	BS	103	GLU
40	BT	17	THR
40	BT	24	PRO
40	BT	28	VAL
40	BT	29	ARG
40	BT	32	TYR
40	BT	36	GLU
40	BT	58	ASN
40	BT	80	SER
40	BT	88	ILE
40	BT	94	ALA
40	BT	107	ASP
40	BT	115	ARG
41	BU	8	VAL
41	BU	26	GLY
41	BU	86	ALA
42	BV	16	PRO
42	BV	19	LYS
42	BV	35	LEU
42	BV	46	VAL

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Mol	Chain	Res	Type
42	BV	79	VAL
43	BW	6	ILE
43	BW	111	HIS
44	BX	12	VAL
45	BY	3	VAL
45	BY	7	VAL
45	BY	17	SER
45	BY	44	ILE
45	BY	53	PRO
45	BY	56	PRO
45	BY	77	PRO
45	BY	78	ALA
45	BY	82	PRO
45	BY	90	LEU
45	BY	101	LYS
46	BZ	16	SER
46	BZ	38	TYR
46	BZ	93	ASP
46	BZ	152	ALA
46	BZ	158	PRO
47	B0	55	ARG
48	B1	26	ARG
48	B1	52	ARG
48	B1	56	GLN
48	B1	85	LEU
49	B2	43	GLN
49	B2	44	LEU
49	B2	47	ASN
50	B3	38	GLU
50	B3	39	ASP
50	B3	52	HIS
52	B5	57	VAL
53	B6	16	CYS
53	B6	28	ARG
53	B6	44	ARG
54	B7	22	MET
55	B8	47	LYS
2	CB	15	VAL
2	CB	77	ALA
2	CB	169	LYS
2	CB	195	ASP
2	CB	204	ASN

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Mol	Chain	Res	Type
2	CB	216	SER
2	CB	236	TYR
2	CB	237	ALA
2	CB	239	VAL
3	CC	29	TYR
3	CC	47	LEU
3	CC	121	ALA
3	CC	154	SER
3	CC	189	ALA
4	CD	4	TYR
4	CD	9	CYS
4	CD	10	ARG
4	CD	14	ARG
4	CD	24	GLU
4	CD	30	LYS
4	CD	81	GLU
4	CD	93	PHE
5	CE	6	PHE
5	CE	73	ASN
5	CE	153	LYS
7	CG	111	ARG
7	CG	116	ALA
7	CG	154	TYR
8	CH	105	ARG
9	CI	117	HIS
10	CJ	32	ALA
10	CJ	57	LYS
10	CJ	59	SER
12	CL	47	LYS
12	CL	51	ALA
12	CL	120	TYR
13	CM	4	ILE
13	CM	12	ASN
13	CM	28	ALA
13	CM	60	VAL
13	CM	67	GLU
13	CM	101	GLN
13	CM	116	THR
13	CM	118	ALA
13	CM	122	LYS
14	CN	14	PRO
14	CN	16	PHE

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Mol	Chain	Res	Type
14	CN	29	ARG
14	CN	60	SER
15	CO	62	GLN
17	CQ	34	LYS
18	CR	20	ALA
18	CR	41	LYS
18	CR	87	ARG
19	CS	9	VAL
19	CS	10	PHE
19	CS	29	ARG
19	CS	80	TYR
20	CT	50	GLU
20	CT	97	ALA
21	CU	3	LYS
21	CU	25	LYS
27	DC	35	ALA
27	DC	38	ASP
27	DC	46	LYS
27	DC	58	VAL
27	DC	108	MET
27	DC	133	PRO
27	DC	140	PRO
27	DC	142	ALA
27	DC	148	ASN
27	DC	153	ILE
27	DC	156	ILE
27	DC	167	LYS
27	DC	173	ALA
27	DC	174	PRO
27	DC	182	PRO
27	DC	220	PRO
28	DD	10	THR
28	DD	25	THR
28	DD	33	LEU
28	DD	225	ALA
28	DD	239	ARG
28	DD	267	SER
28	DD	271	ILE
29	DE	4	ILE
29	DE	18	ASP
29	DE	53	PRO
29	DE	54	GLN

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Mol	Chain	Res	Type
29	DE	56	PRO
29	DE	59	VAL
29	DE	60	ASN
29	DE	71	GLY
29	DE	73	GLU
29	DE	75	VAL
29	DE	77	ILE
29	DE	84	PHE
29	DE	89	ASP
29	DE	118	LYS
29	DE	132	HIS
30	DF	24	LEU
30	DF	73	ALA
30	DF	89	VAL
30	DF	128	ALA
30	DF	132	VAL
30	DF	134	GLY
31	DG	14	GLU
31	DG	96	ARG
32	DH	10	PRO
32	DH	12	PRO
32	DH	16	SER
32	DH	17	VAL
32	DH	20	ALA
32	DH	27	LYS
32	DH	83	TYR
32	DH	86	GLU
32	DH	92	ILE
32	DH	138	LYS
32	DH	153	LYS
32	DH	154	PRO
32	DH	155	SER
32	DH	156	ALA
32	DH	167	GLU
32	DH	169	VAL
33	DI	13	GLY
33	DI	15	VAL
33	DI	77	LEU
33	DI	78	THR
33	DI	79	ILE
33	DI	115	ALA
33	DI	134	PRO

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Mol	Chain	Res	Type
34	DN	57	ALA
34	DN	58	ASP
34	DN	132	ALA
36	DP	10	PRO
36	DP	22	GLY
36	DP	35	HIS
36	DP	47	ASP
36	DP	56	SER
36	DP	57	THR
36	DP	94	GLU
36	DP	108	LYS
36	DP	110	TYR
36	DP	111	ARG
36	DP	147	LEU
37	DQ	2	LEU
37	DQ	6	ARG
37	DQ	134	ARG
37	DQ	135	ASP
37	DQ	138	ASP
38	DR	3	HIS
38	DR	4	LEU
38	DR	82	GLU
38	DR	107	ASP
39	DS	11	LYS
39	DS	14	VAL
39	DS	19	LYS
39	DS	61	ASN
39	DS	88	ASP
39	DS	89	ARG
39	DS	107	GLU
40	DT	17	THR
40	DT	24	PRO
40	DT	29	ARG
40	DT	30	VAL
40	DT	41	ARG
40	DT	80	SER
40	DT	82	LEU
40	DT	85	LYS
40	DT	88	ILE
40	DT	107	ASP
40	DT	115	ARG
42	DV	45	THR

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Mol	Chain	Res	Type
42	DV	49	THR
42	DV	79	VAL
45	DY	5	MET
45	DY	11	ASP
45	DY	20	TYR
45	DY	45	VAL
45	DY	49	VAL
45	DY	50	ARG
45	DY	57	GLN
45	DY	63	LYS
45	DY	77	PRO
45	DY	78	ALA
45	DY	80	GLY
46	DZ	20	ARG
46	DZ	32	HIS
46	DZ	41	LEU
46	DZ	49	ARG
46	DZ	65	GLN
46	DZ	81	ARG
46	DZ	105	VAL
46	DZ	108	PRO
46	DZ	146	ILE
46	DZ	152	ALA
46	DZ	159	PRO
47	D0	55	ARG
47	D0	74	ARG
48	D1	24	ALA
48	D1	31	GLY
48	D1	58	ILE
48	D1	83	GLU
48	D1	85	LEU
49	D2	43	GLN
49	D2	44	LEU
49	D2	47	ASN
51	D4	20	ASN
51	D4	26	SER
52	D5	34	PRO
52	D5	57	VAL
53	D6	28	ARG
55	D8	3	LYS
55	D8	61	LEU
2	AB	122	PHE

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Mol	Chain	Res	Type
2	AB	150	SER
2	AB	154	LEU
2	AB	165	VAL
2	AB	173	ALA
2	AB	174	VAL
2	AB	189	ASP
2	AB	239	VAL
3	AC	4	LYS
3	AC	15	THR
3	AC	45	LYS
3	AC	145	GLY
3	AC	156	ARG
3	AC	157	ILE
4	AD	4	TYR
4	AD	5	ILE
4	AD	7	PRO
4	AD	10	ARG
4	AD	39	PRO
4	AD	101	LEU
4	AD	193	ASP
5	AE	139	LEU
6	AF	29	ALA
6	AF	38	GLU
7	AG	33	ASP
7	AG	45	ASP
9	AI	100	GLY
9	AI	121	ARG
11	AK	12	ARG
12	AL	18	VAL
13	AM	6	GLY
14	AN	22	THR
16	AP	43	LYS
18	AR	38	GLU
19	AS	30	LEU
19	AS	80	TYR
20	AT	48	LYS
20	AT	63	ILE
20	AT	103	GLY
21	AU	25	LYS
27	BC	20	TYR
27	BC	78	ALA
27	BC	125	SER

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Mol	Chain	Res	Type
27	BC	133	PRO
27	BC	156	ILE
27	BC	170	ALA
27	BC	184	LYS
27	BC	198	ALA
27	BC	216	THR
28	BD	26	LYS
29	BE	2	LYS
29	BE	87	GLU
29	BE	178	GLU
30	BF	86	GLY
30	BF	89	VAL
30	BF	134	GLY
31	BG	10	LYS
31	BG	14	GLU
31	BG	47	LYS
31	BG	49	ASP
31	BG	110	ALA
31	BG	117	PHE
31	BG	129	GLY
32	BH	21	PRO
32	BH	45	VAL
32	BH	85	LYS
32	BH	92	ILE
32	BH	155	SER
32	BH	164	TYR
32	BH	170	ARG
33	BI	137	PRO
34	BN	42	TRP
34	BN	98	VAL
34	BN	135	PRO
35	BO	89	ASN
35	BO	117	LEU
36	BP	5	ASP
36	BP	6	LEU
36	BP	15	ARG
36	BP	16	ARG
36	BP	29	LYS
36	BP	34	GLY
36	BP	58	THR
36	BP	64	LYS
36	BP	90	ARG

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Mol	Chain	Res	Type
36	BP	116	GLY
36	BP	119	GLU
36	BP	141	ALA
36	BP	146	VAL
37	BQ	59	ARG
37	BQ	60	ARG
37	BQ	111	GLU
38	BR	7	GLY
38	BR	10	LEU
38	BR	14	SER
38	BR	69	ASP
38	BR	82	GLU
39	BS	14	VAL
39	BS	18	ILE
39	BS	59	LYS
39	BS	66	ALA
39	BS	85	VAL
39	BS	93	LYS
39	BS	96	GLY
39	BS	104	GLY
40	BT	55	ASN
41	BU	46	ALA
42	BV	18	LEU
42	BV	48	GLY
42	BV	53	GLU
43	BW	12	ILE
43	BW	43	GLY
43	BW	112	GLY
45	BY	18	GLY
45	BY	29	GLU
45	BY	48	ALA
45	BY	99	CYS
46	BZ	45	ASP
46	BZ	53	ILE
46	BZ	64	GLY
46	BZ	111	VAL
46	BZ	166	SER
46	BZ	168	GLU
48	B1	28	GLY
48	B1	53	VAL
48	B1	58	ILE
48	B1	84	GLY

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Mol	Chain	Res	Type
49	B2	49	LYS
49	B2	70	GLN
52	B5	34	PRO
53	B6	17	LYS
53	B6	41	PRO
53	B6	52	VAL
54	B7	31	LEU
55	B8	14	VAL
55	B8	17	THR
55	B8	34	TRP
2	CB	9	GLU
2	CB	18	GLY
2	CB	168	THR
2	CB	194	PRO
2	CB	209	ARG
3	CC	15	THR
3	CC	61	ALA
3	CC	156	ARG
3	CC	181	ASN
3	CC	190	ARG
3	CC	207	VAL
4	CD	3	ARG
4	CD	5	ILE
4	CD	26	CYS
4	CD	166	LYS
5	CE	16	THR
5	CE	17	ALA
5	CE	146	ALA
5	CE	154	GLY
6	CF	40	VAL
7	CG	147	ALA
8	CH	50	ARG
9	CI	78	LYS
9	CI	100	GLY
9	CI	127	LYS
10	CJ	23	ILE
10	CJ	27	ALA
10	CJ	39	PRO
12	CL	6	THR
12	CL	28	LYS
12	CL	52	LEU
12	CL	65	GLU

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Mol	Chain	Res	Type
13	CM	6	GLY
13	CM	106	ASN
14	CN	59	ALA
15	CO	76	GLU
15	CO	88	ARG
17	CQ	94	ASN
18	CR	32	ARG
19	CS	14	HIS
19	CS	26	GLY
19	CS	30	LEU
20	CT	51	GLU
20	CT	84	LEU
20	CT	99	LEU
27	DC	20	TYR
27	DC	55	ASP
27	DC	63	SER
27	DC	78	ALA
27	DC	120	MET
27	DC	128	GLY
27	DC	179	SER
27	DC	183	GLU
27	DC	217	THR
27	DC	222	VAL
28	DD	24	ILE
28	DD	27	THR
28	DD	32	SER
28	DD	169	GLU
29	DE	2	LYS
29	DE	29	GLY
29	DE	35	GLN
29	DE	57	LYS
29	DE	76	ARG
29	DE	82	ARG
29	DE	162	ALA
30	DF	181	LEU
31	DG	4	ASP
31	DG	5	VAL
31	DG	24	GLY
31	DG	97	ASP
31	DG	110	ALA
31	DG	124	SER
31	DG	137	GLU

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Mol	Chain	Res	Type
31	DG	150	ASP
32	DH	21	PRO
32	DH	87	LEU
32	DH	90	LYS
32	DH	126	PRO
32	DH	151	ILE
33	DI	9	LEU
33	DI	36	ALA
33	DI	102	SER
33	DI	104	GLN
34	DN	42	TRP
34	DN	68	GLU
35	DO	27	GLY
35	DO	48	PRO
35	DO	120	GLU
36	DP	5	ASP
36	DP	6	LEU
36	DP	12	ALA
36	DP	16	ARG
36	DP	17	LYS
36	DP	29	LYS
36	DP	34	GLY
36	DP	64	LYS
36	DP	90	ARG
36	DP	116	GLY
36	DP	119	GLU
36	DP	141	ALA
36	DP	146	VAL
37	DQ	5	ARG
37	DQ	57	HIS
37	DQ	60	ARG
37	DQ	78	PRO
38	DR	78	LYS
39	DS	4	LEU
39	DS	12	PHE
39	DS	57	LYS
39	DS	96	GLY
39	DS	109	GLY
40	DT	33	LYS
40	DT	55	ASN
40	DT	58	ASN
40	DT	94	ALA

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Mol	Chain	Res	Type
40	DT	131	ALA
41	DU	9	VAL
41	DU	25	TRP
41	DU	54	LYS
41	DU	58	ARG
41	DU	90	VAL
42	DV	48	GLY
42	DV	50	PRO
42	DV	53	GLU
43	DW	63	ASP
43	DW	111	HIS
44	DX	4	ALA
44	DX	22	ALA
45	DY	41	GLY
45	DY	47	LYS
45	DY	58	GLY
45	DY	91	GLU
45	DY	98	VAL
45	DY	102	CYS
46	DZ	52	SER
46	DZ	138	GLU
47	D0	64	ASP
48	D1	28	GLY
48	D1	52	ARG
48	D1	84	GLY
49	D2	68	ARG
49	D2	70	GLN
53	D6	16	CYS
53	D6	19	ARG
53	D6	25	LYS
53	D6	26	ASN
53	D6	52	VAL
55	D8	31	HIS
55	D8	33	ASN
55	D8	34	TRP
55	D8	64	TYR
56	D9	25	VAL
2	AB	194	PRO
2	AB	222	ILE
3	AC	29	TYR
4	AD	24	GLU
4	AD	138	TYR

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Mol	Chain	Res	Type
5	AE	73	ASN
6	AF	69	GLU
7	AG	52	GLU
7	AG	53	LYS
8	AH	49	GLU
9	AI	33	PHE
9	AI	78	LYS
9	AI	85	LEU
11	AK	127	LYS
12	AL	27	LEU
12	AL	87	GLY
13	AM	29	ARG
13	AM	90	LEU
14	AN	29	ARG
14	AN	60	SER
18	AR	87	ARG
20	AT	97	ALA
21	AU	9	ARG
27	BC	128	GLY
27	BC	140	PRO
27	BC	188	ASN
28	BD	32	SER
28	BD	33	LEU
28	BD	34	VAL
28	BD	122	ASP
28	BD	159	ALA
28	BD	202	LYS
28	BD	210	GLY
28	BD	239	ARG
28	BD	244	ARG
28	BD	257	LEU
29	BE	52	LEU
29	BE	61	ARG
29	BE	202	LYS
30	BF	19	GLU
30	BF	102	PRO
31	BG	28	VAL
31	BG	96	ARG
31	BG	126	ASP
31	BG	151	ALA
31	BG	171	ALA
32	BH	14	GLY

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Mol	Chain	Res	Type
32	BH	63	SER
32	BH	154	PRO
33	BI	14	ASP
34	BN	8	GLN
34	BN	16	ILE
34	BN	17	ASP
34	BN	68	GLU
35	BO	64	ARG
36	BP	67	MET
37	BQ	14	ARG
38	BR	6	SER
39	BS	12	PHE
39	BS	61	ASN
39	BS	62	LYS
40	BT	20	PRO
40	BT	129	ARG
41	BU	25	TRP
41	BU	87	GLY
41	BU	92	ARG
41	BU	112	ARG
42	BV	2	PHE
42	BV	78	LYS
43	BW	49	LYS
43	BW	63	ASP
44	BX	4	ALA
44	BX	11	PRO
45	BY	35	TYR
46	BZ	30	ASN
46	BZ	136	PHE
46	BZ	163	LEU
46	BZ	165	VAL
46	BZ	177	PRO
47	B0	20	ARG
47	B0	75	LEU
51	B4	52	SER
51	B4	54	LYS
52	B5	36	CYS
53	B6	20	ASN
53	B6	31	PRO
54	B7	17	GLY
55	B8	56	GLU
2	CB	87	ARG

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Mol	Chain	Res	Type
2	CB	106	LYS
2	CB	143	GLU
2	CB	173	ALA
2	CB	189	ASP
2	CB	217	ARG
2	CB	240	GLN
3	CC	20	SER
3	CC	81	GLY
4	CD	13	ARG
4	CD	125	HIS
5	CE	37	ARG
5	CE	106	PRO
6	CF	42	GLU
6	CF	53	ALA
6	CF	78	GLU
8	CH	2	LEU
8	CH	34	GLU
9	CI	12	GLU
9	CI	34	ASN
9	CI	61	ALA
9	CI	92	TYR
9	CI	107	ARG
10	CJ	36	GLY
12	CL	23	LYS
13	CM	14	ARG
13	CM	30	ALA
13	CM	59	TYR
13	CM	100	GLY
13	CM	107	ALA
16	CP	58	TYR
16	CP	83	GLU
17	CQ	49	GLU
17	CQ	64	PRO
18	CR	70	ILE
19	CS	6	LYS
19	CS	13	ASP
19	CS	28	LYS
20	CT	39	LYS
20	CT	83	ARG
20	CT	96	GLY
27	DC	89	ALA
27	DC	151	GLU

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Mol	Chain	Res	Type
27	DC	170	ALA
27	DC	175	VAL
27	DC	188	ASN
27	DC	209	LEU
28	DD	3	VAL
28	DD	58	HIS
28	DD	191	ALA
28	DD	238	GLY
28	DD	272	ALA
29	DE	44	TYR
29	DE	66	HIS
31	DG	48	GLU
31	DG	113	ARG
31	DG	115	ARG
31	DG	143	GLU
32	DH	168	PRO
33	DI	39	ALA
33	DI	87	LYS
33	DI	98	ALA
33	DI	109	ILE
33	DI	110	ASP
33	DI	113	ARG
33	DI	131	LYS
34	DN	8	GLN
34	DN	127	ASP
34	DN	133	GLN
35	DO	5	GLN
36	DP	15	ARG
36	DP	42	SER
36	DP	53	GLY
36	DP	67	MET
37	DQ	59	ARG
38	DR	17	ARG
38	DR	102	GLU
39	DS	20	ARG
40	DT	28	VAL
40	DT	97	ALA
40	DT	116	ALA
40	DT	136	GLN
42	DV	54	GLY
43	DW	6	ILE
43	DW	11	ARG

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Mol	Chain	Res	Type
43	DW	35	ILE
44	DX	40	LYS
45	DY	48	ALA
45	DY	92	ASN
46	DZ	48	PHE
46	DZ	80	ARG
46	DZ	110	GLY
46	DZ	157	LEU
46	DZ	166	SER
47	D0	13	GLY
47	D0	83	PRO
48	D1	65	SER
51	D4	28	LYS
51	D4	36	CYS
52	D5	33	CYS
53	D6	44	ARG
2	AB	83	MET
2	AB	130	ARG
3	AC	14	ILE
3	AC	91	LEU
3	AC	113	ALA
3	AC	181	ASN
4	AD	9	CYS
4	AD	102	ASP
4	AD	159	ARG
5	AE	74	GLY
5	AE	121	LYS
5	AE	138	ALA
6	AF	27	GLN
7	AG	96	GLN
8	AH	8	ASP
10	AJ	57	LYS
11	AK	27	ASN
11	AK	117	ASN
12	AL	102	ARG
12	AL	127	GLU
13	AM	67	GLU
13	AM	120	LYS
15	AO	16	ALA
16	AP	72	ARG
17	AQ	14	LYS
17	AQ	87	LYS

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Mol	Chain	Res	Type
27	BC	66	HIS
27	BC	68	LEU
27	BC	183	GLU
27	BC	197	GLU
27	BC	213	TYR
27	BC	217	THR
28	BD	3	VAL
28	BD	58	HIS
28	BD	74	GLY
28	BD	156	ALA
28	BD	268	ARG
29	BE	45	THR
29	BE	90	THR
30	BF	25	PRO
30	BF	26	ALA
30	BF	90	PHE
30	BF	182	ASN
31	BG	24	GLY
32	BH	71	LEU
32	BH	84	SER
32	BH	158	HIS
32	BH	168	PRO
33	BI	85	GLU
33	BI	117	GLU
33	BI	119	PRO
34	BN	9	VAL
34	BN	88	GLU
34	BN	127	ASP
36	BP	4	SER
36	BP	42	SER
36	BP	48	PRO
36	BP	104	GLY
36	BP	106	LEU
38	BR	44	LEU
39	BS	74	ALA
39	BS	94	TYR
39	BS	108	GLY
40	BT	131	ALA
40	BT	132	LYS
41	BU	116	ALA
42	BV	3	ALA
45	BY	39	VAL

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Mol	Chain	Res	Type
45	BY	50	ARG
45	BY	81	LYS
46	BZ	112	ARG
47	B0	47	PRO
51	B4	45	GLY
51	B4	61	VAL
52	B5	33	CYS
53	B6	46	HIS
53	B6	49	HIS
54	B7	2	LYS
55	B8	61	LEU
2	CB	130	ARG
2	CB	196	LEU
2	CB	220	ASP
2	CB	221	LEU
3	CC	145	GLY
4	CD	31	CYS
4	CD	167	GLY
5	CE	11	ILE
5	CE	12	LEU
5	CE	85	GLY
5	CE	107	ARG
7	CG	146	GLU
9	CI	89	ASN
10	CJ	58	ASP
10	CJ	66	ARG
12	CL	48	PRO
12	CL	115	LYS
13	CM	21	TYR
13	CM	45	VAL
13	CM	49	THR
13	CM	68	GLY
14	CN	24	CYS
17	CQ	30	PRO
17	CQ	78	GLU
18	CR	31	LEU
19	CS	17	GLU
20	CT	13	LEU
20	CT	46	GLU
20	CT	71	THR
27	DC	52	ARG
27	DC	79	LYS

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Mol	Chain	Res	Type
27	DC	122	ALA
27	DC	125	SER
27	DC	132	GLY
27	DC	162	GLU
27	DC	164	ARG
27	DC	184	LYS
27	DC	197	GLU
27	DC	205	LYS
27	DC	213	TYR
27	DC	215	THR
28	DD	263	ARG
29	DE	52	LEU
30	DF	25	PRO
30	DF	47	GLY
31	DG	36	LYS
31	DG	86	MET
31	DG	116	ASP
31	DG	181	ARG
32	DH	81	GLU
32	DH	152	ARG
33	DI	10	GLU
33	DI	12	LEU
33	DI	18	VAL
33	DI	100	ALA
33	DI	118	LYS
33	DI	133	HIS
34	DN	135	PRO
36	DP	4	SER
36	DP	48	PRO
36	DP	104	GLY
36	DP	106	LEU
37	DQ	54	MET
38	DR	106	GLY
39	DS	75	GLU
39	DS	97	ARG
40	DT	132	LYS
41	DU	32	PHE
41	DU	77	SER
41	DU	99	ALA
41	DU	112	ARG
42	DV	36	PRO
43	DW	44	ALA

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Mol	Chain	Res	Type
43	DW	49	LYS
45	DY	39	VAL
46	DZ	42	VAL
46	DZ	118	GLN
47	D0	47	PRO
49	D2	17	SER
50	D3	39	ASP
50	D3	57	GLU
52	D5	4	HIS
52	D5	51	TYR
53	D6	33	LYS
2	AB	167	PRO
3	AC	12	LEU
3	AC	119	ARG
3	AC	189	ALA
4	AD	208	SER
5	AE	152	ARG
7	AG	108	ALA
7	AG	112	PRO
8	AH	2	LEU
10	AJ	39	PRO
11	AK	49	GLY
11	AK	61	ALA
12	AL	19	ARG
12	AL	46	LYS
13	AM	48	LEU
13	AM	61	GLU
13	AM	91	ARG
16	AP	38	TYR
17	AQ	94	ASN
18	AR	80	PRO
20	AT	28	ALA
27	BC	38	ASP
27	BC	50	ASP
27	BC	142	ALA
27	BC	205	LYS
27	BC	222	VAL
28	BD	28	GLU
28	BD	232	PRO
28	BD	237	GLU
28	BD	241	PRO
28	BD	242	ARG

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Mol	Chain	Res	Type
31	BG	4	ASP
31	BG	68	PRO
32	BH	54	ARG
33	BI	97	ILE
34	BN	4	TYR
34	BN	64	GLY
34	BN	94	HIS
36	BP	7	ARG
36	BP	43	GLY
37	BQ	115	MET
38	BR	102	GLU
40	BT	68	TYR
41	BU	111	GLU
42	BV	15	GLU
42	BV	23	GLU
42	BV	50	PRO
43	BW	54	ALA
44	BX	38	GLU
45	BY	9	LYS
45	BY	96	ILE
45	BY	100	ALA
47	B0	50	ASN
50	B3	59	VAL
53	B6	33	LYS
53	B6	34	LEU
2	CB	122	PHE
2	CB	167	PRO
3	CC	66	VAL
3	CC	103	VAL
3	CC	129	ALA
4	CD	95	GLY
4	CD	200	GLU
5	CE	21	ALA
7	CG	7	ALA
9	CI	31	GLN
10	CJ	17	ASP
10	CJ	54	PHE
11	CK	27	ASN
12	CL	108	ALA
13	CM	3	ARG
13	CM	70	LEU
13	CM	121	LYS

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Mol	Chain	Res	Type
15	CO	33	THR
16	CP	56	ALA
19	CS	5	LEU
19	CS	44	MET
27	DC	64	LEU
28	DD	12	SER
28	DD	241	PRO
28	DD	244	ARG
29	DE	39	PRO
29	DE	45	THR
29	DE	61	ARG
30	DF	8	GLN
31	DG	3	LEU
31	DG	6	ALA
31	DG	117	PHE
32	DH	110	SER
33	DI	33	ARG
33	DI	145	VAL
36	DP	7	ARG
36	DP	13	ASN
36	DP	43	GLY
37	DQ	28	ALA
38	DR	93	GLY
39	DS	21	THR
41	DU	68	ALA
42	DV	30	GLY
43	DW	14	PRO
43	DW	65	LEU
45	DY	55	TYR
46	DZ	30	ASN
46	DZ	54	HIS
46	DZ	64	GLY
46	DZ	78	LYS
47	D0	41	ARG
48	D1	53	VAL
51	D4	35	VAL
53	D6	46	HIS
54	D7	44	PRO
55	D8	35	GLN
2	AB	158	LEU
2	AB	202	PRO
3	AC	3	ASN

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Mol	Chain	Res	Type
4	AD	73	ARG
12	AL	48	PRO
12	AL	118	SER
18	AR	39	VAL
20	AT	68	LYS
27	BC	64	LEU
27	BC	143	GLY
27	BC	145	VAL
27	BC	175	VAL
28	BD	243	GLY
30	BF	183	VAL
32	BH	160	LYS
33	BI	65	ALA
33	BI	121	LYS
33	BI	132	PRO
33	BI	133	HIS
33	BI	134	PRO
34	BN	59	LYS
34	BN	112	LEU
36	BP	107	LYS
37	BQ	46	GLN
39	BS	107	GLU
44	BX	10	ALA
45	BY	55	TYR
45	BY	74	PRO
48	B1	30	VAL
48	B1	51	VAL
50	B3	2	PRO
50	B3	51	ALA
52	B5	5	PRO
56	B9	28	GLU
6	CF	30	LEU
9	CI	121	ARG
15	CO	61	GLY
18	CR	51	LEU
28	DD	234	GLY
29	DE	32	PRO
29	DE	72	VAL
29	DE	186	GLY
31	DG	82	LEU
31	DG	84	LYS
31	DG	85	GLY

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Mol	Chain	Res	Type
31	DG	112	PRO
32	DH	55	PRO
32	DH	111	HIS
33	DI	82	ARG
35	DO	26	LYS
36	DP	27	HIS
36	DP	107	LYS
38	DR	2	ARG
40	DT	117	ASP
43	DW	110	LYS
46	DZ	12	GLY
46	DZ	46	LYS
49	D2	41	ILE
6	AF	37	VAL
27	BC	22	ILE
27	BC	48	GLY
27	BC	90	GLY
28	BD	234	GLY
32	BH	169	VAL
33	BI	144	VAL
45	BY	31	LEU
45	BY	75	ILE
7	CG	14	PRO
8	CH	75	ARG
9	CI	90	PRO
9	CI	97	LYS
11	CK	95	ILE
20	CT	98	PRO
27	DC	62	VAL
27	DC	145	VAL
45	DY	3	VAL
48	D1	30	VAL
50	D3	50	VAL
52	D5	50	GLY
2	AB	125	PRO
2	AB	228	GLY
4	AD	44	GLY
4	AD	56	VAL
5	AE	96	PRO
9	AI	44	VAL
27	BC	65	PRO
29	BE	22	PRO

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Mol	Chain	Res	Type
32	BH	24	VAL
32	BH	151	ILE
36	BP	8	PRO
37	BQ	27	VAL
41	BU	90	VAL
42	BV	47	VAL
46	BZ	134	PRO
46	BZ	141	VAL
48	B1	55	GLY
2	CB	202	PRO
14	CN	51	GLY
15	CO	87	ILE
27	DC	74	VAL
29	DE	130	GLY
30	DF	30	PRO
32	DH	7	LEU
34	DN	129	PRO
36	DP	8	PRO
45	DY	56	PRO
45	DY	96	ILE
46	DZ	39	VAL
50	D3	13	ILE
18	AR	27	GLY
27	BC	152	ILE
27	BC	200	LYS
28	BD	24	ILE
28	BD	121	PRO
28	BD	249	PRO
41	BU	100	VAL
44	BX	84	ALA
45	BY	27	VAL
46	BZ	47	VAL
2	CB	158	LEU
12	CL	63	GLY
18	CR	50	ILE
27	DC	200	LYS
34	DN	60	ILE
36	DP	63	PRO
9	AI	97	LYS
10	AJ	53	PRO
12	AL	43	VAL
13	AM	7	VAL

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Mol	Chain	Res	Type
27	BC	49	ILE
32	BH	76	VAL
33	BI	131	LYS
36	BP	63	PRO
39	BS	22	GLY
50	B3	13	ILE
2	CB	174	VAL
3	CC	120	VAL
8	CH	106	GLY
29	DE	86	PRO
39	DS	82	ILE
42	DV	28	GLU
44	DX	39	ILE
45	DY	52	SER
50	D3	27	GLY
53	D6	31	PRO
2	AB	230	VAL
30	BF	171	PRO
46	BZ	115	GLY
9	CI	123	PRO
10	CJ	93	GLY
27	DC	90	GLY
27	DC	143	GLY
28	DD	28	GLU
28	DD	35	LYS
34	DN	9	VAL
46	DZ	82	ARG
28	BD	245	PRO
28	DD	245	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
2	AB	202/220 (92%)	161 (80%)	41 (20%)	1 7
2	CB	202/220 (92%)	155 (77%)	47 (23%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	AC	160/188 (85%)	127 (79%)	33 (21%)	1 7
3	CC	160/188 (85%)	130 (81%)	30 (19%)	1 8
4	AD	180/181 (99%)	149 (83%)	31 (17%)	2 12
4	CD	180/181 (99%)	151 (84%)	29 (16%)	2 15
5	AE	115/123 (94%)	97 (84%)	18 (16%)	2 16
5	CE	115/123 (94%)	87 (76%)	28 (24%)	0 4
6	AF	90/90 (100%)	76 (84%)	14 (16%)	2 17
6	CF	90/90 (100%)	79 (88%)	11 (12%)	5 24
7	AG	126/127 (99%)	103 (82%)	23 (18%)	1 9
7	CG	126/127 (99%)	106 (84%)	20 (16%)	2 15
8	AH	119/119 (100%)	101 (85%)	18 (15%)	3 18
8	CH	119/119 (100%)	87 (73%)	32 (27%)	0 3
9	AI	98/99 (99%)	77 (79%)	21 (21%)	1 6
9	CI	98/99 (99%)	72 (74%)	26 (26%)	0 3
10	AJ	88/92 (96%)	66 (75%)	22 (25%)	0 4
10	CJ	88/92 (96%)	66 (75%)	22 (25%)	0 4
11	AK	90/99 (91%)	74 (82%)	16 (18%)	2 10
11	CK	90/99 (91%)	72 (80%)	18 (20%)	1 7
12	AL	104/109 (95%)	85 (82%)	19 (18%)	1 9
12	CL	104/109 (95%)	84 (81%)	20 (19%)	1 8
13	AM	99/101 (98%)	82 (83%)	17 (17%)	2 12
13	CM	100/101 (99%)	83 (83%)	17 (17%)	2 12
14	AN	49/50 (98%)	37 (76%)	12 (24%)	0 4
14	CN	49/50 (98%)	38 (78%)	11 (22%)	1 5
15	AO	79/80 (99%)	64 (81%)	15 (19%)	1 8
15	CO	79/80 (99%)	66 (84%)	13 (16%)	2 14
16	AP	72/74 (97%)	58 (81%)	14 (19%)	1 8
16	CP	72/74 (97%)	58 (81%)	14 (19%)	1 8
17	AQ	94/97 (97%)	86 (92%)	8 (8%)	10 40
17	CQ	94/97 (97%)	82 (87%)	12 (13%)	4 23
18	AR	61/77 (79%)	51 (84%)	10 (16%)	2 14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
18	CR	61/77 (79%)	50 (82%)	11 (18%)	1 10
19	AS	69/80 (86%)	51 (74%)	18 (26%)	0 3
19	CS	69/80 (86%)	49 (71%)	20 (29%)	0 3
20	AT	76/82 (93%)	56 (74%)	20 (26%)	0 3
20	CT	76/82 (93%)	53 (70%)	23 (30%)	0 2
21	AU	19/22 (86%)	18 (95%)	1 (5%)	22 56
21	CU	19/22 (86%)	14 (74%)	5 (26%)	0 3
27	BC	61/181 (34%)	49 (80%)	12 (20%)	1 8
27	DC	61/181 (34%)	53 (87%)	8 (13%)	4 22
28	BD	213/218 (98%)	164 (77%)	49 (23%)	1 5
28	DD	213/218 (98%)	178 (84%)	35 (16%)	2 14
29	BE	165/166 (99%)	125 (76%)	40 (24%)	0 4
29	DE	165/166 (99%)	141 (86%)	24 (14%)	3 19
30	BF	165/166 (99%)	127 (77%)	38 (23%)	1 5
30	DF	161/166 (97%)	136 (84%)	25 (16%)	2 17
31	BG	155/156 (99%)	118 (76%)	37 (24%)	0 4
31	DG	155/156 (99%)	135 (87%)	20 (13%)	4 22
32	BH	132/148 (89%)	114 (86%)	18 (14%)	3 21
32	DH	140/148 (95%)	114 (81%)	26 (19%)	1 9
33	BI	122/124 (98%)	95 (78%)	27 (22%)	1 5
33	DI	122/124 (98%)	92 (75%)	30 (25%)	0 4
34	BN	117/119 (98%)	88 (75%)	29 (25%)	0 4
34	DN	117/119 (98%)	96 (82%)	21 (18%)	2 10
35	BO	100/100 (100%)	77 (77%)	23 (23%)	1 5
35	DO	100/100 (100%)	90 (90%)	10 (10%)	7 33
36	BP	116/116 (100%)	86 (74%)	30 (26%)	0 3
36	DP	116/116 (100%)	89 (77%)	27 (23%)	1 4
37	BQ	111/111 (100%)	81 (73%)	30 (27%)	0 3
37	DQ	111/111 (100%)	92 (83%)	19 (17%)	2 12
38	BR	100/101 (99%)	68 (68%)	32 (32%)	0 2
38	DR	101/101 (100%)	86 (85%)	15 (15%)	3 18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	BS	77/88 (88%)	56 (73%)	21 (27%)	0 3
39	DS	87/88 (99%)	75 (86%)	12 (14%)	3 21
40	BT	120/127 (94%)	90 (75%)	30 (25%)	0 4
40	DT	120/127 (94%)	91 (76%)	29 (24%)	0 4
41	BU	93/94 (99%)	70 (75%)	23 (25%)	0 4
41	DU	92/94 (98%)	80 (87%)	12 (13%)	4 22
42	BV	82/82 (100%)	55 (67%)	27 (33%)	0 2
42	DV	82/82 (100%)	64 (78%)	18 (22%)	1 5
43	BW	91/92 (99%)	69 (76%)	22 (24%)	0 4
43	DW	91/92 (99%)	83 (91%)	8 (9%)	10 39
44	BX	74/78 (95%)	58 (78%)	16 (22%)	1 6
44	DX	74/78 (95%)	61 (82%)	13 (18%)	2 11
45	BY	84/91 (92%)	67 (80%)	17 (20%)	1 7
45	DY	85/91 (93%)	66 (78%)	19 (22%)	1 5
46	BZ	155/179 (87%)	124 (80%)	31 (20%)	1 7
46	DZ	155/179 (87%)	136 (88%)	19 (12%)	4 24
47	B0	66/67 (98%)	57 (86%)	9 (14%)	3 21
47	D0	66/67 (98%)	57 (86%)	9 (14%)	3 21
48	B1	78/83 (94%)	61 (78%)	17 (22%)	1 5
48	D1	78/83 (94%)	61 (78%)	17 (22%)	1 5
49	B2	66/67 (98%)	53 (80%)	13 (20%)	1 8
49	D2	66/67 (98%)	53 (80%)	13 (20%)	1 8
50	B3	51/52 (98%)	40 (78%)	11 (22%)	1 6
50	D3	51/52 (98%)	49 (96%)	2 (4%)	32 65
51	B4	27/63 (43%)	17 (63%)	10 (37%)	0 1
51	D4	35/63 (56%)	31 (89%)	4 (11%)	5 28
52	B5	51/52 (98%)	42 (82%)	9 (18%)	2 11
52	D5	51/52 (98%)	43 (84%)	8 (16%)	2 16
53	B6	43/52 (83%)	31 (72%)	12 (28%)	0 3
53	D6	43/52 (83%)	33 (77%)	10 (23%)	1 4
54	B7	41/42 (98%)	35 (85%)	6 (15%)	3 19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
54	D7	41/42 (98%)	37 (90%)	4 (10%)	8 34
55	B8	53/55 (96%)	38 (72%)	15 (28%)	0 3
55	D8	53/55 (96%)	41 (77%)	12 (23%)	1 5
56	B9	33/34 (97%)	29 (88%)	4 (12%)	5 25
56	D9	33/34 (97%)	29 (88%)	4 (12%)	5 25
All	All	9688/10428 (93%)	7777 (80%)	1911 (20%)	1 8

All (1911) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE
2	AB	20	GLU
2	AB	22	LYS
2	AB	23	ARG
2	AB	32	ILE
2	AB	36	ARG
2	AB	37	ASN
2	AB	44	LEU
2	AB	53	ARG
2	AB	58	ILE
2	AB	63	MET
2	AB	69	LEU
2	AB	74	LYS
2	AB	75	LYS
2	AB	76	GLN
2	AB	80	ILE
2	AB	87	ARG
2	AB	94	ASN
2	AB	101	MET
2	AB	111	ARG
2	AB	113	HIS
2	AB	119	GLU
2	AB	136	VAL
2	AB	137	ARG
2	AB	140	HIS
2	AB	145	LEU
2	AB	155	LEU
2	AB	158	LEU
2	AB	164	VAL

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Mol	Chain	Res	Type
2	AB	172	ILE
2	AB	178	ARG
2	AB	187	LEU
2	AB	196	LEU
2	AB	204	ASN
2	AB	208	ILE
2	AB	212	GLN
2	AB	221	LEU
2	AB	223	ILE
2	AB	233	SER
2	AB	235	SER
3	AC	5	ILE
3	AC	12	LEU
3	AC	16	ARG
3	AC	18	TRP
3	AC	22	TRP
3	AC	29	TYR
3	AC	30	ARG
3	AC	34	LEU
3	AC	39	ILE
3	AC	42	LEU
3	AC	55	VAL
3	AC	58	GLU
3	AC	64	VAL
3	AC	76	VAL
3	AC	94	LEU
3	AC	102	ASN
3	AC	116	VAL
3	AC	128	PHE
3	AC	131	ARG
3	AC	134	ILE
3	AC	140	ARG
3	AC	141	VAL
3	AC	152	ILE
3	AC	156	ARG
3	AC	164	ARG
3	AC	165	THR
3	AC	175	LEU
3	AC	178	LEU
3	AC	188	LEU
3	AC	190	ARG
3	AC	192	THR

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Mol	Chain	Res	Type
3	AC	198	VAL
3	AC	202	ILE
4	AD	3	ARG
4	AD	5	ILE
4	AD	9	CYS
4	AD	10	ARG
4	AD	11	LEU
4	AD	13	ARG
4	AD	15	GLU
4	AD	26	CYS
4	AD	36	ARG
4	AD	38	TYR
4	AD	43	HIS
4	AD	49	ARG
4	AD	53	ASP
4	AD	59	ARG
4	AD	66	ARG
4	AD	70	ILE
4	AD	78	LEU
4	AD	93	PHE
4	AD	94	LEU
4	AD	99	SER
4	AD	104	VAL
4	AD	106	TYR
4	AD	110	PHE
4	AD	115	ARG
4	AD	132	ARG
4	AD	135	LEU
4	AD	138	TYR
4	AD	139	ARG
4	AD	150	GLU
4	AD	155	LEU
4	AD	178	VAL
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	51	VAL
5	AE	64	ARG
5	AE	69	VAL
5	AE	76	ILE
5	AE	79	GLU
5	AE	80	ILE

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Mol	Chain	Res	Type
5	AE	90	VAL
5	AE	91	LEU
5	AE	101	ILE
5	AE	116	THR
5	AE	119	LEU
5	AE	120	THR
5	AE	121	LYS
5	AE	131	ILE
5	AE	143	ARG
6	AF	7	ASN
6	AF	19	LEU
6	AF	21	LEU
6	AF	24	GLU
6	AF	43	LEU
6	AF	45	LEU
6	AF	52	ILE
6	AF	64	GLN
6	AF	69	GLU
6	AF	75	LEU
6	AF	77	ARG
6	AF	82	ARG
6	AF	83	ASP
6	AF	100	ASN
7	AG	4	ARG
7	AG	10	ARG
7	AG	15	ASP
7	AG	16	LEU
7	AG	23	VAL
7	AG	27	ILE
7	AG	30	ILE
7	AG	57	GLU
7	AG	60	LYS
7	AG	66	VAL
7	AG	73	MET
7	AG	79	ARG
7	AG	97	GLN
7	AG	104	LEU
7	AG	113	GLU
7	AG	114	ARG
7	AG	120	ILE
7	AG	124	LEU
7	AG	140	ASP

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Mol	Chain	Res	Type
7	AG	141	VAL
7	AG	142	GLU
7	AG	155	ARG
7	AG	156	TRP
8	AH	1	MET
8	AH	3	THR
8	AH	25	ASP
8	AH	26	VAL
8	AH	51	VAL
8	AH	52	ASP
8	AH	65	TYR
8	AH	75	ARG
8	AH	77	GLU
8	AH	84	ARG
8	AH	85	ARG
8	AH	91	ARG
8	AH	102	ARG
8	AH	103	VAL
8	AH	104	ARG
8	AH	119	LEU
8	AH	127	LEU
8	AH	129	VAL
9	AI	4	TYR
9	AI	10	ARG
9	AI	38	GLN
9	AI	51	ARG
9	AI	56	LEU
9	AI	59	PHE
9	AI	78	LYS
9	AI	85	LEU
9	AI	88	TYR
9	AI	89	ASN
9	AI	91	ASP
9	AI	95	LYS
9	AI	99	LEU
9	AI	102	LEU
9	AI	104	ARG
9	AI	108	VAL
9	AI	114	TYR
9	AI	121	ARG
9	AI	124	GLN
9	AI	125	TYR

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Mol	Chain	Res	Type
9	AI	126	SER
10	AJ	13	HIS
10	AJ	16	LEU
10	AJ	22	LYS
10	AJ	23	ILE
10	AJ	40	LEU
10	AJ	45	ARG
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	54	PHE
10	AJ	60	ARG
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	67	THR
10	AJ	70	ARG
10	AJ	74	ILE
10	AJ	76	ASN
10	AJ	80	LYS
10	AJ	85	LEU
10	AJ	86	MET
10	AJ	90	LEU
10	AJ	96	ILE
10	AJ	100	THR
11	AK	29	ILE
11	AK	30	VAL
11	AK	32	ILE
11	AK	33	THR
11	AK	47	VAL
11	AK	50	TYR
11	AK	51	LYS
11	AK	53	SER
11	AK	78	GLN
11	AK	82	VAL
11	AK	84	VAL
11	AK	91	ARG
11	AK	98	LEU
11	AK	103	LEU
11	AK	109	VAL
11	AK	114	VAL
12	AL	6	THR
12	AL	17	LYS
12	AL	24	VAL

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Mol	Chain	Res	Type
12	AL	28	LYS
12	AL	31	PRO
12	AL	33	ARG
12	AL	38	THR
12	AL	52	LEU
12	AL	62	SER
12	AL	66	VAL
12	AL	70	ILE
12	AL	73	GLU
12	AL	81	SER
12	AL	83	VAL
12	AL	84	LEU
12	AL	85	ILE
12	AL	89	ARG
12	AL	116	SER
12	AL	126	LYS
13	AM	7	VAL
13	AM	17	VAL
13	AM	20	THR
13	AM	39	ILE
13	AM	48	LEU
13	AM	49	THR
13	AM	50	GLU
13	AM	56	LEU
13	AM	64	TRP
13	AM	69	GLU
13	AM	77	ASN
13	AM	92	HIS
13	AM	93	ARG
13	AM	96	LEU
13	AM	102	ARG
13	AM	108	ARG
13	AM	115	LYS
14	AN	3	ARG
14	AN	15	LYS
14	AN	16	PHE
14	AN	18	VAL
14	AN	21	TYR
14	AN	26	ARG
14	AN	32	SER
14	AN	33	VAL
14	AN	35	ARG

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Mol	Chain	Res	Type
14	AN	41	ARG
14	AN	44	LEU
14	AN	50	LYS
15	AO	3	ILE
15	AO	5	LYS
15	AO	10	LYS
15	AO	24	SER
15	AO	39	LEU
15	AO	41	GLU
15	AO	45	VAL
15	AO	47	LYS
15	AO	48	LYS
15	AO	52	SER
15	AO	65	ARG
15	AO	68	ARG
15	AO	70	LEU
15	AO	82	ILE
15	AO	83	GLU
16	AP	1	MET
16	AP	2	VAL
16	AP	11	SER
16	AP	16	HIS
16	AP	27	LYS
16	AP	31	LYS
16	AP	32	TYR
16	AP	33	ILE
16	AP	40	ASP
16	AP	45	THR
16	AP	53	VAL
16	AP	61	SER
16	AP	67	THR
16	AP	82	GLN
17	AQ	38	ARG
17	AQ	49	GLU
17	AQ	53	LEU
17	AQ	60	ILE
17	AQ	68	ARG
17	AQ	74	LEU
17	AQ	89	LEU
17	AQ	96	GLU
18	AR	31	LEU
18	AR	32	ARG

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Mol	Chain	Res	Type
18	AR	35	ARG
18	AR	37	VAL
18	AR	41	LYS
18	AR	58	LEU
18	AR	69	THR
18	AR	76	LEU
18	AR	83	GLU
18	AR	87	ARG
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	10	PHE
19	AS	11	VAL
19	AS	13	ASP
19	AS	14	HIS
19	AS	16	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	32	LYS
19	AS	33	THR
19	AS	37	ARG
19	AS	44	MET
19	AS	45	VAL
19	AS	49	ILE
19	AS	70	LYS
19	AS	77	THR
20	AT	8	ARG
20	AT	22	ARG
20	AT	24	LEU
20	AT	26	ASN
20	AT	30	LYS
20	AT	36	LEU
20	AT	37	SER
20	AT	50	GLU
20	AT	51	GLU
20	AT	53	LEU
20	AT	56	MET
20	AT	70	SER
20	AT	72	LEU
20	AT	73	HIS
20	AT	84	LEU
20	AT	85	MET

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Mol	Chain	Res	Type
20	AT	86	ARG
20	AT	93	GLU
20	AT	100	ILE
20	AT	105	SER
21	AU	15	ARG
27	BC	20	TYR
27	BC	22	ILE
27	BC	36	LYS
27	BC	37	PHE
27	BC	43	VAL
27	BC	44	HIS
27	BC	47	LEU
27	BC	56	GLN
27	BC	58	VAL
27	BC	64	LEU
27	BC	77	ILE
27	BC	94	VAL
28	BD	10	THR
28	BD	13	ARG
28	BD	14	ARG
28	BD	18	VAL
28	BD	23	GLU
28	BD	25	THR
28	BD	26	LYS
28	BD	28	GLU
28	BD	33	LEU
28	BD	43	ARG
28	BD	44	ASN
28	BD	48	ARG
28	BD	49	ILE
28	BD	61	LEU
28	BD	64	ILE
28	BD	65	ILE
28	BD	67	PHE
28	BD	71	ASP
28	BD	83	GLU
28	BD	88	ARG
28	BD	92	ILE
28	BD	94	LEU
28	BD	95	LEU
28	BD	102	LYS
28	BD	103	ARG

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Mol	Chain	Res	Type
28	BD	111	LEU
28	BD	113	VAL
28	BD	118	VAL
28	BD	138	VAL
28	BD	141	VAL
28	BD	154	LYS
28	BD	166	GLN
28	BD	168	ARG
28	BD	169	GLU
28	BD	192	THR
28	BD	193	VAL
28	BD	204	ILE
28	BD	211	ARG
28	BD	212	SER
28	BD	221	VAL
28	BD	231	HIS
28	BD	242	ARG
28	BD	257	LEU
28	BD	259	THR
28	BD	260	ARG
28	BD	266	SER
28	BD	268	ARG
28	BD	270	ILE
28	BD	271	ILE
29	BE	1	MET
29	BE	9	VAL
29	BE	17	ASP
29	BE	18	ASP
29	BE	33	VAL
29	BE	40	GLU
29	BE	48	GLN
29	BE	52	LEU
29	BE	54	GLN
29	BE	57	LYS
29	BE	59	VAL
29	BE	66	HIS
29	BE	67	PHE
29	BE	73	GLU
29	BE	77	ILE
29	BE	78	LEU
29	BE	79	ARG
29	BE	82	ARG

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Mol	Chain	Res	Type
29	BE	89	ASP
29	BE	95	ILE
29	BE	102	VAL
29	BE	107	THR
29	BE	113	PHE
29	BE	119	ARG
29	BE	121	ASN
29	BE	133	LYS
29	BE	134	ILE
29	BE	140	SER
29	BE	160	TYR
29	BE	165	VAL
29	BE	175	VAL
29	BE	179	GLU
29	BE	181	LEU
29	BE	182	LEU
29	BE	184	VAL
29	BE	185	LYS
29	BE	195	LEU
29	BE	197	ILE
29	BE	202	LYS
29	BE	203	LYS
30	BF	2	LYS
30	BF	4	VAL
30	BF	33	LEU
30	BF	36	VAL
30	BF	38	ARG
30	BF	43	LYS
30	BF	44	ARG
30	BF	51	THR
30	BF	53	THR
30	BF	54	ARG
30	BF	64	ILE
30	BF	67	GLN
30	BF	68	LYS
30	BF	69	HIS
30	BF	72	ARG
30	BF	74	ARG
30	BF	78	ILE
30	BF	99	TYR
30	BF	100	THR
30	BF	106	ARG

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Mol	Chain	Res	Type
30	BF	112	MET
30	BF	114	VAL
30	BF	116	ASP
30	BF	124	LEU
30	BF	125	LEU
30	BF	140	LEU
30	BF	151	SER
30	BF	155	LEU
30	BF	158	THR
30	BF	161	GLU
30	BF	164	ARG
30	BF	174	VAL
30	BF	175	THR
30	BF	181	LEU
30	BF	183	VAL
30	BF	192	LEU
30	BF	201	VAL
30	BF	202	PHE
31	BG	4	ASP
31	BG	5	VAL
31	BG	16	ARG
31	BG	21	ARG
31	BG	32	PRO
31	BG	43	LEU
31	BG	48	GLU
31	BG	58	GLN
31	BG	59	GLU
31	BG	60	LEU
31	BG	63	ILE
31	BG	76	SER
31	BG	83	ARG
31	BG	86	MET
31	BG	87	PRO
31	BG	88	ILE
31	BG	90	LEU
31	BG	92	VAL
31	BG	96	ARG
31	BG	99	MET
31	BG	101	ILE
31	BG	106	LEU
31	BG	117	PHE
31	BG	128	ARG

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Mol	Chain	Res	Type
31	BG	130	ASN
31	BG	132	ASN
31	BG	133	LEU
31	BG	139	LEU
31	BG	143	GLU
31	BG	144	ILE
31	BG	147	ASP
31	BG	149	VAL
31	BG	150	ASP
31	BG	159	VAL
31	BG	162	THR
31	BG	166	ASP
31	BG	176	LEU
32	BH	13	LYS
32	BH	25	LYS
32	BH	34	GLU
32	BH	41	MET
32	BH	54	ARG
32	BH	61	HIS
32	BH	72	ILE
32	BH	101	ARG
32	BH	109	PHE
32	BH	110	SER
32	BH	116	GLU
32	BH	139	GLN
32	BH	144	VAL
32	BH	151	ILE
32	BH	153	LYS
32	BH	157	TYR
32	BH	163	TYR
32	BH	170	ARG
33	BI	2	LYS
33	BI	9	LEU
33	BI	12	LEU
33	BI	22	LYS
33	BI	37	VAL
33	BI	38	LEU
33	BI	47	LEU
33	BI	52	ARG
33	BI	76	THR
33	BI	78	THR
33	BI	81	VAL

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Mol	Chain	Res	Type
33	BI	85	GLU
33	BI	88	ILE
33	BI	92	VAL
33	BI	93	THR
33	BI	96	ASP
33	BI	101	LEU
33	BI	109	ILE
33	BI	113	ARG
33	BI	114	LEU
33	BI	121	LYS
33	BI	122	GLU
33	BI	130	TYR
33	BI	131	LYS
33	BI	133	HIS
33	BI	136	VAL
33	BI	138	ILE
34	BN	1	MET
34	BN	4	TYR
34	BN	9	VAL
34	BN	12	ARG
34	BN	15	LEU
34	BN	26	LEU
34	BN	28	THR
34	BN	34	LEU
34	BN	38	HIS
34	BN	39	ARG
34	BN	45	ASN
34	BN	48	MET
34	BN	58	ASP
34	BN	60	ILE
34	BN	62	VAL
34	BN	63	THR
34	BN	65	LYS
34	BN	66	LYS
34	BN	67	LEU
34	BN	68	GLU
34	BN	82	LEU
34	BN	87	LEU
34	BN	93	THR
34	BN	99	LEU
34	BN	119	ARG
34	BN	120	LEU

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Mol	Chain	Res	Type
34	BN	130	HIS
34	BN	134	ARG
34	BN	136	GLU
35	BO	8	LEU
35	BO	10	VAL
35	BO	17	ARG
35	BO	22	ILE
35	BO	23	ARG
35	BO	24	VAL
35	BO	28	SER
35	BO	29	ASN
35	BO	32	TYR
35	BO	38	VAL
35	BO	47	ILE
35	BO	52	VAL
35	BO	62	VAL
35	BO	69	ILE
35	BO	70	LYS
35	BO	73	ASP
35	BO	82	ASN
35	BO	85	VAL
35	BO	91	LEU
35	BO	94	ARG
35	BO	104	ARG
35	BO	105	GLU
35	BO	117	LEU
36	BP	8	PRO
36	BP	10	PRO
36	BP	13	ASN
36	BP	14	LYS
36	BP	21	ARG
36	BP	25	SER
36	BP	27	HIS
36	BP	32	THR
36	BP	33	ARG
36	BP	41	ARG
36	BP	50	ARG
36	BP	55	ARG
36	BP	59	LEU
36	BP	61	ARG
36	BP	64	LYS
36	BP	67	MET

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Mol	Chain	Res	Type
36	BP	75	ILE
36	BP	81	GLN
36	BP	85	LEU
36	BP	91	PHE
36	BP	98	GLU
36	BP	110	TYR
36	BP	112	LEU
36	BP	115	LEU
36	BP	117	GLU
36	BP	136	GLU
36	BP	138	LEU
36	BP	144	GLU
36	BP	147	LEU
36	BP	148	LEU
37	BQ	2	LEU
37	BQ	3	MET
37	BQ	6	ARG
37	BQ	10	ARG
37	BQ	12	GLN
37	BQ	14	ARG
37	BQ	16	ARG
37	BQ	35	VAL
37	BQ	43	THR
37	BQ	45	GLN
37	BQ	47	ILE
37	BQ	54	MET
37	BQ	55	VAL
37	BQ	56	ARG
37	BQ	59	ARG
37	BQ	65	PHE
37	BQ	74	TYR
37	BQ	75	THR
37	BQ	76	LYS
37	BQ	79	LEU
37	BQ	81	VAL
37	BQ	82	ARG
37	BQ	96	VAL
37	BQ	109	VAL
37	BQ	110	THR
37	BQ	112	GLU
37	BQ	118	LEU
37	BQ	134	ARG

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Mol	Chain	Res	Type
37	BQ	138	ASP
37	BQ	139	GLU
38	BR	2	ARG
38	BR	5	LYS
38	BR	9	LYS
38	BR	10	LEU
38	BR	13	HIS
38	BR	14	SER
38	BR	18	LEU
38	BR	28	LEU
38	BR	29	LEU
38	BR	33	ARG
38	BR	34	ILE
38	BR	35	THR
38	BR	37	THR
38	BR	45	ARG
38	BR	47	PHE
38	BR	51	LEU
38	BR	56	LYS
38	BR	57	ARG
38	BR	60	LEU
38	BR	67	LEU
38	BR	73	VAL
38	BR	75	LEU
38	BR	76	VAL
38	BR	79	LEU
38	BR	80	PHE
38	BR	81	ASP
38	BR	83	ILE
38	BR	94	TYR
38	BR	104	ARG
38	BR	111	LEU
38	BR	113	LEU
38	BR	114	VAL
39	BS	11	LYS
39	BS	12	PHE
39	BS	15	ARG
39	BS	16	ASN
39	BS	18	ILE
39	BS	20	ARG
39	BS	32	LEU
39	BS	33	LYS

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Mol	Chain	Res	Type
39	BS	35	ILE
39	BS	42	ASP
39	BS	56	LEU
39	BS	57	LYS
39	BS	69	VAL
39	BS	73	LEU
39	BS	89	ARG
39	BS	92	TYR
39	BS	97	ARG
39	BS	99	LYS
39	BS	101	LEU
39	BS	103	GLU
39	BS	106	ARG
40	BT	3	ARG
40	BT	6	LEU
40	BT	11	GLU
40	BT	19	LEU
40	BT	21	GLU
40	BT	23	ARG
40	BT	27	THR
40	BT	29	ARG
40	BT	31	SER
40	BT	34	VAL
40	BT	41	ARG
40	BT	42	ILE
40	BT	51	ARG
40	BT	53	ARG
40	BT	54	ARG
40	BT	55	ASN
40	BT	59	THR
40	BT	63	VAL
40	BT	64	ARG
40	BT	74	ARG
40	BT	84	GLN
40	BT	86	ILE
40	BT	90	GLN
40	BT	96	ARG
40	BT	99	LEU
40	BT	107	ASP
40	BT	113	LYS
40	BT	119	LYS
40	BT	121	ILE

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Mol	Chain	Res	Type
40	BT	128	GLU
41	BU	11	ARG
41	BU	14	HIS
41	BU	15	LYS
41	BU	16	LYS
41	BU	17	ILE
41	BU	20	LEU
41	BU	30	LYS
41	BU	31	SER
41	BU	33	ARG
41	BU	34	LYS
41	BU	52	ARG
41	BU	60	LEU
41	BU	69	CYS
41	BU	74	LEU
41	BU	79	PHE
41	BU	80	ILE
41	BU	83	LEU
41	BU	88	ILE
41	BU	92	ARG
41	BU	94	ASN
41	BU	102	GLU
41	BU	104	GLN
41	BU	105	VAL
42	BV	1	MET
42	BV	5	VAL
42	BV	10	LYS
42	BV	13	ARG
42	BV	18	LEU
42	BV	19	LYS
42	BV	20	LEU
42	BV	21	ARG
42	BV	26	ASP
42	BV	37	VAL
42	BV	38	LEU
42	BV	39	LEU
42	BV	40	LEU
42	BV	46	VAL
42	BV	47	VAL
42	BV	49	THR
42	BV	52	VAL
42	BV	61	VAL

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Mol	Chain	Res	Type
42	BV	62	LEU
42	BV	68	LYS
42	BV	78	LYS
42	BV	80	GLN
42	BV	82	ARG
42	BV	91	TYR
42	BV	94	LEU
42	BV	95	LEU
42	BV	99	ILE
43	BW	8	ARG
43	BW	9	TYR
43	BW	11	ARG
43	BW	17	VAL
43	BW	20	VAL
43	BW	24	ILE
43	BW	27	LYS
43	BW	36	LEU
43	BW	39	THR
43	BW	41	LYS
43	BW	45	TYR
43	BW	51	LEU
43	BW	53	SER
43	BW	59	VAL
43	BW	63	ASP
43	BW	70	TYR
43	BW	92	ARG
43	BW	96	ILE
43	BW	99	ARG
43	BW	100	THR
43	BW	105	VAL
43	BW	107	LEU
44	BX	12	VAL
44	BX	14	SER
44	BX	27	THR
44	BX	35	THR
44	BX	39	ILE
44	BX	43	VAL
44	BX	52	VAL
44	BX	57	LEU
44	BX	63	LYS
44	BX	64	LYS
44	BX	68	ARG

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Mol	Chain	Res	Type
44	BX	70	LEU
44	BX	76	ARG
44	BX	80	ILE
44	BX	81	VAL
44	BX	83	VAL
45	BY	2	ARG
45	BY	6	HIS
45	BY	7	VAL
45	BY	15	VAL
45	BY	28	LYS
45	BY	30	VAL
45	BY	31	LEU
45	BY	42	VAL
45	BY	47	LYS
45	BY	62	GLU
45	BY	67	LEU
45	BY	76	CYS
45	BY	83	THR
45	BY	84	ARG
45	BY	89	PHE
45	BY	91	GLU
45	BY	96	ILE
46	BZ	3	TYR
46	BZ	9	TYR
46	BZ	11	GLU
46	BZ	23	LYS
46	BZ	24	LEU
46	BZ	29	TYR
46	BZ	38	TYR
46	BZ	41	LEU
46	BZ	53	ILE
46	BZ	72	ARG
46	BZ	74	VAL
46	BZ	75	ASN
46	BZ	79	ARG
46	BZ	82	ARG
46	BZ	85	HIS
46	BZ	86	VAL
46	BZ	87	ASP
46	BZ	89	PHE
46	BZ	121	HIS
46	BZ	128	VAL

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Mol	Chain	Res	Type
46	BZ	129	SER
46	BZ	131	ARG
46	BZ	138	GLU
46	BZ	140	ASP
46	BZ	145	GLU
46	BZ	150	LEU
46	BZ	151	HIS
46	BZ	157	LEU
46	BZ	163	LEU
46	BZ	166	SER
46	BZ	168	GLU
47	B0	14	ARG
47	B0	20	ARG
47	B0	40	GLN
47	B0	43	THR
47	B0	53	MET
47	B0	62	LEU
47	B0	64	ASP
47	B0	70	GLN
47	B0	84	LEU
48	B1	5	CYS
48	B1	21	ARG
48	B1	27	GLU
48	B1	30	VAL
48	B1	39	LYS
48	B1	40	ARG
48	B1	41	ARG
48	B1	45	ASN
48	B1	46	LEU
48	B1	58	ILE
48	B1	59	THR
48	B1	61	ARG
48	B1	65	SER
48	B1	67	ILE
48	B1	82	LEU
48	B1	91	LYS
48	B1	94	LEU
49	B2	12	GLU
49	B2	17	SER
49	B2	32	LEU
49	B2	34	GLU
49	B2	35	LEU

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Mol	Chain	Res	Type
49	B2	41	ILE
49	B2	44	LEU
49	B2	50	ILE
49	B2	51	ARG
49	B2	52	ASP
49	B2	53	LEU
49	B2	59	ARG
49	B2	68	ARG
50	B3	4	LEU
50	B3	8	LEU
50	B3	23	LEU
50	B3	30	ARG
50	B3	37	LEU
50	B3	38	GLU
50	B3	39	ASP
50	B3	50	VAL
50	B3	53	LEU
50	B3	56	VAL
50	B3	59	VAL
51	B4	36	VAL
51	B4	44	CYS
51	B4	48	ILE
51	B4	50	THR
51	B4	53	THR
51	B4	54	LYS
51	B4	56	GLU
51	B4	60	GLU
51	B4	62	CYS
51	B4	63	SER
52	B5	6	VAL
52	B5	8	LYS
52	B5	11	THR
52	B5	16	ARG
52	B5	19	ARG
52	B5	40	LYS
52	B5	45	VAL
52	B5	55	ARG
52	B5	56	LYS
53	B6	10	LEU
53	B6	11	LEU
53	B6	12	GLU
53	B6	14	THR

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Mol	Chain	Res	Type
53	B6	17	LYS
53	B6	18	ARG
53	B6	19	ARG
53	B6	36	LEU
53	B6	42	TRP
53	B6	43	CYS
53	B6	45	LYS
53	B6	47	THR
54	B7	1	MET
54	B7	4	THR
54	B7	10	ARG
54	B7	24	THR
54	B7	41	ARG
54	B7	43	THR
55	B8	4	MET
55	B8	8	LYS
55	B8	14	VAL
55	B8	29	LYS
55	B8	30	ARG
55	B8	32	LEU
55	B8	33	ASN
55	B8	34	TRP
55	B8	42	ARG
55	B8	43	GLN
55	B8	44	LYS
55	B8	49	VAL
55	B8	59	LYS
55	B8	60	LEU
55	B8	61	LEU
56	B9	2	LYS
56	B9	28	GLU
56	B9	29	ASN
56	B9	35	ARG
2	CB	8	LYS
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	32	ILE
2	CB	36	ARG
2	CB	37	ASN
2	CB	39	ILE
2	CB	42	ILE

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Mol	Chain	Res	Type
2	CB	45	GLN
2	CB	48	MET
2	CB	53	ARG
2	CB	61	LEU
2	CB	67	THR
2	CB	71	VAL
2	CB	74	LYS
2	CB	80	ILE
2	CB	96	ARG
2	CB	103	THR
2	CB	109	SER
2	CB	113	HIS
2	CB	114	ARG
2	CB	115	LEU
2	CB	119	GLU
2	CB	121	LEU
2	CB	130	ARG
2	CB	137	ARG
2	CB	140	HIS
2	CB	145	LEU
2	CB	150	SER
2	CB	155	LEU
2	CB	156	LYS
2	CB	158	LEU
2	CB	160	ASP
2	CB	162	ILE
2	CB	178	ARG
2	CB	187	LEU
2	CB	189	ASP
2	CB	191	ASP
2	CB	192	SER
2	CB	196	LEU
2	CB	201	ILE
2	CB	212	GLN
2	CB	213	LEU
2	CB	215	LEU
2	CB	223	ILE
2	CB	226	ARG
3	CC	3	ASN
3	CC	5	ILE
3	CC	12	LEU
3	CC	16	ARG

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Mol	Chain	Res	Type
3	CC	17	ASP
3	CC	21	ARG
3	CC	29	TYR
3	CC	30	ARG
3	CC	31	HIS
3	CC	32	LEU
3	CC	34	LEU
3	CC	36	ASP
3	CC	38	ARG
3	CC	48	TYR
3	CC	56	ASP
3	CC	64	VAL
3	CC	69	HIS
3	CC	102	ASN
3	CC	104	GLN
3	CC	127	ARG
3	CC	140	ARG
3	CC	144	SER
3	CC	165	THR
3	CC	166	GLU
3	CC	178	LEU
3	CC	184	TYR
3	CC	192	THR
3	CC	196	LEU
3	CC	202	ILE
3	CC	204	LEU
4	CD	3	ARG
4	CD	8	VAL
4	CD	9	CYS
4	CD	10	ARG
4	CD	11	LEU
4	CD	13	ARG
4	CD	33	MET
4	CD	35	ARG
4	CD	36	ARG
4	CD	43	HIS
4	CD	49	ARG
4	CD	53	ASP
4	CD	58	LEU
4	CD	59	ARG
4	CD	61	LYS
4	CD	73	ARG

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Mol	Chain	Res	Type
4	CD	93	PHE
4	CD	108	LEU
4	CD	114	ARG
4	CD	115	ARG
4	CD	122	ARG
4	CD	135	LEU
4	CD	138	TYR
4	CD	139	ARG
4	CD	146	ILE
4	CD	154	ASN
4	CD	158	ILE
4	CD	182	LYS
4	CD	200	GLU
5	CE	16	THR
5	CE	18	ARG
5	CE	19	MET
5	CE	26	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	45	PHE
5	CE	51	VAL
5	CE	60	TYR
5	CE	64	ARG
5	CE	68	GLU
5	CE	71	LEU
5	CE	72	GLN
5	CE	79	GLU
5	CE	80	ILE
5	CE	87	SER
5	CE	91	LEU
5	CE	100	VAL
5	CE	101	ILE
5	CE	110	LEU
5	CE	112	LEU
5	CE	116	THR
5	CE	126	ARG
5	CE	130	ASN
5	CE	131	ILE
5	CE	136	MET
5	CE	145	LYS
5	CE	147	ASP
6	CF	1	MET

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Mol	Chain	Res	Type
6	CF	25	ILE
6	CF	28	ARG
6	CF	43	LEU
6	CF	46	ARG
6	CF	63	TYR
6	CF	64	GLN
6	CF	70	ASP
6	CF	72	VAL
6	CF	73	ASN
6	CF	82	ARG
7	CG	10	ARG
7	CG	17	VAL
7	CG	21	VAL
7	CG	38	LEU
7	CG	43	PHE
7	CG	45	ASP
7	CG	52	GLU
7	CG	61	VAL
7	CG	79	ARG
7	CG	90	GLU
7	CG	91	VAL
7	CG	104	LEU
7	CG	113	GLU
7	CG	114	ARG
7	CG	118	VAL
7	CG	124	LEU
7	CG	137	LYS
7	CG	138	LYS
7	CG	140	ASP
7	CG	156	TRP
8	CH	1	MET
8	CH	2	LEU
8	CH	3	THR
8	CH	8	ASP
8	CH	12	ARG
8	CH	17	THR
8	CH	22	GLU
8	CH	24	THR
8	CH	26	VAL
8	CH	30	ARG
8	CH	37	ARG
8	CH	39	LEU

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Mol	Chain	Res	Type
8	CH	41	ARG
8	CH	45	ILE
8	CH	48	TYR
8	CH	52	ASP
8	CH	68	ARG
8	CH	82	HIS
8	CH	83	ILE
8	CH	84	ARG
8	CH	85	ARG
8	CH	91	ARG
8	CH	92	ARG
8	CH	102	ARG
8	CH	104	ARG
8	CH	105	ARG
8	CH	111	ILE
8	CH	112	LEU
8	CH	118	VAL
8	CH	125	ARG
8	CH	127	LEU
8	CH	133	LEU
9	CI	4	TYR
9	CI	20	ARG
9	CI	31	GLN
9	CI	32	ASP
9	CI	38	GLN
9	CI	51	ARG
9	CI	56	LEU
9	CI	59	PHE
9	CI	64	THR
9	CI	71	SER
9	CI	85	LEU
9	CI	89	ASN
9	CI	91	ASP
9	CI	95	LYS
9	CI	101	PHE
9	CI	102	LEU
9	CI	104	ARG
9	CI	111	ARG
9	CI	112	LYS
9	CI	114	TYR
9	CI	117	HIS
9	CI	121	ARG

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Mol	Chain	Res	Type
9	CI	124	GLN
9	CI	125	TYR
9	CI	126	SER
9	CI	128	ARG
10	CJ	8	LEU
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	17	ASP
10	CJ	22	LYS
10	CJ	43	ARG
10	CJ	44	VAL
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	54	PHE
10	CJ	57	LYS
10	CJ	58	ASP
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	67	THR
10	CJ	70	ARG
10	CJ	76	ASN
10	CJ	78	ASN
10	CJ	80	LYS
10	CJ	86	MET
10	CJ	96	ILE
11	CK	11	LYS
11	CK	12	ARG
11	CK	14	VAL
11	CK	28	THR
11	CK	29	ILE
11	CK	32	ILE
11	CK	48	ILE
11	CK	51	LYS
11	CK	63	LEU
11	CK	98	LEU
11	CK	103	LEU
11	CK	105	VAL
11	CK	109	VAL
11	CK	114	VAL
11	CK	119	CYS
11	CK	120	ARG

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Mol	Chain	Res	Type
11	CK	125	PHE
11	CK	127	LYS
12	CL	6	THR
12	CL	24	VAL
12	CL	33	ARG
12	CL	42	THR
12	CL	43	VAL
12	CL	52	LEU
12	CL	53	ARG
12	CL	54	LYS
12	CL	60	LEU
12	CL	70	ILE
12	CL	73	GLU
12	CL	78	GLN
12	CL	79	GLU
12	CL	83	VAL
12	CL	84	LEU
12	CL	85	ILE
12	CL	89	ARG
12	CL	102	ARG
12	CL	104	VAL
12	CL	115	LYS
13	CM	3	ARG
13	CM	11	ARG
13	CM	48	LEU
13	CM	56	LEU
13	CM	57	ARG
13	CM	64	TRP
13	CM	66	LEU
13	CM	67	GLU
13	CM	69	GLU
13	CM	70	LEU
13	CM	88	ARG
13	CM	108	ARG
13	CM	114	ARG
13	CM	117	VAL
13	CM	120	LYS
13	CM	125	ARG
13	CM	126	LYS
14	CN	6	LEU
14	CN	12	ARG
14	CN	26	ARG

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Mol	Chain	Res	Type
14	CN	33	VAL
14	CN	35	ARG
14	CN	40	CYS
14	CN	41	ARG
14	CN	43	CYS
14	CN	44	LEU
14	CN	49	HIS
14	CN	50	LYS
15	CO	3	ILE
15	CO	24	SER
15	CO	31	LEU
15	CO	39	LEU
15	CO	41	GLU
15	CO	54	ARG
15	CO	58	MET
15	CO	63	ARG
15	CO	65	ARG
15	CO	82	ILE
15	CO	84	LYS
15	CO	87	ILE
15	CO	88	ARG
16	CP	1	MET
16	CP	2	VAL
16	CP	8	ARG
16	CP	16	HIS
16	CP	32	TYR
16	CP	45	THR
16	CP	47	ASP
16	CP	49	LEU
16	CP	53	VAL
16	CP	58	TYR
16	CP	61	SER
16	CP	67	THR
16	CP	69	THR
16	CP	82	GLN
17	CQ	7	THR
17	CQ	14	LYS
17	CQ	19	VAL
17	CQ	35	VAL
17	CQ	38	ARG
17	CQ	42	TYR
17	CQ	52	LYS

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Mol	Chain	Res	Type
17	CQ	53	LEU
17	CQ	68	ARG
17	CQ	74	LEU
17	CQ	87	LYS
17	CQ	89	LEU
18	CR	23	LYS
18	CR	29	PHE
18	CR	31	LEU
18	CR	32	ARG
18	CR	36	ASN
18	CR	47	THR
18	CR	61	LYS
18	CR	69	THR
18	CR	76	LEU
18	CR	83	GLU
18	CR	87	ARG
19	CS	5	LEU
19	CS	6	LYS
19	CS	7	LYS
19	CS	9	VAL
19	CS	16	LEU
19	CS	19	VAL
19	CS	27	GLU
19	CS	29	ARG
19	CS	33	THR
19	CS	37	ARG
19	CS	39	THR
19	CS	44	MET
19	CS	45	VAL
19	CS	48	THR
19	CS	49	ILE
19	CS	58	VAL
19	CS	62	ILE
19	CS	64	GLU
19	CS	66	MET
19	CS	77	THR
20	CT	10	LEU
20	CT	13	LEU
20	CT	15	ARG
20	CT	23	ARG
20	CT	24	LEU
20	CT	26	ASN

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Mol	Chain	Res	Type
20	CT	29	LYS
20	CT	30	LYS
20	CT	33	ILE
20	CT	48	LYS
20	CT	50	GLU
20	CT	51	GLU
20	CT	53	LEU
20	CT	56	MET
20	CT	57	ARG
20	CT	62	LEU
20	CT	73	HIS
20	CT	75	ASN
20	CT	82	SER
20	CT	83	ARG
20	CT	84	LEU
20	CT	93	GLU
20	CT	100	ILE
21	CU	7	ARG
21	CU	8	THR
21	CU	10	ARG
21	CU	12	LYS
21	CU	15	ARG
27	DC	20	TYR
27	DC	24	GLU
27	DC	36	LYS
27	DC	56	GLN
27	DC	58	VAL
27	DC	64	LEU
27	DC	77	ILE
27	DC	94	VAL
28	DD	13	ARG
28	DD	18	VAL
28	DD	24	ILE
28	DD	26	LYS
28	DD	28	GLU
28	DD	44	ASN
28	DD	46	GLN
28	DD	49	ILE
28	DD	61	LEU
28	DD	65	ILE
28	DD	67	PHE
28	DD	92	ILE

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Mol	Chain	Res	Type
28	DD	94	LEU
28	DD	99	ASP
28	DD	103	ARG
28	DD	104	TYR
28	DD	111	LEU
28	DD	113	VAL
28	DD	122	ASP
28	DD	131	LEU
28	DD	166	GLN
28	DD	168	ARG
28	DD	173	VAL
28	DD	192	THR
28	DD	193	VAL
28	DD	211	ARG
28	DD	212	SER
28	DD	218	ARG
28	DD	221	VAL
28	DD	229	VAL
28	DD	253	GLN
28	DD	257	LEU
28	DD	259	THR
28	DD	260	ARG
28	DD	271	ILE
29	DE	9	VAL
29	DE	16	ARG
29	DE	18	ASP
29	DE	33	VAL
29	DE	49	LEU
29	DE	67	PHE
29	DE	76	ARG
29	DE	78	LEU
29	DE	79	ARG
29	DE	82	ARG
29	DE	89	ASP
29	DE	95	ILE
29	DE	101	ARG
29	DE	118	LYS
29	DE	119	ARG
29	DE	144	ARG
29	DE	154	LYS
29	DE	175	VAL
29	DE	179	GLU

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Mol	Chain	Res	Type
29	DE	181	LEU
29	DE	184	VAL
29	DE	197	ILE
29	DE	202	LYS
29	DE	203	LYS
30	DF	6	VAL
30	DF	7	TYR
30	DF	25	PRO
30	DF	33	LEU
30	DF	45	ARG
30	DF	48	THR
30	DF	60	SER
30	DF	62	ARG
30	DF	65	TRP
30	DF	67	GLN
30	DF	74	ARG
30	DF	78	ILE
30	DF	95	ARG
30	DF	104	LYS
30	DF	117	ARG
30	DF	127	GLU
30	DF	140	LEU
30	DF	158	THR
30	DF	164	ARG
30	DF	165	ARG
30	DF	181	LEU
30	DF	191	ARG
30	DF	192	LEU
30	DF	203	GLN
30	DF	206	ILE
31	DG	16	ARG
31	DG	34	LEU
31	DG	45	GLU
31	DG	49	ASP
31	DG	60	LEU
31	DG	67	LYS
31	DG	71	THR
31	DG	79	ASN
31	DG	88	ILE
31	DG	90	LEU
31	DG	95	ARG
31	DG	97	ASP

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Mol	Chain	Res	Type
31	DG	108	ASN
31	DG	112	PRO
31	DG	115	ARG
31	DG	118	ARG
31	DG	139	LEU
31	DG	147	ASP
31	DG	159	VAL
31	DG	174	GLU
32	DH	4	ILE
32	DH	7	LEU
32	DH	12	PRO
32	DH	32	GLU
32	DH	41	MET
32	DH	42	ARG
32	DH	50	VAL
32	DH	54	ARG
32	DH	83	TYR
32	DH	85	LYS
32	DH	86	GLU
32	DH	88	LEU
32	DH	89	ILE
32	DH	104	GLU
32	DH	105	LEU
32	DH	124	GLU
32	DH	127	GLU
32	DH	132	ARG
32	DH	139	GLN
32	DH	143	GLN
32	DH	152	ARG
32	DH	153	LYS
32	DH	154	PRO
32	DH	155	SER
32	DH	158	HIS
32	DH	160	LYS
33	DI	1	MET
33	DI	2	LYS
33	DI	6	LEU
33	DI	9	LEU
33	DI	10	GLU
33	DI	12	LEU
33	DI	25	TYR
33	DI	33	ARG

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Mol	Chain	Res	Type
33	DI	38	LEU
33	DI	41	GLU
33	DI	52	ARG
33	DI	57	ARG
33	DI	64	GLU
33	DI	70	GLU
33	DI	71	ILE
33	DI	74	ASN
33	DI	77	LEU
33	DI	78	THR
33	DI	85	GLU
33	DI	88	ILE
33	DI	110	ASP
33	DI	113	ARG
33	DI	114	LEU
33	DI	118	LYS
33	DI	120	ILE
33	DI	126	TYR
33	DI	131	LYS
33	DI	134	PRO
33	DI	135	GLU
33	DI	139	GLN
34	DN	4	TYR
34	DN	12	ARG
34	DN	15	LEU
34	DN	22	THR
34	DN	23	LEU
34	DN	25	ARG
34	DN	38	HIS
34	DN	39	ARG
34	DN	48	MET
34	DN	55	VAL
34	DN	63	THR
34	DN	65	LYS
34	DN	67	LEU
34	DN	68	GLU
34	DN	87	LEU
34	DN	99	LEU
34	DN	101	HIS
34	DN	119	ARG
34	DN	121	LYS
34	DN	134	ARG

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Mol	Chain	Res	Type
34	DN	136	GLU
35	DO	10	VAL
35	DO	24	VAL
35	DO	29	ASN
35	DO	49	ARG
35	DO	69	ILE
35	DO	73	ASP
35	DO	89	ASN
35	DO	94	ARG
35	DO	114	ILE
35	DO	117	LEU
36	DP	9	ASN
36	DP	14	LYS
36	DP	19	VAL
36	DP	21	ARG
36	DP	27	HIS
36	DP	32	THR
36	DP	50	ARG
36	DP	55	ARG
36	DP	59	LEU
36	DP	60	MET
36	DP	61	ARG
36	DP	64	LYS
36	DP	67	MET
36	DP	75	ILE
36	DP	81	GLN
36	DP	85	LEU
36	DP	91	PHE
36	DP	98	GLU
36	DP	110	TYR
36	DP	112	LEU
36	DP	115	LEU
36	DP	117	GLU
36	DP	136	GLU
36	DP	138	LEU
36	DP	144	GLU
36	DP	147	LEU
36	DP	148	LEU
37	DQ	1	MET
37	DQ	5	ARG
37	DQ	6	ARG
37	DQ	17	LEU

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Mol	Chain	Res	Type
37	DQ	45	GLN
37	DQ	51	ARG
37	DQ	54	MET
37	DQ	55	VAL
37	DQ	56	ARG
37	DQ	66	ILE
37	DQ	75	THR
37	DQ	79	LEU
37	DQ	81	VAL
37	DQ	110	THR
37	DQ	111	GLU
37	DQ	131	ILE
37	DQ	134	ARG
37	DQ	135	ASP
37	DQ	138	ASP
38	DR	6	SER
38	DR	9	LYS
38	DR	10	LEU
38	DR	17	ARG
38	DR	18	LEU
38	DR	29	LEU
38	DR	33	ARG
38	DR	37	THR
38	DR	51	LEU
38	DR	56	LYS
38	DR	60	LEU
38	DR	79	LEU
38	DR	80	PHE
38	DR	94	TYR
38	DR	104	ARG
39	DS	12	PHE
39	DS	17	ARG
39	DS	19	LYS
39	DS	20	ARG
39	DS	44	LYS
39	DS	52	SER
39	DS	56	LEU
39	DS	58	LEU
39	DS	69	VAL
39	DS	89	ARG
39	DS	103	GLU
39	DS	106	ARG

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Mol	Chain	Res	Type
40	DT	13	ARG
40	DT	16	ARG
40	DT	19	LEU
40	DT	23	ARG
40	DT	27	THR
40	DT	29	ARG
40	DT	32	TYR
40	DT	33	LYS
40	DT	38	ASN
40	DT	40	THR
40	DT	41	ARG
40	DT	42	ILE
40	DT	44	ASP
40	DT	50	ILE
40	DT	53	ARG
40	DT	59	THR
40	DT	64	ARG
40	DT	65	LYS
40	DT	70	VAL
40	DT	78	LEU
40	DT	80	SER
40	DT	82	LEU
40	DT	83	ILE
40	DT	85	LYS
40	DT	95	ARG
40	DT	96	ARG
40	DT	99	LEU
40	DT	113	LYS
40	DT	128	GLU
41	DU	14	HIS
41	DU	15	LYS
41	DU	20	LEU
41	DU	31	SER
41	DU	44	ASN
41	DU	60	LEU
41	DU	79	PHE
41	DU	88	ILE
41	DU	92	ARG
41	DU	97	ASP
41	DU	102	GLU
41	DU	104	GLN
42	DV	14	VAL

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Mol	Chain	Res	Type
42	DV	19	LYS
42	DV	21	ARG
42	DV	32	THR
42	DV	35	LEU
42	DV	36	PRO
42	DV	38	LEU
42	DV	39	LEU
42	DV	44	LYS
42	DV	49	THR
42	DV	57	VAL
42	DV	64	HIS
42	DV	66	ARG
42	DV	73	SER
42	DV	89	GLN
42	DV	91	TYR
42	DV	95	LEU
42	DV	99	ILE
43	DW	11	ARG
43	DW	19	LEU
43	DW	60	ASN
43	DW	61	ASN
43	DW	70	TYR
43	DW	76	VAL
43	DW	106	ILE
43	DW	107	LEU
44	DX	3	THR
44	DX	13	LEU
44	DX	25	LYS
44	DX	27	THR
44	DX	47	PHE
44	DX	49	VAL
44	DX	52	VAL
44	DX	57	LEU
44	DX	68	ARG
44	DX	75	ASP
44	DX	76	ARG
44	DX	80	ILE
44	DX	83	VAL
45	DY	14	LEU
45	DY	19	LYS
45	DY	26	LYS
45	DY	27	VAL

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Mol	Chain	Res	Type
45	DY	34	LYS
45	DY	45	VAL
45	DY	51	VAL
45	DY	57	GLN
45	DY	61	ILE
45	DY	71	LYS
45	DY	75	ILE
45	DY	77	PRO
45	DY	86	ARG
45	DY	87	LYS
45	DY	89	PHE
45	DY	90	LEU
45	DY	95	LYS
45	DY	97	ARG
45	DY	98	VAL
46	DZ	3	TYR
46	DZ	9	TYR
46	DZ	11	GLU
46	DZ	14	LYS
46	DZ	31	ARG
46	DZ	42	VAL
46	DZ	53	ILE
46	DZ	71	VAL
46	DZ	81	ARG
46	DZ	88	PHE
46	DZ	89	PHE
46	DZ	99	TYR
46	DZ	112	ARG
46	DZ	121	HIS
46	DZ	131	ARG
46	DZ	140	ASP
46	DZ	144	LEU
46	DZ	146	ILE
46	DZ	150	LEU
47	D0	3	HIS
47	D0	20	ARG
47	D0	30	VAL
47	D0	45	PHE
47	D0	53	MET
47	D0	55	ARG
47	D0	70	GLN
47	D0	75	LEU

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Mol	Chain	Res	Type
47	D0	84	LEU
48	D1	11	ARG
48	D1	35	THR
48	D1	39	LYS
48	D1	40	ARG
48	D1	41	ARG
48	D1	45	ASN
48	D1	46	LEU
48	D1	51	VAL
48	D1	56	GLN
48	D1	58	ILE
48	D1	59	THR
48	D1	61	ARG
48	D1	72	GLU
48	D1	82	LEU
48	D1	83	GLU
48	D1	89	GLU
48	D1	94	LEU
49	D2	2	LYS
49	D2	17	SER
49	D2	30	ARG
49	D2	33	MET
49	D2	34	GLU
49	D2	38	GLN
49	D2	41	ILE
49	D2	44	LEU
49	D2	52	ASP
49	D2	53	LEU
49	D2	56	GLN
49	D2	65	ASN
49	D2	68	ARG
50	D3	17	LYS
50	D3	37	LEU
51	D4	9	LEU
51	D4	20	ASN
51	D4	22	ILE
51	D4	30	GLU
52	D5	4	HIS
52	D5	11	THR
52	D5	37	LYS
52	D5	40	LYS
52	D5	48	GLU

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Mol	Chain	Res	Type
52	D5	56	LYS
52	D5	57	VAL
52	D5	58	LEU
53	D6	10	LEU
53	D6	11	LEU
53	D6	12	GLU
53	D6	18	ARG
53	D6	19	ARG
53	D6	36	LEU
53	D6	42	TRP
53	D6	44	ARG
53	D6	45	LYS
53	D6	46	HIS
54	D7	1	MET
54	D7	2	LYS
54	D7	4	THR
54	D7	41	ARG
55	D8	6	THR
55	D8	8	LYS
55	D8	13	ARG
55	D8	30	ARG
55	D8	31	HIS
55	D8	32	LEU
55	D8	33	ASN
55	D8	34	TRP
55	D8	41	ILE
55	D8	44	LYS
55	D8	49	VAL
55	D8	61	LEU
56	D9	2	LYS
56	D9	25	VAL
56	D9	28	GLU
56	D9	33	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (115) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	94	ASN
2	AB	204	ASN
4	AD	42	GLN
4	AD	119	GLN
4	AD	160	GLN

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Mol	Chain	Res	Type
5	AE	78	HIS
6	AF	73	ASN
6	AF	100	ASN
7	AG	86	GLN
7	AG	97	GLN
7	AG	109	ASN
8	AH	78	GLN
8	AH	82	HIS
9	AI	3	GLN
10	AJ	13	HIS
12	AL	9	GLN
13	AM	106	ASN
15	AO	46	HIS
16	AP	16	HIS
28	BD	126	GLN
28	BD	143	HIS
28	BD	201	HIS
29	BE	48	GLN
29	BE	132	HIS
30	BF	169	ASN
31	BG	27	ASN
31	BG	40	ASN
31	BG	66	GLN
31	BG	132	ASN
33	BI	17	GLN
33	BI	104	GLN
34	BN	45	ASN
36	BP	84	ASN
37	BQ	13	GLN
38	BR	11	ASN
38	BR	16	HIS
38	BR	24	GLN
38	BR	53	HIS
39	BS	34	HIS
41	BU	14	HIS
42	BV	11	GLN
43	BW	40	ASN
43	BW	111	HIS
46	BZ	73	GLN
47	B0	12	ASN
47	B0	29	GLN
47	B0	70	GLN

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Mol	Chain	Res	Type
48	B1	45	ASN
49	B2	70	GLN
55	B8	43	GLN
56	B9	34	GLN
2	CB	78	GLN
2	CB	204	ASN
5	CE	78	HIS
6	CF	18	GLN
6	CF	73	ASN
7	CG	153	HIS
8	CH	82	HIS
9	CI	38	GLN
9	CI	73	GLN
10	CJ	13	HIS
10	CJ	76	ASN
10	CJ	78	ASN
10	CJ	84	GLN
12	CL	9	GLN
13	CM	92	HIS
16	CP	82	GLN
18	CR	36	ASN
19	CS	57	HIS
19	CS	69	HIS
28	DD	115	GLN
28	DD	201	HIS
29	DE	169	ASN
29	DE	180	ASN
30	DF	69	HIS
30	DF	203	GLN
31	DG	26	GLN
31	DG	58	GLN
32	DH	143	GLN
32	DH	147	ASN
33	DI	28	ASN
33	DI	74	ASN
33	DI	105	HIS
33	DI	139	GLN
35	DO	29	ASN
36	DP	13	ASN
36	DP	84	ASN
37	DQ	12	GLN
38	DR	13	HIS

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Mol	Chain	Res	Type
38	DR	31	HIS
39	DS	34	HIS
40	DT	38	ASN
40	DT	43	GLN
41	DU	49	HIS
41	DU	81	HIS
41	DU	94	ASN
41	DU	104	GLN
42	DV	11	GLN
42	DV	89	GLN
43	DW	61	ASN
45	DY	57	GLN
46	DZ	54	HIS
46	DZ	65	GLN
46	DZ	73	GLN
47	D0	29	GLN
47	D0	70	GLN
48	D1	45	ASN
48	D1	56	GLN
49	D2	9	GLN
50	D3	19	GLN
50	D3	52	HIS
51	D4	20	ASN
53	D6	20	ASN
53	D6	32	ASN
53	D6	46	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	366 (24%)	109 (7%)
1	CA	1503/1522 (98%)	359 (23%)	115 (7%)
22	AV	76/77 (98%)	26 (34%)	3 (3%)
22	CV	76/77 (98%)	30 (39%)	4 (5%)
23	AW	75/76 (98%)	22 (29%)	0
23	AY	16/76 (21%)	5 (31%)	0
23	CW	75/76 (98%)	26 (34%)	0
23	CY	16/76 (21%)	8 (50%)	0
24	AX	11/24 (45%)	4 (36%)	0
24	CX	9/24 (37%)	4 (44%)	1 (11%)
25	BA	2804/2915 (96%)	803 (28%)	260 (9%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	DA	2818/2915 (96%)	804 (28%)	264 (9%)
26	BB	118/122 (96%)	25 (21%)	5 (4%)
26	DB	118/122 (96%)	24 (20%)	7 (5%)
All	All	9218/9624 (95%)	2506 (27%)	768 (8%)

All (2506) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	8	A
1	AA	9	G
1	AA	10	A
1	AA	13	U
1	AA	14	U
1	AA	28	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	52	G
1	AA	54	C
1	AA	60	A
1	AA	61	G
1	AA	64	G
1	AA	65	U
1	AA	66	G
1	AA	80	G
1	AA	81	U
1	AA	89	C
1	AA	90	U
1	AA	91	C
1	AA	101	A
1	AA	108	G
1	AA	109	A
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C

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Mol	Chain	Res	Type
1	AA	122	G
1	AA	129(A)	G
1	AA	130	A
1	AA	144	G
1	AA	146	G
1	AA	155	C
1	AA	159	G
1	AA	160	A
1	AA	163	C
1	AA	173	U
1	AA	174	C
1	AA	181	G
1	AA	182	U
1	AA	189(F)	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	198	G
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	242	C
1	AA	243	A
1	AA	244	U
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	252	U
1	AA	262	A
1	AA	267	C
1	AA	275	G
1	AA	279	A
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	301	G
1	AA	305	G
1	AA	306	G
1	AA	316	G
1	AA	319	G
1	AA	321	A

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Mol	Chain	Res	Type
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	343	U
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	366	C
1	AA	367	U
1	AA	368	U
1	AA	372	C
1	AA	384	G
1	AA	387	U
1	AA	388	G
1	AA	389	A
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	438	G
1	AA	439	A
1	AA	442	C
1	AA	451	A
1	AA	452	A
1	AA	461	A

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Mol	Chain	Res	Type
1	AA	470	C
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	500	G
1	AA	508	C
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	519	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	536	C
1	AA	545	C
1	AA	547	A
1	AA	548	G
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	566	G
1	AA	567	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	579	G
1	AA	596	C
1	AA	605	U
1	AA	623	C
1	AA	630	G
1	AA	632	A

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Mol	Chain	Res	Type
1	AA	633	G
1	AA	653	A
1	AA	665	A
1	AA	686	U
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	703	G
1	AA	721	G
1	AA	722	A
1	AA	723	U
1	AA	731	G
1	AA	733	A
1	AA	734	G
1	AA	748	C
1	AA	749	C
1	AA	752	G
1	AA	753	A
1	AA	755	G
1	AA	759	A
1	AA	773	G
1	AA	777	A
1	AA	787	A
1	AA	791	G
1	AA	793	U
1	AA	794	A
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	820	U
1	AA	821	G
1	AA	828	A
1	AA	839	U
1	AA	841	U
1	AA	848	C
1	AA	853	G
1	AA	859	A
1	AA	864	A
1	AA	871	U
1	AA	872	A

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Mol	Chain	Res	Type
1	AA	873	A
1	AA	874	G
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	920	U
1	AA	926	G
1	AA	927	G
1	AA	932	C
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	965	A
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	982	U
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1001(A)	G
1	AA	1005	A
1	AA	1006	C
1	AA	1027	C
1	AA	1028	C
1	AA	1029	C
1	AA	1030	C
1	AA	1030(A)	G
1	AA	1030(B)	C
1	AA	1031	G
1	AA	1042	G
1	AA	1044	A

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Mol	Chain	Res	Type
1	AA	1048	G
1	AA	1049	U
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1068	G
1	AA	1081	G
1	AA	1085	U
1	AA	1086	U
1	AA	1093	A
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1118	C
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1128	C
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1132	C
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1146	A
1	AA	1153	C
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1182	G
1	AA	1183	A
1	AA	1184	G

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Mol	Chain	Res	Type
1	AA	1187	G
1	AA	1196	U
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1224	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1267	C
1	AA	1270	C
1	AA	1273	G
1	AA	1274	G
1	AA	1280	A
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1297	C
1	AA	1298	C
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1305	G
1	AA	1312	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1331	G
1	AA	1334	G
1	AA	1335	C
1	AA	1336	C

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Mol	Chain	Res	Type
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1379	G
1	AA	1381	U
1	AA	1394	A
1	AA	1395	C
1	AA	1396	A
1	AA	1397	C
1	AA	1398	A
1	AA	1400	C
1	AA	1401	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1466	C
1	AA	1492	A
1	AA	1497	G
1	AA	1498	U
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
22	AV	4	G
22	AV	5	G
22	AV	8	U
22	AV	9	G

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Mol	Chain	Res	Type
22	AV	16	C
22	AV	17	C
22	AV	18	U
22	AV	19	G
22	AV	20	G
22	AV	21	U
22	AV	22	A
22	AV	23	G
22	AV	34	U
22	AV	35	C
22	AV	36	A
22	AV	38	A
22	AV	43	G
22	AV	48	U
22	AV	49	C
22	AV	51	U
22	AV	54	G
22	AV	55	U
22	AV	62	C
22	AV	64	G
22	AV	71	G
22	AV	76	C
23	AW	6	G
23	AW	15	G
23	AW	16	U
23	AW	17	C
23	AW	18	G
23	AW	19	G
23	AW	21	A
23	AW	30	G
23	AW	33	U
23	AW	34	G
23	AW	37	A
23	AW	38	A
23	AW	39	U
23	AW	41	C
23	AW	42	C
23	AW	46	G
23	AW	47	U
23	AW	48	C
23	AW	57	G
23	AW	59	U

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Mol	Chain	Res	Type
23	AW	61	C
23	AW	71	G
24	AX	12	A
24	AX	13	A
24	AX	14	A
24	AX	22	A
23	AY	29	G
23	AY	30	G
23	AY	32	U
23	AY	35	A
23	AY	43	C
25	BA	13	A
25	BA	14	A
25	BA	15	G
25	BA	28	A
25	BA	34	C
25	BA	35	G
25	BA	45	C
25	BA	49	A
25	BA	50	U
25	BA	51	G
25	BA	55	G
25	BA	64	A
25	BA	69	C
25	BA	70	G
25	BA	71	A
25	BA	72	U
25	BA	73	A
25	BA	74	A
25	BA	75	G
25	BA	83	G
25	BA	84	A
25	BA	85	G
25	BA	90	U
25	BA	92	A
25	BA	94	C
25	BA	95	G
25	BA	99	U
25	BA	100	G
25	BA	102	G
25	BA	105	C
25	BA	118	A

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Mol	Chain	Res	Type
25	BA	119	A
25	BA	120	U
25	BA	121	G
25	BA	126	A
25	BA	128	C
25	BA	129	C
25	BA	131	G
25	BA	141	A
25	BA	142	A
25	BA	154	G
25	BA	154(A)	C
25	BA	174	C
25	BA	175	G
25	BA	178	G
25	BA	182	A
25	BA	196	A
25	BA	199	A
25	BA	204	A
25	BA	205	G
25	BA	212	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	223	A
25	BA	227	A
25	BA	228	A
25	BA	229	A
25	BA	232	G
25	BA	233	A
25	BA	241	A
25	BA	242	G
25	BA	248	G
25	BA	249	C
25	BA	250	G
25	BA	252	G
25	BA	265	A
25	BA	266	G
25	BA	271(A)	A
25	BA	271(J)	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(O)	C

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Mol	Chain	Res	Type
25	BA	271(Y)	U
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(H)	C
25	BA	272(I)	U
25	BA	272(J)	C
25	BA	274	G
25	BA	284	U
25	BA	286	C
25	BA	288	C
25	BA	292	C
25	BA	301	G
25	BA	310	A
25	BA	311	A
25	BA	312	G
25	BA	323	G
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	331	A
25	BA	332	A
25	BA	333	G
25	BA	345	A
25	BA	346	A
25	BA	352	G
25	BA	353	G
25	BA	355	G
25	BA	357	A
25	BA	362	U
25	BA	363(B)	G
25	BA	363(E)	U
25	BA	362(F)	A
25	BA	364	C
25	BA	370	G
25	BA	371	A
25	BA	372	G
25	BA	386	G
25	BA	387	U
25	BA	388	G
25	BA	390	A
25	BA	391	G
25	BA	396	G

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Mol	Chain	Res	Type
25	BA	404	C
25	BA	405	U
25	BA	406	G
25	BA	409	C
25	BA	411	G
25	BA	412	A
25	BA	415	A
25	BA	418	G
25	BA	428	A
25	BA	435	C
25	BA	443	A
25	BA	444	C
25	BA	446	G
25	BA	447	A
25	BA	448	U
25	BA	454	A
25	BA	455	C
25	BA	456	C
25	BA	457	A
25	BA	458	G
25	BA	470	A
25	BA	475	U
25	BA	480	A
25	BA	481	G
25	BA	482	A
25	BA	491	G
25	BA	494	G
25	BA	504	U
25	BA	505	A
25	BA	506	G
25	BA	507	A
25	BA	508	G
25	BA	509	C
25	BA	512	G
25	BA	528	A
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	537	C
25	BA	549	G
25	BA	551	G

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Mol	Chain	Res	Type
25	BA	561	G
25	BA	562	U
25	BA	563	G
25	BA	571	A
25	BA	572	A
25	BA	573	G
25	BA	574	C
25	BA	575	A
25	BA	588	U
25	BA	593	G
25	BA	604	G
25	BA	607	U
25	BA	608	A
25	BA	614	U
25	BA	614(A)	U
25	BA	614(C)	A
25	BA	615	G
25	BA	616	G
25	BA	620	G
25	BA	621	A
25	BA	627	A
25	BA	628	G
25	BA	634	C
25	BA	637	A
25	BA	638	G
25	BA	645	C
25	BA	646	A
25	BA	668	G
25	BA	669	G
25	BA	670	A
25	BA	675	A
25	BA	686	G
25	BA	687	C
25	BA	705	A
25	BA	708	C
25	BA	717	G
25	BA	722	A
25	BA	726	G
25	BA	727	A
25	BA	728	G
25	BA	729	G
25	BA	730	C

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Mol	Chain	Res	Type
25	BA	738	G
25	BA	740	U
25	BA	747	U
25	BA	753	C
25	BA	762	U
25	BA	763	G
25	BA	765	G
25	BA	776	G
25	BA	777	A
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	788	A
25	BA	789	A
25	BA	790	C
25	BA	791	C
25	BA	792	G
25	BA	793	A
25	BA	800	A
25	BA	801	G
25	BA	802	A
25	BA	805	G
25	BA	811	U
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	830	G
25	BA	831	G
25	BA	832	G
25	BA	845	G
25	BA	846	C
25	BA	847	U
25	BA	856	C
25	BA	857	C
25	BA	859	G
25	BA	860	U
25	BA	865	C
25	BA	866	A
25	BA	869	G
25	BA	886	C
25	BA	889	C

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Mol	Chain	Res	Type
25	BA	890	A
25	BA	892	G
25	BA	896	A
25	BA	897	C
25	BA	901	A
25	BA	904	C
25	BA	910	A
25	BA	913	U
25	BA	914	C
25	BA	917	A
25	BA	926	A
25	BA	930	U
25	BA	931	G
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	943	U
25	BA	945	A
25	BA	946	G
25	BA	959	A
25	BA	961	C
25	BA	962	G
25	BA	965	C
25	BA	973	A
25	BA	974	G
25	BA	975(A)	G
25	BA	980	A
25	BA	983	A
25	BA	989	G
25	BA	991	C
25	BA	995	C
25	BA	996	A
25	BA	1005	C
25	BA	1008	C
25	BA	1009	A
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1015	G
25	BA	1017	G
25	BA	1020	A
25	BA	1022	G

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Mol	Chain	Res	Type
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1039	G
25	BA	1040	C
25	BA	1044	G
25	BA	1045	A
25	BA	1047	G
25	BA	1048	A
25	BA	1049	C
25	BA	1052	C
25	BA	1053	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1115	G
25	BA	1116	C
25	BA	1118	C
25	BA	1122	G
25	BA	1126	A
25	BA	1127	A
25	BA	1128	A
25	BA	1129	A
25	BA	1130	U
25	BA	1131	G
25	BA	1135	C
25	BA	1136	G
25	BA	1140	C
25	BA	1141	U
25	BA	1142	U
25	BA	1142(A)	A
25	BA	1143	A
25	BA	1144	G
25	BA	1155	A
25	BA	1156	A
25	BA	1157	G
25	BA	1170	G
25	BA	1171	G
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U

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Mol	Chain	Res	Type
25	BA	1176	G
25	BA	1177	A
25	BA	1178	C
25	BA	1180	C
25	BA	1195	G
25	BA	1204	A
25	BA	1205	U
25	BA	1206	G
25	BA	1210	A
25	BA	1211	U
25	BA	1212	G
25	BA	1220	A
25	BA	1236	G
25	BA	1238	G
25	BA	1244	G
25	BA	1248	G
25	BA	1249	U
25	BA	1250	G
25	BA	1251	C
25	BA	1252	G
25	BA	1253	A
25	BA	1256	G
25	BA	1265	A
25	BA	1266	G
25	BA	1271	G
25	BA	1272	A
25	BA	1273	U
25	BA	1276	A
25	BA	1281	G
25	BA	1286	A
25	BA	1287	A
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1303	G
25	BA	1304	C
25	BA	1306	C
25	BA	1311	G
25	BA	1313	U
25	BA	1314	C
25	BA	1319	G
25	BA	1321	A

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Mol	Chain	Res	Type
25	BA	1324	G
25	BA	1325	G
25	BA	1329	U
25	BA	1330	C
25	BA	1332	G
25	BA	1333	C
25	BA	1341	U
25	BA	1342	A
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1368	G
25	BA	1378	A
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1391	U
25	BA	1392	A
25	BA	1395	A
25	BA	1396	U
25	BA	1397	U
25	BA	1406	U
25	BA	1407	C
25	BA	1416	G
25	BA	1419	A
25	BA	1420	U
25	BA	1421	G
25	BA	1427	A
25	BA	1428	C
25	BA	1429	G
25	BA	1437	C
25	BA	1445	A
25	BA	1445(A)	C
25	BA	1447	G
25	BA	1449	A
25	BA	1450	G
25	BA	1451	C

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Mol	Chain	Res	Type
25	BA	1452	A
25	BA	1453	U
25	BA	1455	G
25	BA	1459	G
25	BA	1461	G
25	BA	1466	G
25	BA	1467	C
25	BA	1471	A
25	BA	1478	G
25	BA	1481	U
25	BA	1482	G
25	BA	1485	G
25	BA	1488	G
25	BA	1490	A
25	BA	1491	G
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1498	C
25	BA	1502	C
25	BA	1505	C
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1520	G
25	BA	1542	A
25	BA	1544	A
25	BA	1547	C
25	BA	1555	G
25	BA	1558	A
25	BA	1559	G
25	BA	1560	G
25	BA	1566	A
25	BA	1567	A
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1581	G
25	BA	1584	C
25	BA	1586	A
25	BA	1588	C

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Mol	Chain	Res	Type
25	BA	1594	G
25	BA	1595	G
25	BA	1602	U
25	BA	1603	A
25	BA	1608	A
25	BA	1611	C
25	BA	1615	C
25	BA	1617	C
25	BA	1618	A
25	BA	1619	G
25	BA	1635	G
25	BA	1640	C
25	BA	1646	C
25	BA	1647	G
25	BA	1648	C
25	BA	1651	G
25	BA	1654	A
25	BA	1667	G
25	BA	1669	A
25	BA	1674	G
25	BA	1675	C
25	BA	1678	G
25	BA	1681	G
25	BA	1682	G
25	BA	1694	C
25	BA	1695	G
25	BA	1696	G
25	BA	1698	A
25	BA	1699	G
25	BA	1700	A
25	BA	1718	G
25	BA	1719	G
25	BA	1721	G
25	BA	1722	A
25	BA	1739	U
25	BA	1740	G
25	BA	1741	A
25	BA	1743	C
25	BA	1744	C
25	BA	1748	G
25	BA	1750	G
25	BA	1755	A

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Mol	Chain	Res	Type
25	BA	1756	G
25	BA	1758	G
25	BA	1759	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1776	G
25	BA	1780	A
25	BA	1781	C
25	BA	1783	A
25	BA	1784	A
25	BA	1785	A
25	BA	1787	A
25	BA	1791	A
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1815	A
25	BA	1816	G
25	BA	1820	U
25	BA	1821	A
25	BA	1828	G
25	BA	1829	A
25	BA	1835	G
25	BA	1838	C
25	BA	1839	G
25	BA	1847	A
25	BA	1848	A
25	BA	1858	G
25	BA	1865	G
25	BA	1866	C
25	BA	1877	A
25	BA	1878	G
25	BA	1881	C
25	BA	1882	C
25	BA	1884	A
25	BA	1888	G
25	BA	1889	A
25	BA	1896	G
25	BA	1901	A
25	BA	1906	G
25	BA	1914	C

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Mol	Chain	Res	Type
25	BA	1929	G
25	BA	1930	G
25	BA	1931	U
25	BA	1936	A
25	BA	1938	A
25	BA	1939	U
25	BA	1940	U
25	BA	1941	C
25	BA	1943	U
25	BA	1944	U
25	BA	1945	G
25	BA	1955	U
25	BA	1956	U
25	BA	1962	C
25	BA	1963	U
25	BA	1964	G
25	BA	1965	C
25	BA	1966	A
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1979	C
25	BA	1980	G
25	BA	1981	A
25	BA	1982	C
25	BA	1992	G
25	BA	1993	U
25	BA	1996	C
25	BA	1997	G
25	BA	2004	G
25	BA	2020	A
25	BA	2021	C
25	BA	2022	U
25	BA	2023	G
25	BA	2027	G
25	BA	2030	A
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2034	U

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Mol	Chain	Res	Type
25	BA	2036	C
25	BA	2043	C
25	BA	2049	G
25	BA	2051	A
25	BA	2052	G
25	BA	2055	C
25	BA	2056	G
25	BA	2059	A
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2063	C
25	BA	2068	U
25	BA	2069	G
25	BA	2089	U
25	BA	2092	U
25	BA	2093	G
25	BA	2099	U
25	BA	2103	C
25	BA	2104	G
25	BA	2111	C
25	BA	2112	G
25	BA	2116	G
25	BA	2117	A
25	BA	2121	G
25	BA	2126	A
25	BA	2127	G
25	BA	2131	G
25	BA	2133	G
25	BA	2146	C
25	BA	2147	G
25	BA	2148	G
25	BA	2154	G
25	BA	2157	G
25	BA	2159	G
25	BA	2172	U
25	BA	2173	A
25	BA	2185	C
25	BA	2186	G
25	BA	2187	G
25	BA	2190	G
25	BA	2191	G

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Mol	Chain	Res	Type
25	BA	2192	G
25	BA	2198	A
25	BA	2199	A
25	BA	2206	G
25	BA	2207	G
25	BA	2208	A
25	BA	2219	G
25	BA	2225	A
25	BA	2226	C
25	BA	2227	A
25	BA	2238	G
25	BA	2239	G
25	BA	2250	G
25	BA	2251	G
25	BA	2259	G
25	BA	2266	A
25	BA	2267	A
25	BA	2268	A
25	BA	2275	C
25	BA	2279	G
25	BA	2283	C
25	BA	2288	A
25	BA	2289	G
25	BA	2297	C
25	BA	2307	G
25	BA	2308	G
25	BA	2316	C
25	BA	2318	G
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2325	G
25	BA	2334	G
25	BA	2335	A
25	BA	2336	A
25	BA	2337	G
25	BA	2345	G
25	BA	2346	A
25	BA	2347	C
25	BA	2350	C
25	BA	2376	A
25	BA	2383	G

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Mol	Chain	Res	Type
25	BA	2385	C
25	BA	2388	A
25	BA	2392	A
25	BA	2394	C
25	BA	2398	U
25	BA	2399	G
25	BA	2400	G
25	BA	2402	C
25	BA	2403	C
25	BA	2406	U
25	BA	2407	G
25	BA	2420	C
25	BA	2422	A
25	BA	2423	U
25	BA	2424	C
25	BA	2425	A
25	BA	2426	A
25	BA	2427	C
25	BA	2429	G
25	BA	2430	A
25	BA	2435	A
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2447	G
25	BA	2448	A
25	BA	2449	U
25	BA	2450	A
25	BA	2468	G
25	BA	2469	A
25	BA	2470	G
25	BA	2474	C
25	BA	2475	C
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2482	G
25	BA	2483	C
25	BA	2484	G
25	BA	2491	U
25	BA	2497	A
25	BA	2498	C

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Mol	Chain	Res	Type
25	BA	2502	G
25	BA	2503	A
25	BA	2504	U
25	BA	2505	G
25	BA	2506	U
25	BA	2518	A
25	BA	2519	U
25	BA	2520	C
25	BA	2524	G
25	BA	2529	G
25	BA	2535	G
25	BA	2543	G
25	BA	2554	U
25	BA	2558	C
25	BA	2566	A
25	BA	2567	G
25	BA	2569	G
25	BA	2573	C
25	BA	2576	G
25	BA	2577	A
25	BA	2582	G
25	BA	2586	C
25	BA	2602	A
25	BA	2609	U
25	BA	2611	U
25	BA	2612	C
25	BA	2613	U
25	BA	2614	A
25	BA	2615	U
25	BA	2629	A
25	BA	2630	G
25	BA	2636	U
25	BA	2646	C
25	BA	2654	A
25	BA	2655	G
25	BA	2663	G
25	BA	2673	G
25	BA	2675	A
25	BA	2682	U
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C

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Mol	Chain	Res	Type
25	BA	2702	U
25	BA	2703	C
25	BA	2707	G
25	BA	2712	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2726	U
25	BA	2732	G
25	BA	2733	A
25	BA	2734	A
25	BA	2750	A
25	BA	2751	G
25	BA	2752	C
25	BA	2753	A
25	BA	2756	U
25	BA	2757	A
25	BA	2759	G
25	BA	2762	G
25	BA	2764	A
25	BA	2765	A
25	BA	2766	G
25	BA	2777	G
25	BA	2778	A
25	BA	2779	U
25	BA	2780	G
25	BA	2781	A
25	BA	2789	C
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2796	U
25	BA	2799	C
25	BA	2801(A)	A
25	BA	2802	G
25	BA	2803	C
25	BA	2804	C
25	BA	2807	G
25	BA	2808	U
25	BA	2818	G
25	BA	2820	A
25	BA	2827	C
25	BA	2828	C

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Mol	Chain	Res	Type
25	BA	2830	G
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2836	U
25	BA	2849	U
25	BA	2850	A
25	BA	2866	U
25	BA	2867	G
25	BA	2872	G
25	BA	2874	C
25	BA	2876	G
25	BA	2879	C
25	BA	2892	A
25	BA	2893	G
25	BA	2894	G
26	BB	2	C
26	BB	3	C
26	BB	8	U
26	BB	12	C
26	BB	13	A
26	BB	14	U
26	BB	15	A
26	BB	19	G
26	BB	21	G
26	BB	24	G
26	BB	25	A
26	BB	35	U
26	BB	42	C
26	BB	45	A
26	BB	52	A
26	BB	53	A
26	BB	57	A
26	BB	66	A
26	BB	67	G
26	BB	73	A
26	BB	92	C
26	BB	106	G
26	BB	109	C
26	BB	110	G
26	BB	113	G
1	CA	6	G

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Mol	Chain	Res	Type
1	CA	8	A
1	CA	9	G
1	CA	14	U
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	49	U
1	CA	51	A
1	CA	54	C
1	CA	60	A
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	78	G
1	CA	79	G
1	CA	80	G
1	CA	81	U
1	CA	84	U
1	CA	89	C
1	CA	90	U
1	CA	101	A
1	CA	109	A
1	CA	110	C
1	CA	115	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	122	G
1	CA	129	U
1	CA	129(A)	G
1	CA	130	A
1	CA	131	C
1	CA	137	C
1	CA	144	G
1	CA	151	A
1	CA	156	G
1	CA	163	C
1	CA	172	A
1	CA	173	U
1	CA	174	C

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Mol	Chain	Res	Type
1	CA	180	U
1	CA	181	G
1	CA	182	U
1	CA	189(F)	U
1	CA	189(G)	G
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	200	G
1	CA	201	C
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	220	G
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	267	C
1	CA	275	G
1	CA	279	A
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	301	G
1	CA	306	G
1	CA	314	C
1	CA	316	G
1	CA	321	A
1	CA	323	U
1	CA	328	C
1	CA	330	C
1	CA	332	G
1	CA	342	C
1	CA	343	U
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	352	C
1	CA	353	A

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Mol	Chain	Res	Type
1	CA	354	G
1	CA	367	U
1	CA	373	A
1	CA	384	G
1	CA	389	A
1	CA	390	C
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	435	C
1	CA	439	A
1	CA	442	C
1	CA	451	A
1	CA	461	A
1	CA	470	C
1	CA	471	G
1	CA	482	A
1	CA	484	G
1	CA	485	G
1	CA	486	U
1	CA	495	A
1	CA	496	A
1	CA	498	U
1	CA	500	G
1	CA	508	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	512	U
1	CA	517	G
1	CA	518	C
1	CA	527	G
1	CA	532	A

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Mol	Chain	Res	Type
1	CA	533	A
1	CA	534	U
1	CA	536	C
1	CA	548	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	564	C
1	CA	566	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	579	G
1	CA	595	G
1	CA	596	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	642	A
1	CA	652	U
1	CA	653	A
1	CA	665	A
1	CA	671	G
1	CA	687	A
1	CA	701	C
1	CA	702	A
1	CA	703	G
1	CA	704	A
1	CA	721	G
1	CA	722	A
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	748	C
1	CA	749	C
1	CA	754	C
1	CA	755	G
1	CA	777	A

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Mol	Chain	Res	Type
1	CA	786	G
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	812	C
1	CA	813	U
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	820	U
1	CA	821	G
1	CA	828	A
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	855	G
1	CA	859	A
1	CA	871	U
1	CA	872	A
1	CA	873	A
1	CA	874	G
1	CA	885	G
1	CA	887	G
1	CA	889	A
1	CA	890	G
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	965	A
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G

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Mol	Chain	Res	Type
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	980	C
1	CA	982	U
1	CA	983	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1001(A)	G
1	CA	1002	G
1	CA	1005	A
1	CA	1027	C
1	CA	1030	C
1	CA	1030(A)	G
1	CA	1030(C)	G
1	CA	1031	G
1	CA	1044	A
1	CA	1046	A
1	CA	1049	U
1	CA	1053	G
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1067	A
1	CA	1068	G
1	CA	1081	G
1	CA	1085	U
1	CA	1086	U
1	CA	1094	G
1	CA	1101	A
1	CA	1102	A
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1128	C
1	CA	1129	C
1	CA	1130	A

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Mol	Chain	Res	Type
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1142	G
1	CA	1145	C
1	CA	1146	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1162	C
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1190	G
1	CA	1191	A
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1215	G
1	CA	1224	G
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1236	A
1	CA	1238	A
1	CA	1239	A
1	CA	1240	U
1	CA	1241	G
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1278	U
1	CA	1280	A

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Mol	Chain	Res	Type
1	CA	1281	U
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1288	A
1	CA	1297	C
1	CA	1298	C
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1305	G
1	CA	1319	A
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1334	G
1	CA	1336	C
1	CA	1338	G
1	CA	1340	A
1	CA	1347	G
1	CA	1353	G
1	CA	1360	A
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1365	G
1	CA	1370	G
1	CA	1381	U
1	CA	1390	U
1	CA	1394	A
1	CA	1395	C
1	CA	1397	C
1	CA	1398	A
1	CA	1400	C
1	CA	1401	G
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A

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Mol	Chain	Res	Type
1	CA	1443	G
1	CA	1446	U
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1487	G
1	CA	1492	A
1	CA	1497	G
1	CA	1498	U
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
22	CV	4	G
22	CV	5	G
22	CV	9	G
22	CV	15	G
22	CV	18	U
22	CV	19	G
22	CV	20	G
22	CV	21	U
22	CV	22	A
22	CV	25	U
22	CV	26	C
22	CV	30	G
22	CV	32	G
22	CV	33	C
22	CV	35	C
22	CV	36	A
22	CV	44	A
22	CV	45	A
22	CV	48	U
22	CV	49	C

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Mol	Chain	Res	Type
22	CV	50	G
22	CV	52	C
22	CV	54	G
22	CV	55	U
22	CV	57	C
22	CV	65	G
22	CV	70	C
22	CV	71	G
22	CV	76	C
22	CV	77	A
23	CW	6	G
23	CW	9	A
23	CW	11	C
23	CW	14	A
23	CW	15	G
23	CW	16	U
23	CW	17	C
23	CW	18	G
23	CW	19	G
23	CW	21	A
23	CW	30	G
23	CW	34	G
23	CW	37	A
23	CW	39	U
23	CW	42	C
23	CW	43	C
23	CW	46	G
23	CW	47	U
23	CW	48	C
23	CW	49	C
23	CW	52	G
23	CW	57	G
23	CW	58	A
23	CW	61	C
23	CW	68	C
23	CW	70	G
24	CX	14	A
24	CX	15	A
24	CX	18	G
24	CX	19	U
23	CY	29	G
23	CY	30	G

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Mol	Chain	Res	Type
23	CY	33	U
23	CY	34	G
23	CY	36	A
23	CY	37	A
23	CY	42	C
23	CY	43	C
25	DA	34	C
25	DA	35	G
25	DA	45	C
25	DA	50	U
25	DA	51	G
25	DA	52	A
25	DA	55	G
25	DA	59	U
25	DA	60	G
25	DA	61	G
25	DA	69	C
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	73	A
25	DA	75	G
25	DA	83	G
25	DA	84	A
25	DA	90	U
25	DA	92	A
25	DA	94	C
25	DA	95	G
25	DA	99	U
25	DA	100	G
25	DA	102	G
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	121	G
25	DA	126	A
25	DA	129	C
25	DA	137	C
25	DA	139(A)	G
25	DA	141	A
25	DA	142	A
25	DA	146	G

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Mol	Chain	Res	Type
25	DA	148	C
25	DA	154	G
25	DA	154(A)	C
25	DA	174	C
25	DA	175	G
25	DA	178	G
25	DA	182	A
25	DA	196	A
25	DA	197	A
25	DA	199	A
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	223	A
25	DA	227	A
25	DA	228	A
25	DA	229	A
25	DA	232	G
25	DA	233	A
25	DA	241	A
25	DA	242	G
25	DA	248	G
25	DA	252	G
25	DA	261	G
25	DA	265	A
25	DA	266	G
25	DA	271(J)	C
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(M)	G
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(T)	C
25	DA	9274	U
25	DA	272	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	272(H)	C
25	DA	272(I)	U

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Mol	Chain	Res	Type
25	DA	272(J)	C
25	DA	274	G
25	DA	284	U
25	DA	286	C
25	DA	287	C
25	DA	289	A
25	DA	298	G
25	DA	301	G
25	DA	310	A
25	DA	311	A
25	DA	316	C
25	DA	321	G
25	DA	322	A
25	DA	323	G
25	DA	324	A
25	DA	329	G
25	DA	330	A
25	DA	332	A
25	DA	333	G
25	DA	340	A
25	DA	343	C
25	DA	346	A
25	DA	352	G
25	DA	353	G
25	DA	358	U
25	DA	362	U
25	DA	363(B)	G
25	DA	363(E)	U
25	DA	362(F)	A
25	DA	364	C
25	DA	365	C
25	DA	370	G
25	DA	371	A
25	DA	372	G
25	DA	380	U
25	DA	386	G
25	DA	387	U
25	DA	388	G
25	DA	390	A
25	DA	391	G
25	DA	395	U
25	DA	396	G

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Mol	Chain	Res	Type
25	DA	403	U
25	DA	404	C
25	DA	405	U
25	DA	411	G
25	DA	412	A
25	DA	414	C
25	DA	428	A
25	DA	434	U
25	DA	435	C
25	DA	443	A
25	DA	444	C
25	DA	447	A
25	DA	448	U
25	DA	454	A
25	DA	455	C
25	DA	457	A
25	DA	458	G
25	DA	470	A
25	DA	475	U
25	DA	480	A
25	DA	481	G
25	DA	482	A
25	DA	483	A
25	DA	503	A
25	DA	504	U
25	DA	505	A
25	DA	506	G
25	DA	507	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	527	C
25	DA	528	A
25	DA	529	A
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	545	C
25	DA	555	U
25	DA	556	G
25	DA	561	G

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Mol	Chain	Res	Type
25	DA	562	U
25	DA	563	G
25	DA	571	A
25	DA	572	A
25	DA	573	G
25	DA	574	C
25	DA	575	A
25	DA	586	A
25	DA	588	U
25	DA	603	A
25	DA	604	G
25	DA	607	U
25	DA	608	A
25	DA	613	G
25	DA	614(A)	U
25	DA	614(B)	G
25	DA	614(C)	A
25	DA	615	G
25	DA	620	G
25	DA	621	A
25	DA	626	U
25	DA	627	A
25	DA	628	G
25	DA	634	C
25	DA	638	G
25	DA	645	C
25	DA	646	A
25	DA	651	G
25	DA	652	C
25	DA	668	G
25	DA	670	A
25	DA	671	C
25	DA	686	G
25	DA	687	C
25	DA	708	C
25	DA	717	G
25	DA	722	A
25	DA	726	G
25	DA	727	A
25	DA	730	C
25	DA	747	U
25	DA	752	A

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Mol	Chain	Res	Type
25	DA	753	C
25	DA	763	G
25	DA	765	G
25	DA	775	G
25	DA	776	G
25	DA	777	A
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	788	A
25	DA	789	A
25	DA	790	C
25	DA	791	C
25	DA	792	G
25	DA	793	A
25	DA	794	G
25	DA	800	A
25	DA	801	G
25	DA	802	A
25	DA	805	G
25	DA	806	C
25	DA	811	U
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	829	A
25	DA	830	G
25	DA	831	G
25	DA	845	G
25	DA	846	C
25	DA	847	U
25	DA	848	G
25	DA	856	C
25	DA	857	C
25	DA	859	G
25	DA	866	A
25	DA	886	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A

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Mol	Chain	Res	Type
25	DA	896	A
25	DA	897	C
25	DA	904	C
25	DA	910	A
25	DA	913	U
25	DA	914	C
25	DA	915	C
25	DA	917	A
25	DA	919	G
25	DA	926	A
25	DA	931	G
25	DA	932	G
25	DA	933	A
25	DA	941	A
25	DA	943	U
25	DA	945	A
25	DA	946	G
25	DA	953	A
25	DA	957	A
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	962	G
25	DA	965	C
25	DA	973	A
25	DA	974	G
25	DA	975(A)	G
25	DA	983	A
25	DA	990	A
25	DA	991	C
25	DA	996	A
25	DA	1005	C
25	DA	1008	C
25	DA	1009	A
25	DA	1011	G
25	DA	1012	U
25	DA	1013	C
25	DA	1015	G
25	DA	1017	G
25	DA	1020	A
25	DA	1021	A
25	DA	1022	G

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Mol	Chain	Res	Type
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1044	G
25	DA	1045	A
25	DA	1046	A
25	DA	1047	G
25	DA	1048	A
25	DA	1049	C
25	DA	1050	A
25	DA	1054	A
25	DA	1055	G
25	DA	1097	U
25	DA	1099	G
25	DA	1103	A
25	DA	1104	C
25	DA	1105	U
25	DA	1110	G
25	DA	1111	A
25	DA	1112	G
25	DA	1122	G
25	DA	1126	A
25	DA	1127	A
25	DA	1128	A
25	DA	1130	U
25	DA	1131	G
25	DA	1132	A
25	DA	1135	C
25	DA	1136	G
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1144	G
25	DA	1155	A
25	DA	1157	G
25	DA	1171	G
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1177	A
25	DA	1178	C
25	DA	1195	G

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Mol	Chain	Res	Type
25	DA	1204	A
25	DA	1205	U
25	DA	1206	G
25	DA	1208	C
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1220	A
25	DA	1221	C
25	DA	1236	G
25	DA	1237	A
25	DA	1238	G
25	DA	1247	A
25	DA	1248	G
25	DA	1249	U
25	DA	1250	G
25	DA	1251	C
25	DA	1252	G
25	DA	1253	A
25	DA	1256	G
25	DA	1265	A
25	DA	1266	G
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1276	A
25	DA	1281	G
25	DA	1288	U
25	DA	1289	C
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1303	G
25	DA	1311	G
25	DA	1313	U
25	DA	1314	C
25	DA	1319	G
25	DA	1321	A
25	DA	1324	G
25	DA	1325	G
25	DA	1329	U
25	DA	1330	C

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Mol	Chain	Res	Type
25	DA	1332	G
25	DA	1333	C
25	DA	1341	U
25	DA	1344	G
25	DA	1345	C
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1386	C
25	DA	1391	U
25	DA	1395	A
25	DA	1397	U
25	DA	1407	C
25	DA	1408	C
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1429	G
25	DA	1437	C
25	DA	1445	A
25	DA	1445(A)	C
25	DA	1449	A
25	DA	1450	G
25	DA	1451	C
25	DA	1452	A
25	DA	1453	U
25	DA	1455	G
25	DA	1458	C
25	DA	1459	G
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A

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Mol	Chain	Res	Type
25	DA	1475	G
25	DA	1481	U
25	DA	1482	G
25	DA	1488	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A
25	DA	1496	A
25	DA	1497	U
25	DA	1498	C
25	DA	1502	C
25	DA	1504	C
25	DA	1508	A
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1513	C
25	DA	1520	G
25	DA	1529	G
25	DA	1542	A
25	DA	1543	C
25	DA	1544	A
25	DA	1547	C
25	DA	1549	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1560	G
25	DA	1567	A
25	DA	1568	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1583	A
25	DA	1584	C
25	DA	1586	A
25	DA	1588	C
25	DA	1589	C
25	DA	1594	G
25	DA	1595	G
25	DA	1598	C
25	DA	1602	U
25	DA	1603	A

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Mol	Chain	Res	Type
25	DA	1608	A
25	DA	1611	C
25	DA	1616	A
25	DA	1617	C
25	DA	1618	A
25	DA	1634	A
25	DA	1635	G
25	DA	1640	C
25	DA	1648	C
25	DA	1651	G
25	DA	1653	G
25	DA	1654	A
25	DA	1668	A
25	DA	1669	A
25	DA	1674	G
25	DA	1675	C
25	DA	1678	G
25	DA	1681	G
25	DA	1682	G
25	DA	1693	U
25	DA	1694	C
25	DA	1696	G
25	DA	1699	G
25	DA	1700	A
25	DA	1701	A
25	DA	1706	U
25	DA	1707	G
25	DA	1718	G
25	DA	1722	A
25	DA	1739	U
25	DA	1740	G
25	DA	1741	A
25	DA	1744	C
25	DA	1746	G
25	DA	1748	G
25	DA	1752	C
25	DA	1754	C
25	DA	1756	G
25	DA	1758	G
25	DA	1759	A
25	DA	1762	A
25	DA	1763	G

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Mol	Chain	Res	Type
25	DA	1764	G
25	DA	1773	A
25	DA	1780	A
25	DA	1782	C
25	DA	1784	A
25	DA	1785	A
25	DA	1787	A
25	DA	1791	A
25	DA	1799	G
25	DA	1800	C
25	DA	1801	G
25	DA	1802	A
25	DA	1815	A
25	DA	1816	G
25	DA	1820	U
25	DA	1821	A
25	DA	1828	G
25	DA	1829	A
25	DA	1835	G
25	DA	1836	C
25	DA	1838	C
25	DA	1839	G
25	DA	1847	A
25	DA	1848	A
25	DA	1853	A
25	DA	1858	G
25	DA	1865	G
25	DA	1866	C
25	DA	1877	A
25	DA	1878	G
25	DA	1880	C
25	DA	1882	C
25	DA	1885	A
25	DA	1888	G
25	DA	1889	A
25	DA	1900	A
25	DA	1906	G
25	DA	1912	A
25	DA	1914	C
25	DA	1918	A
25	DA	1919	A
25	DA	1929	G

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Mol	Chain	Res	Type
25	DA	1930	G
25	DA	1936	A
25	DA	1937	A
25	DA	1938	A
25	DA	1939	U
25	DA	1940	U
25	DA	1941	C
25	DA	1943	U
25	DA	1944	U
25	DA	1945	G
25	DA	1954	G
25	DA	1955	U
25	DA	1956	U
25	DA	1962	C
25	DA	1963	U
25	DA	1964	G
25	DA	1965	C
25	DA	1967	C
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1980	G
25	DA	1981	A
25	DA	1982	C
25	DA	1987	G
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1996	C
25	DA	1997	G
25	DA	2020	A
25	DA	2021	C
25	DA	2022	U
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2034	U
25	DA	2036	C
25	DA	2043	C
25	DA	2051	A

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Mol	Chain	Res	Type
25	DA	2052	G
25	DA	2055	C
25	DA	2056	G
25	DA	2059	A
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2067	G
25	DA	2068	U
25	DA	2069	G
25	DA	2092	U
25	DA	2093	G
25	DA	2099	U
25	DA	2103	C
25	DA	2104	G
25	DA	2105	C
25	DA	2110	G
25	DA	2111	C
25	DA	2112	G
25	DA	2116	G
25	DA	2117	A
25	DA	2126	A
25	DA	2127	G
25	DA	2131	G
25	DA	2133	G
25	DA	2146	C
25	DA	2147	G
25	DA	2148	G
25	DA	2157	G
25	DA	2159	G
25	DA	2172	U
25	DA	2173	A
25	DA	2174	C
25	DA	2176	A
25	DA	2179	C
25	DA	2187	G
25	DA	2190	G
25	DA	2192	G
25	DA	2193	G
25	DA	2199	A
25	DA	2206	G
25	DA	2207	G

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Mol	Chain	Res	Type
25	DA	2208	A
25	DA	2218	U
25	DA	2219	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2246	G
25	DA	2249	U
25	DA	2250	G
25	DA	2251	G
25	DA	2259	G
25	DA	2266	A
25	DA	2267	A
25	DA	2275	C
25	DA	2283	C
25	DA	2286	A
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2290	G
25	DA	2296	U
25	DA	2297	C
25	DA	2305	A
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2319	G
25	DA	2320	A
25	DA	2325	G
25	DA	2334	G
25	DA	2335	A
25	DA	2336	A
25	DA	2337	G
25	DA	2345	G
25	DA	2346	A
25	DA	2347	C
25	DA	2349	G
25	DA	2350	C
25	DA	2379	G
25	DA	2382	G
25	DA	2383	G

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Mol	Chain	Res	Type
25	DA	2384	G
25	DA	2385	C
25	DA	2388	A
25	DA	2392	A
25	DA	2394	C
25	DA	2399	G
25	DA	2400	G
25	DA	2402	C
25	DA	2407	G
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2426	A
25	DA	2429	G
25	DA	2430	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2447	G
25	DA	2448	A
25	DA	2449	U
25	DA	2450	A
25	DA	2458	G
25	DA	2468	G
25	DA	2469	A
25	DA	2470	G
25	DA	2476	A
25	DA	2477	C
25	DA	2478	A
25	DA	2482	G
25	DA	2483	C
25	DA	2484	G
25	DA	2491	U
25	DA	2497	A
25	DA	2498	C
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2507	C
25	DA	2518	A
25	DA	2519	U
25	DA	2520	C

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Mol	Chain	Res	Type
25	DA	2529	G
25	DA	2534	A
25	DA	2542	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2571	C
25	DA	2573	C
25	DA	2576	G
25	DA	2577	A
25	DA	2582	G
25	DA	2585	U
25	DA	2602	A
25	DA	2609	U
25	DA	2610	C
25	DA	2611	U
25	DA	2612	C
25	DA	2621	A
25	DA	2629	A
25	DA	2630	G
25	DA	2636	U
25	DA	2638	G
25	DA	2639	A
25	DA	2641	G
25	DA	2645	G
25	DA	2646	C
25	DA	2654	A
25	DA	2655	G
25	DA	2669	G
25	DA	2673	G
25	DA	2682	U
25	DA	2690	C
25	DA	2691	C
25	DA	2701	C
25	DA	2702	U
25	DA	2703	C
25	DA	2707	G
25	DA	2712	U
25	DA	2712(A)	A
25	DA	2713	A

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Mol	Chain	Res	Type
25	DA	2714	G
25	DA	2720	U
25	DA	2721	A
25	DA	2726	U
25	DA	2732	G
25	DA	2733	A
25	DA	2744	G
25	DA	2748	A
25	DA	2750	A
25	DA	2751	G
25	DA	2752	C
25	DA	2754	U
25	DA	2756	U
25	DA	2757	A
25	DA	2758	A
25	DA	2762	G
25	DA	2764	A
25	DA	2765	A
25	DA	2776	A
25	DA	2777	G
25	DA	2778	A
25	DA	2779	U
25	DA	2780	G
25	DA	2781	A
25	DA	2789	C
25	DA	2790	A
25	DA	2791	C
25	DA	2792	G
25	DA	2799	C
25	DA	2801	A
25	DA	2801(A)	A
25	DA	2802	G
25	DA	2803	C
25	DA	2804	C
25	DA	2807	G
25	DA	2808	U
25	DA	2820	A
25	DA	2823	A
25	DA	2827	C
25	DA	2830	G
25	DA	2833	G
25	DA	2834	G

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Mol	Chain	Res	Type
25	DA	2835	A
25	DA	2836	U
25	DA	2848	G
25	DA	2849	U
25	DA	2864	G
25	DA	2867	G
25	DA	2872	G
25	DA	2874	C
25	DA	2876	G
25	DA	2879	C
25	DA	2880	C
25	DA	2893	G
26	DB	2	C
26	DB	3	C
26	DB	8	U
26	DB	9	G
26	DB	13	A
26	DB	14	U
26	DB	15	A
26	DB	25	A
26	DB	27	C
26	DB	31	C
26	DB	35	U
26	DB	40	U
26	DB	42	C
26	DB	45	A
26	DB	52	A
26	DB	53	A
26	DB	57	A
26	DB	67	G
26	DB	73	A
26	DB	89	G
26	DB	91	C
26	DB	109	C
26	DB	110	G
26	DB	116	G

All (768) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	30	U

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Mol	Chain	Res	Type
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	60	A
1	AA	79	G
1	AA	109	A
1	AA	115	G
1	AA	119	A
1	AA	121	C
1	AA	154	C
1	AA	173	U
1	AA	197	A
1	AA	204	U
1	AA	243	A
1	AA	244	U
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	274	A
1	AA	344	A
1	AA	345	C
1	AA	351	G
1	AA	366	C
1	AA	367	U
1	AA	388	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	451	A
1	AA	484	G
1	AA	485	G
1	AA	495	A
1	AA	496	A
1	AA	499	A
1	AA	508	C
1	AA	509	A
1	AA	517	G
1	AA	518	C
1	AA	530	G
1	AA	531	U

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Mol	Chain	Res	Type
1	AA	533	A
1	AA	535	A
1	AA	547	A
1	AA	559	A
1	AA	562	C
1	AA	566	G
1	AA	575	G
1	AA	576	G
1	AA	595	G
1	AA	687	A
1	AA	702	A
1	AA	703	G
1	AA	721	G
1	AA	733	A
1	AA	748	C
1	AA	817	C
1	AA	819	A
1	AA	820	U
1	AA	840	C
1	AA	871	U
1	AA	873	A
1	AA	889	A
1	AA	913	A
1	AA	934	C
1	AA	960	U
1	AA	965	A
1	AA	968	A
1	AA	974	A
1	AA	991	U
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1085	U
1	AA	1101	A
1	AA	1139	G
1	AA	1157	A
1	AA	1159	U
1	AA	1182	G
1	AA	1201	A
1	AA	1211	U

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Mol	Chain	Res	Type
1	AA	1214	C
1	AA	1226	C
1	AA	1239	A
1	AA	1240	U
1	AA	1281	U
1	AA	1285	A
1	AA	1297	C
1	AA	1298	C
1	AA	1300	G
1	AA	1302	U
1	AA	1319	A
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1380	U
1	AA	1394	A
1	AA	1399	C
1	AA	1400	C
1	AA	1442(A)	G
1	AA	1498	U
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1528	U
22	AV	18	U
22	AV	35	C
22	AV	53	G
25	BA	13	A
25	BA	27	G
25	BA	34	C
25	BA	49	A
25	BA	50	U
25	BA	51	G
25	BA	60	G
25	BA	63	U
25	BA	70	G
25	BA	71	A
25	BA	72	U
25	BA	74	A
25	BA	83	G
25	BA	84	A
25	BA	99	U
25	BA	119	A

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Mol	Chain	Res	Type
25	BA	120	U
25	BA	125	G
25	BA	177	G
25	BA	215	G
25	BA	221	A
25	BA	222	A
25	BA	226	G
25	BA	227	A
25	BA	232	G
25	BA	241	A
25	BA	249	C
25	BA	265	A
25	BA	272	G
25	BA	283	A
25	BA	311	A
25	BA	322	A
25	BA	323	G
25	BA	329	G
25	BA	331	A
25	BA	332	A
25	BA	345	A
25	BA	370	G
25	BA	386	G
25	BA	387	U
25	BA	390	A
25	BA	403	U
25	BA	404	C
25	BA	411	G
25	BA	434	U
25	BA	442	G
25	BA	446	G
25	BA	454	A
25	BA	455	C
25	BA	457	A
25	BA	474	G
25	BA	479	A
25	BA	481	G
25	BA	503	A
25	BA	506	G
25	BA	527	C
25	BA	531	C
25	BA	571	A

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Mol	Chain	Res	Type
25	BA	573	G
25	BA	574	C
25	BA	587	C
25	BA	603	A
25	BA	614(C)	A
25	BA	620	G
25	BA	627	A
25	BA	637	A
25	BA	685	A
25	BA	686	G
25	BA	728	G
25	BA	739	G
25	BA	752	A
25	BA	762	U
25	BA	764	A
25	BA	775	G
25	BA	776	G
25	BA	788	A
25	BA	789	A
25	BA	790	C
25	BA	791	C
25	BA	792	G
25	BA	793	A
25	BA	800	A
25	BA	801	G
25	BA	830	G
25	BA	846	C
25	BA	856	C
25	BA	858	U
25	BA	859	G
25	BA	865	C
25	BA	913	U
25	BA	930	U
25	BA	932	G
25	BA	945	A
25	BA	961	C
25	BA	973	A
25	BA	975	C
25	BA	1008	C
25	BA	1020	A
25	BA	1022	G
25	BA	1025	G

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Mol	Chain	Res	Type
25	BA	1051	G
25	BA	1126	A
25	BA	1128	A
25	BA	1130	U
25	BA	1142(A)	A
25	BA	1143	A
25	BA	1156	A
25	BA	1175	U
25	BA	1204	A
25	BA	1205	U
25	BA	1210	A
25	BA	1211	U
25	BA	1220	A
25	BA	1236	G
25	BA	1237	A
25	BA	1247	A
25	BA	1248	G
25	BA	1253	A
25	BA	1265	A
25	BA	1275	A
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1311	G
25	BA	1312	U
25	BA	1320	C
25	BA	1324	G
25	BA	1329	U
25	BA	1332	G
25	BA	1340	U
25	BA	1344	G
25	BA	1359	A
25	BA	1379	A
25	BA	1385	G
25	BA	1396	U
25	BA	1427	A
25	BA	1428	C
25	BA	1445	A
25	BA	1451	C
25	BA	1452	A
25	BA	1453	U
25	BA	1458	C

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Mol	Chain	Res	Type
25	BA	1504	C
25	BA	1554	A
25	BA	1558	A
25	BA	1566	A
25	BA	1607	C
25	BA	1608	A
25	BA	1610	A
25	BA	1616	A
25	BA	1617	C
25	BA	1618	A
25	BA	1634	A
25	BA	1646	C
25	BA	1647	G
25	BA	1653	G
25	BA	1668	A
25	BA	1681	G
25	BA	1694	C
25	BA	1706	U
25	BA	1740	G
25	BA	1758	G
25	BA	1762	A
25	BA	1784	A
25	BA	1786	A
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1815	A
25	BA	1819	A
25	BA	1820	U
25	BA	1847	A
25	BA	1913	A
25	BA	1929	G
25	BA	1930	G
25	BA	1936	A
25	BA	1939	U
25	BA	1940	U
25	BA	1943	U
25	BA	1944	U
25	BA	1955	U
25	BA	1962	C
25	BA	1963	U
25	BA	1964	G

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Mol	Chain	Res	Type
25	BA	1966	A
25	BA	1970	A
25	BA	1980	G
25	BA	1992	G
25	BA	1996	C
25	BA	2021	C
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2035	G
25	BA	2051	A
25	BA	2067	G
25	BA	2092	U
25	BA	2110	G
25	BA	2111	C
25	BA	2116	G
25	BA	2126	A
25	BA	2145	C
25	BA	2146	C
25	BA	2158	A
25	BA	2171	A
25	BA	2172	U
25	BA	2198	A
25	BA	2225	A
25	BA	2238	G
25	BA	2249	U
25	BA	2258	C
25	BA	2266	A
25	BA	2282	G
25	BA	2296	U
25	BA	2311	A
25	BA	2318	G
25	BA	2334	G
25	BA	2336	A
25	BA	2344	U
25	BA	2405	G
25	BA	2406	U
25	BA	2422	A
25	BA	2423	U
25	BA	2425	A
25	BA	2426	A
25	BA	2447	G

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Mol	Chain	Res	Type
25	BA	2448	A
25	BA	2449	U
25	BA	2481	G
25	BA	2490	G
25	BA	2497	A
25	BA	2503	A
25	BA	2519	U
25	BA	2581	G
25	BA	2585	U
25	BA	2602	A
25	BA	2609	U
25	BA	2610	C
25	BA	2613	U
25	BA	2614	A
25	BA	2654	A
25	BA	2689	U
25	BA	2702	U
25	BA	2712	U
25	BA	2732	G
25	BA	2750	A
25	BA	2751	G
25	BA	2756	U
25	BA	2776	A
25	BA	2778	A
25	BA	2779	U
25	BA	2780	G
25	BA	2791	C
25	BA	2801	A
25	BA	2801(A)	A
25	BA	2835	A
25	BA	2848	G
25	BA	2849	U
25	BA	2866	U
25	BA	2873	A
26	BB	14	U
26	BB	15	A
26	BB	34	U
26	BB	56	G
26	BB	66	A
1	CA	8	A
1	CA	13	U
1	CA	30	U

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Mol	Chain	Res	Type
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	60	A
1	CA	79	G
1	CA	109	A
1	CA	115	G
1	CA	119	A
1	CA	121	C
1	CA	129(A)	G
1	CA	173	U
1	CA	181	G
1	CA	197	A
1	CA	204	U
1	CA	243	A
1	CA	244	U
1	CA	246	A
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	274	A
1	CA	279	A
1	CA	327	A
1	CA	328	C
1	CA	329	A
1	CA	344	A
1	CA	345	C
1	CA	351	G
1	CA	372	C
1	CA	388	G
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	451	A
1	CA	481	G
1	CA	484	G
1	CA	495	A
1	CA	496	A
1	CA	499	A
1	CA	508	C
1	CA	509	A

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Mol	Chain	Res	Type
1	CA	517	G
1	CA	518	C
1	CA	533	A
1	CA	535	A
1	CA	547	A
1	CA	559	A
1	CA	562	C
1	CA	575	G
1	CA	576	G
1	CA	595	G
1	CA	641	U
1	CA	687	A
1	CA	702	A
1	CA	721	G
1	CA	733	A
1	CA	748	C
1	CA	753	A
1	CA	792	A
1	CA	812	C
1	CA	815	A
1	CA	817	C
1	CA	819	A
1	CA	820	U
1	CA	840	C
1	CA	871	U
1	CA	873	A
1	CA	889	A
1	CA	913	A
1	CA	934	C
1	CA	960	U
1	CA	965	A
1	CA	968	A
1	CA	974	A
1	CA	976	G
1	CA	982	U
1	CA	992	U
1	CA	1049	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1085	U
1	CA	1101	A

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Mol	Chain	Res	Type
1	CA	1139	G
1	CA	1157	A
1	CA	1182	G
1	CA	1201	A
1	CA	1211	U
1	CA	1214	C
1	CA	1224	G
1	CA	1226	C
1	CA	1239	A
1	CA	1240	U
1	CA	1285	A
1	CA	1298	C
1	CA	1302	U
1	CA	1319	A
1	CA	1363(A)	A
1	CA	1380	U
1	CA	1394	A
1	CA	1396	A
1	CA	1397	C
1	CA	1399	C
1	CA	1400	C
1	CA	1442(B)	A
1	CA	1498	U
1	CA	1502	A
1	CA	1504	G
1	CA	1506	U
1	CA	1528	U
1	CA	1529	G
22	CV	18	U
22	CV	21	U
22	CV	35	C
22	CV	53	G
24	CX	14	A
25	DA	33	U
25	DA	49	A
25	DA	50	U
25	DA	51	G
25	DA	60	G
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	74	A

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Mol	Chain	Res	Type
25	DA	90	U
25	DA	119	A
25	DA	120	U
25	DA	125	G
25	DA	177	G
25	DA	196	A
25	DA	199	A
25	DA	204	A
25	DA	215	G
25	DA	221	A
25	DA	222	A
25	DA	226	G
25	DA	227	A
25	DA	232	G
25	DA	241	A
25	DA	283	A
25	DA	297	C
25	DA	311	A
25	DA	321	G
25	DA	322	A
25	DA	323	G
25	DA	329	G
25	DA	331	A
25	DA	332	A
25	DA	345	A
25	DA	370	G
25	DA	386	G
25	DA	387	U
25	DA	390	A
25	DA	395	U
25	DA	403	U
25	DA	404	C
25	DA	411	G
25	DA	434	U
25	DA	442	G
25	DA	446	G
25	DA	454	A
25	DA	455	C
25	DA	474	G
25	DA	479	A
25	DA	481	G
25	DA	503	A

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Mol	Chain	Res	Type
25	DA	506	G
25	DA	527	C
25	DA	528	A
25	DA	531	C
25	DA	532	A
25	DA	555	U
25	DA	571	A
25	DA	573	G
25	DA	574	C
25	DA	587	C
25	DA	603	A
25	DA	614(A)	U
25	DA	614(C)	A
25	DA	620	G
25	DA	627	A
25	DA	637	A
25	DA	670	A
25	DA	685	A
25	DA	686	G
25	DA	728	G
25	DA	739	G
25	DA	752	A
25	DA	762	U
25	DA	764	A
25	DA	775	G
25	DA	776	G
25	DA	788	A
25	DA	789	A
25	DA	790	C
25	DA	791	C
25	DA	792	G
25	DA	793	A
25	DA	800	A
25	DA	801	G
25	DA	805	G
25	DA	811	U
25	DA	829	A
25	DA	830	G
25	DA	845	G
25	DA	846	C
25	DA	856	C
25	DA	858	U

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Mol	Chain	Res	Type
25	DA	865	C
25	DA	913	U
25	DA	930	U
25	DA	932	G
25	DA	957	A
25	DA	961	C
25	DA	973	A
25	DA	1008	C
25	DA	1011	G
25	DA	1020	A
25	DA	1022	G
25	DA	1025	G
25	DA	1126	A
25	DA	1130	U
25	DA	1131	G
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1156	A
25	DA	1175	U
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1236	G
25	DA	1237	A
25	DA	1247	A
25	DA	1248	G
25	DA	1250	G
25	DA	1251	C
25	DA	1252	G
25	DA	1253	A
25	DA	1265	A
25	DA	1272	A
25	DA	1275	A
25	DA	1288	U
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1311	G
25	DA	1312	U
25	DA	1320	C
25	DA	1324	G
25	DA	1329	U

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Mol	Chain	Res	Type
25	DA	1340	U
25	DA	1344	G
25	DA	1359	A
25	DA	1378	A
25	DA	1385	G
25	DA	1396	U
25	DA	1428	C
25	DA	1445	A
25	DA	1453	U
25	DA	1458	C
25	DA	1493	C
25	DA	1542	A
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1566	A
25	DA	1567	A
25	DA	1602	U
25	DA	1607	C
25	DA	1608	A
25	DA	1610	A
25	DA	1634	A
25	DA	1653	G
25	DA	1668	A
25	DA	1674	G
25	DA	1681	G
25	DA	1693	U
25	DA	1699	G
25	DA	1706	U
25	DA	1740	G
25	DA	1758	G
25	DA	1762	A
25	DA	1780	A
25	DA	1784	A
25	DA	1786	A
25	DA	1799	G
25	DA	1801	G
25	DA	1815	A
25	DA	1819	A
25	DA	1820	U
25	DA	1828	G
25	DA	1913	A

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Mol	Chain	Res	Type
25	DA	1918	A
25	DA	1929	G
25	DA	1936	A
25	DA	1939	U
25	DA	1940	U
25	DA	1943	U
25	DA	1944	U
25	DA	1954	G
25	DA	1955	U
25	DA	1962	C
25	DA	1963	U
25	DA	1970	A
25	DA	1980	G
25	DA	1996	C
25	DA	2021	C
25	DA	2022	U
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2035	G
25	DA	2051	A
25	DA	2067	G
25	DA	2092	U
25	DA	2110	G
25	DA	2111	C
25	DA	2116	G
25	DA	2119	A
25	DA	2126	A
25	DA	2145	C
25	DA	2146	C
25	DA	2158	A
25	DA	2171	A
25	DA	2172	U
25	DA	2198	A
25	DA	2225	A
25	DA	2238	G
25	DA	2249	U
25	DA	2250	G
25	DA	2258	C
25	DA	2266	A
25	DA	2275	C
25	DA	2282	G

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Mol	Chain	Res	Type
25	DA	2286	A
25	DA	2287	A
25	DA	2288	A
25	DA	2296	U
25	DA	2308	G
25	DA	2318	G
25	DA	2319	G
25	DA	2334	G
25	DA	2336	A
25	DA	2344	U
25	DA	2345	G
25	DA	2384	G
25	DA	2406	U
25	DA	2422	A
25	DA	2423	U
25	DA	2425	A
25	DA	2447	G
25	DA	2448	A
25	DA	2449	U
25	DA	2481	G
25	DA	2490	G
25	DA	2497	A
25	DA	2519	U
25	DA	2581	G
25	DA	2609	U
25	DA	2610	C
25	DA	2638	G
25	DA	2654	A
25	DA	2668	G
25	DA	2681	C
25	DA	2689	U
25	DA	2732	G
25	DA	2750	A
25	DA	2751	G
25	DA	2756	U
25	DA	2776	A
25	DA	2778	A
25	DA	2779	U
25	DA	2780	G
25	DA	2791	C
25	DA	2801	A
25	DA	2835	A

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Mol	Chain	Res	Type
25	DA	2866	U
25	DA	2873	A
25	DA	2879	C
26	DB	12	C
26	DB	14	U
26	DB	15	A
26	DB	34	U
26	DB	56	G
26	DB	66	A
26	DB	88	C

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1039 ligands modelled in this entry, 1037 are monoatomic - leaving 2 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	$\#\|Z\| > 2$
58	PAR	CA	1741	-	45,45,45	1.55	8 (17%)	64,67,67	1.18	5 (7%)
58	PAR	AA	7111	-	45,45,45	1.54	9 (20%)	64,67,67	1.18	4 (6%)

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
58	PAR	CA	1741	-	-	3/18/94/94	0/4/4/4
58	PAR	AA	7111	-	-	3/18/94/94	0/4/4/4

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	CA	1741	PAR	C64-C54	3.95	1.57	1.52
58	AA	7111	PAR	O54-C14	3.93	1.51	1.41
58	CA	1741	PAR	O54-C14	3.91	1.51	1.41
58	AA	7111	PAR	C64-C54	3.90	1.57	1.52
58	CA	1741	PAR	C31-C21	3.20	1.57	1.53
58	AA	7111	PAR	C31-C21	3.15	1.57	1.53
58	AA	7111	PAR	C24-N24	2.85	1.51	1.47
58	CA	1741	PAR	C24-N24	2.78	1.51	1.47
58	CA	1741	PAR	O51-C11	2.66	1.48	1.41
58	AA	7111	PAR	O51-C11	2.65	1.48	1.41
58	CA	1741	PAR	C23-C33	2.41	1.58	1.52
58	AA	7111	PAR	C23-C33	2.38	1.58	1.52
58	AA	7111	PAR	O43-C13	2.22	1.45	1.41
58	AA	7111	PAR	O54-C54	2.10	1.49	1.44
58	CA	1741	PAR	O54-C54	2.10	1.49	1.44
58	CA	1741	PAR	O43-C13	2.09	1.45	1.41
58	AA	7111	PAR	O51-C51	2.01	1.49	1.44

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
58	AA	7111	PAR	O33-C14-C24	3.35	113.99	108.22
58	CA	1741	PAR	O33-C14-C24	3.31	113.91	108.22
58	CA	1741	PAR	C14-O54-C54	3.22	120.01	113.69
58	AA	7111	PAR	C14-O54-C54	3.22	120.01	113.69
58	AA	7111	PAR	O54-C54-C64	3.22	112.00	106.01
58	CA	1741	PAR	O54-C54-C64	3.21	111.99	106.01
58	CA	1741	PAR	O23-C23-C33	2.38	117.93	111.17
58	AA	7111	PAR	O23-C23-C33	2.37	117.88	111.17
58	CA	1741	PAR	C11-O51-C51	2.06	117.72	113.69

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	AA	7111	PAR	C24-C14-O33-C33

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Mol	Chain	Res	Type	Atoms
58	CA	1741	PAR	C24-C14-O33-C33
58	AA	7111	PAR	C52-C42-O11-C11
58	CA	1741	PAR	C52-C42-O11-C11
58	AA	7111	PAR	C23-C13-O52-C52
58	CA	1741	PAR	C23-C13-O52-C52

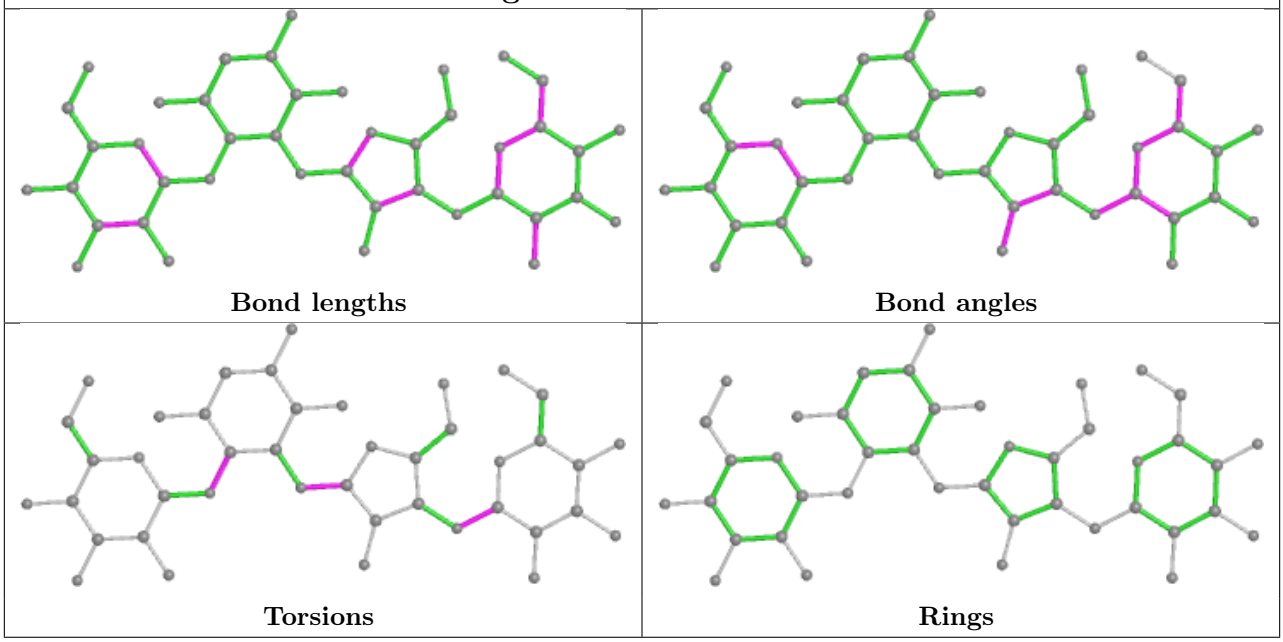
There are no ring outliers.

2 monomers are involved in 5 short contacts:

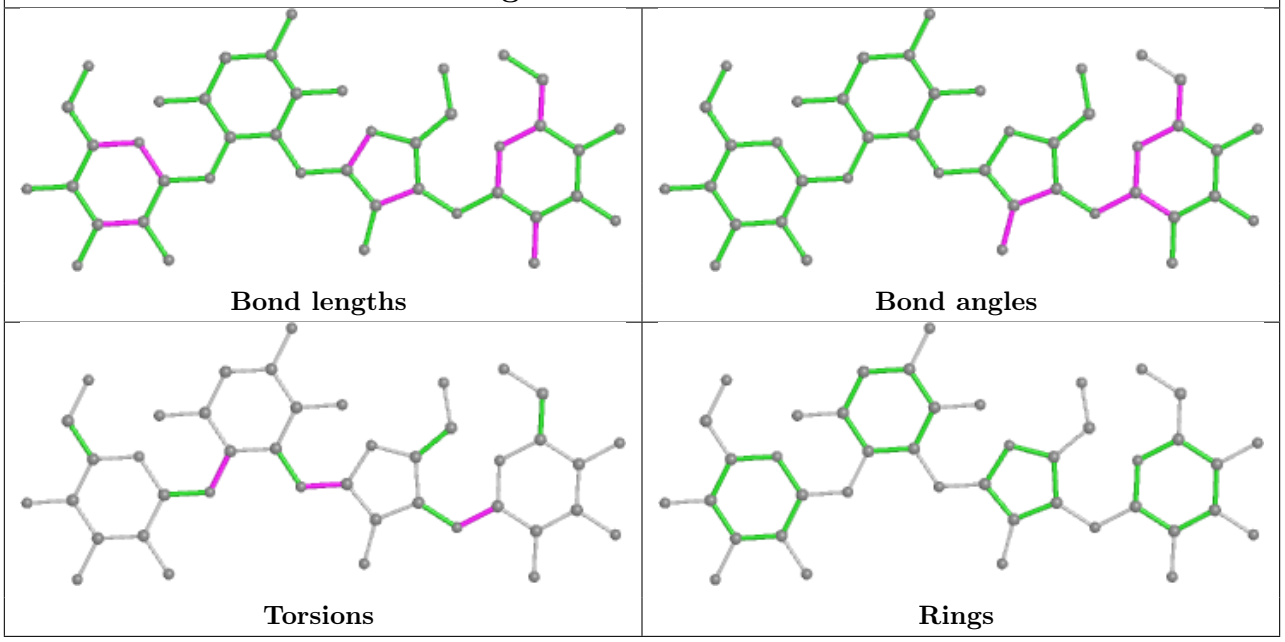
Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	CA	1741	PAR	2	0
58	AA	7111	PAR	3	0

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 1741



Ligand PAR AA 7111



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	BA	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BA	1453:U	O3'	1455:G	P	1.97

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	1504/1522 (98%)	0.18	46 (3%) 49 36	31, 78, 168, 331	0
1	CA	1504/1522 (98%)	0.21	58 (3%) 39 29	24, 68, 165, 363	0
2	AB	235/256 (91%)	-0.08	4 (1%) 70 57	67, 121, 201, 279	0
2	CB	235/256 (91%)	-0.10	9 (3%) 40 30	44, 109, 202, 287	0
3	AC	207/239 (86%)	-0.13	1 (0%) 91 84	44, 104, 173, 240	0
3	CC	207/239 (86%)	-0.21	1 (0%) 91 84	38, 90, 151, 227	0
4	AD	208/209 (99%)	-0.29	3 (1%) 75 62	37, 89, 153, 217	0
4	CD	208/209 (99%)	-0.31	1 (0%) 91 84	30, 77, 129, 209	0
5	AE	151/162 (93%)	-0.24	2 (1%) 77 65	44, 87, 151, 240	0
5	CE	151/162 (93%)	-0.24	2 (1%) 77 65	22, 71, 131, 266	0
6	AF	101/101 (100%)	-0.20	0 100 100	29, 74, 120, 178	0
6	CF	101/101 (100%)	-0.30	0 100 100	25, 68, 134, 192	0
7	AG	155/156 (99%)	-0.15	7 (4%) 33 24	50, 93, 149, 256	0
7	CG	155/156 (99%)	-0.14	5 (3%) 47 36	32, 87, 151, 269	0
8	AH	138/138 (100%)	-0.28	0 100 100	41, 85, 129, 183	0
8	CH	138/138 (100%)	-0.34	1 (0%) 87 79	38, 75, 123, 181	0
9	AI	127/128 (99%)	0.02	3 (2%) 59 45	55, 113, 161, 319	0
9	CI	127/128 (99%)	-0.06	3 (2%) 59 45	45, 97, 170, 245	0
10	AJ	99/105 (94%)	0.29	4 (4%) 38 28	58, 124, 197, 302	0
10	CJ	99/105 (94%)	0.26	5 (5%) 28 20	38, 115, 191, 204	0
11	AK	119/129 (92%)	-0.12	4 (3%) 45 34	41, 77, 147, 249	0
11	CK	119/129 (92%)	-0.06	3 (2%) 57 43	29, 73, 139, 188	0
12	AL	125/132 (94%)	-0.15	3 (2%) 59 45	31, 64, 129, 300	0
12	CL	125/132 (94%)	-0.29	3 (2%) 59 45	9, 47, 127, 252	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	125/126 (99%)	0.03	4 (3%) 47 36	29, 94, 148, 314	0
13	CM	125/126 (99%)	0.08	6 (4%) 30 23	39, 87, 174, 274	0
14	AN	60/61 (98%)	-0.06	1 (1%) 70 57	53, 92, 138, 207	0
14	CN	60/61 (98%)	-0.12	0 100 100	34, 71, 111, 194	0
15	AO	88/89 (98%)	-0.28	0 100 100	35, 80, 132, 142	0
15	CO	88/89 (98%)	-0.33	0 100 100	23, 69, 122, 147	0
16	AP	84/88 (95%)	-0.43	0 100 100	48, 74, 122, 182	0
16	CP	84/88 (95%)	-0.30	0 100 100	44, 76, 139, 200	0
17	AQ	100/105 (95%)	-0.22	0 100 100	50, 91, 141, 174	0
17	CQ	100/105 (95%)	-0.18	1 (1%) 82 71	38, 87, 144, 192	0
18	AR	70/88 (79%)	-0.21	3 (4%) 35 26	35, 77, 126, 182	0
18	CR	70/88 (79%)	-0.35	1 (1%) 75 62	36, 70, 122, 205	0
19	AS	79/93 (84%)	0.13	1 (1%) 77 65	46, 104, 202, 268	0
19	CS	79/93 (84%)	0.08	0 100 100	27, 82, 153, 206	0
20	AT	99/106 (93%)	0.06	5 (5%) 28 20	42, 90, 173, 211	0
20	CT	99/106 (93%)	0.13	3 (3%) 50 37	40, 97, 192, 295	0
21	AU	25/27 (92%)	0.72	5 (20%) 1 1	36, 92, 165, 229	0
21	CU	25/27 (92%)	-0.03	0 100 100	50, 78, 107, 150	0
22	AV	77/77 (100%)	0.10	0 100 100	45, 82, 163, 276	0
22	CV	77/77 (100%)	0.19	3 (3%) 39 29	32, 72, 133, 253	0
23	AW	76/76 (100%)	1.27	17 (22%) 0 0	48, 175, 249, 317	0
23	AY	17/76 (22%)	0.41	0 100 100	64, 94, 167, 176	0
23	CW	76/76 (100%)	1.63	24 (31%) 0 0	34, 184, 271, 295	0
23	CY	17/76 (22%)	0.69	0 100 100	44, 75, 149, 186	0
24	AX	12/24 (50%)	0.73	2 (16%) 1 1	49, 74, 217, 234	0
24	CX	10/24 (41%)	0.55	1 (10%) 7 6	42, 58, 144, 213	0
25	BA	2810/2915 (96%)	0.18	115 (4%) 37 27	17, 58, 187, 375	0
25	DA	2824/2915 (96%)	0.11	106 (3%) 40 30	6, 42, 178, 370	0
26	BB	119/122 (97%)	0.17	1 (0%) 86 75	59, 94, 132, 182	0
26	DB	119/122 (97%)	0.12	2 (1%) 70 57	38, 68, 113, 174	0
27	BC	191/229 (83%)	1.88	74 (38%) 0 0	89, 200, 319, 378	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
27	DC	191/229 (83%)	2.28	93 (48%) 0 0	64, 208, 290, 334	0
28	BD	272/276 (98%)	-0.40	0 100 100	9, 45, 89, 166	0
28	DD	272/276 (98%)	-0.49	0 100 100	3, 33, 80, 197	0
29	BE	205/206 (99%)	-0.23	5 (2%) 59 45	17, 66, 128, 289	0
29	DE	205/206 (99%)	-0.23	4 (1%) 65 52	11, 55, 160, 338	0
30	BF	208/210 (99%)	-0.36	4 (1%) 66 53	14, 64, 164, 286	0
30	DF	202/210 (96%)	-0.32	2 (0%) 82 71	5, 51, 127, 208	0
31	BG	181/182 (99%)	-0.18	6 (3%) 46 35	40, 95, 175, 268	0
31	DG	181/182 (99%)	-0.18	4 (2%) 62 48	25, 76, 143, 219	0
32	BH	160/180 (88%)	0.89	31 (19%) 1 1	85, 179, 331, 429	0
32	DH	168/180 (93%)	0.02	1 (0%) 89 81	29, 81, 155, 234	0
33	BI	145/148 (97%)	-0.13	5 (3%) 45 34	33, 96, 156, 184	0
33	DI	146/148 (98%)	-0.07	1 (0%) 87 79	15, 104, 166, 207	0
34	BN	139/140 (99%)	-0.30	1 (0%) 87 79	36, 79, 147, 305	0
34	DN	139/140 (99%)	-0.34	0 100 100	7, 61, 137, 185	0
35	BO	122/122 (100%)	-0.50	0 100 100	32, 65, 97, 124	0
35	DO	122/122 (100%)	-0.61	0 100 100	10, 41, 84, 112	0
36	BP	150/150 (100%)	0.30	5 (3%) 46 35	27, 87, 179, 250	0
36	DP	150/150 (100%)	0.07	3 (2%) 65 52	23, 71, 151, 264	0
37	BQ	141/141 (100%)	-0.24	3 (2%) 63 50	36, 74, 126, 421	0
37	DQ	141/141 (100%)	-0.40	0 100 100	12, 52, 108, 281	0
38	BR	117/118 (99%)	-0.42	0 100 100	21, 57, 107, 148	0
38	DR	118/118 (100%)	-0.47	0 100 100	15, 50, 92, 126	0
39	BS	99/112 (88%)	-0.17	1 (1%) 82 71	38, 100, 171, 347	0
39	DS	111/112 (99%)	-0.13	2 (1%) 68 55	33, 73, 147, 197	0
40	BT	138/146 (94%)	-0.04	6 (4%) 35 26	29, 80, 225, 351	0
40	DT	138/146 (94%)	-0.05	8 (5%) 23 17	20, 71, 212, 304	0
41	BU	117/118 (99%)	-0.40	1 (0%) 84 73	29, 64, 131, 281	0
41	DU	117/118 (99%)	-0.51	1 (0%) 84 73	17, 52, 114, 180	0
42	BV	101/101 (100%)	-0.28	0 100 100	23, 90, 149, 344	0
42	DV	101/101 (100%)	-0.12	1 (0%) 82 71	9, 70, 131, 303	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
43	BW	113/113 (100%)	-0.23	2 (1%) 68 55	19, 49, 113, 319	0
43	DW	113/113 (100%)	-0.32	0 100 100	14, 42, 128, 204	0
44	BX	93/96 (96%)	-0.34	0 100 100	30, 63, 99, 149	0
44	DX	93/96 (96%)	-0.33	0 100 100	12, 42, 87, 144	0
45	BY	101/110 (91%)	0.88	20 (19%) 1 1	42, 92, 253, 363	0
45	DY	102/110 (92%)	0.06	3 (2%) 51 38	28, 82, 182, 226	0
46	BZ	177/206 (85%)	0.41	17 (9%) 8 6	45, 125, 202, 316	0
46	DZ	177/206 (85%)	0.54	18 (10%) 6 6	29, 116, 254, 322	0
47	B0	84/85 (98%)	-0.03	6 (7%) 16 13	31, 69, 170, 242	0
47	D0	84/85 (98%)	-0.08	7 (8%) 11 10	18, 52, 136, 286	0
48	B1	94/98 (95%)	-0.18	1 (1%) 80 69	17, 53, 113, 219	0
48	D1	94/98 (95%)	-0.31	0 100 100	7, 44, 122, 237	0
49	B2	71/72 (98%)	-0.24	2 (2%) 53 40	35, 77, 128, 195	0
49	D2	71/72 (98%)	-0.23	0 100 100	14, 54, 137, 267	0
50	B3	60/60 (100%)	-0.03	2 (3%) 46 35	35, 75, 125, 382	0
50	D3	60/60 (100%)	-0.25	1 (1%) 70 57	20, 65, 142, 236	0
51	B4	31/71 (43%)	-0.16	0 100 100	67, 121, 152, 204	0
51	D4	40/71 (56%)	0.07	2 (5%) 28 21	55, 116, 173, 266	0
52	B5	59/60 (98%)	0.15	6 (10%) 6 6	17, 72, 180, 340	0
52	D5	59/60 (98%)	0.16	3 (5%) 28 20	12, 63, 214, 299	0
53	B6	45/54 (83%)	1.21	12 (26%) 0 0	44, 138, 207, 343	0
53	D6	45/54 (83%)	1.82	17 (37%) 0 0	59, 139, 235, 285	0
54	B7	49/49 (100%)	-0.41	0 100 100	11, 41, 123, 149	0
54	D7	49/49 (100%)	-0.59	0 100 100	1, 23, 101, 204	0
55	B8	64/65 (98%)	-0.05	2 (3%) 49 36	20, 60, 129, 325	0
55	D8	64/65 (98%)	-0.38	0 100 100	12, 51, 115, 172	0
56	B9	36/37 (97%)	3.56	28 (77%) 0 0	120, 197, 269, 389	0
56	D9	36/37 (97%)	3.45	31 (86%) 0 0	115, 172, 217, 282	0
All	All	21184/22210 (95%)	0.06	911 (4%) 35 26	1, 71, 192, 429	0

All (911) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
25	DA	2802	G	15.7
25	BA	2802	G	13.6
1	AA	81	U	13.5
1	AA	89	C	12.6
23	CW	20	U	12.5
27	DC	179	SER	12.3
45	BY	51	VAL	11.2
46	BZ	113	ALA	11.2
25	BA	1509	C	11.0
45	BY	59	GLY	11.0
1	CA	89	C	10.9
27	DC	166	ASP	10.8
11	AK	129	SER	10.8
56	B9	14	CYS	10.7
1	AA	88	A	10.1
25	DA	1509	C	9.9
27	BC	154	ARG	9.6
46	BZ	115	GLY	9.4
27	BC	91	ALA	9.4
23	CW	47	U	9.3
1	CA	88	A	9.1
27	DC	133	PRO	9.1
43	BW	113	LYS	9.0
56	D9	14	CYS	8.8
7	CG	83	ALA	8.8
27	BC	148	ASN	8.7
20	CT	106	ALA	8.7
45	BY	52	SER	8.6
25	BA	2795	G	8.3
56	B9	13	LYS	8.3
46	BZ	114	GLY	7.8
56	D9	29	ASN	7.6
27	DC	134	ARG	7.6
56	D9	12	ASP	7.5
25	BA	2894	G	7.5
56	D9	32	HIS	7.5
1	AA	1034	G	7.4
7	CG	82	GLY	7.3
46	DZ	113	ALA	7.3
56	B9	29	ASN	7.2
25	DA	2126	A	7.2
12	AL	128	ALA	7.2
52	D5	59	GLU	7.1

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Mol	Chain	Res	Type	RSRZ
32	BH	171	LEU	7.1
46	DZ	112	ARG	7.1
25	DA	896	A	7.0
2	AB	7	VAL	7.0
27	DC	85	GLU	7.0
27	BC	139	ASN	7.0
27	BC	165	ASN	7.0
56	B9	12	ASP	7.0
53	D6	26	ASN	6.9
56	B9	34	GLN	6.9
52	B5	59	GLU	6.9
27	BC	57	ASN	6.8
27	DC	120	MET	6.7
27	DC	132	GLY	6.7
1	CA	1030	C	6.7
27	BC	69	GLY	6.7
25	DA	2801	A	6.7
29	DE	205	ALA	6.6
25	BA	896	A	6.6
1	CA	91	C	6.6
1	AA	83	U	6.6
25	DA	2795	G	6.6
56	D9	34	GLN	6.5
27	BC	125	SER	6.5
32	BH	23	ARG	6.4
25	BA	2794	C	6.4
1	AA	84	U	6.3
46	DZ	111	VAL	6.3
27	DC	41	VAL	6.3
25	BA	2803	C	6.2
23	AW	6	G	6.2
1	AA	1531	A	6.2
27	BC	76	ALA	6.2
56	B9	23	VAL	6.1
27	BC	166	ASP	6.1
46	DZ	114	GLY	6.1
25	DA	2125	G	6.1
25	DA	885	C	6.1
25	DA	2896	C	6.1
52	B5	58	LEU	6.0
27	BC	136	LEU	5.9
1	CA	80	G	5.9

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Mol	Chain	Res	Type	RSRZ
40	BT	138	ALA	5.9
7	AG	82	GLY	5.8
25	BA	1174	A	5.8
27	DC	125	SER	5.8
11	AK	128	ALA	5.8
27	DC	128	GLY	5.7
27	DC	135	GLY	5.7
45	BY	56	PRO	5.7
11	CK	129	SER	5.7
56	D9	30	PRO	5.7
1	AA	82	U	5.7
27	DC	51	PRO	5.6
32	BH	170	ARG	5.6
25	DA	2207	G	5.6
25	BA	2796	U	5.6
27	DC	140	PRO	5.6
56	B9	25	VAL	5.5
23	AW	19	G	5.5
1	CA	93	G	5.5
56	B9	36	GLN	5.4
25	BA	1176	G	5.4
25	DA	2793	G	5.4
25	DA	2796	U	5.4
40	BT	135	ALA	5.4
1	CA	92	C	5.4
7	CG	84	ASN	5.4
12	CL	129	ALA	5.3
27	DC	100	ILE	5.3
52	B5	60	VAL	5.3
25	DA	1097	U	5.3
25	DA	1096	A	5.2
27	BC	134	ARG	5.2
27	DC	139	ASN	5.2
1	AA	1447	A	5.2
12	AL	129	ALA	5.1
31	BG	182	LYS	5.1
27	DC	178	ALA	5.1
1	CA	1027	C	5.1
27	DC	70	LYS	5.1
27	DC	84	LYS	5.1
27	BC	90	GLY	5.1
56	B9	11	CYS	5.0

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Mol	Chain	Res	Type	RSRZ
27	DC	76	ALA	5.0
46	BZ	112	ARG	5.0
27	DC	109	ASP	5.0
25	DA	884	C	5.0
27	DC	119	VAL	5.0
1	CA	90	U	4.9
27	BC	58	VAL	4.9
23	CW	59	U	4.9
25	DA	2799	C	4.9
1	CA	1001(A)	G	4.9
50	B3	1	MET	4.9
23	AW	47	U	4.8
40	DT	137	LYS	4.8
40	BT	136	GLN	4.8
53	D6	46	HIS	4.8
1	CA	82	U	4.8
27	BC	149	ILE	4.7
5	CE	154	GLY	4.7
39	DS	2	ALA	4.7
25	BA	2895	U	4.7
29	DE	69	LYS	4.6
41	BU	118	GLY	4.6
32	BH	48	GLY	4.6
25	BA	2132	U	4.6
27	DC	42	GLU	4.6
25	BA	1505	C	4.6
45	BY	50	ARG	4.5
25	BA	2173	A	4.5
12	CL	128	ALA	4.5
27	DC	71	GLN	4.5
40	DT	136	GLN	4.5
1	CA	81	U	4.5
1	AA	1001(A)	G	4.4
25	BA	2793	G	4.4
27	DC	148	ASN	4.4
27	BC	95	GLY	4.4
25	BA	2801	A	4.4
25	BA	352	G	4.4
27	DC	131	LEU	4.4
30	DF	134	GLY	4.4
27	BC	59	ARG	4.4
27	DC	96	GLY	4.4

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Mol	Chain	Res	Type	RSRZ
24	CX	13	A	4.4
25	DA	1174	A	4.4
27	BC	78	ALA	4.4
25	BA	2896	C	4.4
45	BY	58	GLY	4.3
53	D6	14	THR	4.3
1	AA	485	G	4.3
25	BA	2893	G	4.3
25	DA	2116	G	4.3
1	CA	1036	G	4.3
30	DF	133	ASN	4.3
1	CA	76	C	4.3
27	DC	141	LYS	4.3
53	B6	26	ASN	4.3
23	CW	5	G	4.3
32	BH	24	VAL	4.3
27	BC	187	ASP	4.3
1	AA	1030(D)	A	4.3
23	CW	21	A	4.3
25	DA	883	G	4.3
27	DC	52	ARG	4.3
27	BC	151	GLU	4.2
24	AX	13	A	4.2
47	B0	85	ALA	4.2
56	B9	31	LYS	4.2
56	D9	13	LYS	4.2
11	CK	128	ALA	4.2
25	DA	1098	A	4.2
25	DA	2108	C	4.1
27	DC	80	GLY	4.1
27	DC	95	GLY	4.1
32	BH	35	VAL	4.1
25	BA	2801(A)	A	4.1
46	BZ	148	ASP	4.1
56	B9	35	ARG	4.1
25	DA	2897	U	4.1
53	B6	13	CYS	4.1
52	D5	60	VAL	4.1
25	BA	2169	A	4.1
25	DA	2801(A)	A	4.1
25	DA	2892	A	4.1
1	CA	1031	G	4.1

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Mol	Chain	Res	Type	RSRZ
11	AK	117	ASN	4.1
27	DC	127	LEU	4.1
32	BH	129	THR	4.1
23	AW	7	A	4.1
27	BC	164	ARG	4.1
56	D9	31	LYS	4.1
10	CJ	4	ILE	4.1
7	AG	83	ALA	4.1
1	AA	80	G	4.1
25	DA	2894	G	4.1
25	DA	2119	A	4.1
25	BA	2138	C	4.0
1	AA	1033	G	4.0
27	DC	92	ASP	4.0
56	D9	24	TYR	4.0
27	DC	121	GLY	4.0
27	DC	108	MET	4.0
13	CM	123	ALA	4.0
25	DA	886	C	4.0
50	D3	1	MET	4.0
27	DC	74	VAL	4.0
29	BE	205	ALA	4.0
25	BA	2155	G	4.0
27	DC	65	PRO	4.0
46	DZ	176	PRO	4.0
21	AU	26	LYS	4.0
56	D9	25	VAL	4.0
25	DA	1176	G	4.0
31	DG	75	LYS	4.0
25	BA	1048	A	4.0
23	CW	62	C	3.9
40	BT	2	ASN	3.9
25	DA	508	G	3.9
29	DE	72	VAL	3.9
27	BC	79	LYS	3.9
1	CA	84	U	3.9
1	CA	1033	G	3.9
53	D6	20	ASN	3.9
1	AA	1030(B)	C	3.9
56	B9	9	ARG	3.9
1	AA	91	C	3.9
45	BY	48	ALA	3.9

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Mol	Chain	Res	Type	RSRZ
53	D6	25	LYS	3.9
1	AA	1027	C	3.9
25	BA	2146	C	3.8
27	DC	43	VAL	3.8
27	DC	165	ASN	3.8
46	DZ	174	VAL	3.8
27	BC	200	LYS	3.8
1	CA	1026	G	3.8
1	CA	1030(D)	A	3.8
53	B6	29	ASN	3.8
25	DA	895	U	3.8
27	DC	75	LEU	3.8
25	BA	1049	C	3.8
25	BA	2140	C	3.8
27	DC	62	VAL	3.8
27	DC	40	THR	3.8
25	DA	2117	A	3.7
20	CT	99	LEU	3.7
25	DA	899	A	3.7
27	BC	60	GLY	3.7
46	DZ	175	VAL	3.7
56	D9	28	GLU	3.7
27	BC	135	GLY	3.7
50	B3	60	GLU	3.7
25	DA	2473	U	3.7
1	CA	162	A	3.7
21	AU	18	TYR	3.7
46	BZ	149	SER	3.7
25	DA	2112	G	3.7
10	CJ	59	SER	3.7
32	BH	47	GLU	3.7
53	D6	29	ASN	3.7
47	D0	5	LYS	3.7
56	D9	15	LYS	3.7
25	BA	1026	U	3.7
27	DC	18	LYS	3.7
32	BH	32	GLU	3.7
27	DC	182	PRO	3.7
27	BC	45	ALA	3.7
27	DC	142	ALA	3.7
46	DZ	173	ALA	3.7
25	DA	2173	A	3.6

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Mol	Chain	Res	Type	RSRZ
27	DC	144	THR	3.6
20	AT	104	LEU	3.6
27	DC	136	LEU	3.6
9	AI	4	TYR	3.6
25	BA	1113	U	3.6
25	DA	897	C	3.6
56	D9	36	GLN	3.6
27	DC	180	PHE	3.6
56	D9	6	SER	3.6
27	BC	80	GLY	3.6
27	BC	105	ASP	3.6
27	DC	107	TRP	3.6
27	DC	143	GLY	3.6
27	DC	126	LYS	3.6
1	CA	1257	U	3.6
7	CG	81	GLY	3.6
25	BA	888	C	3.6
25	DA	1103	A	3.6
25	BA	2897	U	3.6
25	BA	2125	G	3.6
25	BA	2171	A	3.6
1	AA	1030(A)	G	3.6
23	AW	5	G	3.6
46	DZ	115	GLY	3.6
13	AM	123	ALA	3.5
40	BT	137	LYS	3.5
45	BY	89	PHE	3.5
1	AA	1036	G	3.5
25	BA	1173	G	3.5
47	D0	3	HIS	3.5
29	DE	204	ALA	3.5
25	BA	1046	A	3.5
56	D9	23	VAL	3.5
40	DT	39	ARG	3.5
25	DA	2151	G	3.5
56	B9	24	TYR	3.5
1	CA	1030(C)	G	3.5
25	BA	2152	G	3.5
53	B6	31	PRO	3.5
29	BE	69	LYS	3.5
25	BA	2139	C	3.4
27	DC	56	GLN	3.4

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Mol	Chain	Res	Type	RSRZ
20	AT	106	ALA	3.4
25	BA	2892	A	3.4
56	D9	5	ALA	3.4
10	CJ	101	VAL	3.4
25	DA	893	C	3.4
25	BA	2117	A	3.4
27	DC	77	ILE	3.4
1	AA	90	U	3.4
32	BH	169	VAL	3.4
56	D9	4	ARG	3.4
27	DC	53	ARG	3.4
27	BC	186	ALA	3.4
27	DC	102	LYS	3.4
45	BY	60	PHE	3.4
27	DC	216	THR	3.4
25	BA	2799	C	3.4
1	CA	1531	A	3.4
27	BC	132	GLY	3.4
25	DA	888	C	3.4
56	B9	8	LYS	3.4
25	BA	2131	G	3.4
27	BC	119	VAL	3.4
25	DA	2161	C	3.4
1	AA	1030(C)	G	3.3
25	DA	1099	G	3.3
27	BC	41	VAL	3.3
27	DC	91	ALA	3.3
1	CA	1032	G	3.3
1	CA	1030(B)	C	3.3
22	CV	48	U	3.3
32	BH	29	PRO	3.3
23	CW	61	C	3.3
45	BY	55	TYR	3.3
1	AA	1026	G	3.3
1	AA	1124	G	3.3
25	DA	1055	G	3.3
1	CA	77	G	3.3
1	CA	1030(A)	G	3.3
25	BA	2165	G	3.3
25	BA	2833	G	3.3
25	DA	887	A	3.3
25	DA	2131	G	3.3

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Mol	Chain	Res	Type	RSRZ
23	AW	55	U	3.3
46	BZ	177	PRO	3.3
25	DA	1445	A	3.3
27	BC	188	ASN	3.3
25	BA	2174	C	3.3
39	DS	111	GLU	3.3
1	CA	1447	A	3.2
23	CW	17	C	3.2
53	D6	13	CYS	3.2
1	CA	73	G	3.2
2	AB	21	ARG	3.2
53	B6	41	PRO	3.2
10	AJ	33	GLN	3.2
27	BC	150	GLY	3.2
4	AD	209	ARG	3.2
53	D6	47	THR	3.2
1	CA	630	G	3.2
40	DT	135	ALA	3.2
23	CW	55	U	3.2
2	CB	35	GLU	3.2
51	D4	30	GLU	3.2
25	BA	2207	G	3.2
25	BA	2164	C	3.2
34	BN	8	GLN	3.2
45	BY	88	LYS	3.2
49	B2	72	ALA	3.2
46	DZ	105	VAL	3.2
46	BZ	178	GLU	3.2
27	BC	70	LYS	3.2
27	DC	50	ASP	3.2
27	DC	79	LYS	3.2
29	BE	68	ALA	3.2
30	BF	10	PRO	3.2
56	B9	32	HIS	3.2
45	DY	102	CYS	3.1
56	B9	30	PRO	3.1
25	BA	2114	A	3.1
32	BH	49	VAL	3.1
48	B1	85	LEU	3.1
1	CA	79	G	3.1
25	DA	898	C	3.1
27	BC	19	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
27	DC	187	ASP	3.1
23	CW	56	C	3.1
27	BC	63	SER	3.1
27	DC	39	GLU	3.1
25	DA	892	G	3.1
25	BA	2476	A	3.1
31	BG	27	ASN	3.1
23	CW	19	G	3.1
25	DA	2132	U	3.1
27	DC	38	ASP	3.1
1	CA	1002	G	3.1
1	CA	1286	A	3.1
1	CA	96	U	3.1
23	AW	56	C	3.1
25	BA	362	U	3.1
25	DA	894	C	3.1
25	DA	2803	C	3.1
23	CW	57	G	3.1
1	AA	218	C	3.1
23	AW	49	C	3.1
25	BA	1043	C	3.1
25	BA	2119	A	3.1
25	BA	2168	G	3.1
45	BY	61	ILE	3.1
56	D9	11	CYS	3.1
25	DA	2188	C	3.0
25	DA	547	A	3.0
25	BA	2156	G	3.0
25	DA	11	G	3.0
53	D6	19	ARG	3.0
1	AA	1257	U	3.0
23	AW	21	A	3.0
25	BA	2118	U	3.0
1	CA	1034	G	3.0
25	BA	2162	G	3.0
25	DA	545	C	3.0
27	DC	181	PRO	3.0
27	DC	78	ALA	3.0
1	AA	1031	G	3.0
1	AA	1030	C	3.0
5	AE	155	GLU	3.0
2	CB	16	HIS	3.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1035	A	3.0
25	DA	1509(A)	A	3.0
13	CM	124	PRO	3.0
31	BG	2	PRO	3.0
56	B9	33	LYS	3.0
25	DA	2402	C	3.0
27	BC	133	PRO	3.0
14	AN	17	LYS	3.0
18	AR	88	LYS	3.0
27	DC	110	PHE	3.0
22	CV	1	C	3.0
45	BY	53	PRO	3.0
56	B9	10	ILE	3.0
27	BC	84	LYS	3.0
32	BH	17	VAL	3.0
25	DA	2141	G	3.0
56	D9	19	ARG	3.0
1	CA	412	A	3.0
11	CK	12	ARG	3.0
13	CM	126	LYS	3.0
36	BP	91	PHE	3.0
1	CA	1260	C	2.9
25	DA	2115	G	2.9
36	DP	12	ALA	2.9
56	B9	7	VAL	2.9
7	CG	85	TYR	2.9
25	BA	546	C	2.9
30	BF	133	ASN	2.9
23	CW	46	G	2.9
27	BC	87	GLU	2.9
42	DV	36	PRO	2.9
32	BH	106	THR	2.9
23	CW	60	U	2.9
9	CI	105	ASP	2.9
32	BH	159	GLU	2.9
25	DA	1026	U	2.9
46	BZ	146	ILE	2.9
25	BA	1114	G	2.9
7	AG	84	ASN	2.9
23	CW	45	U	2.9
27	BC	194	ARG	2.9
25	BA	2133	G	2.9

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Mol	Chain	Res	Type	RSRZ
25	BA	2153	G	2.9
25	DA	352	G	2.9
27	BC	104	LEU	2.9
1	CA	204	U	2.9
21	AU	24	ARG	2.9
25	BA	2170	A	2.9
8	CH	46	LYS	2.9
27	DC	99	ILE	2.9
25	BA	884	C	2.9
25	DA	2477	C	2.9
1	AA	1261	A	2.9
25	BA	2733	A	2.9
32	BH	83	TYR	2.9
27	DC	19	VAL	2.8
29	BE	204	ALA	2.8
25	BA	1052	C	2.8
25	BA	1171	G	2.8
25	BA	2141	G	2.8
27	BC	100	ILE	2.8
27	DC	172	HIS	2.8
46	DZ	144	LEU	2.8
40	DT	132	LYS	2.8
25	DA	2154	G	2.8
25	DA	2155	G	2.8
53	B6	19	ARG	2.8
32	BH	81	GLU	2.8
25	DA	2107	C	2.8
25	DA	2127	G	2.8
27	BC	77	ILE	2.8
56	D9	27	CYS	2.8
53	B6	12	GLU	2.8
56	B9	15	LYS	2.8
25	DA	2129	C	2.8
56	B9	19	ARG	2.8
25	BA	1177	A	2.8
27	BC	61	THR	2.8
22	CV	68	C	2.8
41	DU	118	GLY	2.8
27	DC	44	HIS	2.8
1	CA	345	C	2.8
23	CW	12	U	2.8
25	BA	2166	G	2.8

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Mol	Chain	Res	Type	RSRZ
46	BZ	144	LEU	2.8
56	D9	7	VAL	2.8
1	AA	1131	G	2.8
23	AW	34	G	2.8
56	D9	9	ARG	2.7
25	BA	2127	G	2.7
43	BW	94	ASP	2.7
13	CM	125	ARG	2.7
25	DA	2135	A	2.7
25	BA	2147	G	2.7
27	DC	177	LYS	2.7
25	DA	2113	U	2.7
25	BA	11	G	2.7
7	AG	86	GLN	2.7
27	DC	157	LYS	2.7
13	AM	126	LYS	2.7
27	BC	163	PHE	2.7
47	B0	3	HIS	2.7
1	AA	1452	C	2.7
32	BH	111	HIS	2.7
1	AA	161	A	2.7
2	CB	36	ARG	2.7
2	CB	96	ARG	2.7
31	DG	182	LYS	2.7
23	AW	4	C	2.7
27	BC	216	THR	2.7
27	BC	92	ASP	2.7
32	BH	33	LEU	2.7
27	BC	74	VAL	2.7
36	BP	120	ALA	2.7
1	AA	78	G	2.7
1	AA	993	G	2.7
47	D0	4	LYS	2.7
1	CA	1028	C	2.6
2	CB	128	GLU	2.6
25	BA	1509(A)	A	2.6
30	BF	134	GLY	2.6
25	BA	2137	C	2.6
25	DA	2171	A	2.6
37	BQ	60	ARG	2.6
27	BC	72	VAL	2.6
27	BC	81	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
27	DC	81	GLU	2.6
27	BC	102	LYS	2.6
56	B9	17	ILE	2.6
47	B0	2	ALA	2.6
11	AK	127	LYS	2.6
27	BC	51	PRO	2.6
46	DZ	178	GLU	2.6
23	CW	6	G	2.6
25	BA	2646	C	2.6
52	B5	53	ALA	2.6
1	CA	1138	G	2.6
13	AM	124	PRO	2.6
27	DC	26	ALA	2.6
32	BH	44	VAL	2.6
25	BA	2765	A	2.6
32	BH	37	VAL	2.6
53	D6	32	ASN	2.6
56	B9	4	ARG	2.6
55	B8	31	HIS	2.6
1	CA	1129	C	2.6
1	CA	1137	C	2.6
1	AA	1286	A	2.6
25	BA	2126	A	2.6
25	DA	1497	U	2.6
26	DB	1	U	2.6
45	DY	103	GLY	2.6
36	BP	121	LYS	2.6
25	BA	508	G	2.6
25	DA	362(F)	A	2.6
25	DA	2506	U	2.6
27	BC	40	THR	2.6
56	B9	28	GLU	2.5
25	BA	2112	G	2.5
36	BP	150	ALA	2.5
27	BC	157	LYS	2.5
1	CA	820	U	2.5
25	BA	1045	A	2.5
25	DA	2138	C	2.5
32	BH	34	GLU	2.5
53	D6	24	GLU	2.5
27	DC	25	ALA	2.5
55	B8	33	ASN	2.5

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Mol	Chain	Res	Type	RSRZ
56	B9	21	GLY	2.5
1	CA	72	C	2.5
2	AB	40	HIS	2.5
27	BC	62	VAL	2.5
53	D6	12	GLU	2.5
23	CW	48	C	2.5
33	BI	57	ARG	2.5
25	DA	2156	G	2.5
36	DP	150	ALA	2.5
9	AI	3	GLN	2.5
27	BC	56	GLN	2.5
32	DH	116	GLU	2.5
40	DT	36	GLU	2.5
47	D0	6	GLY	2.5
18	CR	88	LYS	2.5
25	BA	2891	G	2.5
25	BA	2477	C	2.5
27	BC	177	LYS	2.5
30	BF	12	LEU	2.5
25	BA	2150	U	2.5
25	DA	2895	U	2.5
32	BH	95	ARG	2.5
27	BC	110	PHE	2.5
27	DC	24	GLU	2.5
31	BG	49	ASP	2.5
46	BZ	179	ASP	2.5
25	BA	92	A	2.5
23	AW	45	U	2.5
27	DC	69	GLY	2.5
27	DC	156	ILE	2.5
25	BA	2113	U	2.5
46	DZ	177	PRO	2.5
7	AG	2	ALA	2.5
18	AR	20	ALA	2.4
45	BY	87	LYS	2.4
25	BA	271(B)	C	2.4
25	BA	2145	C	2.4
25	DA	1173	G	2.4
52	B5	52	TYR	2.4
32	BH	51	ARG	2.4
46	BZ	132	ASN	2.4
27	BC	126	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
37	BQ	59	ARG	2.4
25	DA	2790	A	2.4
20	AT	51	GLU	2.4
46	DZ	143	GLY	2.4
21	AU	25	LYS	2.4
25	BA	2473	U	2.4
25	DA	271(N)	U	2.4
4	CD	45	GLN	2.4
25	BA	1175	U	2.4
27	DC	190	ARG	2.4
10	CJ	100	THR	2.4
25	DA	1100	C	2.4
25	DA	2140	C	2.4
27	DC	88	GLU	2.4
1	CA	97	G	2.4
25	DA	2123	G	2.4
27	DC	73	ARG	2.4
1	AA	994	A	2.4
23	CW	35	A	2.4
23	CW	58	A	2.4
1	CA	129(A)	G	2.4
25	BA	2732	G	2.4
25	DA	2792	G	2.4
46	DZ	170	THR	2.4
47	D0	2	ALA	2.4
25	DA	2172	U	2.4
31	DG	26	GLN	2.4
56	D9	26	ILE	2.4
25	DA	2169	A	2.4
25	DA	2804	C	2.4
27	BC	131	LEU	2.4
27	DC	104	LEU	2.4
32	BH	19	VAL	2.4
27	DC	101	GLN	2.4
32	BH	96	ALA	2.4
7	AG	8	GLU	2.4
13	CM	69	GLU	2.4
25	BA	645	C	2.4
33	BI	61	ARG	2.4
21	AU	17	THR	2.4
5	CE	155	GLU	2.3
45	BY	28	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
27	BC	108	MET	2.3
53	D6	43	CYS	2.3
25	BA	1044	G	2.3
45	BY	45	VAL	2.3
25	DA	2164	C	2.3
25	DA	2794	C	2.3
45	BY	86	ARG	2.3
27	BC	158	ALA	2.3
23	AW	46	G	2.3
25	DA	882	G	2.3
32	BH	53	GLU	2.3
33	BI	10	GLU	2.3
13	CM	122	LYS	2.3
13	AM	125	ARG	2.3
27	BC	190	ARG	2.3
53	D6	9	LEU	2.3
1	AA	983	A	2.3
25	BA	1740	G	2.3
45	BY	2	ARG	2.3
25	BA	995	C	2.3
52	B5	2	ALA	2.3
27	BC	199	HIS	2.3
47	B0	4	LYS	2.3
56	B9	3	VAL	2.3
10	AJ	26	ALA	2.3
25	BA	1108	U	2.3
25	BA	1051	G	2.3
25	DA	1171	G	2.3
27	BC	140	PRO	2.3
25	DA	2136	C	2.3
20	AT	103	GLY	2.3
27	BC	217	THR	2.3
27	DC	97	GLU	2.3
1	AA	855	G	2.3
23	CW	4	C	2.3
25	BA	2631	G	2.3
53	B6	42	TRP	2.3
12	CL	127	GLU	2.3
56	D9	16	VAL	2.3
56	D9	21	GLY	2.3
1	AA	5	U	2.3
1	CA	1025	U	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	1066	C	2.3
26	DB	2	C	2.3
25	BA	2792	G	2.3
1	AA	494	U	2.3
10	AJ	83	GLU	2.3
1	CA	48	C	2.3
25	DA	2805	G	2.3
27	DC	149	ILE	2.3
49	B2	43	GLN	2.3
1	CA	1503	A	2.3
25	BA	1178	C	2.3
27	DC	153	ILE	2.3
56	D9	17	ILE	2.3
25	BA	2115	G	2.2
25	BA	2154	G	2.2
51	D4	1	MET	2.2
32	BH	52	VAL	2.2
25	BA	885	C	2.2
56	B9	5	ALA	2.2
56	D9	10	ILE	2.2
1	CA	202	U	2.2
25	DA	2319	G	2.2
36	DP	11	GLY	2.2
46	BZ	176	PRO	2.2
25	DA	2602	A	2.2
27	BC	215	THR	2.2
27	DC	89	ALA	2.2
25	BA	2804	C	2.2
27	BC	75	LEU	2.2
10	CJ	5	ARG	2.2
1	CA	1024	G	2.2
23	AW	65	G	2.2
12	AL	127	GLU	2.2
1	AA	1125	U	2.2
27	BC	185	LEU	2.2
27	DC	124	GLY	2.2
32	BH	89	ILE	2.2
45	BY	46	LYS	2.2
56	B9	16	VAL	2.2
46	BZ	62	PRO	2.2
1	CA	6	G	2.2
1	CA	631	G	2.2

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Mol	Chain	Res	Type	RSRZ
25	BA	2116	G	2.2
25	BA	2107	C	2.2
25	DA	1102	C	2.2
18	AR	21	LYS	2.2
27	DC	36	LYS	2.2
46	BZ	21	ALA	2.2
1	AA	130	A	2.2
5	AE	154	GLY	2.2
25	DA	2476	A	2.2
46	DZ	107	THR	2.2
29	BE	61	ARG	2.2
27	DC	57	ASN	2.2
27	BC	162	GLU	2.2
23	AW	62	C	2.2
25	BA	1112	G	2.2
25	BA	2523	G	2.2
7	AG	156	TRP	2.2
33	BI	54	GLN	2.2
39	BS	57	LYS	2.2
9	AI	128	ARG	2.1
27	DC	55	ASP	2.1
46	DZ	154	ASP	2.1
53	B6	44	ARG	2.1
25	BA	1181	C	2.1
25	DA	2174	C	2.1
23	AW	50	U	2.1
25	BA	272(A)	U	2.1
25	DA	2118	U	2.1
20	AT	9	ASN	2.1
32	BH	57	ASP	2.1
4	AD	2	GLY	2.1
31	BG	75	LYS	2.1
33	DI	146	ALA	2.1
40	DT	3	ARG	2.1
47	D0	85	ALA	2.1
56	D9	22	ARG	2.1
23	CW	34	G	2.1
25	DA	1017	G	2.1
2	CB	40	HIS	2.1
47	B0	5	LYS	2.1
53	B6	22	ALA	2.1
25	BA	547	A	2.1

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Mol	Chain	Res	Type	RSRZ
20	CT	8	ARG	2.1
25	BA	1033	U	2.1
56	D9	37	GLY	2.1
31	BG	86	MET	2.1
53	D6	11	LEU	2.1
25	DA	2162	G	2.1
40	BT	133	GLU	2.1
10	AJ	34	VAL	2.1
45	DY	50	ARG	2.1
4	AD	37	PRO	2.1
40	DT	2	ASN	2.1
26	BB	5	C	2.1
2	CB	130	ARG	2.1
17	CQ	98	LEU	2.1
27	BC	53	ARG	2.1
27	DC	173	ALA	2.1
53	B6	52	VAL	2.1
45	BY	57	GLN	2.1
23	CW	44	G	2.1
27	DC	103	ILE	2.1
25	BA	229	A	2.1
25	DA	1046	A	2.1
37	BQ	139	GLU	2.1
46	BZ	147	GLY	2.1
1	AA	1028	C	2.1
27	DC	200	LYS	2.1
27	BC	52	ARG	2.1
46	DZ	179	ASP	2.1
53	D6	37	ARG	2.1
25	BA	2308	G	2.1
3	CC	85	ARG	2.1
25	BA	877	U	2.1
1	CA	1452	C	2.1
19	AS	43	GLU	2.1
23	AW	18	G	2.1
33	BI	11	ASN	2.1
53	D6	21	TYR	2.1
25	DA	2163	C	2.1
3	AC	147	LYS	2.1
1	AA	1390	U	2.1
23	CW	16	U	2.1
46	BZ	174	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1130	A	2.0
56	D9	8	LYS	2.0
25	BA	2136	C	2.0
2	AB	135	GLN	2.0
56	D9	33	LYS	2.0
36	BP	1	MET	2.0
1	CA	1043	C	2.0
25	DA	272(A)	U	2.0
25	DA	362	U	2.0
1	AA	412	A	2.0
9	CI	126	SER	2.0
31	DG	82	LEU	2.0
25	DA	2893	G	2.0
47	B0	8	GLY	2.0
25	BA	889	C	2.0
25	BA	2474	C	2.0
9	CI	4	TYR	2.0
32	BH	65	HIS	2.0
2	CB	126	GLU	2.0
27	BC	99	ILE	2.0
52	D5	53	ALA	2.0
1	CA	1006	C	2.0
25	DA	2150	U	2.0
53	B6	14	THR	2.0
47	D0	7	LEU	2.0
2	CB	129	GLU	2.0
24	AX	12	A	2.0
27	DC	155	GLU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no monosaccharides 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
57	MG	BA	3315	1/1	0.16	0.44	84,84,84,84	0
57	MG	DA	9655	1/1	0.37	0.92	35,35,35,35	0
57	MG	DA	9350	1/1	0.44	0.18	48,48,48,48	1
57	MG	BA	3149	1/1	0.47	0.34	27,27,27,27	0
57	MG	BA	3036	1/1	0.47	0.19	78,78,78,78	1
57	MG	BA	3037	1/1	0.49	0.27	83,83,83,83	0
57	MG	BA	3126	1/1	0.49	0.61	44,44,44,44	0
57	MG	CA	1687	1/1	0.52	0.36	47,47,47,47	0
57	MG	BA	3122	1/1	0.55	0.30	13,13,13,13	0
57	MG	AA	7086	1/1	0.57	1.00	30,30,30,30	0
57	MG	DA	9626	1/1	0.57	0.19	8,8,8,8	1
57	MG	BA	3271	1/1	0.57	0.73	52,52,52,52	0
57	MG	DA	9661	1/1	0.57	0.38	57,57,57,57	0
57	MG	CA	1639	1/1	0.58	0.69	55,55,55,55	0
57	MG	BA	3227	1/1	0.58	0.72	40,40,40,40	0
57	MG	DA	9429	1/1	0.60	0.97	51,51,51,51	0
57	MG	CA	1702	1/1	0.61	0.14	49,49,49,49	0
57	MG	BB	205	1/1	0.61	0.11	19,19,19,19	1
57	MG	CA	1699	1/1	0.61	0.40	45,45,45,45	1
57	MG	BA	3273	1/1	0.63	0.26	71,71,71,71	0
57	MG	BA	3248	1/1	0.63	0.70	49,49,49,49	0
57	MG	BA	3063	1/1	0.63	0.47	55,55,55,55	0
57	MG	CA	1651	1/1	0.64	0.44	39,39,39,39	0
57	MG	BA	3277	1/1	0.64	0.56	2,2,2,2	1
57	MG	AA	7002	1/1	0.64	0.48	35,35,35,35	0
57	MG	BA	3216	1/1	0.65	0.50	48,48,48,48	0
57	MG	CA	1683	1/1	0.65	0.26	29,29,29,29	0
57	MG	DA	9685	1/1	0.65	0.64	22,22,22,22	0
57	MG	BA	3306	1/1	0.66	0.47	48,48,48,48	0
57	MG	CA	1609	1/1	0.66	0.42	30,30,30,30	0
57	MG	CA	1621	1/1	0.66	0.38	52,52,52,52	0
57	MG	AA	7076	1/1	0.66	0.57	60,60,60,60	0
57	MG	BB	203	1/1	0.66	0.69	16,16,16,16	1
57	MG	D1	101	1/1	0.66	0.60	55,55,55,55	0
57	MG	DA	9440	1/1	0.67	0.49	25,25,25,25	0
57	MG	DA	9687	1/1	0.67	0.29	12,12,12,12	0
57	MG	CA	1704	1/1	0.67	0.99	28,28,28,28	0
57	MG	DA	9595	1/1	0.68	0.58	49,49,49,49	0
57	MG	AA	7055	1/1	0.68	0.46	29,29,29,29	0
57	MG	CA	1658	1/1	0.68	0.34	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1723	1/1	0.68	0.34	15,15,15,15	0
57	MG	BA	3120	1/1	0.68	0.64	24,24,24,24	0
57	MG	BA	3203	1/1	0.68	0.45	37,37,37,37	0
57	MG	BA	3028	1/1	0.68	0.54	44,44,44,44	0
57	MG	BA	3313	1/1	0.69	0.26	42,42,42,42	0
57	MG	DA	9657	1/1	0.69	0.32	29,29,29,29	0
57	MG	BA	3039	1/1	0.69	0.39	30,30,30,30	0
57	MG	DA	9622	1/1	0.70	0.55	36,36,36,36	0
57	MG	DA	9624	1/1	0.70	0.23	18,18,18,18	1
57	MG	AA	7046	1/1	0.70	0.43	35,35,35,35	0
57	MG	CA	1731	1/1	0.70	0.15	30,30,30,30	0
57	MG	BA	3076	1/1	0.70	0.22	18,18,18,18	0
57	MG	AA	7071	1/1	0.70	0.52	38,38,38,38	0
57	MG	DA	9665	1/1	0.70	0.99	9,9,9,9	0
57	MG	DA	9434	1/1	0.70	0.45	4,4,4,4	0
57	MG	BA	3052	1/1	0.70	0.46	40,40,40,40	0
57	MG	CA	1708	1/1	0.70	0.67	34,34,34,34	0
57	MG	DA	9416	1/1	0.71	0.33	38,38,38,38	0
57	MG	CA	1691	1/1	0.71	0.69	91,91,91,91	0
57	MG	BA	3074	1/1	0.71	0.62	34,34,34,34	0
57	MG	BA	3245	1/1	0.71	0.72	45,45,45,45	0
57	MG	DA	9559	1/1	0.71	0.55	58,58,58,58	0
57	MG	BA	3278	1/1	0.71	0.40	22,22,22,22	0
57	MG	DA	9395	1/1	0.71	0.24	29,29,29,29	0
57	MG	DA	9405	1/1	0.71	0.29	5,5,5,5	0
57	MG	CA	1716	1/1	0.72	0.46	26,26,26,26	0
57	MG	AA	7097	1/1	0.72	0.46	20,20,20,20	0
57	MG	AA	7080	1/1	0.72	0.43	8,8,8,8	1
57	MG	DA	9329	1/1	0.72	0.50	21,21,21,21	0
57	MG	CA	1674	1/1	0.72	0.40	89,89,89,89	0
57	MG	DA	9388	1/1	0.72	0.18	28,28,28,28	0
57	MG	CA	1637	1/1	0.72	0.34	57,57,57,57	0
57	MG	BA	3262	1/1	0.72	0.64	39,39,39,39	0
57	MG	BA	3173	1/1	0.73	0.62	27,27,27,27	0
57	MG	BA	3110	1/1	0.73	0.59	23,23,23,23	1
57	MG	BA	3119	1/1	0.73	0.32	42,42,42,42	0
57	MG	CA	1612	1/1	0.73	0.30	31,31,31,31	0
57	MG	DA	9550	1/1	0.73	0.44	55,55,55,55	0
57	MG	AA	7010	1/1	0.73	0.26	30,30,30,30	0
57	MG	DA	9674	1/1	0.73	0.81	17,17,17,17	0
57	MG	DA	9569	1/1	0.73	0.82	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1713	1/1	0.73	0.54	31,31,31,31	0
57	MG	BA	3242	1/1	0.73	0.59	44,44,44,44	0
57	MG	DA	9467	1/1	0.74	0.39	53,53,53,53	1
57	MG	BA	3246	1/1	0.74	0.66	33,33,33,33	0
57	MG	DA	9432	1/1	0.74	0.63	38,38,38,38	0
57	MG	BA	3318	1/1	0.74	0.41	37,37,37,37	0
57	MG	CA	1714	1/1	0.74	0.45	53,53,53,53	0
57	MG	DA	9694	1/1	0.74	0.85	25,25,25,25	0
57	MG	DA	9658	1/1	0.74	0.19	36,36,36,36	0
57	MG	AA	7092	1/1	0.75	0.13	37,37,37,37	0
57	MG	DA	9412	1/1	0.75	0.34	27,27,27,27	0
57	MG	CA	1739	1/1	0.75	0.67	36,36,36,36	0
57	MG	BA	3196	1/1	0.75	0.76	30,30,30,30	0
57	MG	CA	1672	1/1	0.75	0.39	62,62,62,62	0
57	MG	BP	201	1/1	0.75	0.20	166,166,166,166	0
57	MG	AA	7074	1/1	0.75	0.76	26,26,26,26	0
57	MG	DA	9648	1/1	0.75	0.30	34,34,34,34	0
57	MG	DA	9399	1/1	0.75	0.78	52,52,52,52	0
57	MG	AA	7065	1/1	0.76	0.38	23,23,23,23	0
57	MG	CA	1682	1/1	0.76	0.27	60,60,60,60	0
57	MG	DA	9563	1/1	0.76	0.26	3,3,3,3	0
57	MG	DA	9628	1/1	0.76	0.28	35,35,35,35	1
57	MG	DA	9643	1/1	0.76	0.72	34,34,34,34	1
57	MG	BA	3155	1/1	0.76	0.56	33,33,33,33	0
57	MG	DA	9573	1/1	0.76	0.40	45,45,45,45	0
57	MG	BA	3290	1/1	0.76	0.76	19,19,19,19	1
57	MG	CA	1642	1/1	0.77	0.38	54,54,54,54	0
57	MG	DA	9645	1/1	0.77	0.72	4,4,4,4	0
57	MG	BA	3003	1/1	0.77	0.33	33,33,33,33	0
57	MG	BA	3095	1/1	0.77	1.02	35,35,35,35	0
57	MG	CA	1666	1/1	0.77	0.36	66,66,66,66	0
57	MG	CV	103	1/1	0.77	0.33	43,43,43,43	1
57	MG	BA	3257	1/1	0.77	0.31	21,21,21,21	0
57	MG	DA	9602	1/1	0.77	0.52	37,37,37,37	0
57	MG	DA	9671	1/1	0.77	0.19	45,45,45,45	0
57	MG	DA	9615	1/1	0.77	0.70	45,45,45,45	0
57	MG	DA	9677	1/1	0.77	0.50	27,27,27,27	0
57	MG	BA	3320	1/1	0.77	0.42	54,54,54,54	0
57	MG	DA	9438	1/1	0.77	0.38	21,21,21,21	0
57	MG	BA	3026	1/1	0.77	0.50	29,29,29,29	0
57	MG	AA	7069	1/1	0.77	0.76	11,11,11,11	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3301	1/1	0.78	0.27	20,20,20,20	0
57	MG	CA	1722	1/1	0.78	0.34	27,27,27,27	0
57	MG	DA	9378	1/1	0.78	0.35	29,29,29,29	0
57	MG	BA	3082	1/1	0.78	0.32	23,23,23,23	0
57	MG	CA	1728	1/1	0.78	0.35	59,59,59,59	0
57	MG	BA	3164	1/1	0.78	0.43	39,39,39,39	0
57	MG	DA	9603	1/1	0.78	0.88	33,33,33,33	0
57	MG	BA	3286	1/1	0.78	0.25	22,22,22,22	0
57	MG	BA	3107	1/1	0.78	0.45	36,36,36,36	0
57	MG	DA	9441	1/1	0.79	0.58	31,31,31,31	1
57	MG	DA	9450	1/1	0.79	0.54	2,2,2,2	1
57	MG	DA	9458	1/1	0.79	0.41	22,22,22,22	0
57	MG	BA	3295	1/1	0.79	0.37	27,27,27,27	0
57	MG	BA	3317	1/1	0.79	0.73	21,21,21,21	0
57	MG	DA	9552	1/1	0.79	0.53	58,58,58,58	0
57	MG	CA	1694	1/1	0.79	0.72	51,51,51,51	0
57	MG	CA	1610	1/1	0.79	0.63	58,58,58,58	0
57	MG	BA	3297	1/1	0.79	0.93	46,46,46,46	0
57	MG	DA	9660	1/1	0.79	0.27	176,176,176,176	0
57	MG	DA	9570	1/1	0.79	0.31	61,61,61,61	0
57	MG	AA	7027	1/1	0.79	0.41	28,28,28,28	0
57	MG	CA	1706	1/1	0.79	0.36	32,32,32,32	0
57	MG	DA	9600	1/1	0.79	0.34	55,55,55,55	0
57	MG	DA	9676	1/1	0.79	0.23	13,13,13,13	0
57	MG	CA	1628	1/1	0.79	0.22	9,9,9,9	0
57	MG	DA	9336	1/1	0.79	0.33	52,52,52,52	0
57	MG	BA	3117	1/1	0.79	0.67	11,11,11,11	1
57	MG	DA	9620	1/1	0.79	0.41	26,26,26,26	0
57	MG	BA	3266	1/1	0.79	0.39	33,33,33,33	0
59	ZN	CN	101	1/1	0.79	0.19	171,171,171,171	0
57	MG	AA	7008	1/1	0.80	0.85	35,35,35,35	0
57	MG	BA	3108	1/1	0.80	0.25	27,27,27,27	0
57	MG	AX	101	1/1	0.80	0.28	43,43,43,43	0
57	MG	AA	7082	1/1	0.80	0.28	24,24,24,24	0
57	MG	BA	3274	1/1	0.80	0.26	8,8,8,8	1
57	MG	DA	9557	1/1	0.80	0.31	25,25,25,25	0
57	MG	DA	9419	1/1	0.80	0.95	10,10,10,10	1
57	MG	DA	9331	1/1	0.80	0.21	8,8,8,8	0
57	MG	DA	9681	1/1	0.80	0.35	13,13,13,13	0
57	MG	BA	3021	1/1	0.80	0.49	49,49,49,49	0
57	MG	CA	1692	1/1	0.80	0.37	28,28,28,28	0
57	MG	AA	7096	1/1	0.80	0.55	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9379	1/1	0.80	0.31	41,41,41,41	0
57	MG	BA	3103	1/1	0.80	0.19	31,31,31,31	0
57	MG	DA	9383	1/1	0.81	0.41	18,18,18,18	0
57	MG	BA	3322	1/1	0.81	0.35	54,54,54,54	0
57	MG	BA	3162	1/1	0.81	0.73	4,4,4,4	0
57	MG	DA	9348	1/1	0.81	0.72	47,47,47,47	0
57	MG	DA	9578	1/1	0.81	0.43	44,44,44,44	0
57	MG	AV	104	1/1	0.81	0.41	16,16,16,16	0
57	MG	CA	1614	1/1	0.81	1.22	38,38,38,38	0
57	MG	DB	205	1/1	0.81	0.17	6,6,6,6	1
57	MG	DA	9635	1/1	0.81	0.59	24,24,24,24	0
57	MG	AA	7031	1/1	0.81	0.20	44,44,44,44	0
57	MG	AA	7011	1/1	0.82	0.40	43,43,43,43	0
57	MG	DA	9335	1/1	0.82	0.33	21,21,21,21	0
57	MG	AA	7075	1/1	0.82	0.49	53,53,53,53	0
57	MG	BA	3264	1/1	0.82	0.65	36,36,36,36	0
57	MG	AA	7049	1/1	0.82	0.25	41,41,41,41	0
57	MG	DA	9421	1/1	0.82	0.36	28,28,28,28	0
57	MG	DA	9374	1/1	0.82	0.40	28,28,28,28	0
57	MG	CA	1655	1/1	0.82	0.47	24,24,24,24	0
57	MG	CW	101	1/1	0.82	0.47	29,29,29,29	1
57	MG	CX	101	1/1	0.82	0.23	25,25,25,25	0
57	MG	DA	9439	1/1	0.82	0.23	32,32,32,32	0
57	MG	DA	9574	1/1	0.82	0.38	14,14,14,14	1
57	MG	DA	9325	1/1	0.82	0.48	32,32,32,32	0
57	MG	DA	9579	1/1	0.82	0.67	38,38,38,38	0
57	MG	BA	3231	1/1	0.82	0.38	90,90,90,90	0
57	MG	CA	1725	1/1	0.83	0.29	29,29,29,29	0
57	MG	DA	9461	1/1	0.83	0.34	13,13,13,13	0
57	MG	BA	3217	1/1	0.83	0.16	28,28,28,28	0
57	MG	DA	9385	1/1	0.83	0.24	5,5,5,5	0
57	MG	BA	3321	1/1	0.83	0.35	35,35,35,35	0
57	MG	CA	1638	1/1	0.83	0.42	24,24,24,24	0
57	MG	BA	3292	1/1	0.83	0.28	28,28,28,28	0
57	MG	BA	3033	1/1	0.83	0.19	6,6,6,6	0
57	MG	BA	3106	1/1	0.83	0.49	34,34,34,34	0
57	MG	DA	9659	1/1	0.83	0.26	52,52,52,52	0
57	MG	DA	9301	1/1	0.83	0.36	32,32,32,32	0
57	MG	DA	9572	1/1	0.83	0.42	4,4,4,4	0
57	MG	DA	9418	1/1	0.83	0.28	61,61,61,61	0
57	MG	BE	301	1/1	0.83	0.24	0,0,0,0	0
57	MG	AA	7034	1/1	0.83	0.74	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	AA	7014	1/1	0.83	0.96	20,20,20,20	0
57	MG	DA	9431	1/1	0.83	0.30	12,12,12,12	0
57	MG	CA	1709	1/1	0.83	0.48	68,68,68,68	0
57	MG	BA	3070	1/1	0.83	0.43	34,34,34,34	0
57	MG	DA	9347	1/1	0.83	0.29	22,22,22,22	0
57	MG	DA	9688	1/1	0.83	0.40	78,78,78,78	0
57	MG	DA	9692	1/1	0.83	0.42	30,30,30,30	0
57	MG	DA	9693	1/1	0.83	0.97	47,47,47,47	0
57	MG	BA	3136	1/1	0.83	0.44	46,46,46,46	1
57	MG	DA	9695	1/1	0.83	0.39	63,63,63,63	0
57	MG	DB	202	1/1	0.83	0.23	28,28,28,28	0
57	MG	CA	1676	1/1	0.83	0.60	88,88,88,88	0
57	MG	BA	3249	1/1	0.83	0.41	25,25,25,25	0
57	MG	BA	3113	1/1	0.83	0.87	49,49,49,49	0
57	MG	DA	9614	1/1	0.84	0.25	12,12,12,12	0
57	MG	BA	3282	1/1	0.84	0.47	24,24,24,24	0
57	MG	AA	7105	1/1	0.84	0.74	42,42,42,42	0
57	MG	AE	201	1/1	0.84	0.39	45,45,45,45	0
57	MG	BA	3268	1/1	0.84	0.33	13,13,13,13	1
57	MG	AV	102	1/1	0.84	0.43	25,25,25,25	1
57	MG	AA	7100	1/1	0.84	0.81	21,21,21,21	0
57	MG	DA	9445	1/1	0.84	0.44	22,22,22,22	0
57	MG	BB	201	1/1	0.84	0.15	34,34,34,34	0
57	MG	BA	3254	1/1	0.84	0.91	54,54,54,54	0
57	MG	BA	3134	1/1	0.84	0.48	21,21,21,21	0
57	MG	BA	3310	1/1	0.84	0.40	35,35,35,35	0
57	MG	DA	9593	1/1	0.84	0.62	25,25,25,25	0
57	MG	DA	9504	1/1	0.84	0.15	27,27,27,27	0
57	MG	DA	9530	1/1	0.84	0.85	41,41,41,41	0
57	MG	DW	201	1/1	0.84	0.47	27,27,27,27	0
57	MG	DA	9544	1/1	0.84	0.41	10,10,10,10	0
57	MG	BA	3038	1/1	0.84	0.16	31,31,31,31	0
57	MG	DA	9667	1/1	0.85	0.36	10,10,10,10	0
57	MG	BA	3214	1/1	0.85	0.31	39,39,39,39	0
57	MG	BA	3116	1/1	0.85	0.27	38,38,38,38	0
57	MG	AA	7083	1/1	0.85	0.55	18,18,18,18	0
57	MG	BA	3221	1/1	0.85	0.69	17,17,17,17	0
57	MG	CA	1657	1/1	0.85	0.26	30,30,30,30	0
57	MG	BA	3137	1/1	0.85	0.61	1,1,1,1	1
57	MG	DA	9640	1/1	0.85	0.40	42,42,42,42	0
57	MG	CA	1660	1/1	0.85	0.37	9,9,9,9	0
57	MG	BA	3195	1/1	0.85	0.32	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9462	1/1	0.85	0.40	30,30,30,30	0
57	MG	BA	3115	1/1	0.85	0.24	33,33,33,33	0
57	MG	DA	9352	1/1	0.85	0.22	89,89,89,89	0
57	MG	BA	3285	1/1	0.85	1.73	32,32,32,32	1
57	MG	DA	9377	1/1	0.85	0.19	19,19,19,19	0
57	MG	BA	3131	1/1	0.85	0.40	38,38,38,38	0
57	MG	CA	1681	1/1	0.85	0.86	18,18,18,18	1
57	MG	DA	9381	1/1	0.85	0.26	12,12,12,12	0
57	MG	AA	7047	1/1	0.86	0.36	41,41,41,41	0
57	MG	CA	1641	1/1	0.86	0.21	40,40,40,40	0
57	MG	BA	3130	1/1	0.86	0.19	3,3,3,3	0
57	MG	BA	3081	1/1	0.86	0.77	24,24,24,24	1
57	MG	BA	3251	1/1	0.86	0.22	34,34,34,34	0
57	MG	BF	301	1/1	0.86	0.22	39,39,39,39	0
57	MG	BA	3220	1/1	0.86	0.77	56,56,56,56	0
57	MG	DA	9327	1/1	0.86	0.17	20,20,20,20	0
57	MG	DA	9475	1/1	0.86	0.65	26,26,26,26	0
57	MG	AA	7067	1/1	0.86	0.45	28,28,28,28	0
57	MG	CA	1661	1/1	0.86	0.35	50,50,50,50	0
57	MG	BA	3284	1/1	0.86	0.33	21,21,21,21	0
57	MG	BA	3193	1/1	0.86	0.44	12,12,12,12	0
57	MG	DA	9337	1/1	0.86	0.60	45,45,45,45	0
57	MG	CA	1673	1/1	0.86	0.25	18,18,18,18	0
57	MG	DA	9634	1/1	0.86	0.41	44,44,44,44	0
57	MG	BA	3059	1/1	0.86	0.16	0,0,0,0	0
57	MG	BA	3319	1/1	0.86	0.29	27,27,27,27	0
57	MG	DA	9565	1/1	0.86	0.38	11,11,11,11	0
57	MG	BA	3097	1/1	0.86	0.26	43,43,43,43	0
57	MG	DA	9361	1/1	0.86	0.34	5,5,5,5	0
57	MG	DX	101	1/1	0.86	0.36	6,6,6,6	0
57	MG	BA	3101	1/1	0.86	1.28	27,27,27,27	1
57	MG	BA	3294	1/1	0.86	0.50	15,15,15,15	1
57	MG	DA	9302	1/1	0.87	0.18	34,34,34,34	0
57	MG	CA	1675	1/1	0.87	0.42	55,55,55,55	0
57	MG	AA	7054	1/1	0.87	0.98	29,29,29,29	0
57	MG	BA	3077	1/1	0.87	0.43	21,21,21,21	0
57	MG	DA	9466	1/1	0.87	0.45	36,36,36,36	0
57	MG	BA	3258	1/1	0.87	1.06	19,19,19,19	0
57	MG	BA	3019	1/1	0.87	0.36	44,44,44,44	0
57	MG	DA	9673	1/1	0.87	0.42	8,8,8,8	0
57	MG	DA	9609	1/1	0.87	0.45	2,2,2,2	0
57	MG	DA	9502	1/1	0.87	0.42	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1605	1/1	0.87	0.22	32,32,32,32	0
57	MG	DA	9616	1/1	0.87	0.54	54,54,54,54	0
57	MG	AA	7045	1/1	0.87	0.75	38,38,38,38	0
57	MG	BA	3093	1/1	0.87	0.29	49,49,49,49	0
57	MG	BA	3094	1/1	0.87	0.35	7,7,7,7	0
57	MG	CA	1735	1/1	0.87	0.47	29,29,29,29	0
57	MG	BA	3066	1/1	0.87	0.26	48,48,48,48	0
57	MG	CA	1740	1/1	0.87	0.60	48,48,48,48	0
57	MG	DA	9371	1/1	0.87	0.38	29,29,29,29	0
57	MG	CV	101	1/1	0.87	0.37	12,12,12,12	1
57	MG	AA	7107	1/1	0.87	0.45	24,24,24,24	0
57	MG	DF	301	1/1	0.87	0.14	20,20,20,20	0
57	MG	DP	202	1/1	0.87	0.25	173,173,173,173	0
57	MG	AA	7108	1/1	0.87	0.42	27,27,27,27	0
57	MG	BA	3298	1/1	0.87	0.80	18,18,18,18	0
57	MG	DA	9380	1/1	0.87	1.55	23,23,23,23	1
57	MG	BA	3102	1/1	0.87	0.49	1,1,1,1	0
57	MG	CA	1732	1/1	0.88	0.53	27,27,27,27	0
57	MG	AA	7036	1/1	0.88	0.38	42,42,42,42	0
57	MG	CA	1738	1/1	0.88	0.42	49,49,49,49	0
57	MG	DA	9422	1/1	0.88	0.96	56,56,56,56	0
57	MG	DA	9423	1/1	0.88	0.29	1,1,1,1	0
57	MG	BB	202	1/1	0.88	0.16	62,62,62,62	0
57	MG	BA	3031	1/1	0.88	0.23	44,44,44,44	0
57	MG	DA	9372	1/1	0.88	0.43	8,8,8,8	0
57	MG	DA	9373	1/1	0.88	0.16	0,0,0,0	0
57	MG	AA	7101	1/1	0.88	0.64	22,22,22,22	0
57	MG	CA	1633	1/1	0.88	0.27	9,9,9,9	0
57	MG	CA	1635	1/1	0.88	0.23	4,4,4,4	0
57	MG	DA	9670	1/1	0.88	0.48	11,11,11,11	0
57	MG	DA	9576	1/1	0.88	0.41	22,22,22,22	0
57	MG	BA	3276	1/1	0.88	0.56	31,31,31,31	0
57	MG	DA	9444	1/1	0.88	0.50	42,42,42,42	0
57	MG	DA	9589	1/1	0.88	0.18	32,32,32,32	0
57	MG	AA	7084	1/1	0.88	0.12	49,49,49,49	0
57	MG	CA	1710	1/1	0.88	0.50	19,19,19,19	0
57	MG	DA	9456	1/1	0.88	0.61	19,19,19,19	0
57	MG	DA	9686	1/1	0.88	0.20	11,11,11,11	0
57	MG	BO	201	1/1	0.88	0.42	45,45,45,45	0
57	MG	CA	1680	1/1	0.88	0.15	49,49,49,49	0
57	MG	DA	9690	1/1	0.88	0.11	5,5,5,5	0
57	MG	AV	103	1/1	0.88	0.26	7,7,7,7	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	CA	1601	1/1	0.88	0.38	39,39,39,39	0
57	MG	AA	7004	1/1	0.88	0.29	30,30,30,30	0
57	MG	DA	9468	1/1	0.88	0.72	2,2,2,2	1
57	MG	DA	9402	1/1	0.88	0.38	25,25,25,25	0
57	MG	DA	9490	1/1	0.88	0.22	39,39,39,39	0
57	MG	CA	1684	1/1	0.88	0.21	41,41,41,41	0
57	MG	DA	9503	1/1	0.88	0.31	66,66,66,66	0
57	MG	BA	3267	1/1	0.88	0.39	41,41,41,41	0
57	MG	BA	3150	1/1	0.88	0.30	1,1,1,1	0
57	MG	DA	9535	1/1	0.88	0.42	14,14,14,14	0
57	MG	DA	9639	1/1	0.88	0.49	57,57,57,57	0
57	MG	DA	9443	1/1	0.89	0.24	37,37,37,37	0
57	MG	DA	9656	1/1	0.89	0.29	58,58,58,58	0
57	MG	BA	3104	1/1	0.89	0.24	16,16,16,16	0
57	MG	CA	1717	1/1	0.89	0.29	11,11,11,11	0
57	MG	DA	9328	1/1	0.89	0.33	1,1,1,1	0
57	MG	CA	1653	1/1	0.89	0.53	29,29,29,29	0
57	MG	BA	3177	1/1	0.89	0.20	0,0,0,0	0
57	MG	DA	9460	1/1	0.89	0.25	40,40,40,40	0
57	MG	AA	7090	1/1	0.89	1.01	69,69,69,69	0
57	MG	CA	1690	1/1	0.89	0.54	17,17,17,17	0
57	MG	DA	9465	1/1	0.89	0.39	34,34,34,34	0
57	MG	AA	7012	1/1	0.89	0.78	12,12,12,12	0
57	MG	BA	3144	1/1	0.89	0.71	41,41,41,41	0
57	MG	BA	3202	1/1	0.89	0.50	7,7,7,7	0
57	MG	CA	1737	1/1	0.89	0.63	28,28,28,28	0
57	MG	DA	9680	1/1	0.89	0.39	24,24,24,24	0
57	MG	DA	9351	1/1	0.89	0.45	2,2,2,2	0
57	MG	DA	9611	1/1	0.89	0.46	8,8,8,8	0
57	MG	BA	3022	1/1	0.89	0.23	40,40,40,40	0
57	MG	CA	1671	1/1	0.89	0.23	38,38,38,38	0
57	MG	DA	9367	1/1	0.89	0.41	35,35,35,35	0
57	MG	DA	9526	1/1	0.89	0.50	12,12,12,12	0
57	MG	DA	9370	1/1	0.89	0.39	0,0,0,0	0
57	MG	BA	3209	1/1	0.89	0.34	1,1,1,1	0
57	MG	DA	9541	1/1	0.89	0.39	2,2,2,2	0
57	MG	AA	7061	1/1	0.89	0.25	19,19,19,19	0
57	MG	BE	302	1/1	0.89	0.27	74,74,74,74	0
57	MG	DB	203	1/1	0.89	0.91	1,1,1,1	1
57	MG	BA	3111	1/1	0.89	0.33	35,35,35,35	0
57	MG	DA	9376	1/1	0.89	0.27	26,26,26,26	0
57	MG	BA	3157	1/1	0.89	0.22	6,6,6,6	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3087	1/1	0.89	0.24	21,21,21,21	0
57	MG	BA	3053	1/1	0.89	0.28	17,17,17,17	0
57	MG	DA	9568	1/1	0.89	0.37	3,3,3,3	0
58	PAR	CA	1741	42/42	0.89	0.32	55,55,55,55	0
57	MG	DA	9651	1/1	0.89	0.13	81,81,81,81	0
57	MG	AA	7029	1/1	0.90	0.27	41,41,41,41	0
57	MG	DA	9339	1/1	0.90	0.20	13,13,13,13	0
57	MG	AA	7079	1/1	0.90	0.41	35,35,35,35	0
57	MG	CA	1646	1/1	0.90	0.42	7,7,7,7	0
57	MG	BA	3308	1/1	0.90	0.40	37,37,37,37	0
57	MG	DA	9551	1/1	0.90	0.21	48,48,48,48	0
57	MG	AA	7023	1/1	0.90	0.26	56,56,56,56	0
57	MG	DA	9425	1/1	0.90	0.41	37,37,37,37	0
57	MG	CA	1688	1/1	0.90	0.15	16,16,16,16	0
57	MG	CA	1689	1/1	0.90	0.25	15,15,15,15	0
57	MG	DA	9365	1/1	0.90	0.28	1,1,1,1	0
57	MG	CA	1654	1/1	0.90	0.35	31,31,31,31	0
57	MG	AA	7026	1/1	0.90	0.39	30,30,30,30	0
57	MG	AA	7073	1/1	0.90	0.23	29,29,29,29	0
57	MG	CE	202	1/1	0.90	0.38	34,34,34,34	0
57	MG	BA	3281	1/1	0.90	0.62	53,53,53,53	0
57	MG	AV	105	1/1	0.90	0.34	54,54,54,54	0
57	MG	AA	7063	1/1	0.90	0.26	31,31,31,31	0
57	MG	DA	9577	1/1	0.90	0.90	102,102,102,102	0
57	MG	CA	1663	1/1	0.90	0.66	11,11,11,11	0
57	MG	DA	9679	1/1	0.90	0.31	16,16,16,16	0
57	MG	CY	101	1/1	0.90	0.57	33,33,33,33	0
57	MG	BA	3001	1/1	0.90	0.38	38,38,38,38	0
57	MG	BA	3158	1/1	0.90	0.37	29,29,29,29	0
57	MG	DA	9317	1/1	0.90	0.26	18,18,18,18	0
57	MG	DA	9382	1/1	0.90	0.45	0,0,0,0	0
57	MG	AA	7020	1/1	0.90	0.36	33,33,33,33	0
57	MG	BA	3012	1/1	0.90	0.60	29,29,29,29	0
57	MG	DA	9608	1/1	0.90	0.46	19,19,19,19	0
57	MG	AA	7088	1/1	0.90	0.13	60,60,60,60	0
57	MG	BA	3109	1/1	0.90	0.22	66,66,66,66	0
57	MG	DA	9396	1/1	0.90	0.23	26,26,26,26	0
57	MG	DA	9397	1/1	0.90	0.41	25,25,25,25	1
57	MG	DA	9477	1/1	0.90	0.56	36,36,36,36	0
57	MG	DA	9483	1/1	0.90	0.48	0,0,0,0	0
57	MG	DE	302	1/1	0.90	0.22	35,35,35,35	0
57	MG	BA	3269	1/1	0.90	0.50	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9501	1/1	0.90	0.47	42,42,42,42	0
57	MG	DP	203	1/1	0.90	0.24	11,11,11,11	0
57	MG	DA	9333	1/1	0.90	0.11	31,31,31,31	0
57	MG	CA	1677	1/1	0.90	0.18	22,22,22,22	0
57	MG	DA	9409	1/1	0.90	0.31	4,4,4,4	0
57	MG	D2	101	1/1	0.90	0.25	34,34,34,34	0
57	MG	DA	9513	1/1	0.90	0.47	22,22,22,22	0
57	MG	BA	3187	1/1	0.90	0.61	24,24,24,24	0
57	MG	BA	3205	1/1	0.91	0.54	0,0,0,0	0
57	MG	DA	9407	1/1	0.91	0.22	2,2,2,2	0
57	MG	DA	9630	1/1	0.91	0.27	16,16,16,16	1
57	MG	DA	9633	1/1	0.91	0.73	30,30,30,30	0
57	MG	BA	3154	1/1	0.91	0.43	17,17,17,17	0
57	MG	BA	3058	1/1	0.91	0.33	1,1,1,1	0
57	MG	DA	9413	1/1	0.91	0.38	3,3,3,3	0
57	MG	CA	1608	1/1	0.91	0.39	16,16,16,16	0
57	MG	DA	9527	1/1	0.91	0.38	1,1,1,1	0
57	MG	DA	9338	1/1	0.91	0.55	58,58,58,58	0
57	MG	AA	7043	1/1	0.91	0.34	16,16,16,16	0
57	MG	DA	9539	1/1	0.91	0.25	35,35,35,35	0
57	MG	DA	9420	1/1	0.91	0.52	6,6,6,6	0
57	MG	BA	3006	1/1	0.91	0.33	38,38,38,38	0
57	MG	AA	7009	1/1	0.91	0.27	18,18,18,18	0
57	MG	AA	7005	1/1	0.91	0.28	45,45,45,45	0
57	MG	CA	1616	1/1	0.91	0.41	44,44,44,44	0
57	MG	DA	9556	1/1	0.91	0.23	23,23,23,23	0
57	MG	BA	3226	1/1	0.91	0.65	36,36,36,36	0
57	MG	DA	9663	1/1	0.91	0.59	7,7,7,7	0
57	MG	BA	3171	1/1	0.91	0.45	7,7,7,7	0
57	MG	DA	9666	1/1	0.91	0.36	7,7,7,7	0
57	MG	CA	1630	1/1	0.91	0.23	34,34,34,34	0
57	MG	CA	1736	1/1	0.91	0.31	6,6,6,6	0
57	MG	BA	3112	1/1	0.91	0.57	14,14,14,14	0
57	MG	BA	3233	1/1	0.91	0.45	19,19,19,19	0
57	MG	BA	3236	1/1	0.91	0.56	17,17,17,17	0
57	MG	AA	7013	1/1	0.91	0.38	27,27,27,27	0
57	MG	BA	3183	1/1	0.91	0.64	56,56,56,56	0
57	MG	BA	3323	1/1	0.91	0.48	26,26,26,26	0
57	MG	AA	7048	1/1	0.91	0.27	27,27,27,27	0
57	MG	BA	3141	1/1	0.91	0.26	18,18,18,18	0
57	MG	DA	9453	1/1	0.91	0.44	4,4,4,4	1
57	MG	BA	3143	1/1	0.91	0.20	7,7,7,7	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9585	1/1	0.91	0.18	18,18,18,18	0
57	MG	DA	9457	1/1	0.91	0.59	13,13,13,13	0
57	MG	BA	3287	1/1	0.91	0.36	30,30,30,30	0
57	MG	DA	9594	1/1	0.91	0.78	19,19,19,19	0
57	MG	CA	1697	1/1	0.91	0.18	49,49,49,49	0
57	MG	BA	3050	1/1	0.91	0.58	4,4,4,4	0
57	MG	CA	1700	1/1	0.91	0.28	20,20,20,20	0
57	MG	DA	9464	1/1	0.91	0.14	25,25,25,25	0
57	MG	DA	9604	1/1	0.91	0.33	21,21,21,21	0
57	MG	DB	204	1/1	0.91	0.70	0,0,0,0	1
57	MG	DA	9605	1/1	0.91	0.20	19,19,19,19	0
57	MG	DA	9607	1/1	0.91	0.34	49,49,49,49	0
57	MG	DA	9319	1/1	0.91	0.81	30,30,30,30	0
57	MG	BA	3201	1/1	0.91	0.32	6,6,6,6	0
57	MG	DA	9393	1/1	0.91	0.30	24,24,24,24	0
57	MG	CA	1656	1/1	0.91	0.21	22,22,22,22	0
57	MG	AA	7041	1/1	0.91	0.58	20,20,20,20	0
57	MG	BN	201	1/1	0.91	0.30	125,125,125,125	1
57	MG	DA	9480	1/1	0.91	0.27	30,30,30,30	0
57	MG	AA	7052	1/1	0.91	0.19	74,74,74,74	0
57	MG	DA	9332	1/1	0.91	0.37	34,34,34,34	0
57	MG	DA	9618	1/1	0.92	0.79	28,28,28,28	1
57	MG	CA	1634	1/1	0.92	0.31	43,43,43,43	0
57	MG	DA	9394	1/1	0.92	0.47	16,16,16,16	0
57	MG	DA	9484	1/1	0.92	0.40	5,5,5,5	0
57	MG	DA	9486	1/1	0.92	0.34	21,21,21,21	0
57	MG	DA	9489	1/1	0.92	0.41	37,37,37,37	0
57	MG	BA	3208	1/1	0.92	0.22	8,8,8,8	0
57	MG	DA	9631	1/1	0.92	0.32	21,21,21,21	0
57	MG	DA	9496	1/1	0.92	0.35	26,26,26,26	0
57	MG	AA	7022	1/1	0.92	0.25	32,32,32,32	0
57	MG	AA	7050	1/1	0.92	1.07	29,29,29,29	0
57	MG	DA	9636	1/1	0.92	0.28	16,16,16,16	0
57	MG	DA	9303	1/1	0.92	0.31	42,42,42,42	0
57	MG	BA	3123	1/1	0.92	0.20	14,14,14,14	0
57	MG	BA	3272	1/1	0.92	0.37	10,10,10,10	0
57	MG	AA	7018	1/1	0.92	0.56	27,27,27,27	0
57	MG	CA	1643	1/1	0.92	0.58	40,40,40,40	1
57	MG	AA	7053	1/1	0.92	0.49	32,32,32,32	0
57	MG	CA	1701	1/1	0.92	0.51	1,1,1,1	0
57	MG	BA	3002	1/1	0.92	0.27	53,53,53,53	0
57	MG	BA	3166	1/1	0.92	0.64	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3168	1/1	0.92	0.71	36,36,36,36	0
57	MG	DA	9334	1/1	0.92	0.45	27,27,27,27	0
57	MG	BA	3132	1/1	0.92	0.32	51,51,51,51	0
57	MG	BA	3133	1/1	0.92	0.21	43,43,43,43	0
57	MG	BA	3283	1/1	0.92	0.20	22,22,22,22	0
57	MG	BA	3235	1/1	0.92	0.36	25,25,25,25	0
57	MG	BA	3088	1/1	0.92	0.39	43,43,43,43	0
57	MG	DA	9341	1/1	0.92	0.56	11,11,11,11	0
57	MG	BA	3061	1/1	0.92	0.25	32,32,32,32	0
57	MG	DA	9567	1/1	0.92	0.43	31,31,31,31	0
57	MG	DA	9433	1/1	0.92	0.22	13,13,13,13	0
57	MG	CA	1662	1/1	0.92	0.17	29,29,29,29	0
57	MG	DA	9435	1/1	0.92	0.97	30,30,30,30	0
57	MG	CA	1720	1/1	0.92	0.41	2,2,2,2	0
57	MG	BA	3184	1/1	0.92	0.95	22,22,22,22	0
57	MG	B5	101	1/1	0.92	0.30	2,2,2,2	0
57	MG	BA	3186	1/1	0.92	0.36	2,2,2,2	0
57	MG	DA	9683	1/1	0.92	0.52	19,19,19,19	0
57	MG	CA	1726	1/1	0.92	0.21	38,38,38,38	0
57	MG	CA	1727	1/1	0.92	0.34	27,27,27,27	0
57	MG	BA	3062	1/1	0.92	0.15	27,27,27,27	0
57	MG	BA	3140	1/1	0.92	0.24	40,40,40,40	0
57	MG	DA	9588	1/1	0.92	0.14	16,16,16,16	0
57	MG	DA	9691	1/1	0.92	0.41	12,12,12,12	0
57	MG	DA	9451	1/1	0.92	0.56	35,35,35,35	0
57	MG	DA	9591	1/1	0.92	0.25	52,52,52,52	0
57	MG	BA	3024	1/1	0.92	0.61	22,22,22,22	0
57	MG	AA	7040	1/1	0.92	0.17	36,36,36,36	0
57	MG	BA	3256	1/1	0.92	0.15	13,13,13,13	0
57	MG	DA	9598	1/1	0.92	0.50	14,14,14,14	0
57	MG	BA	3199	1/1	0.92	0.48	1,1,1,1	0
57	MG	CA	1678	1/1	0.92	0.22	17,17,17,17	0
57	MG	BA	3067	1/1	0.92	0.79	2,2,2,2	0
57	MG	CA	1617	1/1	0.92	0.43	16,16,16,16	0
57	MG	BA	3145	1/1	0.92	0.28	22,22,22,22	0
57	MG	BA	3263	1/1	0.92	0.64	16,16,16,16	1
57	MG	DQ	201	1/1	0.92	0.31	36,36,36,36	0
57	MG	CV	102	1/1	0.92	0.21	1,1,1,1	0
57	MG	BA	3045	1/1	0.92	0.59	2,2,2,2	0
57	MG	CV	104	1/1	0.92	0.28	22,22,22,22	1
57	MG	DA	9469	1/1	0.92	0.58	17,17,17,17	0
58	PAR	AA	7111	42/42	0.92	0.26	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3049	1/1	0.92	0.51	30,30,30,30	0
57	MG	DA	9389	1/1	0.92	0.14	11,11,11,11	0
57	MG	BA	3032	1/1	0.93	0.20	18,18,18,18	0
57	MG	DA	9625	1/1	0.93	0.36	26,26,26,26	0
57	MG	DA	9320	1/1	0.93	0.25	10,10,10,10	0
57	MG	AA	7039	1/1	0.93	0.34	11,11,11,11	0
57	MG	DA	9629	1/1	0.93	0.15	52,52,52,52	0
57	MG	AA	7066	1/1	0.93	0.54	36,36,36,36	0
57	MG	DA	9512	1/1	0.93	0.43	2,2,2,2	0
57	MG	DA	9415	1/1	0.93	0.49	0,0,0,0	0
57	MG	DA	9519	1/1	0.93	0.43	1,1,1,1	0
57	MG	DA	9525	1/1	0.93	0.30	4,4,4,4	0
57	MG	BA	3075	1/1	0.93	0.70	12,12,12,12	0
57	MG	DA	9417	1/1	0.93	0.29	20,20,20,20	0
57	MG	AA	7104	1/1	0.93	0.14	33,33,33,33	0
57	MG	DA	9533	1/1	0.93	0.30	0,0,0,0	0
57	MG	CA	1650	1/1	0.93	0.51	34,34,34,34	0
57	MG	CA	1705	1/1	0.93	0.27	15,15,15,15	0
57	MG	AA	7059	1/1	0.93	0.51	96,96,96,96	0
57	MG	BA	3153	1/1	0.93	0.55	0,0,0,0	0
57	MG	AA	7001	1/1	0.93	0.28	26,26,26,26	0
57	MG	BA	3044	1/1	0.93	0.58	18,18,18,18	0
57	MG	BA	3014	1/1	0.93	0.25	33,33,33,33	0
57	MG	DA	9555	1/1	0.93	0.32	39,39,39,39	0
57	MG	BA	3118	1/1	0.93	0.61	28,28,28,28	0
57	MG	BA	3160	1/1	0.93	0.39	22,22,22,22	0
57	MG	DA	9662	1/1	0.93	0.54	2,2,2,2	0
57	MG	BA	3017	1/1	0.93	0.55	22,22,22,22	0
57	MG	DA	9561	1/1	0.93	0.28	10,10,10,10	0
57	MG	BA	3163	1/1	0.93	0.32	28,28,28,28	0
57	MG	BA	3229	1/1	0.93	0.19	19,19,19,19	0
57	MG	BA	3230	1/1	0.93	0.61	22,22,22,22	0
57	MG	AA	7078	1/1	0.93	0.25	30,30,30,30	0
57	MG	BA	3232	1/1	0.93	0.18	44,44,44,44	0
57	MG	DA	9358	1/1	0.93	0.47	5,5,5,5	0
57	MG	AA	7070	1/1	0.93	0.15	61,61,61,61	0
57	MG	AA	7093	1/1	0.93	0.34	30,30,30,30	0
57	MG	CA	1730	1/1	0.93	0.15	49,49,49,49	0
57	MG	DA	9446	1/1	0.93	0.08	13,13,13,13	0
57	MG	CA	1607	1/1	0.93	0.49	32,32,32,32	0
57	MG	BA	3057	1/1	0.93	0.54	2,2,2,2	0
57	MG	CA	1734	1/1	0.93	0.24	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3291	1/1	0.93	0.16	22,22,22,22	0
57	MG	BA	3098	1/1	0.93	0.29	36,36,36,36	0
57	MG	BA	3174	1/1	0.93	0.14	31,31,31,31	0
57	MG	DA	9689	1/1	0.93	0.80	25,25,25,25	0
57	MG	BA	3099	1/1	0.93	0.23	30,30,30,30	0
57	MG	AA	7094	1/1	0.93	0.54	8,8,8,8	0
57	MG	AA	7051	1/1	0.93	0.44	22,22,22,22	0
57	MG	BA	3300	1/1	0.93	0.45	1,1,1,1	0
57	MG	DA	9597	1/1	0.93	0.24	12,12,12,12	0
57	MG	AA	7072	1/1	0.93	0.15	23,23,23,23	0
57	MG	CA	1685	1/1	0.93	0.35	41,41,41,41	0
57	MG	CA	1686	1/1	0.93	0.21	77,77,77,77	0
57	MG	BA	3135	1/1	0.93	0.58	43,43,43,43	0
57	MG	CA	1632	1/1	0.93	0.15	18,18,18,18	0
57	MG	DA	9470	1/1	0.93	0.27	0,0,0,0	0
57	MG	DA	9606	1/1	0.93	0.94	4,4,4,4	0
57	MG	BA	3192	1/1	0.93	0.39	2,2,2,2	0
57	MG	BA	3029	1/1	0.93	0.15	24,24,24,24	0
57	MG	BA	3030	1/1	0.93	0.54	22,22,22,22	0
57	MG	DA	9482	1/1	0.93	0.21	12,12,12,12	0
57	MG	BA	3314	1/1	0.93	0.05	42,42,42,42	0
57	MG	D0	102	1/1	0.93	0.54	15,15,15,15	0
57	MG	AA	7098	1/1	0.93	0.34	28,28,28,28	0
57	MG	DA	9306	1/1	0.93	0.35	4,4,4,4	0
57	MG	DA	9313	1/1	0.93	0.22	18,18,18,18	0
57	MG	DA	9314	1/1	0.93	0.32	1,1,1,1	0
59	ZN	AD	301	1/1	0.93	0.32	41,41,41,41	0
57	MG	CA	1695	1/1	0.93	0.36	15,15,15,15	0
57	MG	CA	1664	1/1	0.94	0.45	24,24,24,24	0
57	MG	DA	9511	1/1	0.94	0.80	7,7,7,7	0
57	MG	BA	3304	1/1	0.94	0.43	13,13,13,13	0
57	MG	CA	1668	1/1	0.94	0.34	56,56,56,56	0
57	MG	DA	9514	1/1	0.94	0.82	19,19,19,19	0
57	MG	CA	1721	1/1	0.94	0.20	1,1,1,1	0
57	MG	CA	1669	1/1	0.94	0.10	10,10,10,10	0
57	MG	DA	9632	1/1	0.94	0.48	12,12,12,12	1
57	MG	CA	1670	1/1	0.94	0.36	2,2,2,2	0
57	MG	BA	3225	1/1	0.94	0.28	2,2,2,2	0
57	MG	DA	9528	1/1	0.94	0.36	6,6,6,6	0
57	MG	DA	9340	1/1	0.94	0.33	1,1,1,1	0
57	MG	DA	9531	1/1	0.94	0.37	1,1,1,1	0
57	MG	DA	9532	1/1	0.94	0.44	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9428	1/1	0.94	0.41	15,15,15,15	0
57	MG	BA	3090	1/1	0.94	0.41	2,2,2,2	0
57	MG	BA	3128	1/1	0.94	0.25	57,57,57,57	0
57	MG	BA	3185	1/1	0.94	0.26	14,14,14,14	0
57	MG	DA	9652	1/1	0.94	0.23	44,44,44,44	0
57	MG	DA	9653	1/1	0.94	0.41	5,5,5,5	0
57	MG	BA	3129	1/1	0.94	0.53	1,1,1,1	0
57	MG	DA	9549	1/1	0.94	0.74	44,44,44,44	0
57	MG	CA	1618	1/1	0.94	0.22	31,31,31,31	0
57	MG	AA	7032	1/1	0.94	0.47	24,24,24,24	0
57	MG	DA	9436	1/1	0.94	0.54	3,3,3,3	0
57	MG	CA	1625	1/1	0.94	0.43	26,26,26,26	0
57	MG	AA	7064	1/1	0.94	0.28	50,50,50,50	0
57	MG	AA	7102	1/1	0.94	0.49	38,38,38,38	0
57	MG	BA	3096	1/1	0.94	0.42	12,12,12,12	0
57	MG	DA	9442	1/1	0.94	0.54	36,36,36,36	0
57	MG	DA	9368	1/1	0.94	0.19	1,1,1,1	0
57	MG	BA	3159	1/1	0.94	0.53	9,9,9,9	0
57	MG	DA	9669	1/1	0.94	0.23	5,5,5,5	0
57	MG	BA	3241	1/1	0.94	0.45	4,4,4,4	0
57	MG	AA	7103	1/1	0.94	0.53	13,13,13,13	0
57	MG	CA	1636	1/1	0.94	0.32	19,19,19,19	0
57	MG	AA	7016	1/1	0.94	0.32	45,45,45,45	0
57	MG	AA	7085	1/1	0.94	0.17	15,15,15,15	0
57	MG	DA	9454	1/1	0.94	0.44	34,34,34,34	0
57	MG	BA	3023	1/1	0.94	0.28	4,4,4,4	0
57	MG	CA	1640	1/1	0.94	0.84	49,49,49,49	0
57	MG	CV	105	1/1	0.94	0.16	69,69,69,69	0
57	MG	BA	3079	1/1	0.94	0.33	29,29,29,29	1
57	MG	DA	9684	1/1	0.94	0.21	8,8,8,8	0
57	MG	AA	7062	1/1	0.94	0.11	31,31,31,31	0
57	MG	DA	9581	1/1	0.94	0.42	4,4,4,4	0
57	MG	DA	9582	1/1	0.94	0.88	21,21,21,21	0
57	MG	DA	9583	1/1	0.94	0.18	1,1,1,1	0
57	MG	BA	3253	1/1	0.94	0.60	34,34,34,34	0
57	MG	CA	1644	1/1	0.94	0.14	45,45,45,45	0
57	MG	BA	3169	1/1	0.94	0.51	3,3,3,3	0
57	MG	BA	3212	1/1	0.94	0.24	8,8,8,8	0
57	MG	DA	9304	1/1	0.94	0.44	27,27,27,27	0
57	MG	BA	3213	1/1	0.94	0.41	8,8,8,8	0
57	MG	BA	3170	1/1	0.94	0.79	1,1,1,1	0
57	MG	BA	3296	1/1	0.94	0.38	0,0,0,0	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9471	1/1	0.94	0.55	50,50,50,50	1
57	MG	DA	9473	1/1	0.94	0.64	0,0,0,0	0
57	MG	CA	1703	1/1	0.94	0.45	9,9,9,9	0
57	MG	DD	7102	1/1	0.94	0.28	0,0,0,0	0
57	MG	DA	9476	1/1	0.94	0.47	2,2,2,2	0
57	MG	BU	201	1/1	0.94	0.30	170,170,170,170	1
57	MG	AA	7081	1/1	0.94	0.46	44,44,44,44	0
57	MG	DA	9321	1/1	0.94	0.50	35,35,35,35	0
57	MG	DA	9403	1/1	0.94	0.26	0,0,0,0	0
57	MG	DA	9323	1/1	0.94	0.56	33,33,33,33	0
57	MG	B7	101	1/1	0.94	0.39	13,13,13,13	0
57	MG	DA	9487	1/1	0.94	0.25	71,71,71,71	0
57	MG	BA	3042	1/1	0.94	0.67	8,8,8,8	0
57	MG	DA	9410	1/1	0.94	0.25	4,4,4,4	0
57	MG	AA	7089	1/1	0.94	0.24	21,21,21,21	0
57	MG	CA	1606	1/1	0.94	0.21	8,8,8,8	0
57	MG	BA	3148	1/1	0.94	0.38	16,16,16,16	0
57	MG	BA	3302	1/1	0.94	0.47	8,8,8,8	0
57	MG	DA	9505	1/1	0.95	0.29	0,0,0,0	0
57	MG	DA	9507	1/1	0.95	0.55	2,2,2,2	0
57	MG	DA	9510	1/1	0.95	0.52	1,1,1,1	0
57	MG	CA	1626	1/1	0.95	0.55	28,28,28,28	0
57	MG	CA	1627	1/1	0.95	0.63	22,22,22,22	0
57	MG	DA	9424	1/1	0.95	0.51	5,5,5,5	0
57	MG	BA	3181	1/1	0.95	0.49	1,1,1,1	0
57	MG	DA	9426	1/1	0.95	0.43	9,9,9,9	1
57	MG	DA	9345	1/1	0.95	0.52	19,19,19,19	0
57	MG	BA	3228	1/1	0.95	0.61	13,13,13,13	0
57	MG	CA	1631	1/1	0.95	0.89	22,22,22,22	0
57	MG	AA	7044	1/1	0.95	0.35	21,21,21,21	0
57	MG	BA	3147	1/1	0.95	0.59	48,48,48,48	0
57	MG	DA	9638	1/1	0.95	0.27	8,8,8,8	1
57	MG	AA	7106	1/1	0.95	0.25	12,12,12,12	0
57	MG	DA	9356	1/1	0.95	0.32	1,1,1,1	0
57	MG	BA	3068	1/1	0.95	0.11	11,11,11,11	0
57	MG	BA	3069	1/1	0.95	0.32	5,5,5,5	0
57	MG	BA	3043	1/1	0.95	0.21	8,8,8,8	0
57	MG	DA	9540	1/1	0.95	0.34	0,0,0,0	0
57	MG	DA	9366	1/1	0.95	0.46	1,1,1,1	0
57	MG	AA	7015	1/1	0.95	0.29	4,4,4,4	0
57	MG	DA	9654	1/1	0.95	0.29	15,15,15,15	0
57	MG	DA	9548	1/1	0.95	0.72	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3127	1/1	0.95	0.38	8,8,8,8	0
57	MG	CE	201	1/1	0.95	0.67	16,16,16,16	0
57	MG	AA	7058	1/1	0.95	0.27	13,13,13,13	0
57	MG	BB	204	1/1	0.95	0.31	23,23,23,23	0
57	MG	DA	9553	1/1	0.95	0.35	20,20,20,20	0
57	MG	BA	3005	1/1	0.95	0.26	22,22,22,22	0
57	MG	DA	9447	1/1	0.95	0.23	68,68,68,68	0
57	MG	DA	9448	1/1	0.95	0.37	18,18,18,18	0
57	MG	AA	7109	1/1	0.95	0.36	33,33,33,33	0
57	MG	DA	9375	1/1	0.95	0.54	0,0,0,0	0
57	MG	DA	9452	1/1	0.95	0.37	10,10,10,10	0
57	MG	BA	3289	1/1	0.95	0.51	21,21,21,21	0
57	MG	BA	3007	1/1	0.95	0.66	4,4,4,4	0
57	MG	DA	9455	1/1	0.95	0.46	0,0,0,0	0
57	MG	BA	3161	1/1	0.95	0.26	11,11,11,11	0
57	MG	CA	1696	1/1	0.95	0.34	49,49,49,49	0
57	MG	BA	3204	1/1	0.95	0.31	3,3,3,3	0
57	MG	DA	9459	1/1	0.95	0.52	3,3,3,3	0
57	MG	BA	3293	1/1	0.95	0.21	1,1,1,1	0
57	MG	AA	7021	1/1	0.95	0.31	25,25,25,25	0
57	MG	AA	7060	1/1	0.95	0.13	8,8,8,8	0
57	MG	DA	9682	1/1	0.95	0.42	20,20,20,20	0
57	MG	DA	9463	1/1	0.95	0.26	12,12,12,12	0
57	MG	DA	9384	1/1	0.95	0.29	16,16,16,16	0
57	MG	DA	9580	1/1	0.95	0.46	0,0,0,0	0
57	MG	BA	3083	1/1	0.95	0.31	27,27,27,27	1
57	MG	AA	7024	1/1	0.95	0.50	27,27,27,27	0
57	MG	DA	9311	1/1	0.95	0.46	29,29,29,29	0
57	MG	BA	3035	1/1	0.95	0.39	0,0,0,0	0
57	MG	CA	1659	1/1	0.95	0.28	28,28,28,28	0
57	MG	BA	3018	1/1	0.95	0.17	37,37,37,37	0
57	MG	BA	3138	1/1	0.95	0.32	15,15,15,15	0
57	MG	BA	3114	1/1	0.95	0.32	41,41,41,41	0
57	MG	BA	3265	1/1	0.95	0.51	43,43,43,43	0
57	MG	CA	1711	1/1	0.95	0.12	26,26,26,26	0
57	MG	DA	9696	1/1	0.95	0.43	34,34,34,34	0
57	MG	DB	201	1/1	0.95	0.41	22,22,22,22	0
57	MG	DA	9596	1/1	0.95	0.14	27,27,27,27	0
57	MG	CA	1712	1/1	0.95	0.21	34,34,34,34	1
57	MG	DA	9326	1/1	0.95	0.24	1,1,1,1	0
57	MG	AA	7030	1/1	0.95	0.23	2,2,2,2	0
57	MG	CA	1665	1/1	0.95	0.40	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DE	301	1/1	0.95	0.32	1,1,1,1	0
57	MG	AA	7095	1/1	0.95	0.08	17,17,17,17	0
57	MG	DA	9485	1/1	0.95	0.41	15,15,15,15	0
57	MG	DA	9330	1/1	0.95	0.35	0,0,0,0	0
57	MG	BA	3309	1/1	0.95	0.79	25,25,25,25	0
57	MG	CA	1719	1/1	0.95	0.35	10,10,10,10	0
57	MG	DU	201	1/1	0.95	0.34	30,30,30,30	1
57	MG	BA	3223	1/1	0.95	0.19	9,9,9,9	0
57	MG	DA	9494	1/1	0.95	0.38	39,39,39,39	0
57	MG	D0	101	1/1	0.95	0.44	27,27,27,27	0
57	MG	DA	9610	1/1	0.95	0.63	19,19,19,19	0
57	MG	BA	3311	1/1	0.95	0.43	13,13,13,13	0
57	MG	D1	102	1/1	0.95	0.18	9,9,9,9	1
57	MG	DA	9497	1/1	0.95	0.36	29,29,29,29	0
57	MG	D5	102	1/1	0.95	0.33	32,32,32,32	1
57	MG	D8	101	1/1	0.95	0.23	3,3,3,3	0
57	MG	BA	3312	1/1	0.95	0.30	45,45,45,45	0
57	MG	BA	3064	1/1	0.95	0.26	29,29,29,29	1
57	MG	CA	1724	1/1	0.95	0.43	5,5,5,5	0
57	MG	BA	3178	1/1	0.95	0.23	28,28,28,28	0
57	MG	BA	3191	1/1	0.96	0.41	2,2,2,2	0
57	MG	BA	3016	1/1	0.96	0.35	8,8,8,8	0
57	MG	DA	9363	1/1	0.96	0.23	1,1,1,1	0
57	MG	DA	9529	1/1	0.96	0.29	0,0,0,0	0
57	MG	AA	7110	1/1	0.96	0.33	31,31,31,31	0
57	MG	BA	3194	1/1	0.96	0.28	1,1,1,1	0
57	MG	CA	1742	1/1	0.96	0.44	10,10,10,10	0
57	MG	AA	7091	1/1	0.96	0.23	22,22,22,22	0
57	MG	AV	101	1/1	0.96	0.14	2,2,2,2	0
57	MG	DA	9536	1/1	0.96	0.44	0,0,0,0	0
57	MG	DA	9538	1/1	0.96	0.46	1,1,1,1	0
57	MG	BA	3198	1/1	0.96	0.34	0,0,0,0	0
57	MG	DA	9642	1/1	0.96	0.30	1,1,1,1	0
57	MG	BA	3244	1/1	0.96	0.20	1,1,1,1	0
57	MG	BD	302	1/1	0.96	0.27	4,4,4,4	0
57	MG	DA	9646	1/1	0.96	0.22	31,31,31,31	0
57	MG	DA	9647	1/1	0.96	0.61	1,1,1,1	0
57	MG	DA	9543	1/1	0.96	0.30	5,5,5,5	0
57	MG	BA	3071	1/1	0.96	0.31	0,0,0,0	0
57	MG	DA	9545	1/1	0.96	0.43	1,1,1,1	0
57	MG	DA	9547	1/1	0.96	0.22	3,3,3,3	0
57	MG	CA	1693	1/1	0.96	0.39	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3139	1/1	0.96	0.46	0,0,0,0	0
57	MG	BA	3004	1/1	0.96	0.59	1,1,1,1	0
57	MG	BA	3054	1/1	0.96	0.33	14,14,14,14	0
57	MG	CA	1648	1/1	0.96	0.42	23,23,23,23	0
57	MG	CA	1698	1/1	0.96	0.14	1,1,1,1	1
57	MG	CA	1649	1/1	0.96	0.10	33,33,33,33	0
57	MG	BA	3167	1/1	0.96	0.17	30,30,30,30	0
57	MG	DA	9305	1/1	0.96	0.46	0,0,0,0	0
57	MG	BA	3056	1/1	0.96	0.24	5,5,5,5	0
57	MG	DA	9664	1/1	0.96	0.54	1,1,1,1	0
57	MG	DA	9560	1/1	0.96	0.26	4,4,4,4	0
57	MG	AA	7017	1/1	0.96	0.08	29,29,29,29	0
57	MG	DA	9387	1/1	0.96	0.76	1,1,1,1	0
57	MG	AA	7087	1/1	0.96	0.13	24,24,24,24	0
57	MG	BA	3211	1/1	0.96	0.17	2,2,2,2	0
57	MG	DA	9391	1/1	0.96	0.17	1,1,1,1	0
57	MG	BA	3146	1/1	0.96	0.71	0,0,0,0	0
57	MG	DA	9318	1/1	0.96	0.40	2,2,2,2	0
57	MG	DA	9675	1/1	0.96	0.29	11,11,11,11	0
57	MG	CA	1602	1/1	0.96	0.16	14,14,14,14	0
57	MG	CA	1707	1/1	0.96	0.83	1,1,1,1	1
57	MG	CA	1603	1/1	0.96	0.16	0,0,0,0	0
57	MG	DA	9575	1/1	0.96	0.12	35,35,35,35	0
57	MG	CA	1604	1/1	0.96	0.43	15,15,15,15	0
57	MG	DA	9401	1/1	0.96	0.55	21,21,21,21	1
57	MG	DA	9474	1/1	0.96	0.30	28,28,28,28	0
57	MG	BA	3261	1/1	0.96	0.31	10,10,10,10	0
57	MG	AA	7057	1/1	0.96	0.18	44,44,44,44	0
57	MG	BA	3303	1/1	0.96	0.29	19,19,19,19	0
57	MG	DA	9478	1/1	0.96	0.40	13,13,13,13	0
57	MG	BA	3025	1/1	0.96	0.16	37,37,37,37	0
57	MG	BA	3305	1/1	0.96	0.25	24,24,24,24	0
57	MG	CA	1715	1/1	0.96	0.51	12,12,12,12	0
57	MG	BA	3175	1/1	0.96	0.28	4,4,4,4	0
57	MG	BA	3307	1/1	0.96	0.54	25,25,25,25	0
57	MG	DA	9592	1/1	0.96	0.17	36,36,36,36	0
57	MG	CA	1667	1/1	0.96	0.29	12,12,12,12	0
57	MG	CA	1613	1/1	0.96	0.95	31,31,31,31	0
57	MG	BA	3041	1/1	0.96	0.51	7,7,7,7	0
57	MG	BA	3219	1/1	0.96	0.18	19,19,19,19	0
57	MG	DA	9491	1/1	0.96	0.45	11,11,11,11	0
57	MG	DA	9492	1/1	0.96	0.11	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9599	1/1	0.96	0.34	20,20,20,20	0
57	MG	BA	3086	1/1	0.96	0.23	1,1,1,1	0
57	MG	BA	3152	1/1	0.96	0.32	18,18,18,18	0
57	MG	BA	3222	1/1	0.96	0.39	5,5,5,5	0
57	MG	DA	9498	1/1	0.96	0.50	2,2,2,2	0
57	MG	BA	3010	1/1	0.96	0.89	28,28,28,28	0
57	MG	DP	201	1/1	0.96	0.12	7,7,7,7	0
57	MG	AA	7028	1/1	0.96	0.85	30,30,30,30	0
57	MG	DA	9342	1/1	0.96	0.10	0,0,0,0	0
57	MG	AA	7038	1/1	0.96	0.63	10,10,10,10	0
57	MG	BA	3156	1/1	0.96	0.33	19,19,19,19	0
57	MG	DA	9506	1/1	0.96	0.23	0,0,0,0	0
57	MG	CA	1629	1/1	0.96	0.34	37,37,37,37	0
57	MG	DA	9612	1/1	0.96	0.70	1,1,1,1	1
57	MG	DA	9613	1/1	0.96	0.23	5,5,5,5	0
57	MG	DA	9508	1/1	0.96	0.25	0,0,0,0	0
57	MG	DA	9349	1/1	0.96	0.61	3,3,3,3	0
57	MG	CA	1679	1/1	0.96	0.28	9,9,9,9	0
57	MG	D5	101	1/1	0.96	0.36	7,7,7,7	0
57	MG	BA	3092	1/1	0.96	0.17	1,1,1,1	0
57	MG	BA	3188	1/1	0.96	0.35	0,0,0,0	0
57	MG	DA	9353	1/1	0.96	0.55	24,24,24,24	0
57	MG	DA	9516	1/1	0.96	0.46	1,1,1,1	0
57	MG	BA	3189	1/1	0.96	0.46	1,1,1,1	0
57	MG	DA	9357	1/1	0.96	0.37	0,0,0,0	0
57	MG	BA	3200	1/1	0.97	0.51	5,5,5,5	0
57	MG	DA	9427	1/1	0.97	0.20	91,91,91,91	0
57	MG	DA	9644	1/1	0.97	0.16	25,25,25,25	0
57	MG	DA	9562	1/1	0.97	0.60	2,2,2,2	0
57	MG	BA	3275	1/1	0.97	0.27	1,1,1,1	1
57	MG	AA	7068	1/1	0.97	0.09	34,34,34,34	0
57	MG	DA	9566	1/1	0.97	0.30	18,18,18,18	0
57	MG	DA	9649	1/1	0.97	0.42	1,1,1,1	0
57	MG	DA	9650	1/1	0.97	0.26	7,7,7,7	0
57	MG	BA	3080	1/1	0.97	0.56	0,0,0,0	0
57	MG	DA	9307	1/1	0.97	0.38	12,12,12,12	0
57	MG	CA	1622	1/1	0.97	0.09	37,37,37,37	0
57	MG	DA	9495	1/1	0.97	0.74	3,3,3,3	0
57	MG	DA	9571	1/1	0.97	0.44	0,0,0,0	0
57	MG	CA	1623	1/1	0.97	0.27	19,19,19,19	0
57	MG	CA	1624	1/1	0.97	0.33	18,18,18,18	0
57	MG	DA	9315	1/1	0.97	0.10	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	DA	9499	1/1	0.97	0.15	29,29,29,29	0
57	MG	DA	9500	1/1	0.97	0.22	1,1,1,1	0
57	MG	DA	9316	1/1	0.97	0.23	0,0,0,0	0
57	MG	BA	3240	1/1	0.97	0.13	21,21,21,21	0
57	MG	BA	3280	1/1	0.97	0.28	19,19,19,19	1
57	MG	BA	3172	1/1	0.97	0.28	58,58,58,58	0
57	MG	AA	7042	1/1	0.97	0.08	31,31,31,31	0
57	MG	BA	3243	1/1	0.97	0.45	5,5,5,5	0
57	MG	DA	9322	1/1	0.97	0.24	8,8,8,8	0
57	MG	DA	9668	1/1	0.97	0.50	4,4,4,4	0
57	MG	AA	7037	1/1	0.97	0.32	7,7,7,7	0
57	MG	DA	9586	1/1	0.97	0.20	3,3,3,3	0
57	MG	DA	9587	1/1	0.97	0.28	2,2,2,2	0
57	MG	DA	9509	1/1	0.97	0.44	17,17,17,17	0
57	MG	BA	3151	1/1	0.97	0.13	12,12,12,12	0
57	MG	DA	9590	1/1	0.97	0.49	1,1,1,1	0
57	MG	BA	3020	1/1	0.97	0.48	1,1,1,1	0
57	MG	BA	3247	1/1	0.97	0.81	55,55,55,55	0
57	MG	DA	9678	1/1	0.97	0.19	33,33,33,33	0
57	MG	BA	3085	1/1	0.97	0.26	29,29,29,29	0
57	MG	BD	301	1/1	0.97	0.57	7,7,7,7	0
57	MG	DA	9515	1/1	0.97	0.32	10,10,10,10	0
57	MG	BA	3180	1/1	0.97	0.60	2,2,2,2	0
57	MG	DA	9517	1/1	0.97	0.29	0,0,0,0	0
57	MG	BA	3250	1/1	0.97	0.32	18,18,18,18	0
57	MG	DA	9520	1/1	0.97	0.47	2,2,2,2	0
57	MG	DA	9521	1/1	0.97	0.57	2,2,2,2	0
57	MG	DA	9601	1/1	0.97	0.35	31,31,31,31	0
57	MG	DA	9522	1/1	0.97	0.47	2,2,2,2	0
57	MG	DA	9523	1/1	0.97	0.77	9,9,9,9	0
57	MG	BA	3047	1/1	0.97	0.29	0,0,0,0	0
57	MG	BA	3252	1/1	0.97	0.48	56,56,56,56	0
57	MG	BA	3065	1/1	0.97	0.65	2,2,2,2	0
57	MG	BA	3215	1/1	0.97	0.41	1,1,1,1	0
57	MG	BA	3255	1/1	0.97	0.44	45,45,45,45	0
57	MG	BA	3048	1/1	0.97	0.29	17,17,17,17	0
57	MG	BA	3089	1/1	0.97	0.23	18,18,18,18	0
57	MG	DA	9697	1/1	0.97	0.22	41,41,41,41	0
57	MG	AA	7056	1/1	0.97	0.34	12,12,12,12	0
57	MG	CA	1647	1/1	0.97	0.36	6,6,6,6	0
57	MG	DA	9534	1/1	0.97	0.51	1,1,1,1	0
57	MG	DA	9404	1/1	0.97	0.31	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	AA	7003	1/1	0.97	0.10	27,27,27,27	0
57	MG	DD	7101	1/1	0.97	0.48	3,3,3,3	0
57	MG	AA	7033	1/1	0.97	0.18	35,35,35,35	0
57	MG	DD	7103	1/1	0.97	0.42	0,0,0,0	0
57	MG	DA	9617	1/1	0.97	0.29	11,11,11,11	0
57	MG	DA	9343	1/1	0.97	0.27	2,2,2,2	0
57	MG	DA	9344	1/1	0.97	0.44	33,33,33,33	0
57	MG	DA	9621	1/1	0.97	0.59	0,0,0,0	1
57	MG	DA	9411	1/1	0.97	0.27	2,2,2,2	0
57	MG	DA	9623	1/1	0.97	0.37	13,13,13,13	0
57	MG	BA	3011	1/1	0.97	0.52	36,36,36,36	0
57	MG	BA	3190	1/1	0.97	0.47	8,8,8,8	0
57	MG	DA	9414	1/1	0.97	0.81	16,16,16,16	0
57	MG	DA	9546	1/1	0.97	0.34	2,2,2,2	0
57	MG	CA	1652	1/1	0.97	0.60	6,6,6,6	0
57	MG	AA	7099	1/1	0.97	0.36	6,6,6,6	0
57	MG	BA	3055	1/1	0.97	0.20	11,11,11,11	0
57	MG	AA	7007	1/1	0.97	0.14	1,1,1,1	0
57	MG	BA	3165	1/1	0.97	0.57	0,0,0,0	0
57	MG	BA	3040	1/1	0.97	0.27	0,0,0,0	0
57	MG	BA	3270	1/1	0.97	0.51	0,0,0,0	1
57	MG	CA	1611	1/1	0.97	0.54	0,0,0,0	0
57	MG	DA	9637	1/1	0.97	0.37	18,18,18,18	0
57	MG	AA	7025	1/1	0.97	0.21	1,1,1,1	0
57	MG	BA	3121	1/1	0.97	0.60	1,1,1,1	0
59	ZN	AN	101	1/1	0.97	0.10	147,147,147,147	0
57	MG	BA	3100	1/1	0.97	0.15	21,21,21,21	0
57	MG	CA	1620	1/1	0.98	0.27	1,1,1,1	0
57	MG	BA	3124	1/1	0.98	0.20	17,17,17,17	0
57	MG	BA	3179	1/1	0.98	0.31	10,10,10,10	0
57	MG	BA	3260	1/1	0.98	0.57	8,8,8,8	0
57	MG	BA	3142	1/1	0.98	0.43	10,10,10,10	0
57	MG	DA	9386	1/1	0.98	0.46	2,2,2,2	0
57	MG	DA	9584	1/1	0.98	0.36	0,0,0,0	0
57	MG	BA	3125	1/1	0.98	0.29	20,20,20,20	0
57	MG	BA	3182	1/1	0.98	0.57	2,2,2,2	0
57	MG	DA	9449	1/1	0.98	0.43	0,0,0,0	0
57	MG	AA	7077	1/1	0.98	0.16	22,22,22,22	0
57	MG	DA	9390	1/1	0.98	0.28	0,0,0,0	0
57	MG	BA	3206	1/1	0.98	0.45	29,29,29,29	0
57	MG	DA	9392	1/1	0.98	0.70	12,12,12,12	0
57	MG	BA	3234	1/1	0.98	0.56	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3207	1/1	0.98	0.38	1,1,1,1	0
57	MG	BA	3027	1/1	0.98	0.34	4,4,4,4	0
57	MG	BA	3237	1/1	0.98	0.24	43,43,43,43	0
57	MG	DA	9524	1/1	0.98	0.36	2,2,2,2	0
57	MG	DA	9672	1/1	0.98	0.37	5,5,5,5	0
57	MG	BA	3238	1/1	0.98	0.33	9,9,9,9	0
57	MG	BA	3034	1/1	0.98	0.22	7,7,7,7	0
57	MG	DA	9400	1/1	0.98	0.41	0,0,0,0	0
57	MG	BA	3210	1/1	0.98	0.74	11,11,11,11	0
57	MG	AA	7035	1/1	0.98	0.11	42,42,42,42	0
57	MG	BA	3060	1/1	0.98	0.57	1,1,1,1	0
57	MG	DA	9346	1/1	0.98	0.30	0,0,0,0	0
57	MG	BA	3051	1/1	0.98	0.40	6,6,6,6	0
57	MG	DA	9406	1/1	0.98	0.18	32,32,32,32	0
57	MG	BA	3072	1/1	0.98	0.17	25,25,25,25	0
57	MG	DA	9408	1/1	0.98	0.25	3,3,3,3	0
57	MG	BA	3073	1/1	0.98	0.67	8,8,8,8	0
57	MG	DA	9537	1/1	0.98	0.38	0,0,0,0	0
57	MG	BA	3008	1/1	0.98	0.46	2,2,2,2	0
57	MG	BA	3279	1/1	0.98	0.24	31,31,31,31	0
57	MG	DA	9472	1/1	0.98	0.41	16,16,16,16	0
57	MG	BA	3009	1/1	0.98	0.15	2,2,2,2	0
57	MG	DA	9542	1/1	0.98	0.35	6,6,6,6	0
57	MG	CA	1718	1/1	0.98	0.27	27,27,27,27	0
57	MG	DA	9355	1/1	0.98	0.67	0,0,0,0	0
57	MG	DA	9308	1/1	0.98	0.44	2,2,2,2	0
57	MG	DA	9309	1/1	0.98	0.34	6,6,6,6	0
57	MG	DA	9619	1/1	0.98	0.15	0,0,0,0	0
57	MG	DA	9310	1/1	0.98	0.29	0,0,0,0	0
57	MG	DA	9479	1/1	0.98	0.63	0,0,0,0	0
57	MG	DA	9359	1/1	0.98	0.38	0,0,0,0	0
57	MG	DA	9481	1/1	0.98	0.09	0,0,0,0	0
57	MG	DA	9360	1/1	0.98	0.36	7,7,7,7	0
57	MG	BA	3218	1/1	0.98	0.30	24,24,24,24	0
57	MG	DA	9362	1/1	0.98	0.34	5,5,5,5	0
57	MG	DA	9627	1/1	0.98	0.29	0,0,0,0	1
57	MG	DA	9554	1/1	0.98	0.27	10,10,10,10	0
57	MG	DA	9312	1/1	0.98	0.67	4,4,4,4	0
57	MG	DA	9364	1/1	0.98	0.82	1,1,1,1	0
57	MG	CA	1645	1/1	0.98	0.35	20,20,20,20	0
57	MG	DA	9558	1/1	0.98	0.15	6,6,6,6	0
57	MG	DA	9488	1/1	0.98	0.56	0,0,0,0	0

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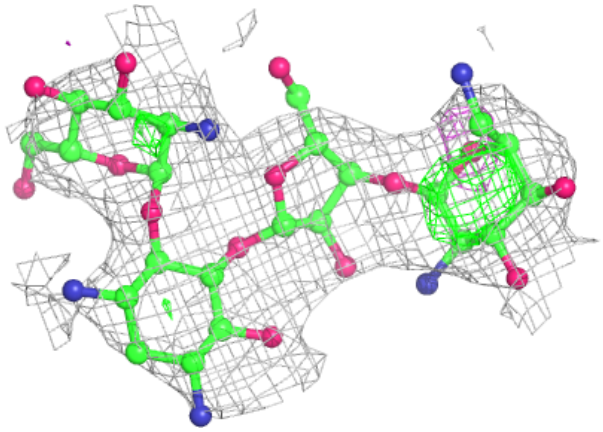
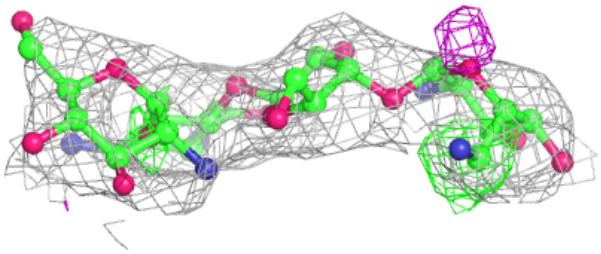
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	BA	3015	1/1	0.98	0.20	3,3,3,3	0
57	MG	BA	3316	1/1	0.98	0.42	7,7,7,7	0
57	MG	BA	3105	1/1	0.98	0.69	26,26,26,26	0
57	MG	BA	3091	1/1	0.98	0.19	0,0,0,0	0
57	MG	DU	202	1/1	0.98	0.15	6,6,6,6	0
57	MG	DA	9564	1/1	0.98	0.58	17,17,17,17	0
57	MG	DA	9493	1/1	0.98	0.26	1,1,1,1	0
57	MG	BA	3046	1/1	0.98	0.64	1,1,1,1	0
57	MG	DA	9641	1/1	0.98	0.07	11,11,11,11	0
57	MG	DA	9430	1/1	0.98	0.39	0,0,0,0	0
57	MG	BA	3197	1/1	0.98	0.22	1,1,1,1	0
57	MG	CA	1615	1/1	0.98	0.27	0,0,0,0	0
57	MG	BA	3176	1/1	0.98	0.33	0,0,0,0	0
57	MG	CA	1729	1/1	0.98	0.43	35,35,35,35	0
57	MG	BA	3288	1/1	0.98	0.14	18,18,18,18	0
57	MG	DA	9324	1/1	0.98	0.48	2,2,2,2	0
57	MG	DA	9437	1/1	0.98	0.19	14,14,14,14	0
57	MG	BA	3078	1/1	0.98	0.43	2,2,2,2	0
57	MG	CA	1619	1/1	0.98	0.52	11,11,11,11	0
59	ZN	CD	301	1/1	0.98	0.32	44,44,44,44	0
57	MG	CA	1733	1/1	0.98	0.46	11,11,11,11	0
57	MG	BA	3299	1/1	0.99	0.48	10,10,10,10	0
57	MG	BA	3239	1/1	0.99	0.35	1,1,1,1	0
57	MG	DA	9369	1/1	0.99	0.59	0,0,0,0	0
57	MG	BE	303	1/1	0.99	0.15	1,1,1,1	0
57	MG	BA	3224	1/1	0.99	0.17	5,5,5,5	0
57	MG	BA	3259	1/1	0.99	0.32	18,18,18,18	0
57	MG	BA	3084	1/1	0.99	0.50	1,1,1,1	0
57	MG	AA	7019	1/1	0.99	0.56	16,16,16,16	0
57	MG	DA	9354	1/1	0.99	0.49	2,2,2,2	0
57	MG	DA	9518	1/1	0.99	0.35	0,0,0,0	0
57	MG	DA	9398	1/1	0.99	0.44	0,0,0,0	0
57	MG	DU	203	1/1	0.99	0.14	0,0,0,0	1
57	MG	BA	3013	1/1	0.99	0.30	16,16,16,16	0
57	MG	AA	7006	1/1	0.99	0.37	20,20,20,20	0

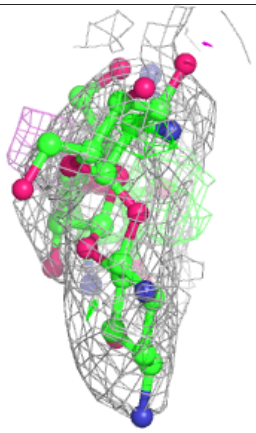
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around PAR CA 1741:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

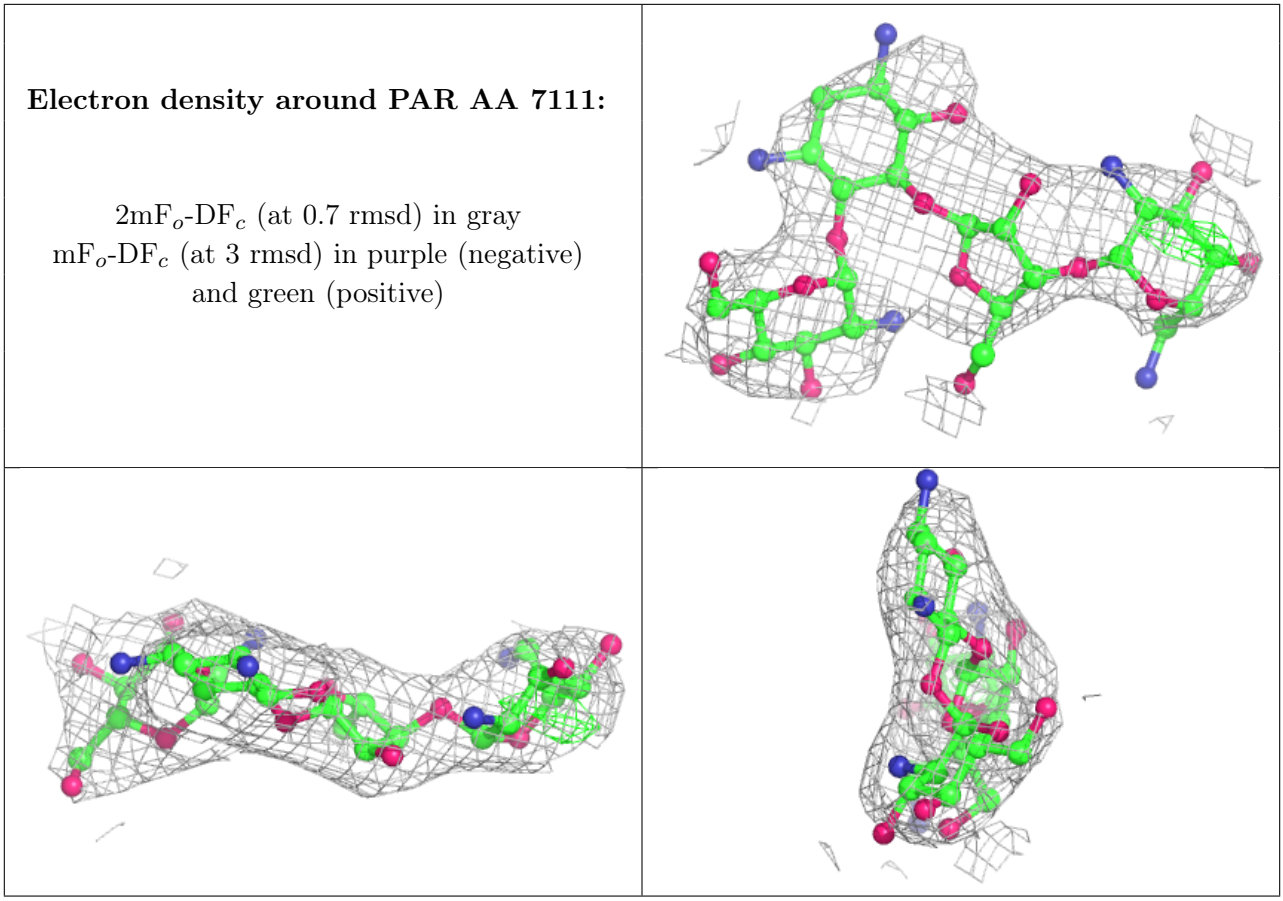






Electron density around PAR AA 7111:

$2mF_o$-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.