Full wwPDB X-ray Structure Validation Report ⓘ

Jan 4, 2024 – 11:32 pm GMT

PDB ID	:	4V5C
Title	:	Structure of the Thermus thermophilus 70S ribosome in complex with mRNA, paromomycin, acylated A-site tRNA, deacylated P-site tRNA, and E-site tRNA.
Authors	:	Voorhees, R.M.; Weixlbaumer, A.; Loakes, D.; Kelley, A.C.; Ramakrishnan, V.
Deposited on	:	2009-03-24
Resolution	:	3.30 Å(reported)

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

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

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

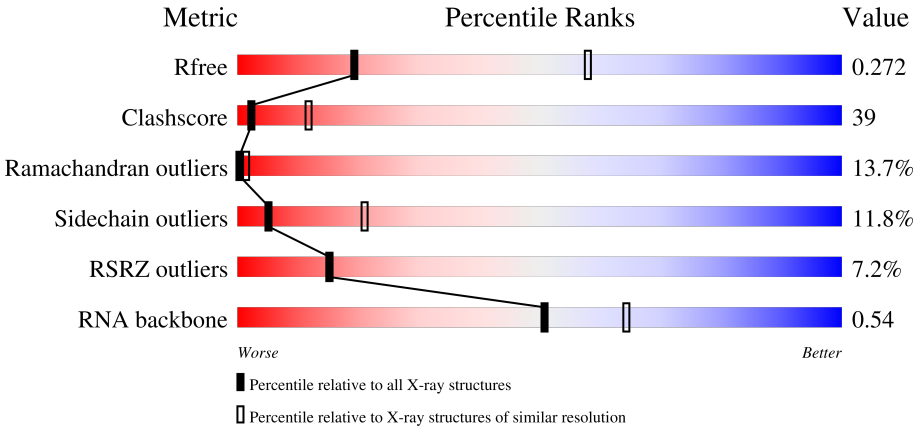
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.30 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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	27% 61% 10%
1	CA	1522	26% 61% 10%
2	AB	256	6% 20% 56% 14% 8%
2	CB	256	10% 18% 59% 14% 8%

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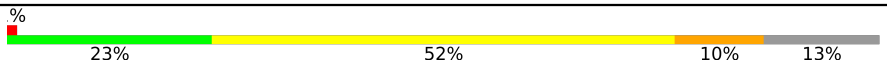
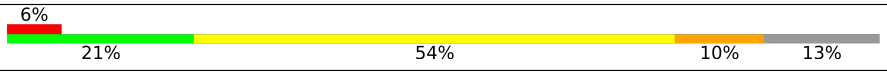
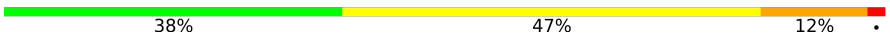
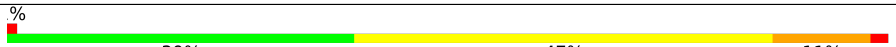
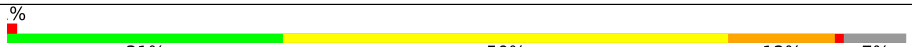
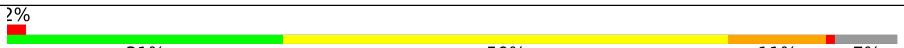
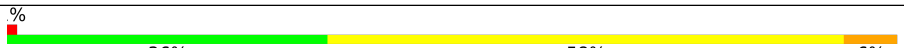
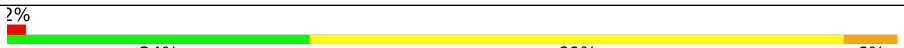
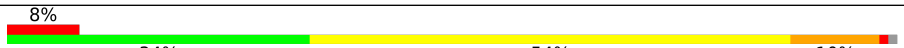
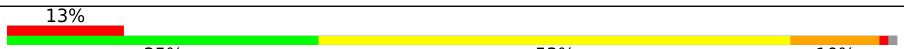
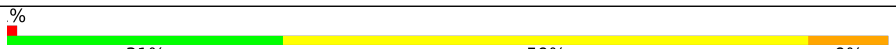
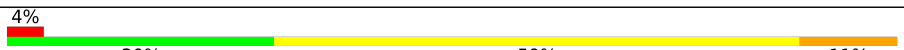
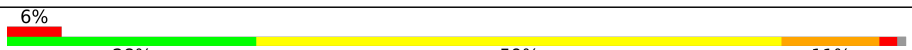
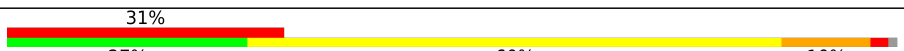
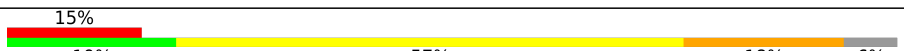
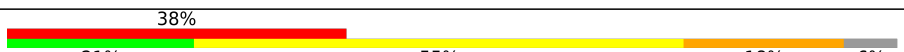
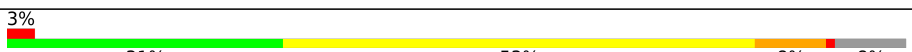
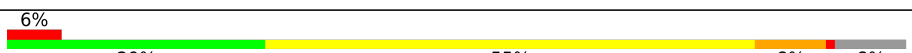
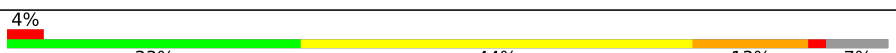
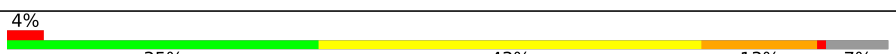
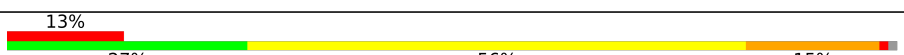
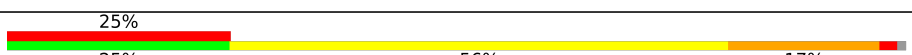
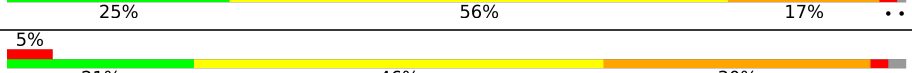
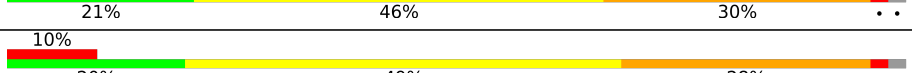
Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	135	
12	CL	135	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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Mol	Chain	Length	Quality of chain
15	CO	89	30% 60% 9%
16	AP	88	% 32% 56% 8% 5%
16	CP	88	7% 30% 58% 8% 5%
17	AQ	105	% 39% 50% 5% 5%
17	CQ	105	% 35% 54% 5% 5%
18	AR	88	% 31% 43% 20%
18	CR	88	% 31% 42% 5% 20%
19	AS	93	13% 14% 52% 17% 15%
19	CS	93	16% 14% 52% 17% 15%
20	AT	106	6% 25% 57% 12% 7%
20	CT	106	11% 23% 59% 11% 7%
21	AU	27	33% 41% 44% 7% 7%
21	CU	27	70% 37% 44% 11% 7%
22	AV	77	36% 42% 19%
22	CV	77	21% 62% 16%
23	AW	76	20% 22% 59% 18%
23	CW	76	55% 24% 63% 13%
24	AX	10	10% 50% 50%
24	CX	10	10% 20% 70% 10%
25	AY	77	21% 18% 52% 29%
25	CY	77	14% 18% 55% 27%
26	B0	85	5% 33% 52% 13%
26	D0	85	8% 32% 52% 14%
27	B1	98	4% 24% 54% 14%
27	D1	98	31% 46% 16%

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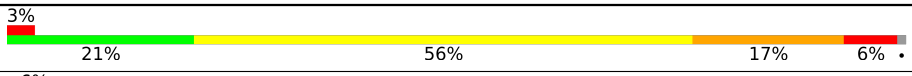
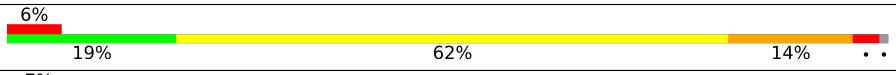
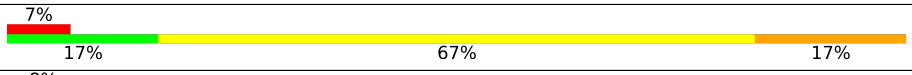
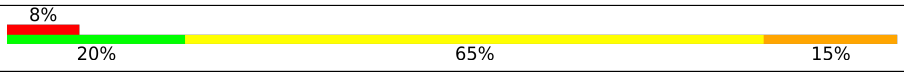
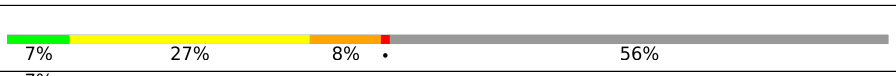
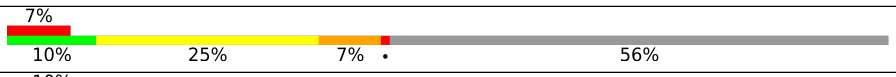
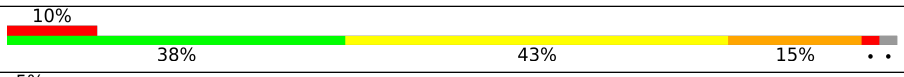
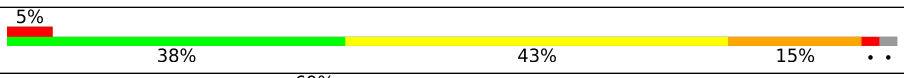
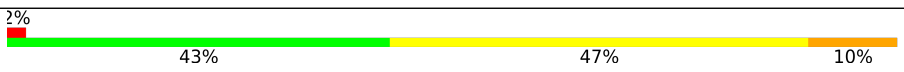
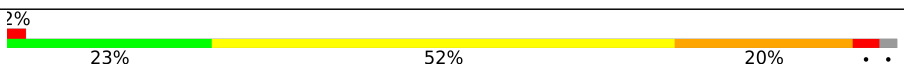
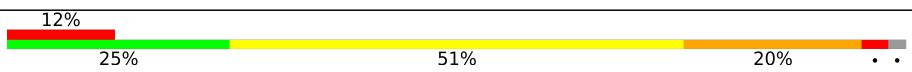
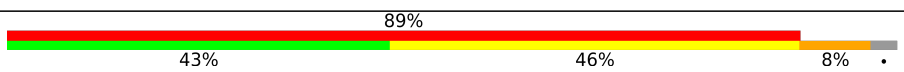
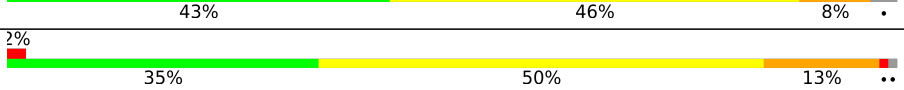
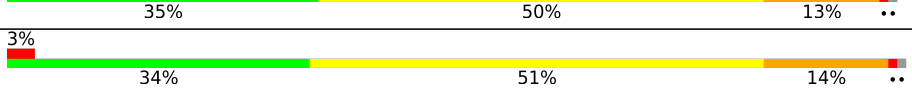
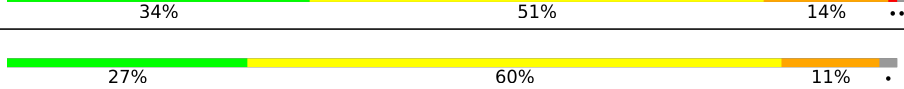
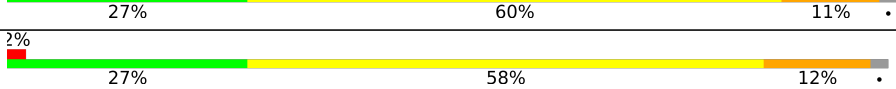
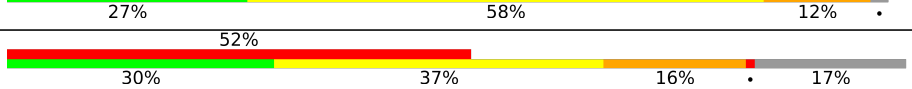
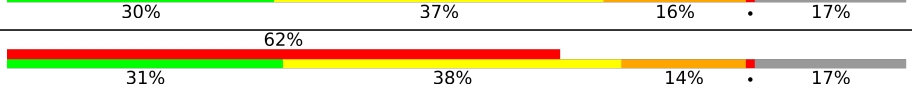
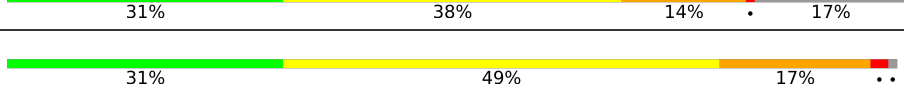
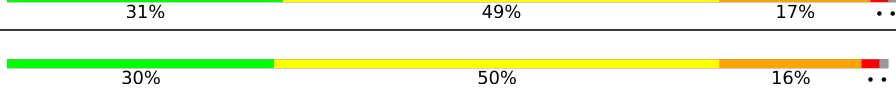
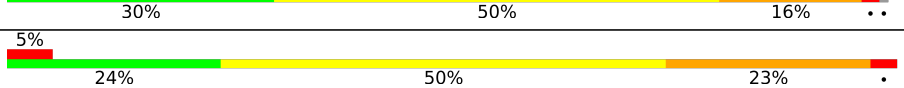
Mol	Chain	Length	Quality of chain
28	B2	72	
28	D2	72	
29	B3	60	
29	D3	60	
30	B4	71	
30	D4	71	
31	B5	60	
31	D5	60	
32	B6	54	
32	D6	54	
33	B7	49	
33	D7	49	
34	B8	65	
34	D8	65	
35	B9	37	
35	D9	37	
36	BA	2822	
36	DA	2822	
37	BB	122	
37	DB	122	
38	BC	229	
38	DC	229	
39	BD	276	
39	DD	276	
40	BE	206	

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Mol	Chain	Length	Quality of chain
40	DE	206	4% 23% 51% 22%
41	BF	210	% 25% 59% 15%
41	DF	210	7% 23% 61% 14%
42	BG	182	4% 17% 64% 18%
42	DG	182	18% 7% 59% 31%
43	BH	180	27% 15% 53% 17% 11%
43	DH	180	7% 16% 52% 17% 11%
44	BI	148	6% 20% 55% 24%
44	DI	148	34% 19% 55% 24%
45	BN	140	2% 25% 50% 21%
45	DN	140	2% 25% 50% 21%
46	BO	122	% 40% 51% 9%
46	DO	122	43% 47% 10%
47	BP	150	7% 16% 47% 29% 5%
47	DP	150	15% 17% 45% 30% 5%
48	BQ	141	4% 30% 57% 11%
48	DQ	141	6% 28% 57% 11%
49	BR	118	31% 50% 18%
49	DR	118	25% 55% 17%
50	BS	112	4% 12% 44% 29% 12%
50	DS	112	26% 15% 43% 27% 12%
51	BT	146	7% 17% 49% 24% 5% 5%
51	DT	146	2% 16% 51% 23% 5% 5%
52	BU	118	2% 23% 64% 12%
52	DU	118	2% 21% 66% 12%

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Mol	Chain	Length	Quality of chain
53	BV	101	4% 25% 52% 20%
53	DV	101	5% 25% 52% 20%
54	BW	113	32% 52% 14%
54	DW	113	3% 31% 54% 13%
55	BX	96	% 39% 52% 6%
55	DX	96	% 40% 49% 8%
56	BY	110	15% 20% 41% 24% 7% 8%
56	DY	110	23% 18% 44% 25% 5% 8%
57	BZ	206	13% 15% 50% 20% 14%
57	DZ	206	23% 11% 53% 19% 14%

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
58	MG	AA	1602	-	-	-	X
58	MG	AA	1604	-	-	-	X
58	MG	AA	1608	-	-	-	X
58	MG	AA	1618	-	-	-	X
58	MG	AA	1631	-	-	-	X
58	MG	AA	1635	-	-	-	X
58	MG	AA	1652	-	-	-	X
58	MG	AA	1655	-	-	-	X
58	MG	AA	1666	-	-	-	X
58	MG	AA	1685	-	-	-	X
58	MG	AA	1693	-	-	-	X
58	MG	AA	1694	-	-	-	X
58	MG	AA	1696	-	-	-	X
58	MG	AA	1700	-	-	-	X
58	MG	AA	1730	-	-	-	X
58	MG	AA	1734	-	-	-	X
58	MG	AA	1743	-	-	-	X
58	MG	AA	1745	-	-	-	X
58	MG	AA	1752	-	-	-	X
58	MG	AA	1760	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	AA	1762	-	-	-	X
58	MG	AA	1763	-	-	-	X
58	MG	AA	1765	-	-	-	X
58	MG	AA	1769	-	-	-	X
58	MG	AA	1771	-	-	-	X
58	MG	AA	1772	-	-	-	X
58	MG	AA	1780	-	-	-	X
58	MG	AA	1783	-	-	-	X
58	MG	AA	1788	-	-	-	X
58	MG	AA	1789	-	-	-	X
58	MG	AA	1799	-	-	-	X
58	MG	AA	1808	-	-	-	X
58	MG	AA	1812	-	-	-	X
58	MG	AG	201	-	-	-	X
58	MG	AV	105	-	-	-	X
58	MG	AW	101	-	-	-	X
58	MG	AW	110	-	-	-	X
58	MG	AW	116	-	-	-	X
58	MG	AW	117	-	-	-	X
58	MG	B2	601	-	-	-	X
58	MG	B5	102	-	-	-	X
58	MG	BA	3004	-	-	-	X
58	MG	BA	3009	-	-	-	X
58	MG	BA	3013	-	-	-	X
58	MG	BA	3034	-	-	-	X
58	MG	BA	3050	-	-	-	X
58	MG	BA	3070	-	-	-	X
58	MG	BA	3104	-	-	-	X
58	MG	BA	3130	-	-	-	X
58	MG	BA	3150	-	-	-	X
58	MG	BA	3158	-	-	-	X
58	MG	BA	3163	-	-	-	X
58	MG	BA	3164	-	-	-	X
58	MG	BA	3213	-	-	-	X
58	MG	BA	3221	-	-	-	X
58	MG	BA	3223	-	-	-	X
58	MG	BA	3228	-	-	-	X
58	MG	BA	3232	-	-	-	X
58	MG	BA	3234	-	-	-	X
58	MG	BA	3235	-	-	-	X
58	MG	BA	3238	-	-	-	X
58	MG	BA	3242	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	BA	3259	-	-	-	X
58	MG	BA	3260	-	-	-	X
58	MG	BA	3269	-	-	-	X
58	MG	BA	3272	-	-	-	X
58	MG	BA	3278	-	-	-	X
58	MG	BA	3284	-	-	-	X
58	MG	BA	3285	-	-	-	X
58	MG	BA	3287	-	-	-	X
58	MG	BA	3288	-	-	-	X
58	MG	BA	3295	-	-	-	X
58	MG	BA	3305	-	-	-	X
58	MG	BA	3308	-	-	-	X
58	MG	BA	3316	-	-	-	X
58	MG	BA	3321	-	-	-	X
58	MG	BA	3336	-	-	-	X
58	MG	BA	3339	-	-	-	X
58	MG	BA	3341	-	-	-	X
58	MG	BA	3345	-	-	-	X
58	MG	BA	3347	-	-	-	X
58	MG	BA	3349	-	-	-	X
58	MG	BA	3351	-	-	-	X
58	MG	BA	3355	-	-	-	X
58	MG	BA	3375	-	-	-	X
58	MG	BA	3377	-	-	-	X
58	MG	BA	3394	-	-	-	X
58	MG	BA	3401	-	-	-	X
58	MG	BA	3404	-	-	-	X
58	MG	BA	3424	-	-	-	X
58	MG	BA	3428	-	-	-	X
58	MG	BA	3429	-	-	-	X
58	MG	BA	3453	-	-	-	X
58	MG	BB	201	-	-	-	X
58	MG	BB	202	-	-	-	X
58	MG	BB	213	-	-	-	X
58	MG	BB	214	-	-	-	X
58	MG	BB	217	-	-	-	X
58	MG	BB	218	-	-	-	X
58	MG	BX	102	-	-	-	X
58	MG	CA	1612	-	-	-	X
58	MG	CA	1617	-	-	-	X
58	MG	CA	1618	-	-	-	X
58	MG	CA	1619	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	CA	1626	-	-	-	X
58	MG	CA	1627	-	-	-	X
58	MG	CA	1638	-	-	-	X
58	MG	CA	1639	-	-	-	X
58	MG	CA	1643	-	-	-	X
58	MG	CA	1647	-	-	-	X
58	MG	CA	1649	-	-	-	X
58	MG	CA	1650	-	-	-	X
58	MG	CA	1651	-	-	-	X
58	MG	CA	1661	-	-	-	X
58	MG	CA	1672	-	-	-	X
58	MG	CA	1675	-	-	-	X
58	MG	CA	1680	-	-	-	X
58	MG	CA	1682	-	-	-	X
58	MG	CA	1687	-	-	-	X
58	MG	CA	1688	-	-	-	X
58	MG	CA	1701	-	-	-	X
58	MG	CA	1710	-	-	-	X
58	MG	CA	1716	-	-	-	X
58	MG	CA	1724	-	-	-	X
58	MG	CA	1730	-	-	-	X
58	MG	CA	1731	-	-	-	X
58	MG	CA	1737	-	-	-	X
58	MG	CA	1739	-	-	-	X
58	MG	CA	1742	-	-	-	X
58	MG	CA	1743	-	-	-	X
58	MG	CA	1751	-	-	-	X
58	MG	CA	1762	-	-	-	X
58	MG	CA	1763	-	-	-	X
58	MG	CA	1767	-	-	-	X
58	MG	CA	1770	-	-	-	X
58	MG	CA	1772	-	-	-	X
58	MG	CA	1773	-	-	-	X
58	MG	CA	1780	-	-	-	X
58	MG	CA	1783	-	-	-	X
58	MG	CA	1810	-	-	-	X
58	MG	CA	1816	-	-	-	X
58	MG	CK	201	-	-	-	X
58	MG	CV	105	-	-	-	X
58	MG	CV	108	-	-	-	X
58	MG	CW	103	-	-	-	X
58	MG	CW	108	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	D1	101	-	-	-	X
58	MG	D7	102	-	-	-	X
58	MG	DA	3005	-	-	-	X
58	MG	DA	3035	-	-	-	X
58	MG	DA	3043	-	-	-	X
58	MG	DA	3088	-	-	-	X
58	MG	DA	3102	-	-	-	X
58	MG	DA	3103	-	-	-	X
58	MG	DA	3141	-	-	-	X
58	MG	DA	3144	-	-	-	X
58	MG	DA	3151	-	-	-	X
58	MG	DA	3156	-	-	-	X
58	MG	DA	3161	-	-	-	X
58	MG	DA	3166	-	-	-	X
58	MG	DA	3171	-	-	-	X
58	MG	DA	3178	-	-	-	X
58	MG	DA	3196	-	-	-	X
58	MG	DA	3198	-	-	-	X
58	MG	DA	3205	-	-	-	X
58	MG	DA	3209	-	-	-	X
58	MG	DA	3213	-	-	-	X
58	MG	DA	3219	-	-	-	X
58	MG	DA	3220	-	-	-	X
58	MG	DA	3224	-	-	-	X
58	MG	DA	3234	-	-	-	X
58	MG	DA	3241	-	-	-	X
58	MG	DA	3245	-	-	-	X
58	MG	DA	3246	-	-	-	X
58	MG	DA	3253	-	-	-	X
58	MG	DA	3255	-	-	-	X
58	MG	DA	3262	-	-	-	X
58	MG	DA	3264	-	-	-	X
58	MG	DA	3265	-	-	-	X
58	MG	DA	3273	-	-	-	X
58	MG	DA	3279	-	-	-	X
58	MG	DA	3283	-	-	-	X
58	MG	DA	3301	-	-	-	X
58	MG	DA	3303	-	-	-	X
58	MG	DA	3304	-	-	-	X
58	MG	DA	3311	-	-	-	X
58	MG	DA	3313	-	-	-	X
58	MG	DA	3327	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	DA	3330	-	-	-	X
58	MG	DA	3331	-	-	-	X
58	MG	DA	3334	-	-	-	X
58	MG	DA	3335	-	-	-	X
58	MG	DA	3336	-	-	-	X
58	MG	DA	3344	-	-	-	X
58	MG	DA	3346	-	-	-	X
58	MG	DA	3348	-	-	-	X
58	MG	DA	3351	-	-	-	X
58	MG	DA	3360	-	-	-	X
58	MG	DA	3364	-	-	-	X
58	MG	DA	3370	-	-	-	X
58	MG	DA	3380	-	-	-	X
58	MG	DA	3391	-	-	-	X
58	MG	DA	3399	-	-	-	X
58	MG	DA	3410	-	-	-	X
58	MG	DA	3414	-	-	-	X
58	MG	DA	3423	-	-	-	X
58	MG	DA	3426	-	-	-	X
58	MG	DA	3434	-	-	-	X
58	MG	DA	3447	-	-	-	X
58	MG	DB	202	-	-	-	X
58	MG	DB	213	-	-	-	X
58	MG	DB	214	-	-	-	X
58	MG	DB	216	-	-	-	X
58	MG	DB	217	-	-	-	X
58	MG	DN	201	-	-	-	X
58	MG	DN	202	-	-	-	X

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 296168 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 ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			

- 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			
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
			1011	639	198	174			
9	CI	127	Total	C	N	O	0	0	0
			1011	639	198	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	1
			988	611	206	169	2			

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14.

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			
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
			1641	733	297	535	76			
22	CV	77	Total	C	N	O	P	0	0	0
			1641	733	297	535	76			

- Molecule 23 is a RNA chain called E-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	CW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			

- Molecule 24 is a RNA chain called MRNA.

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

- Molecule 25 is a RNA chain called A-SITE PHE-TRNA PHE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AY	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			
25	CY	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L27.

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

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

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L28.

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

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L29.

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

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L30.

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

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
30	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L32.

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

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L33.

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

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L34.

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

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L35.

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

- Molecule 35 is a protein called 50S RIBOSOMAL PROTEIN L36.

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

- Molecule 36 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BA	2807	Total	C	N	O	P	0	0	0
			60459	26907	11311	19435	2806			
36	DA	2807	Total	C	N	O	P	0	0	0
			60459	26907	11311	19435	2806			

- Molecule 37 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L1.

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

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L2.

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

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L3.

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

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L4.

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

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L5.

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

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

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
43	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			
44	DI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L13.

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

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L14.

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

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
47	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L16.

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

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	BR	117	Total	C	N	O	0	0	0
			960	599	202	159			
49	DR	117	Total	C	N	O	0	0	0
			960	599	202	159			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
50	DS	99	Total	C	N	O	0	0	1
			771	486	155	130			

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L19.

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

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L20.

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

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L21.

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

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L22.

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

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L23.

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

- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
56	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 57 is a protein called 50S RIBOSOMAL PROTEIN L25.

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

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	AA	213	Total	Mg	0	0
			213	213		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	AD	1	Total Mg 1 1	0	0
58	AE	1	Total Mg 1 1	0	0
58	AG	1	Total Mg 1 1	0	0
58	AU	1	Total Mg 1 1	0	0
58	AV	8	Total Mg 8 8	0	0
58	AW	20	Total Mg 20 20	0	0
58	AX	4	Total Mg 4 4	0	0
58	B1	1	Total Mg 1 1	0	0
58	B2	2	Total Mg 2 2	0	0
58	B5	2	Total Mg 2 2	0	0
58	B7	1	Total Mg 1 1	0	0
58	BA	453	Total Mg 453 453	0	0
58	BB	19	Total Mg 19 19	0	0
58	BD	1	Total Mg 1 1	0	0
58	BE	1	Total Mg 1 1	0	0
58	BF	2	Total Mg 2 2	0	0
58	BN	2	Total Mg 2 2	0	0
58	BO	1	Total Mg 1 1	0	0
58	BP	2	Total Mg 2 2	0	0
58	BV	2	Total Mg 2 2	0	0
58	BW	1	Total Mg 1 1	0	0

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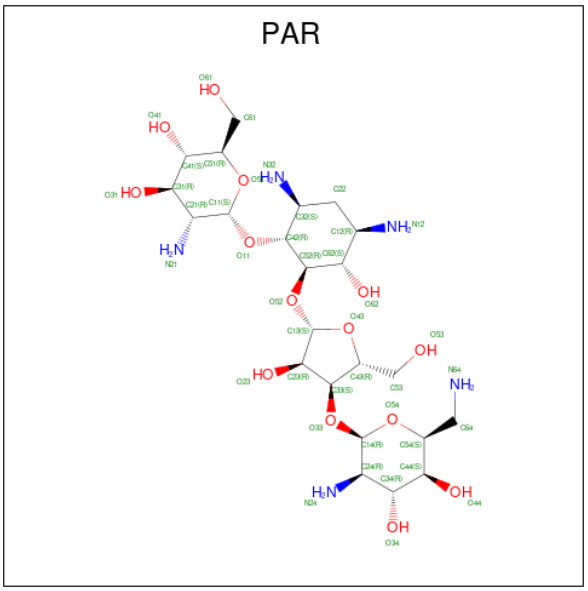
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	BX	2	Total Mg 2 2	0	0
58	CA	216	Total Mg 216 216	0	0
58	CE	1	Total Mg 1 1	0	0
58	CK	1	Total Mg 1 1	0	0
58	CL	1	Total Mg 1 1	0	0
58	CV	8	Total Mg 8 8	0	0
58	CW	21	Total Mg 21 21	0	0
58	CX	3	Total Mg 3 3	0	0
58	D1	2	Total Mg 2 2	0	0
58	D2	3	Total Mg 3 3	0	0
58	D5	1	Total Mg 1 1	0	0
58	D7	2	Total Mg 2 2	0	0
58	DA	451	Total Mg 451 451	0	0
58	DB	18	Total Mg 18 18	0	0
58	DD	2	Total Mg 2 2	0	0
58	DE	2	Total Mg 2 2	0	0
58	DF	1	Total Mg 1 1	0	0
58	DN	3	Total Mg 3 3	0	0
58	DV	2	Total Mg 2 2	0	0
58	DX	3	Total Mg 3 3	0	0

- Molecule 59 is PAROMOMYCIN (three-letter code: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



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

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

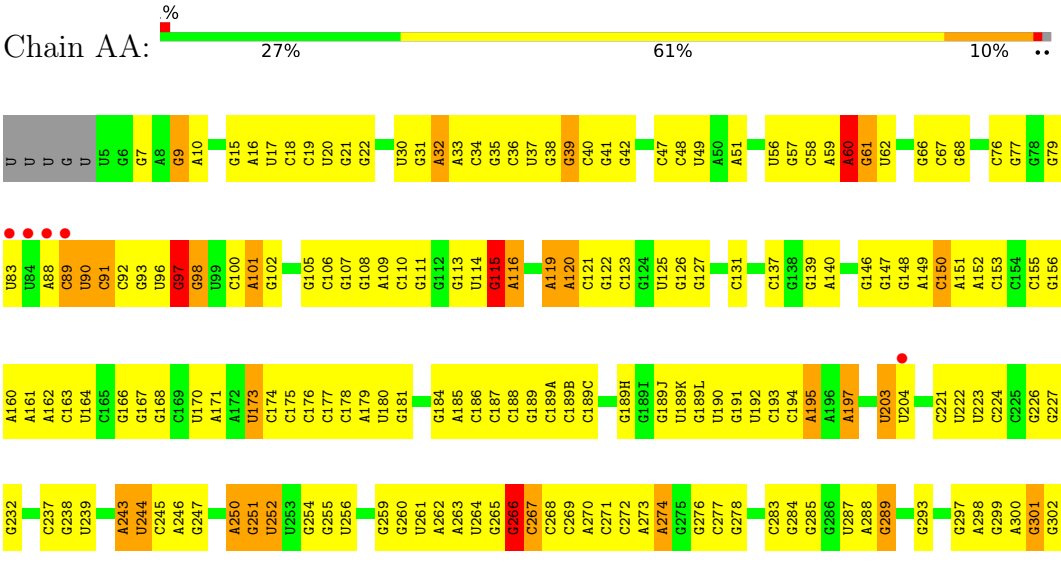
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	AD	1	Total Zn 1 1	0	0
60	AN	1	Total Zn 1 1	0	0
60	B9	1	Total Zn 1 1	0	0
60	CD	1	Total Zn 1 1	0	0
60	CN	1	Total Zn 1 1	0	0
60	D9	1	Total Zn 1 1	0	0

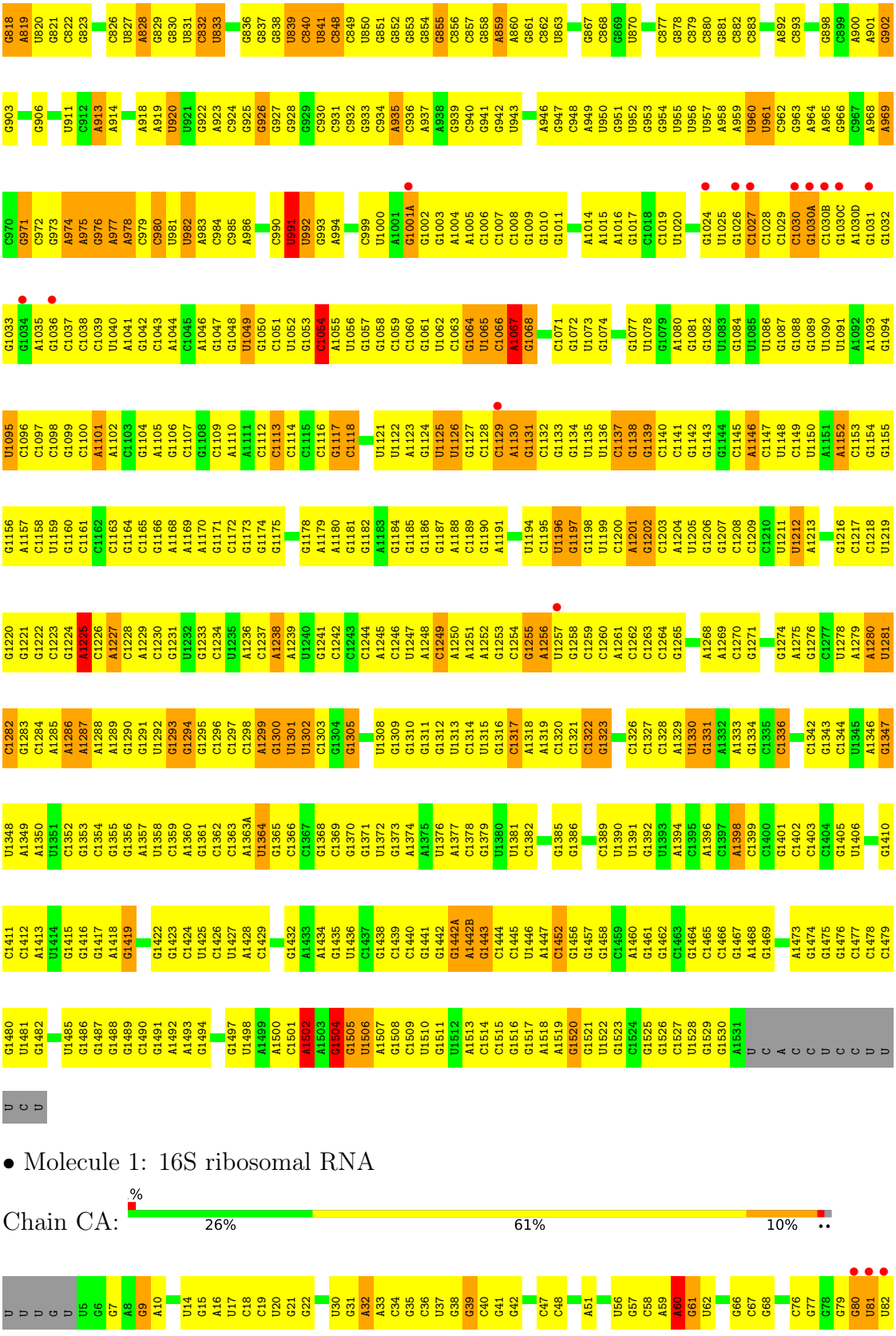
3 Residue-property plots (i)

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 ribosomal RNA

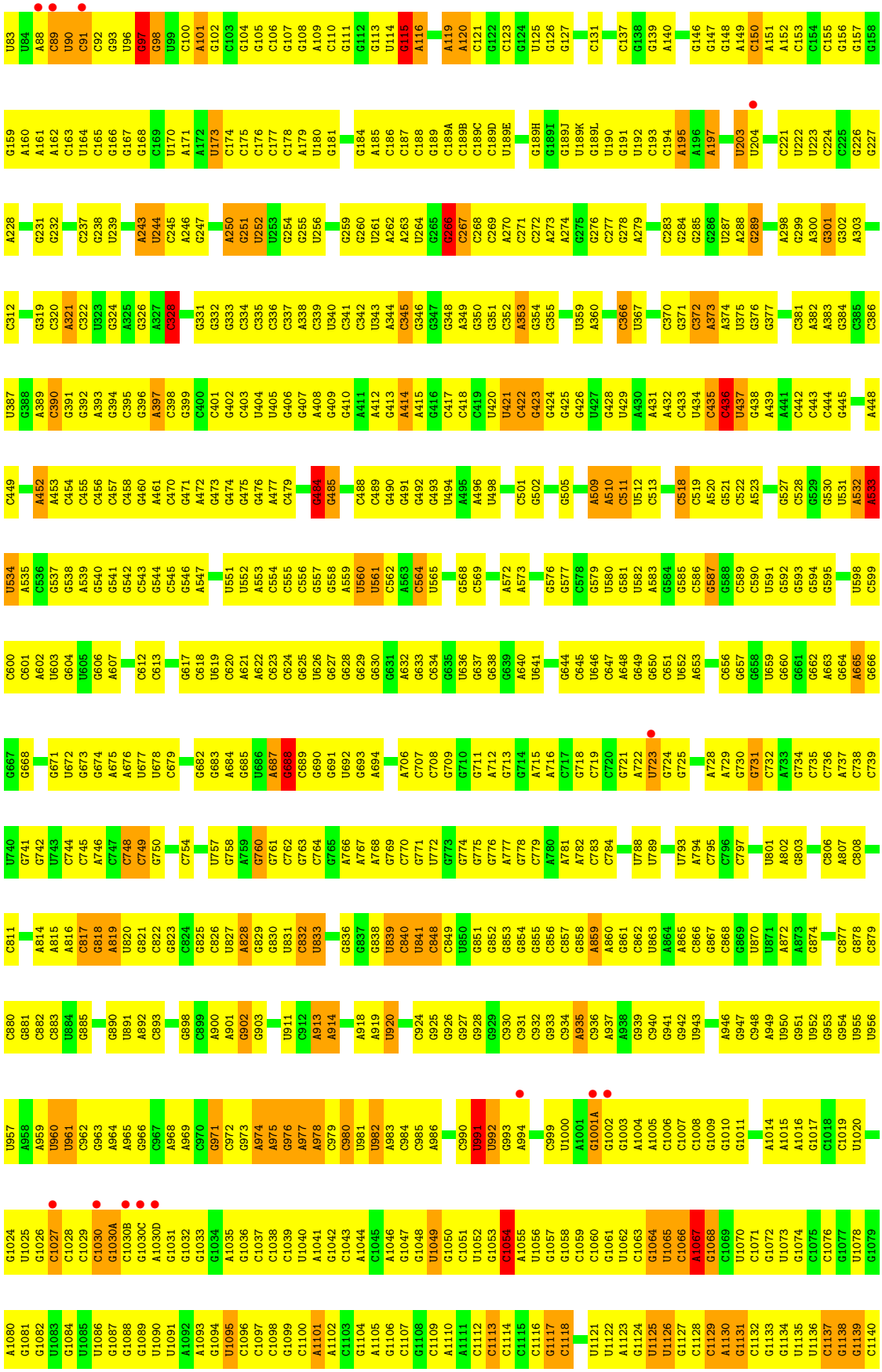
Chain AA:

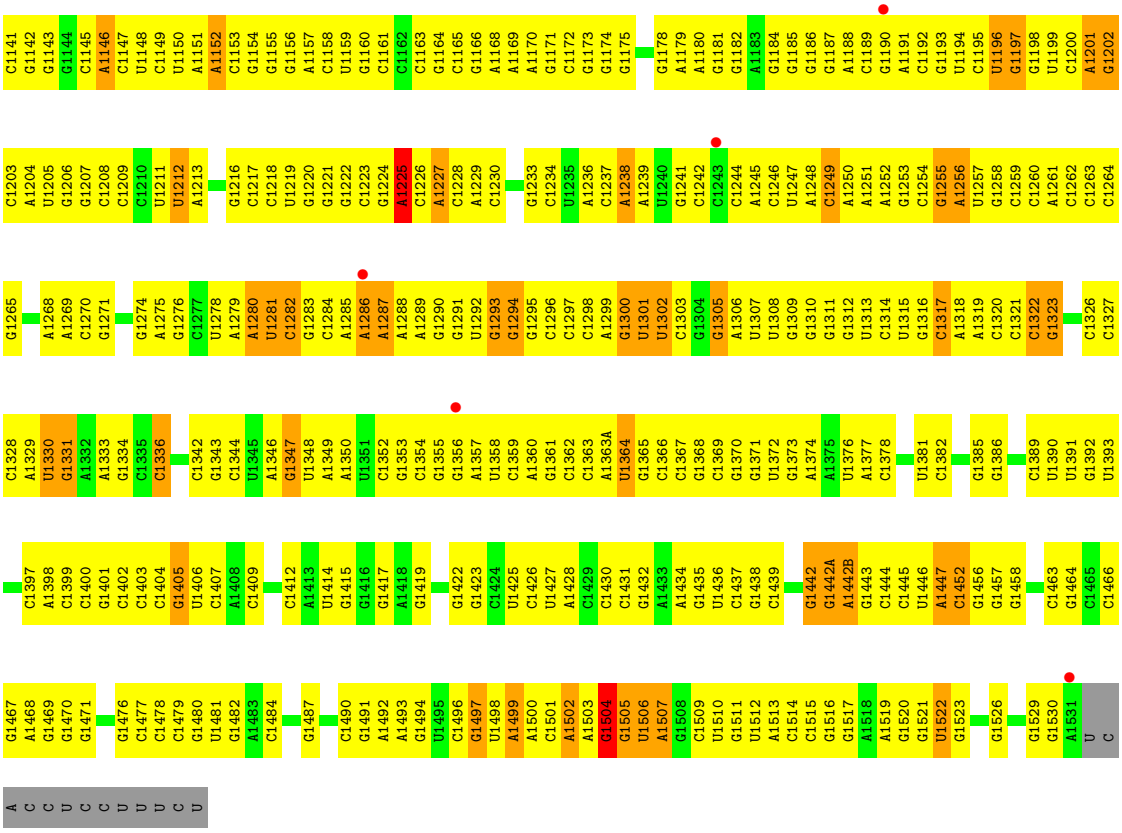




• Molecule 1: 16S ribosomal RNA

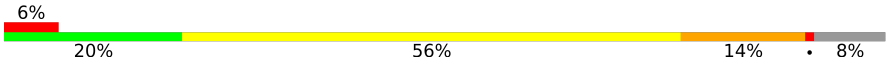
Chain CA:

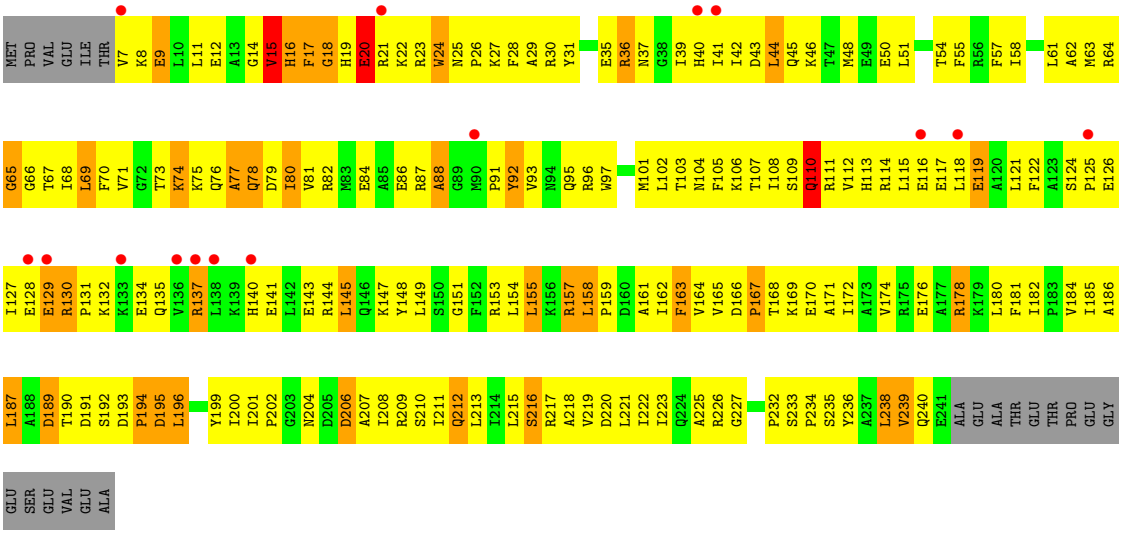




• Molecule 2: 30S RIBOSOMAL PROTEIN S2

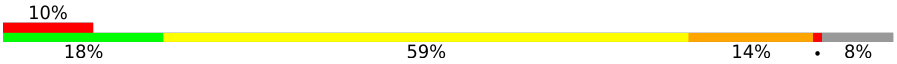
Chain AB:

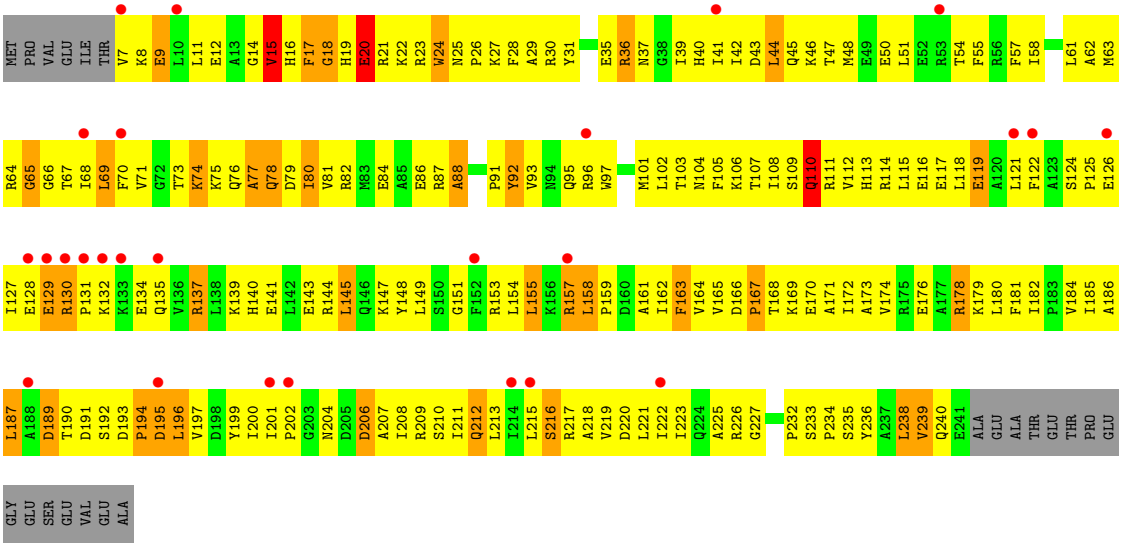




• Molecule 2: 30S RIBOSOMAL PROTEIN S2

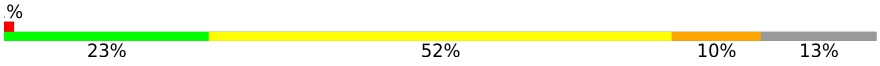
Chain CB:

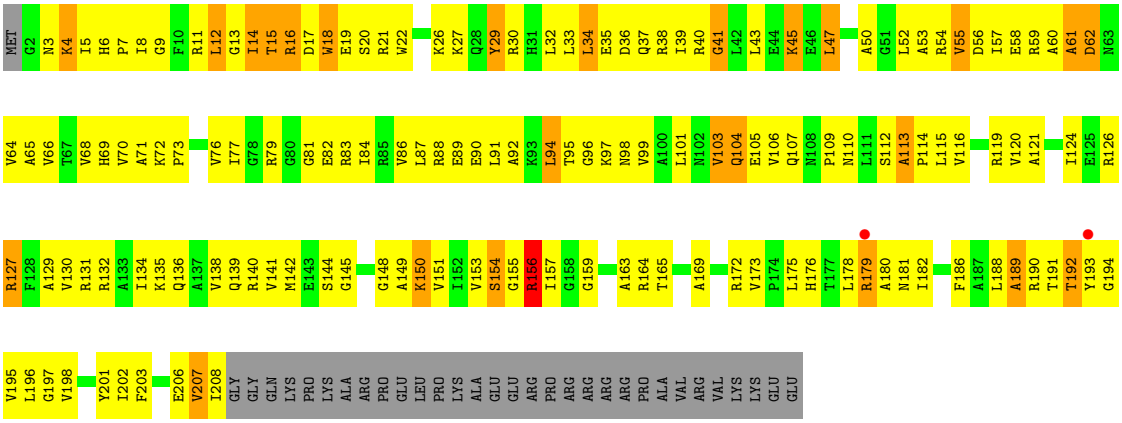




• Molecule 3: 30S RIBOSOMAL PROTEIN S3

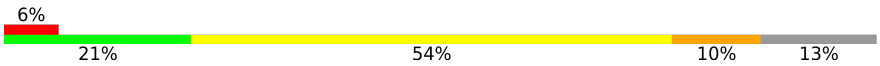
Chain AC:

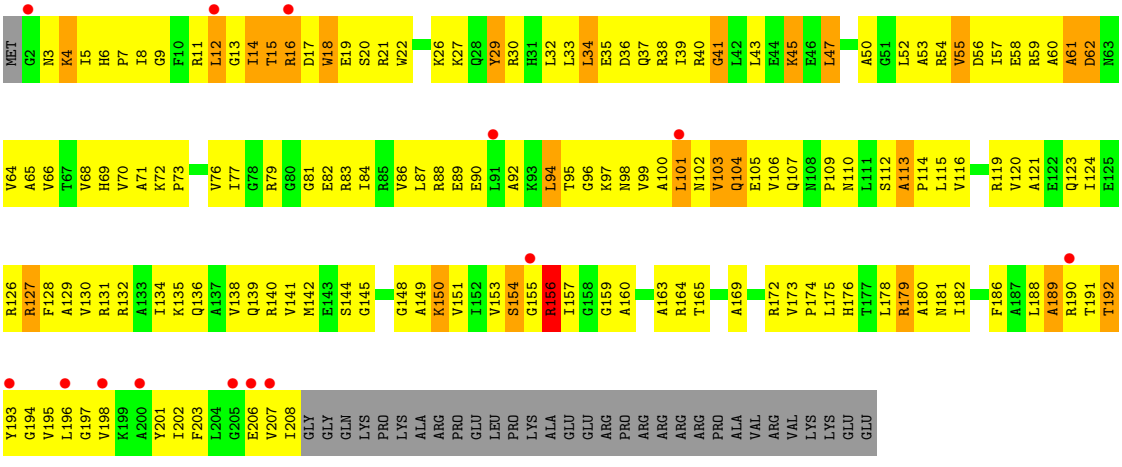




• Molecule 3: 30S RIBOSOMAL PROTEIN S3

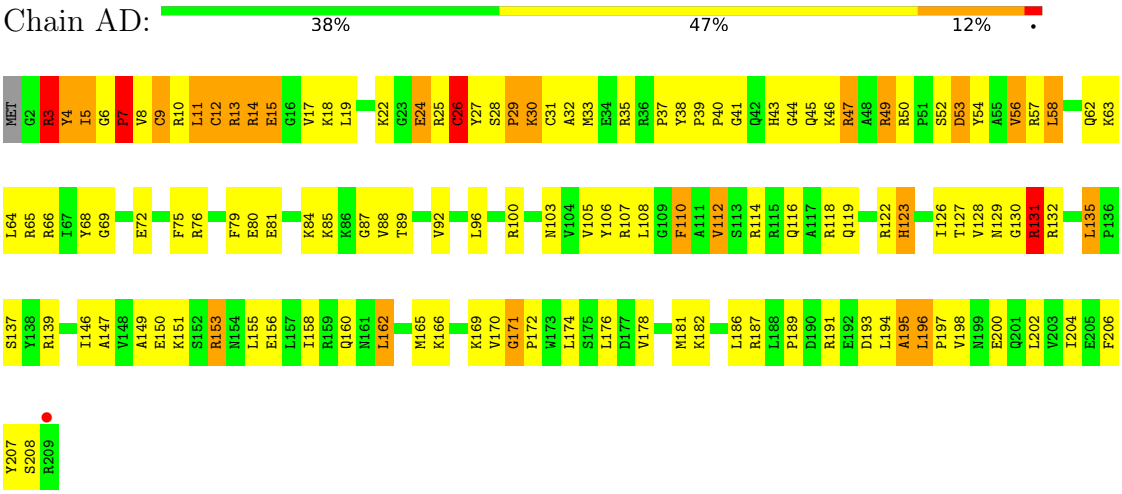
Chain CC:





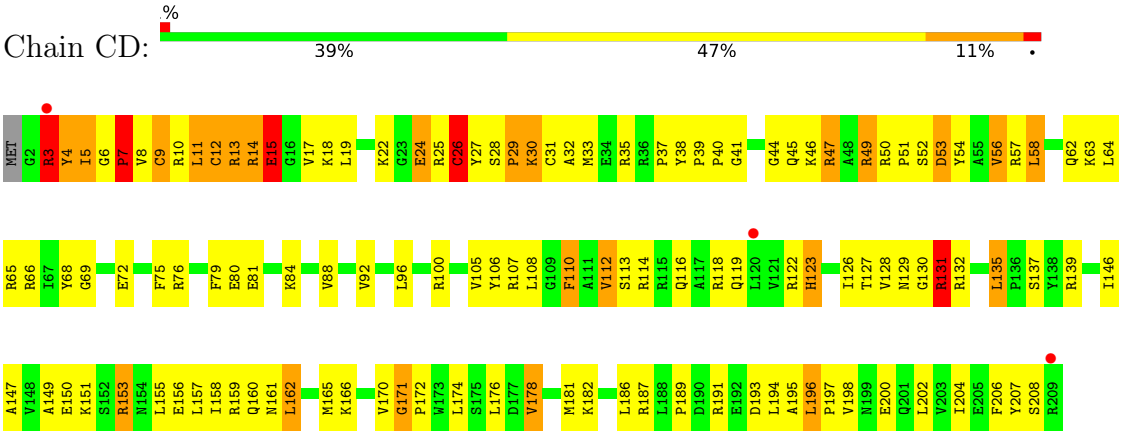
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

Chain AD:



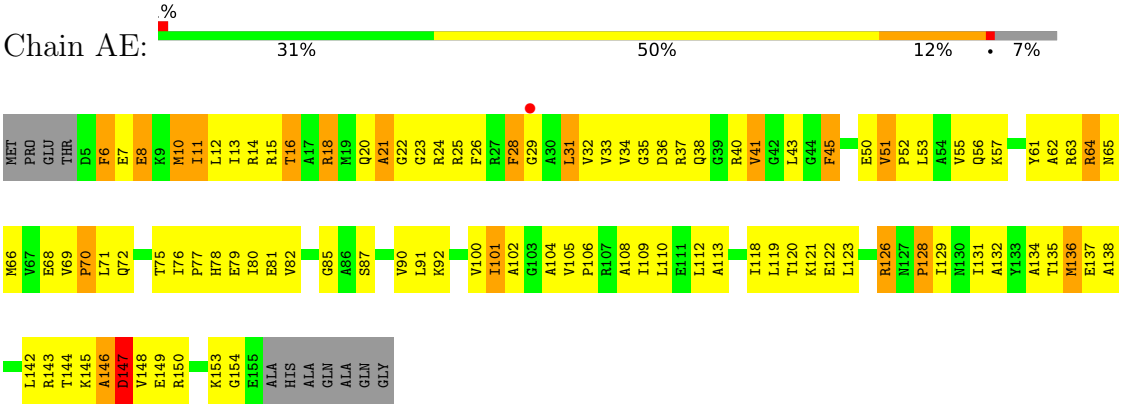
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

Chain CD:



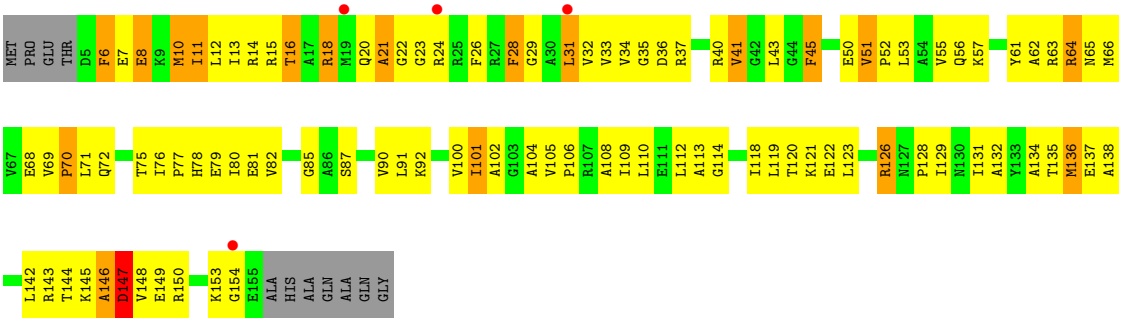
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain AE:



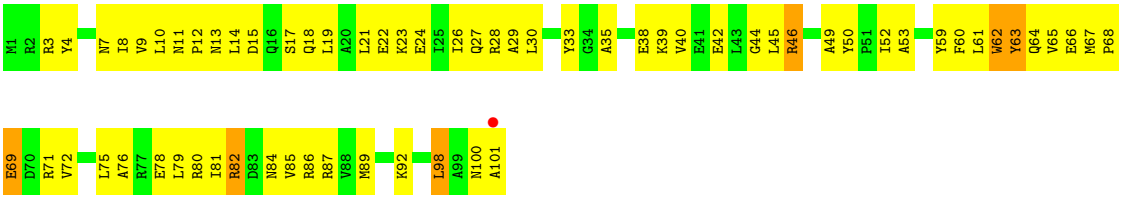
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain CE:



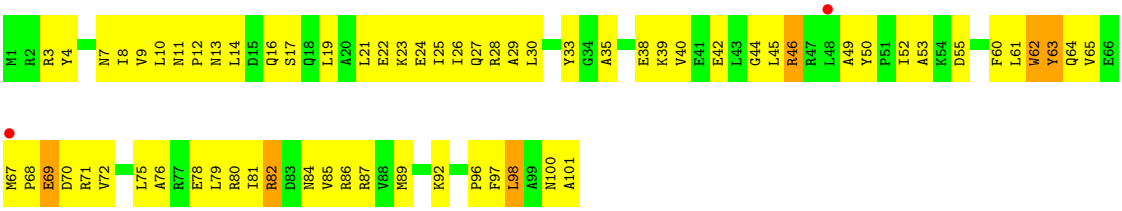
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain AF:



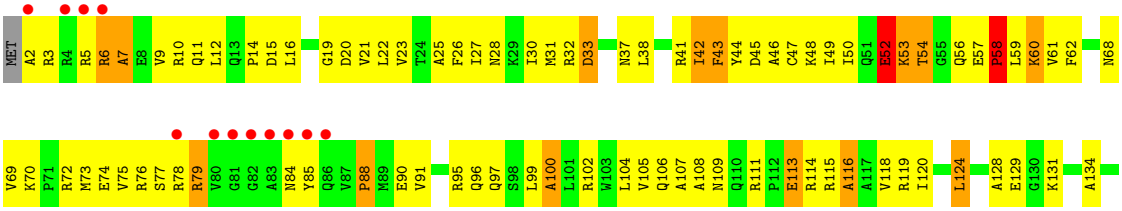
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain CF:



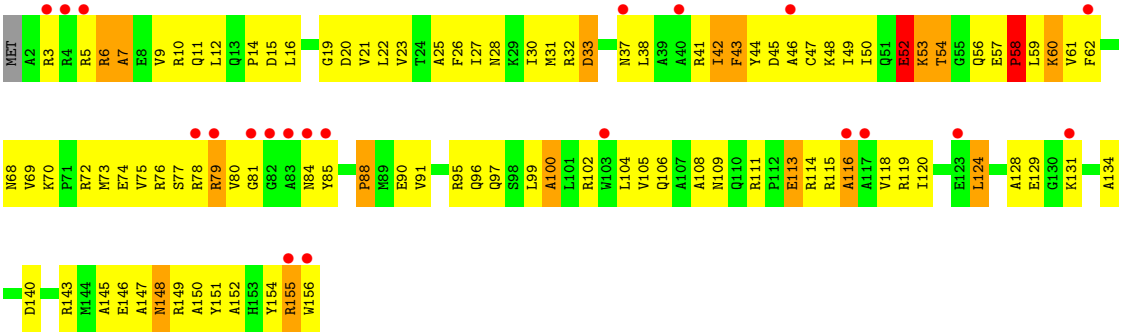
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AG:

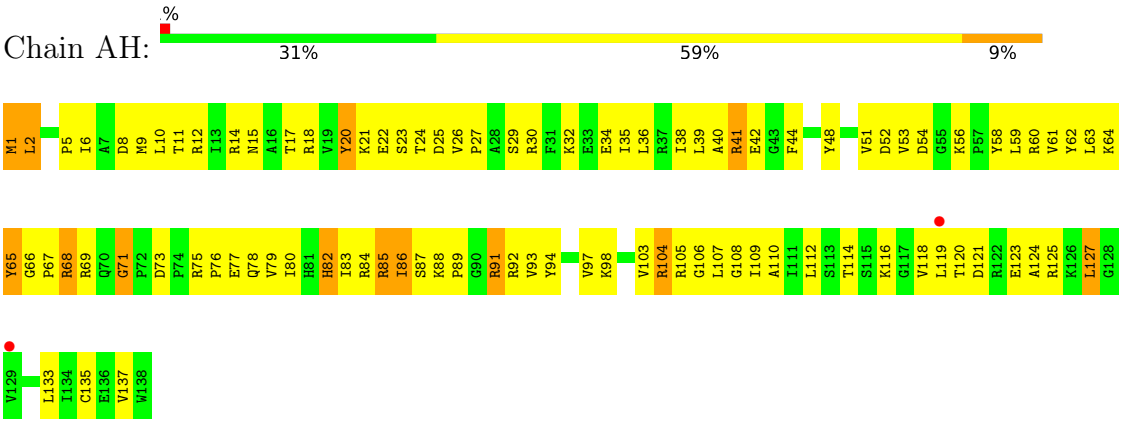


• Molecule 7: 30S RIBOSOMAL PROTEIN S7

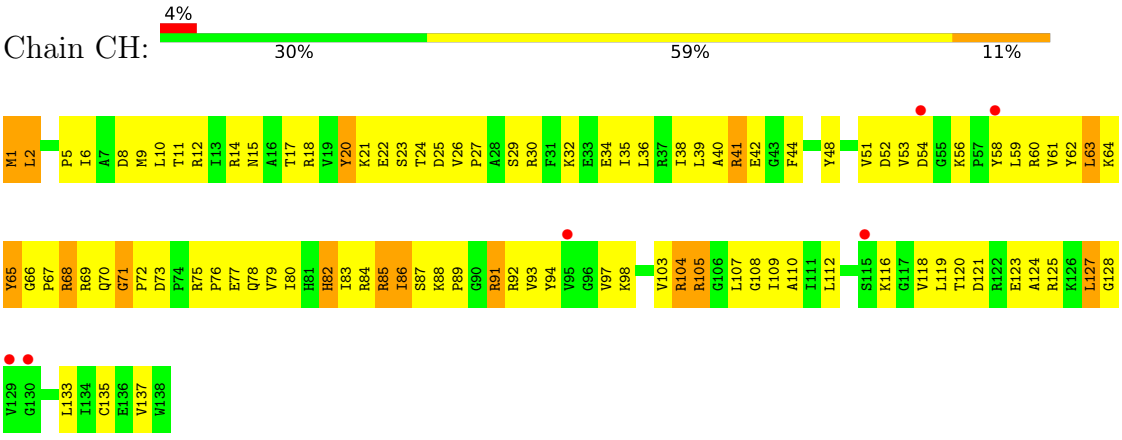
Chain CG:



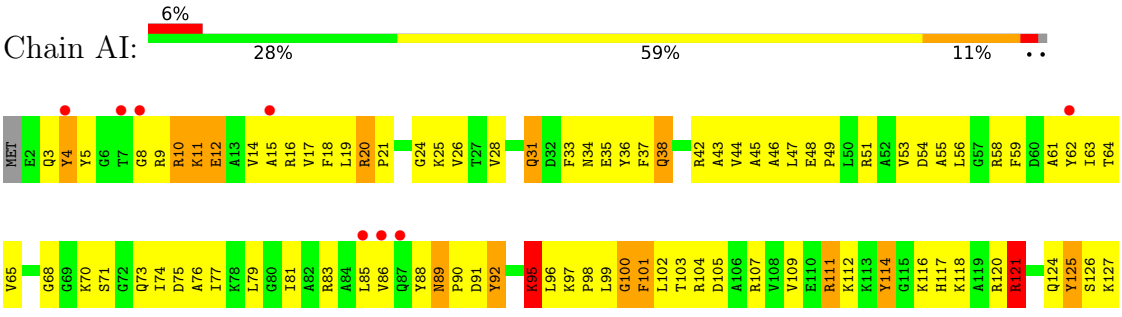
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



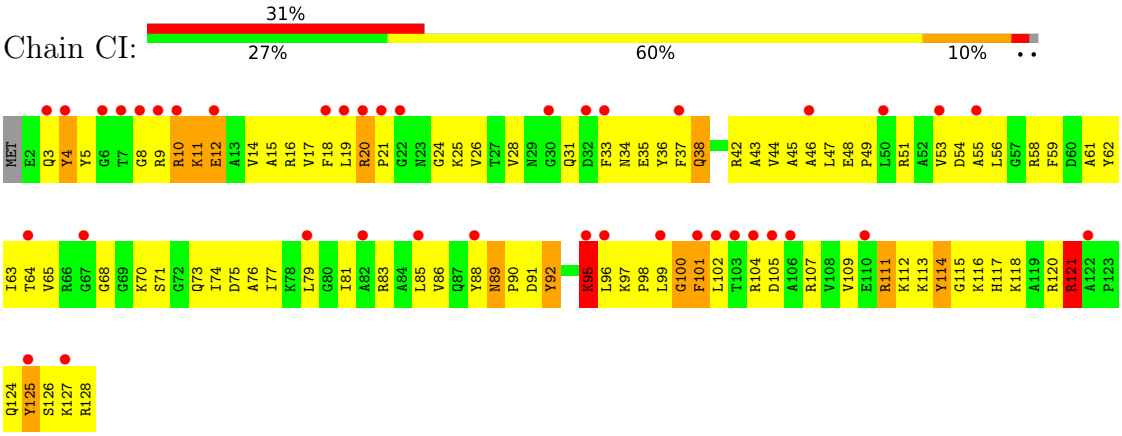
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



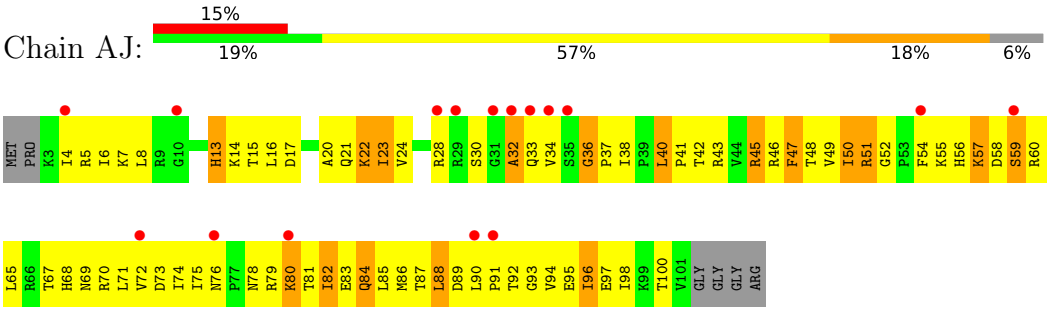
• Molecule 9: 30S RIBOSOMAL PROTEIN S9



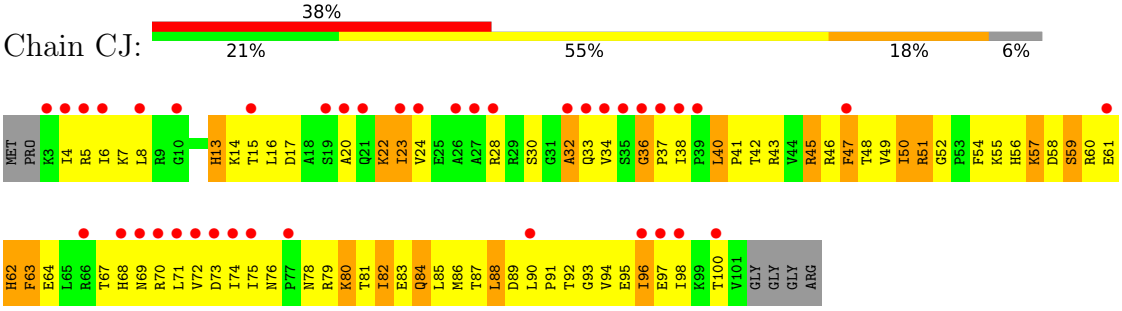
• Molecule 9: 30S RIBOSOMAL PROTEIN S9



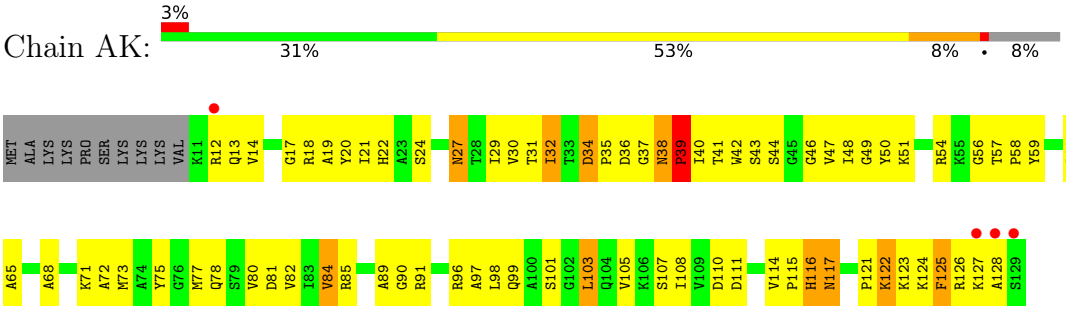
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



• Molecule 10: 30S RIBOSOMAL PROTEIN S10

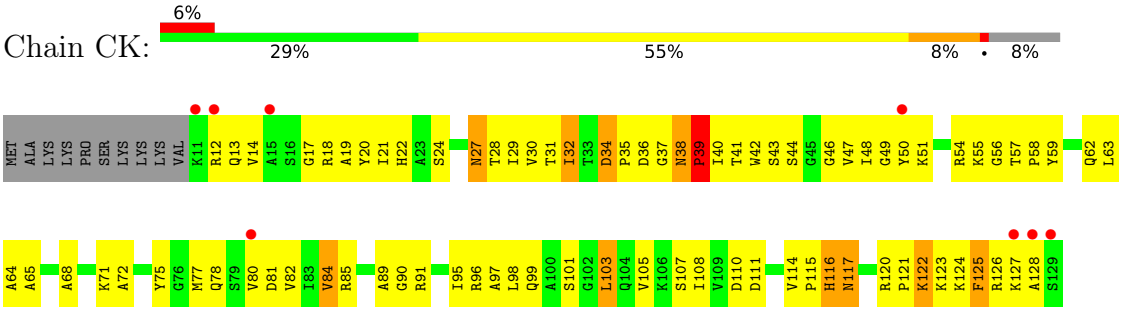


• Molecule 11: 30S RIBOSOMAL PROTEIN S11



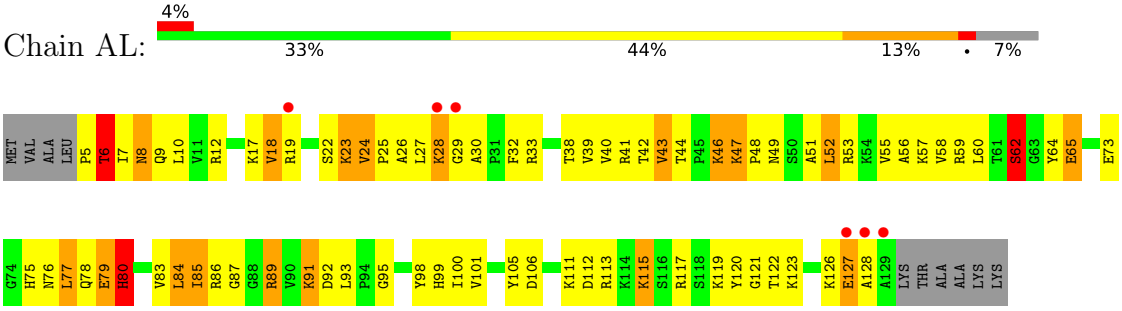
• Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain CK:



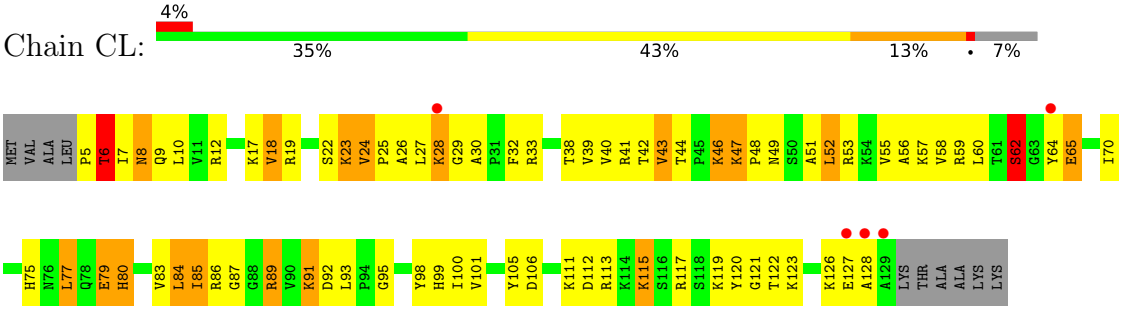
• Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain AL:



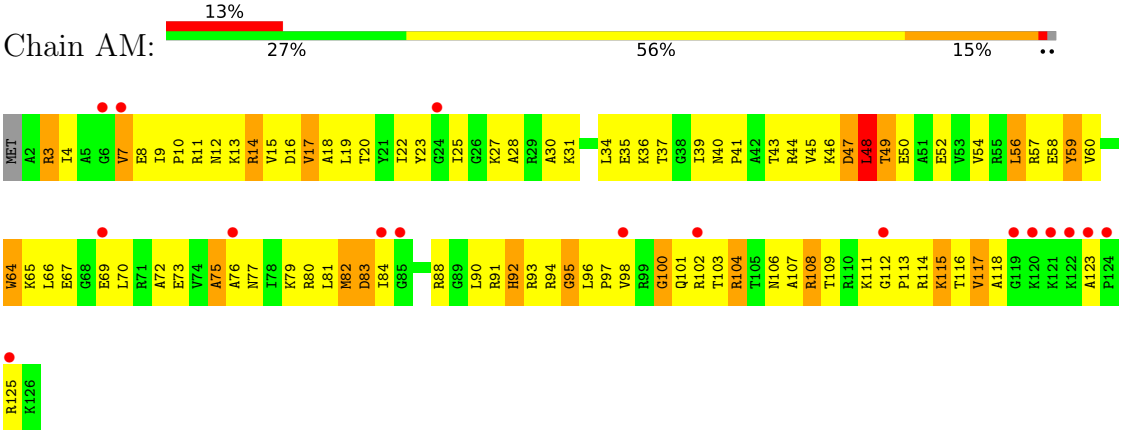
• Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain CL:



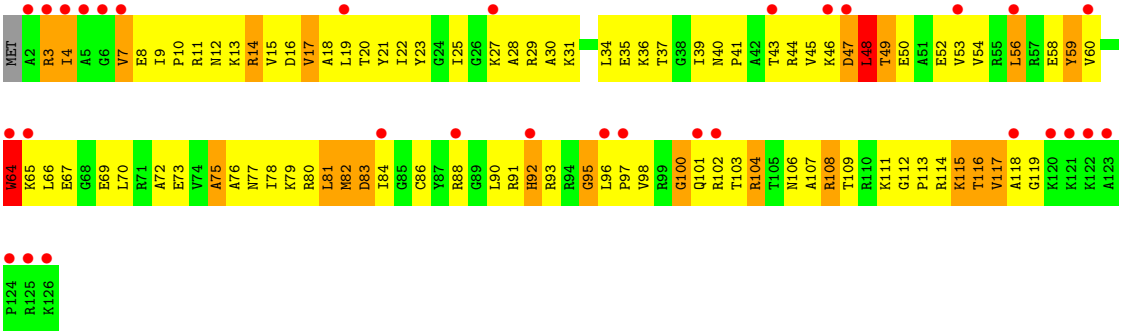
• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain AM:



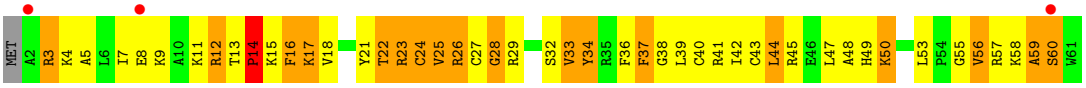
• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain CM:



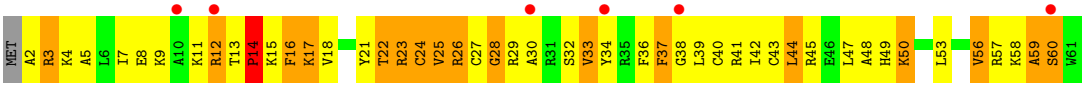
• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain AN:



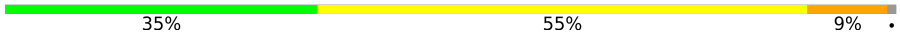
• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain CN:



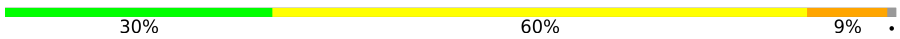
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

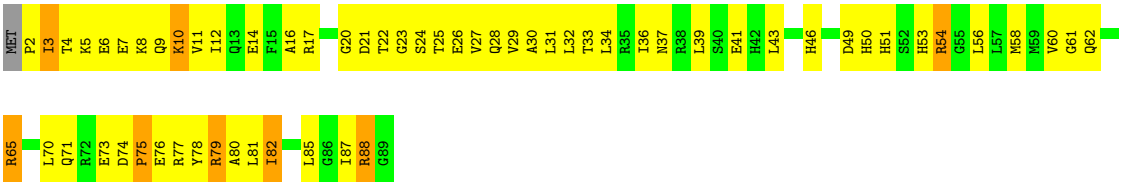
Chain AO:



• Molecule 15: 30S RIBOSOMAL PROTEIN S15

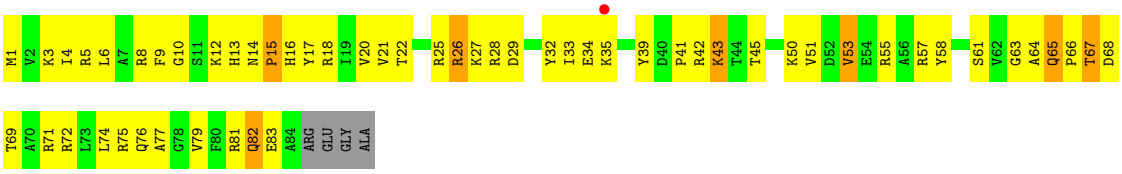
Chain CO:



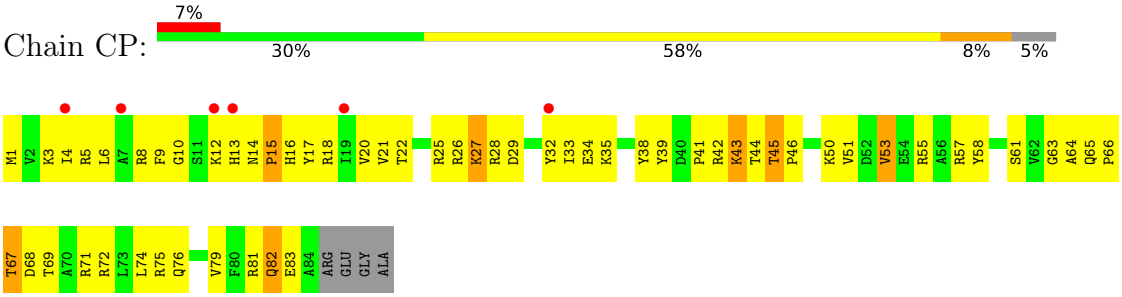


• Molecule 16: 30S RIBOSOMAL PROTEIN S16

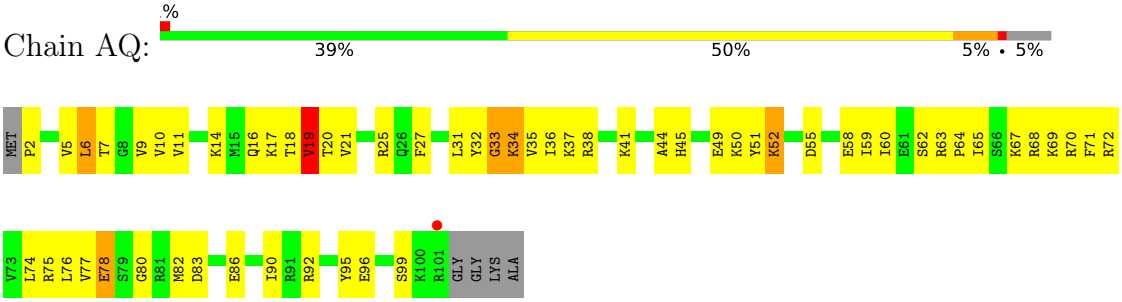
Chain AP:



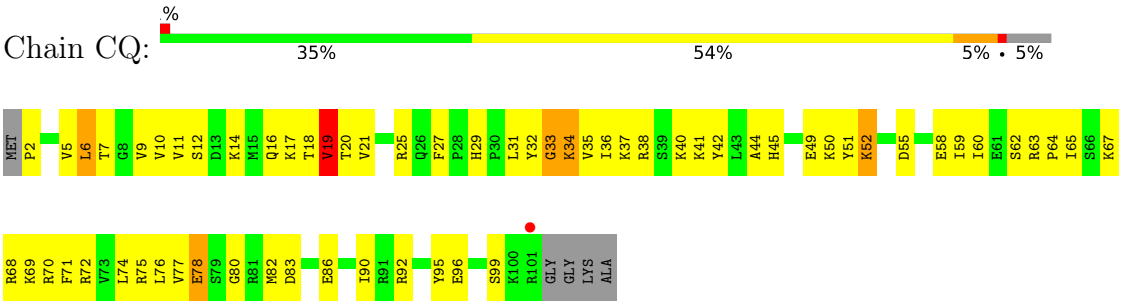
• Molecule 16: 30S RIBOSOMAL PROTEIN S16



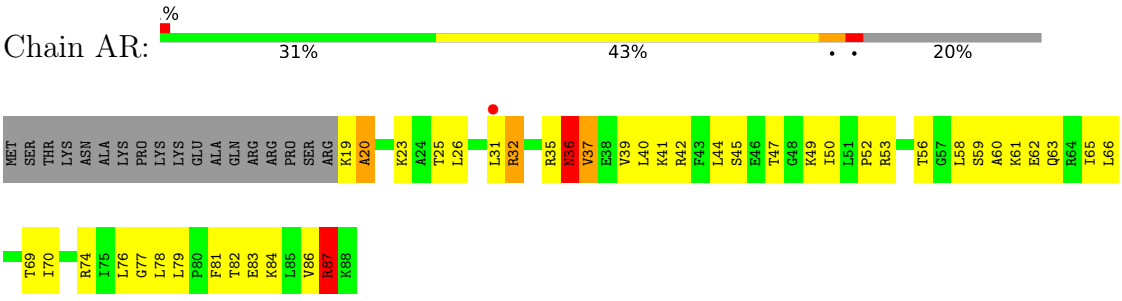
• Molecule 17: 30S RIBOSOMAL PROTEIN S17



• Molecule 17: 30S RIBOSOMAL PROTEIN S17

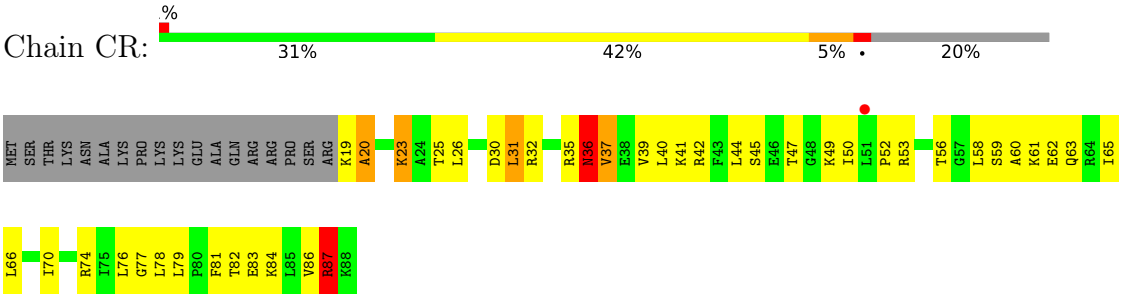


• Molecule 18: 30S RIBOSOMAL PROTEIN S18



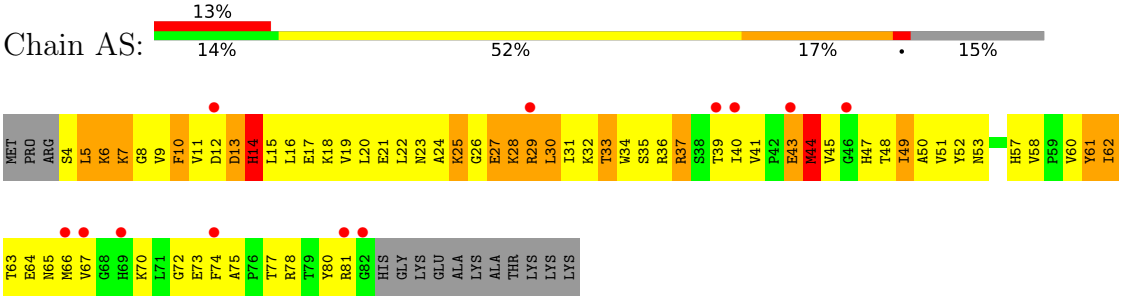
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CR:



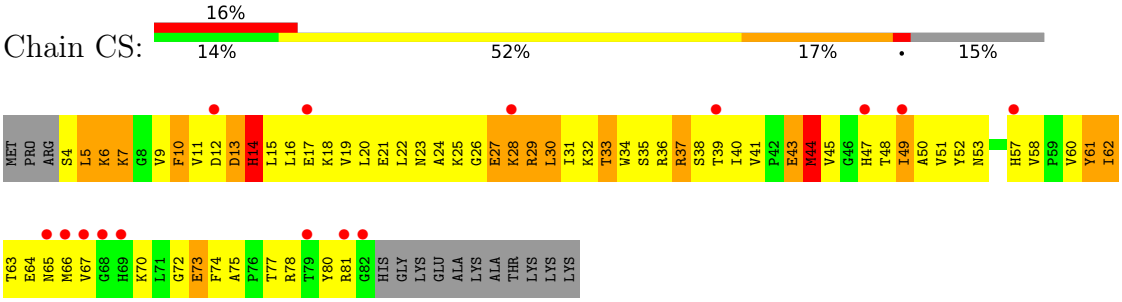
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AS:



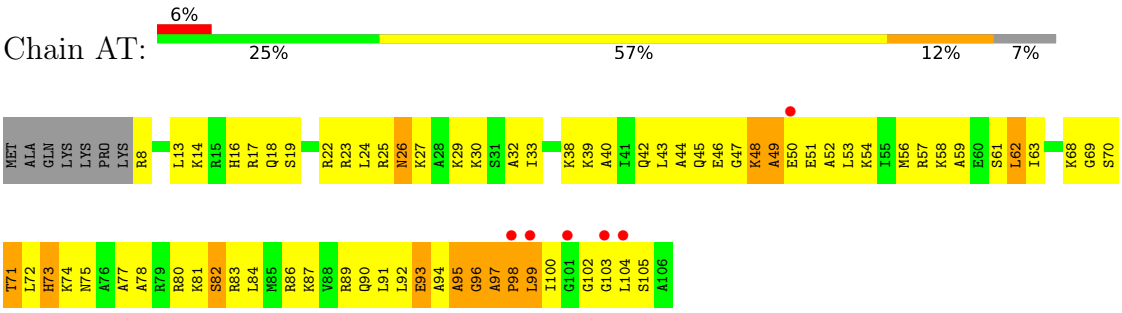
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CS:



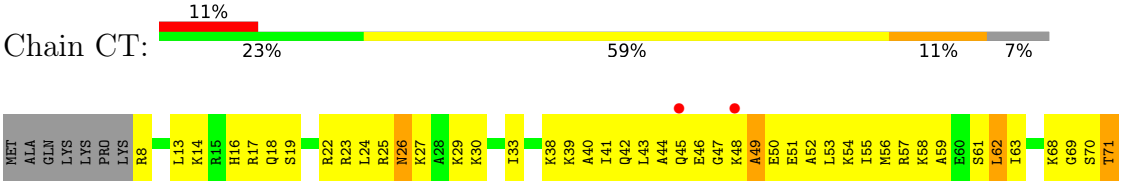
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

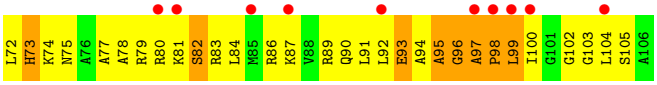
Chain AT:



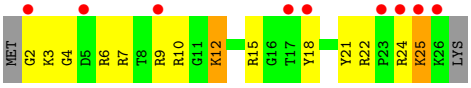
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CT:

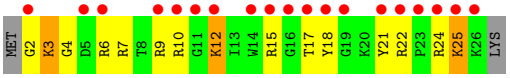




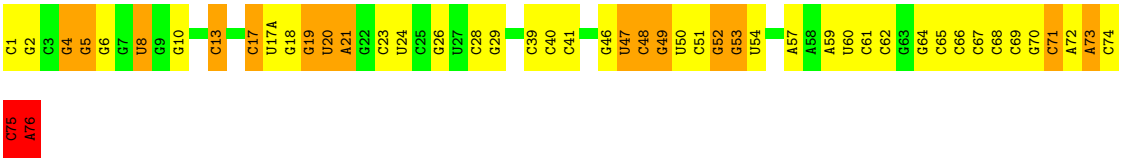
• Molecule 21: 30S RIBOSOMAL PROTEIN THX



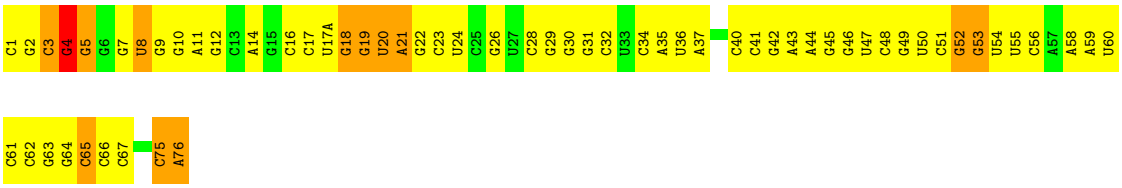
• Molecule 21: 30S RIBOSOMAL PROTEIN THX



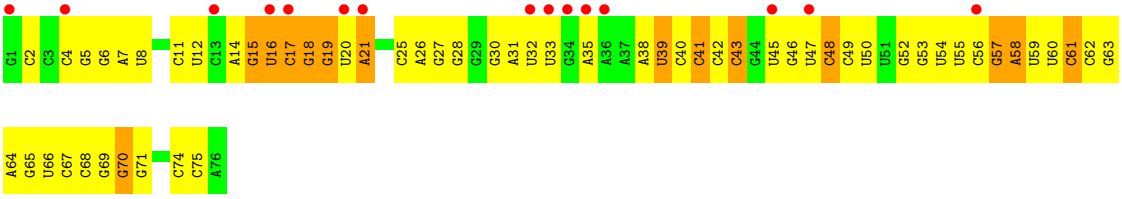
• Molecule 22: P-SITE TRNA FMET



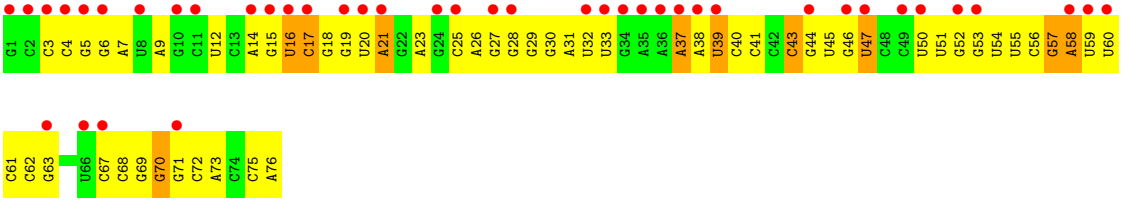
• Molecule 22: P-SITE TRNA FMET



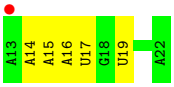
• Molecule 23: E-SITE TRNA PHE



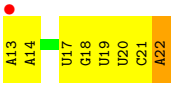
• Molecule 23: E-SITE TRNA PHE



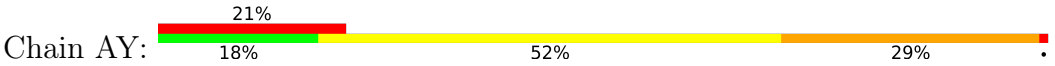
• Molecule 24: MRNA

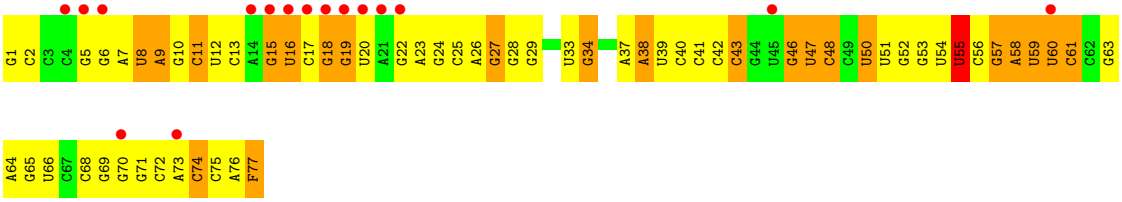


• Molecule 24: MRNA

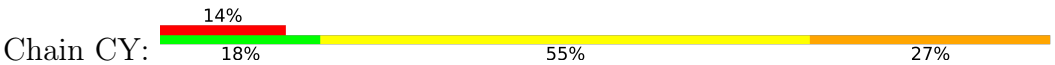


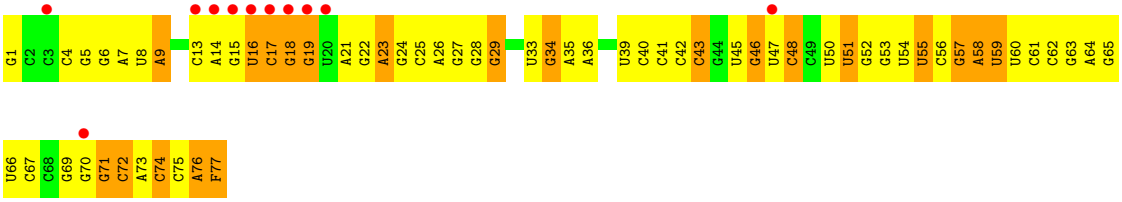
• Molecule 25: A-SITE PHE-TRNA PHE



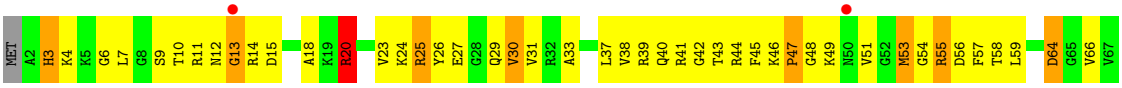


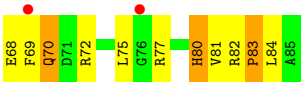
• Molecule 25: A-SITE PHE-TRNA PHE



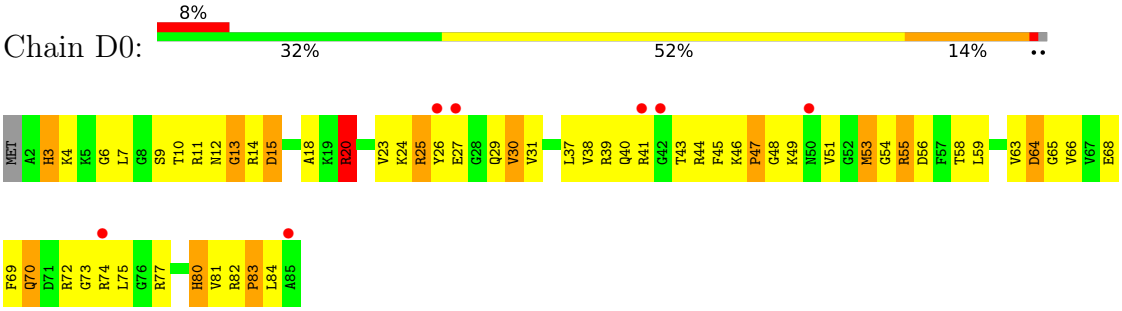


• Molecule 26: 50S RIBOSOMAL PROTEIN L27

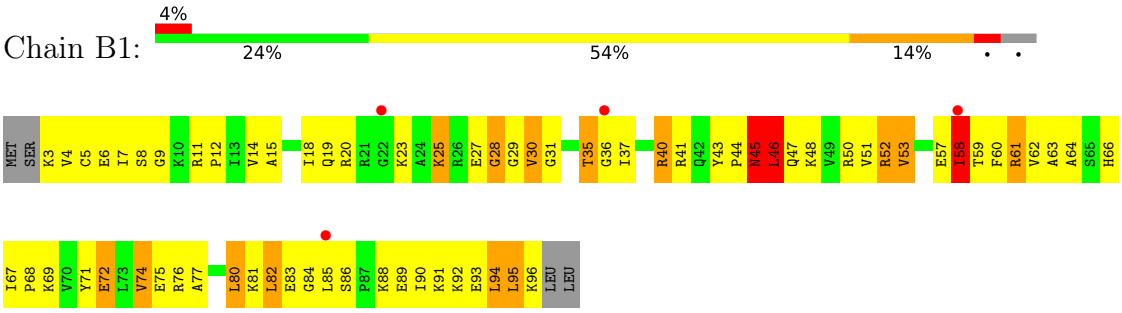




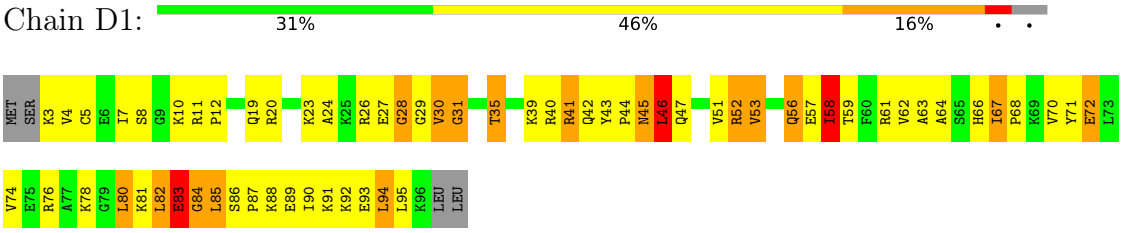
• Molecule 26: 50S RIBOSOMAL PROTEIN L27



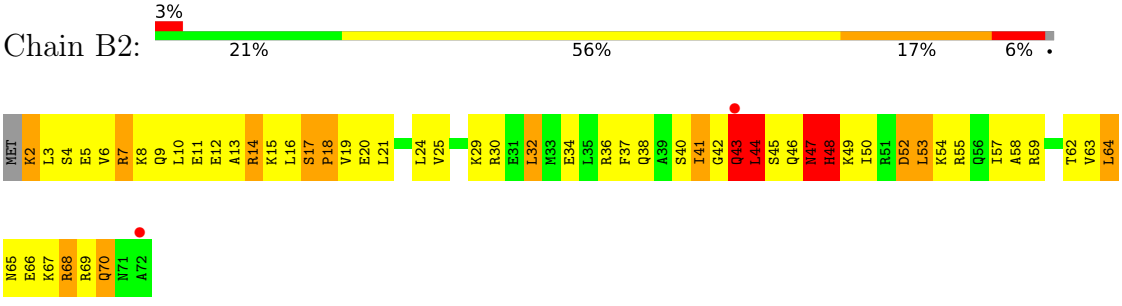
• Molecule 27: 50S RIBOSOMAL PROTEIN L28



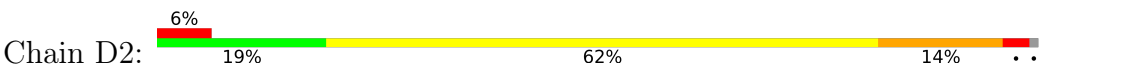
• Molecule 27: 50S RIBOSOMAL PROTEIN L28

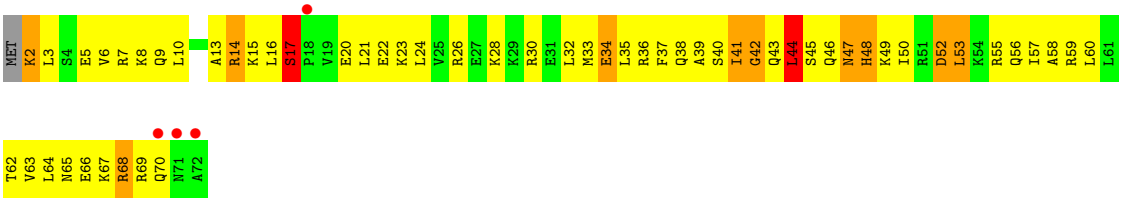


• Molecule 28: 50S RIBOSOMAL PROTEIN L29



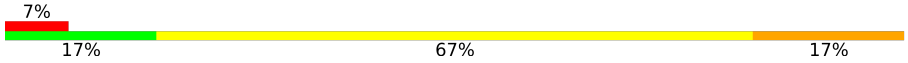
• Molecule 28: 50S RIBOSOMAL PROTEIN L29

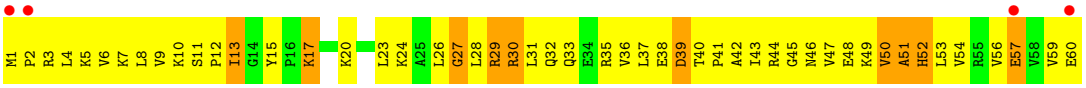




• Molecule 29: 50S RIBOSOMAL PROTEIN L30

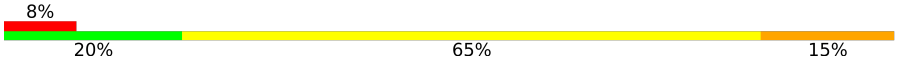
Chain B3:

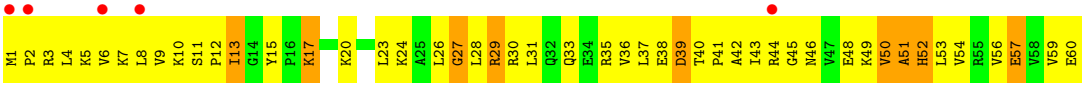




• Molecule 29: 50S RIBOSOMAL PROTEIN L30

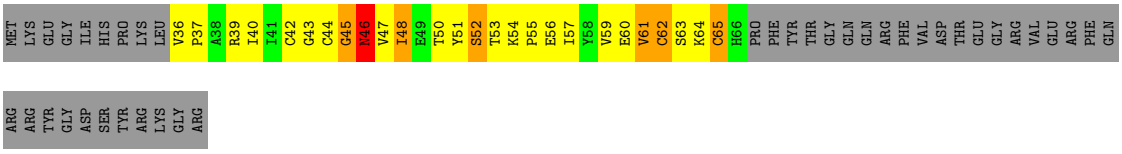
Chain D3:





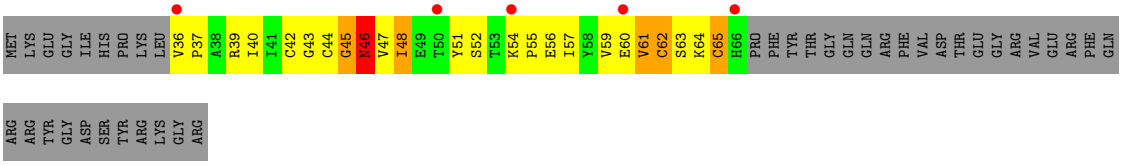
• Molecule 30: 50S RIBOSOMAL PROTEIN L31

Chain B4:



• Molecule 30: 50S RIBOSOMAL PROTEIN L31

Chain D4:



• Molecule 31: 50S RIBOSOMAL PROTEIN L32

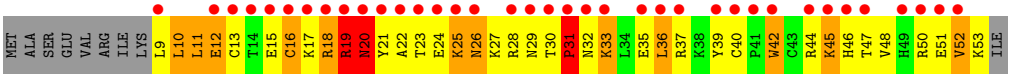
Chain B5:

• Molecule 31: 50S RIBOSOMAL PROTEIN L32

Chain D5:

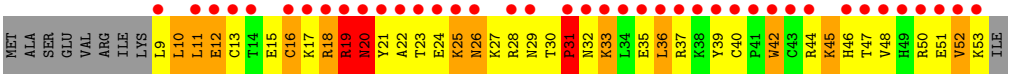
• Molecule 32: 50S RIBOSOMAL PROTEIN L33

Chain B6:



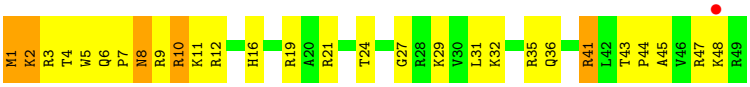
• Molecule 32: 50S RIBOSOMAL PROTEIN L33

Chain D6:



• Molecule 33: 50S RIBOSOMAL PROTEIN L34

Chain B7:

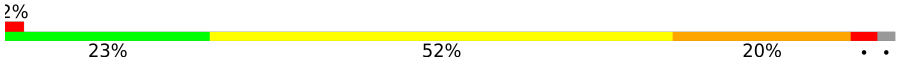


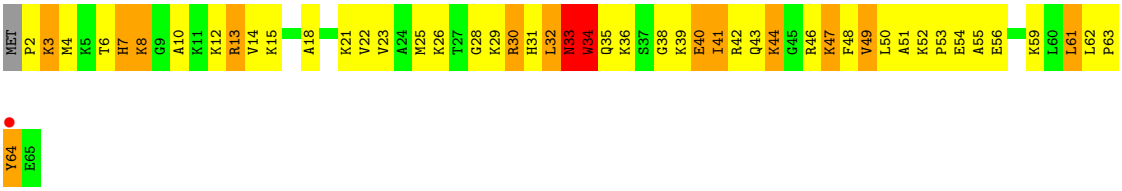
• Molecule 33: 50S RIBOSOMAL PROTEIN L34

Chain D7:

• Molecule 34: 50S RIBOSOMAL PROTEIN L35

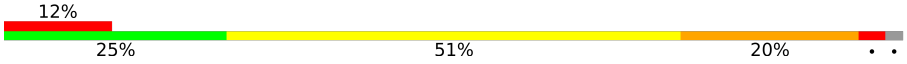
Chain B8:

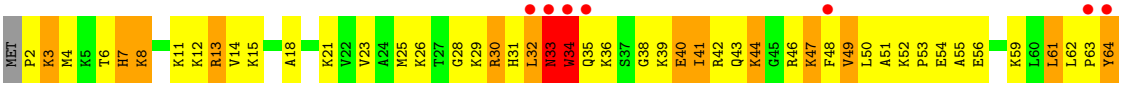




• Molecule 34: 50S RIBOSOMAL PROTEIN L35

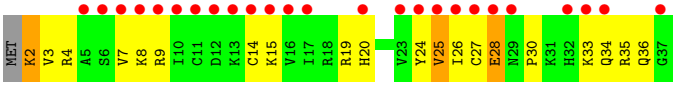
Chain D8:





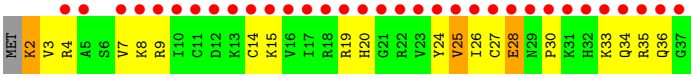
• Molecule 35: 50S RIBOSOMAL PROTEIN L36

Chain B9:



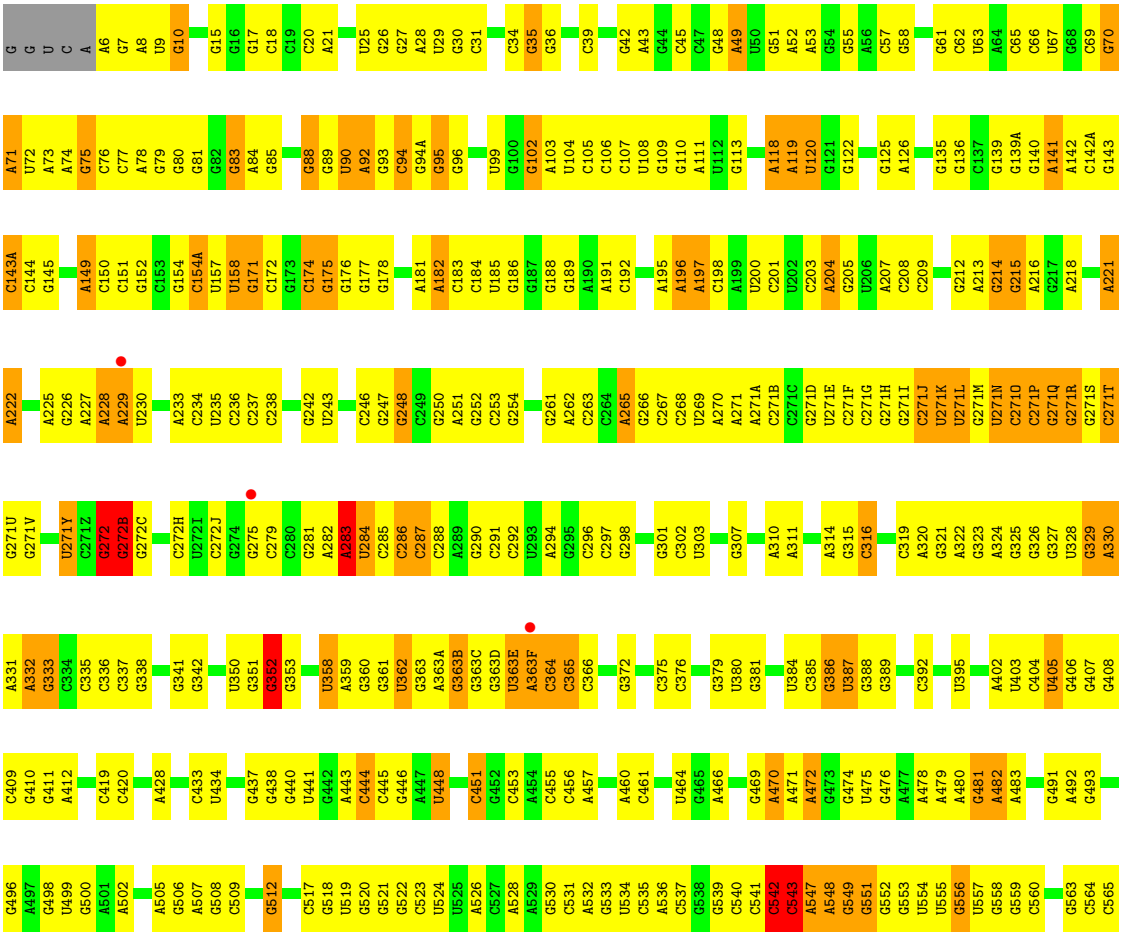
• Molecule 35: 50S RIBOSOMAL PROTEIN L36

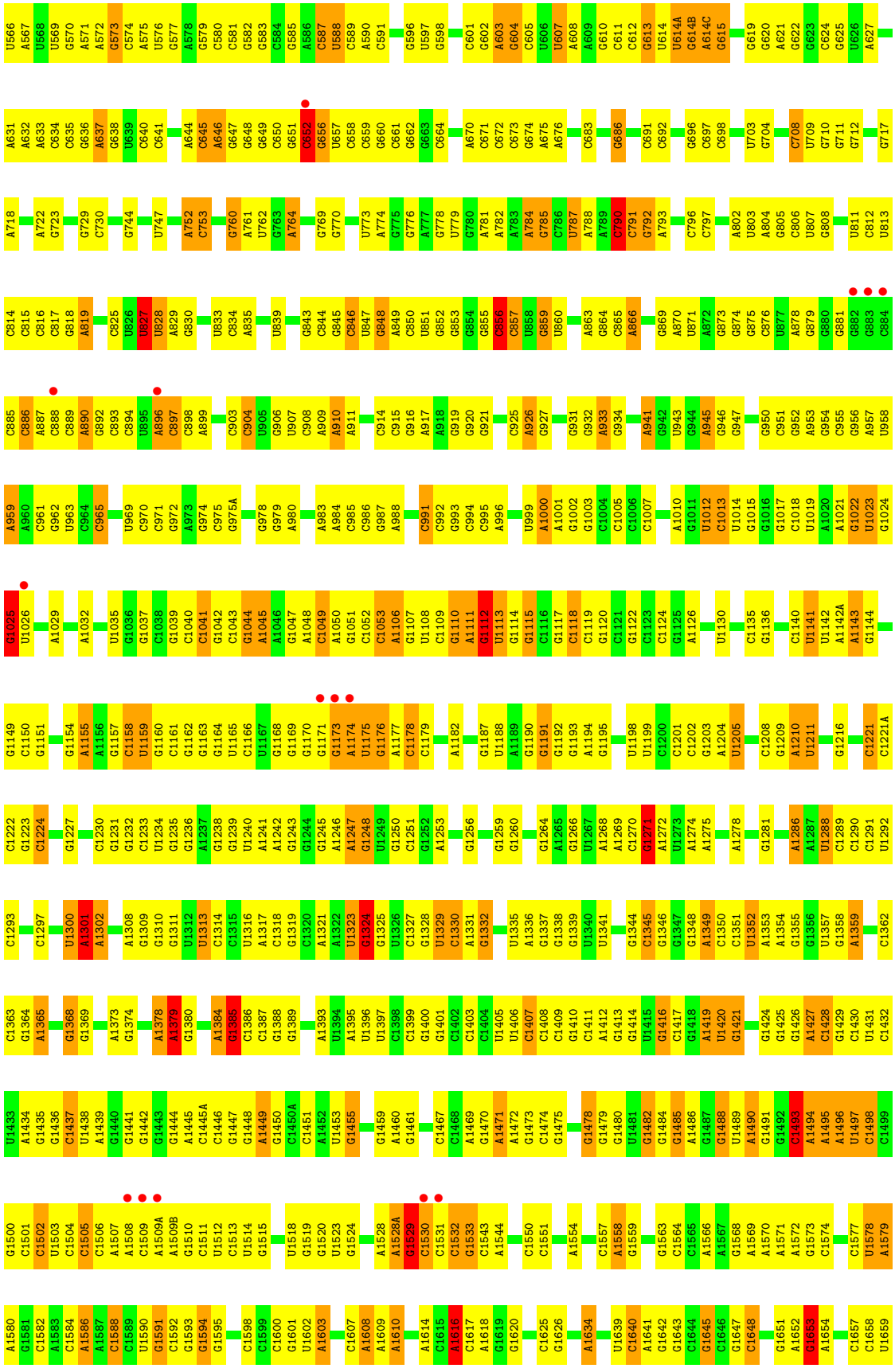
Chain D9:

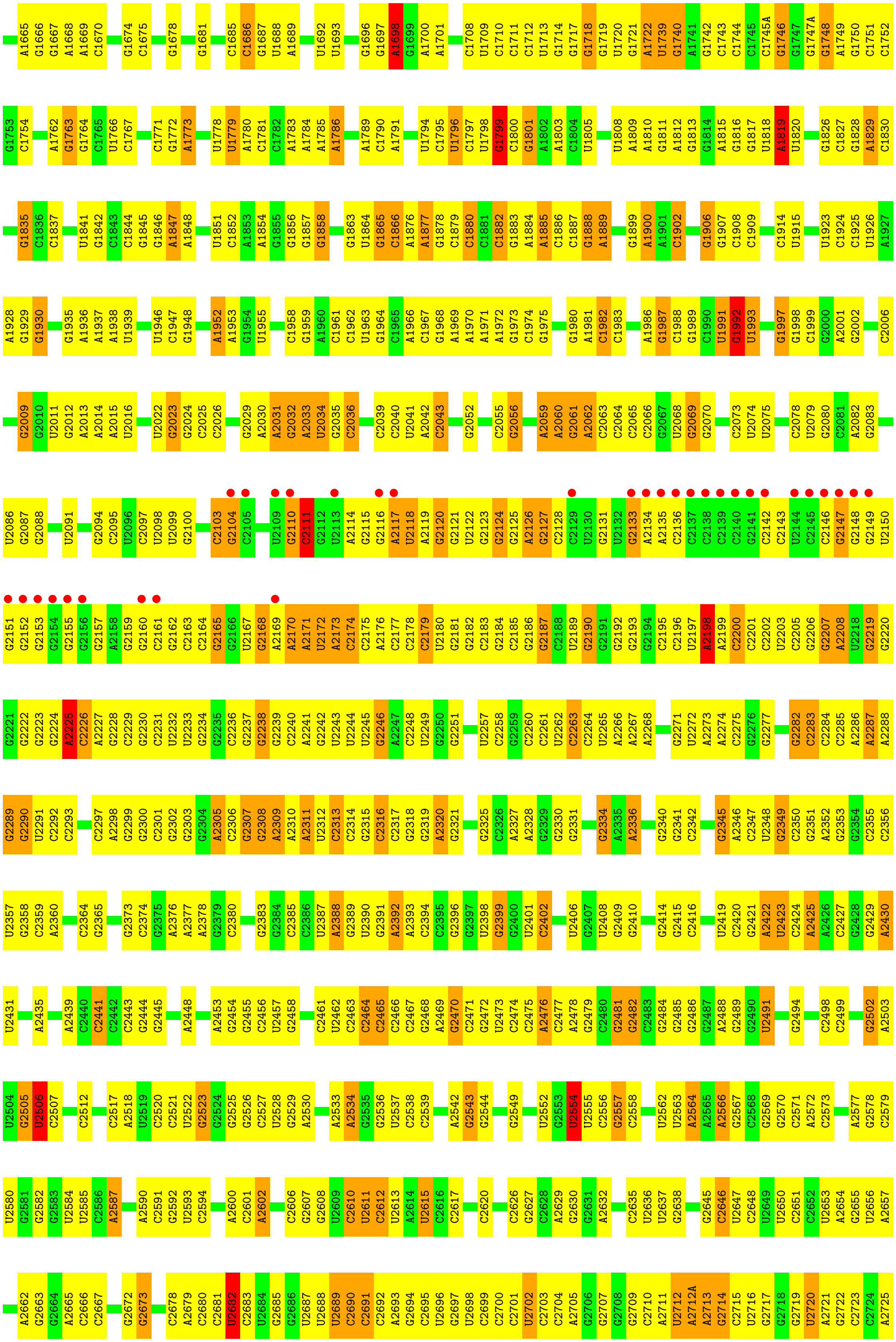


• Molecule 36: 23S Ribosomal RNA

Chain BA:



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G1753 C1754 A1762 G1763 G1764 C1765 U1766 C1767 C1771 G1772 A1773 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786 A1789 C1790 A1791 U1794 C1795 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 C1804 U1805 U1808 A1809 A1810 G1811 A1812 G1813 G1814 A1815 G1816 C1817 U1818 A1819 U1820 G1826 C1827 G1828 A1829 C1830
G1835 C1836 C1837 U1841 G1842 C1843 C1844 G1845 G1846 A1847 A1848 U1851 C1852 A1853 A1854 G1855 G1856 G1857 G1858 G1863 U1864 G1865 C1866 A1876 A1877 G1878 C1879 C1880 C1881 C1882 G1883 A1884 A1885 C1886 C1887 G1888 A1889 G1899 A1900 A1901 C1902 G1906 G1907 C1908 C1909 C1914 U1915 U1923 C1924 C1925 U1926 A1927
A1928 G1929 G1930 G1935 A1936 A1937 A1938 U1939 U1946 C1947 G1948 A1952 A1953 G1954 U1955 C1958 G1959 A1960 C1961 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 A1971 A1972 G1973 C1974 G1975 G1980 A1981 C1982 C1983 A1986 G1987 C1988 G1989 C1990 U1991 G1992 U1993 G1997 G1998 C1999 G2000 A2001 G2002 C2006
G2009 G2010 U2011 G2012 A2013 A2014 A2015 U2016 U2022 G2023 G2024 C2025 C2026 G2029 A2030 A2031 G2032 A2033 U2034 G2035 C2036 C2039 C2040 U2041 A2042 C2043 G2052 C2055 G2056 A2059 A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2067 U2068 G2069 G2070 C2073 U2074 U2075 C2078 U2079 G2080 C2081 A2082 G2083
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G2221 G2222 G2223 G2224 A2225 C2226 A2227 G2228 G2229 G2230 C2231 U2232 U2233 G2234 G2235 C2236 G2237 G2238 G2239 C2240 A2241 G2242 U2243 U2244 U2245 G2246 A2247 C2248 U2249 G2250 G2251 U2257 C2258 G2259 C2260 C2261 U2262 C2263 C2264 U2265 A2266 A2267 A2268 G2271 U2272 A2273 A2274 C2275 G2276 C2277 G2282 C2283 C2284 C2285 A2286 A2287 A2288
G2289 G2290 U2291 C2292 C2293 C2297 A2298 G2299 G2300 C2301 G2302 G2303 G2304 A2305 C2306 G2307 G2308 A2309 A2310 A2311 U2312 C2313 C2314 G2315 C2316 C2317 G2318 G2319 A2320 G2321 G2325 C2326 A2327 A2328 G2329 G2330 G2331 G2334 A2335 A2336 G2340 G2341 C2342 G2345 A2346 C2347 U2348 G2349 C2350 G2351 A2352 G2353 G2354 C2355 C2356
U2357 G2358 C2359 A2360 C2364 G2365 G2373 C2374 G2375 A2376 A2377 A2378 G2379 C2380 G2383 G2384 C2385 C2386 U2387 A2388 G2389 U2390 G2391 A2392 A2393 C2394 C2395 C2396 G2397 U2398 G2399 G2400 U2401 C2402 U2406 G2407 U2408 G2409 G2410 G2414 G2415 C2416 U2419 C2420 G2421 A2422 U2423 C2424 A2425 A2426 C2427 G2428 G2429 A2430
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U2504 G2505 U2506 C2507 C2512 C2517 A2518 U2519 C2520 C2521 U2522 G2523 G2524 G2525 G2526 C2527 U2528 G2529 A2530 A2533 A2534 G2535 G2536 U2537 C2538 C2539 A2542 G2543 G2544 G2549 U2552 G2553 U2554 U2555 C2556 G2557 C2558 U2562 U2563 A2564 A2565 A2566 G2567 C2568 G2569 G2570 C2571 A2572 C2573 A2577 G2578 C2579
U2580 G2581 G2582 G2583 U2584 U2585 C2586 A2587 A2590 C2591 G2592 U2593 C2594 A2600 C2601 A2602 C2606 G2607 G2608 U2609 C2610 U2611 C2612 U2613 A2614 U2615 G2616 C2617 C2620 C2626 G2627 C2628 A2629 G2630 G2631 A2632 C2635 U2636 G2637 G2638 G2645 C2646 U2647 C2648 U2649 U2650 C2651 C2652 U2653 A2654 G2655 U2656 A2657
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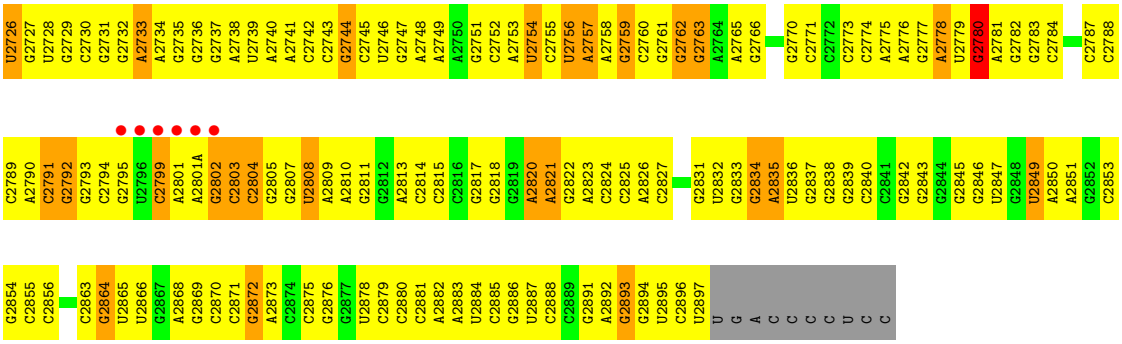
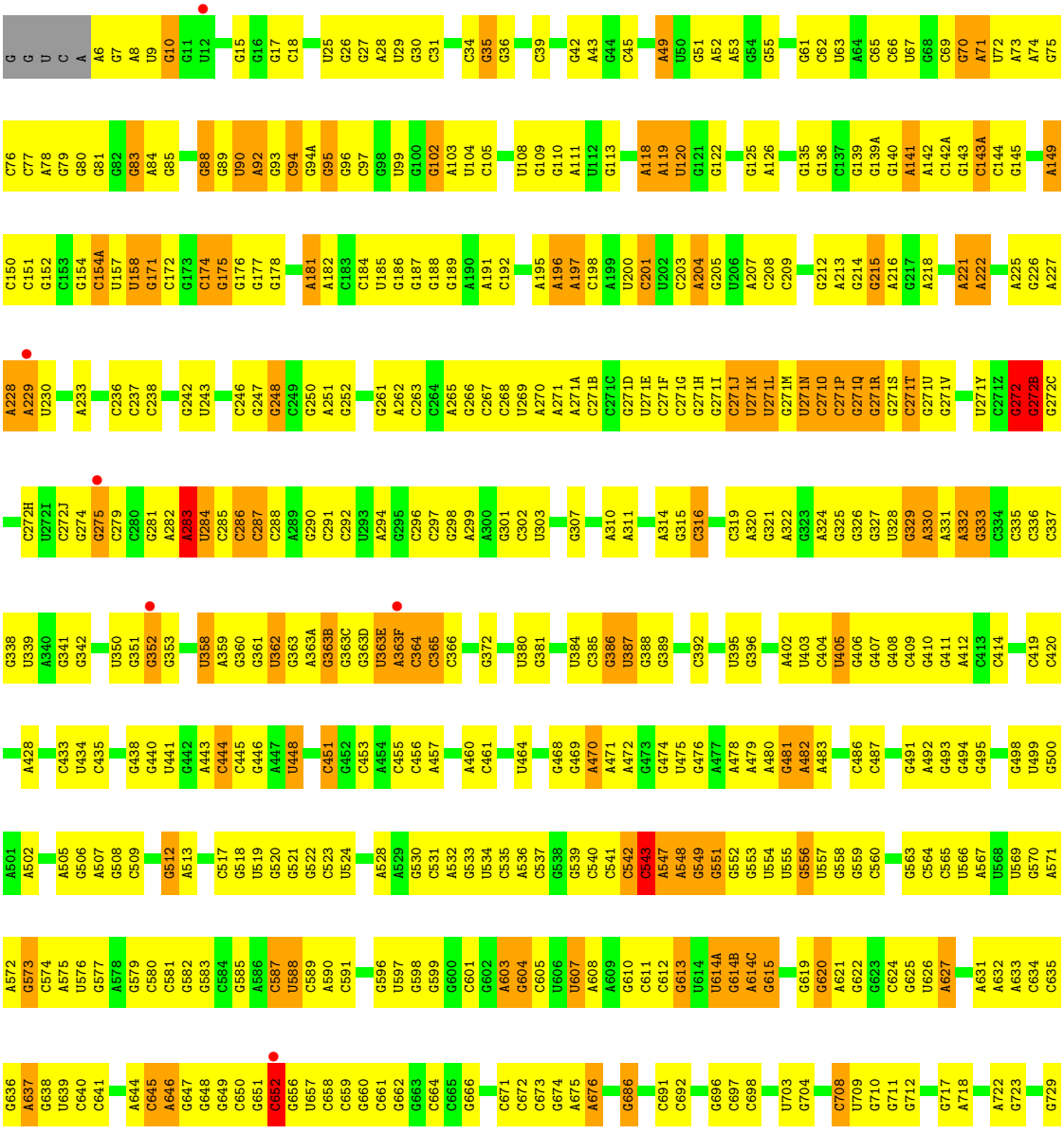
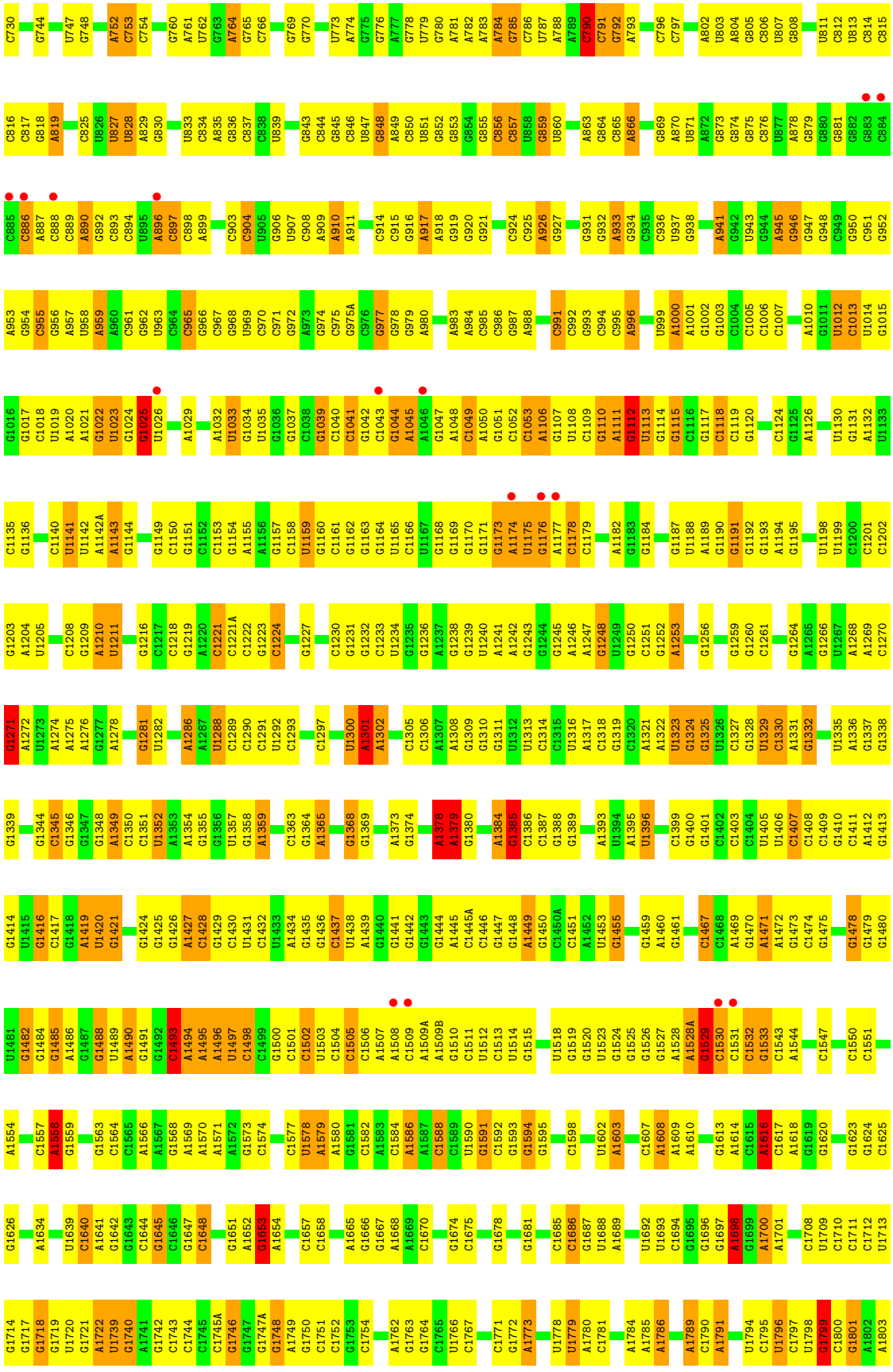
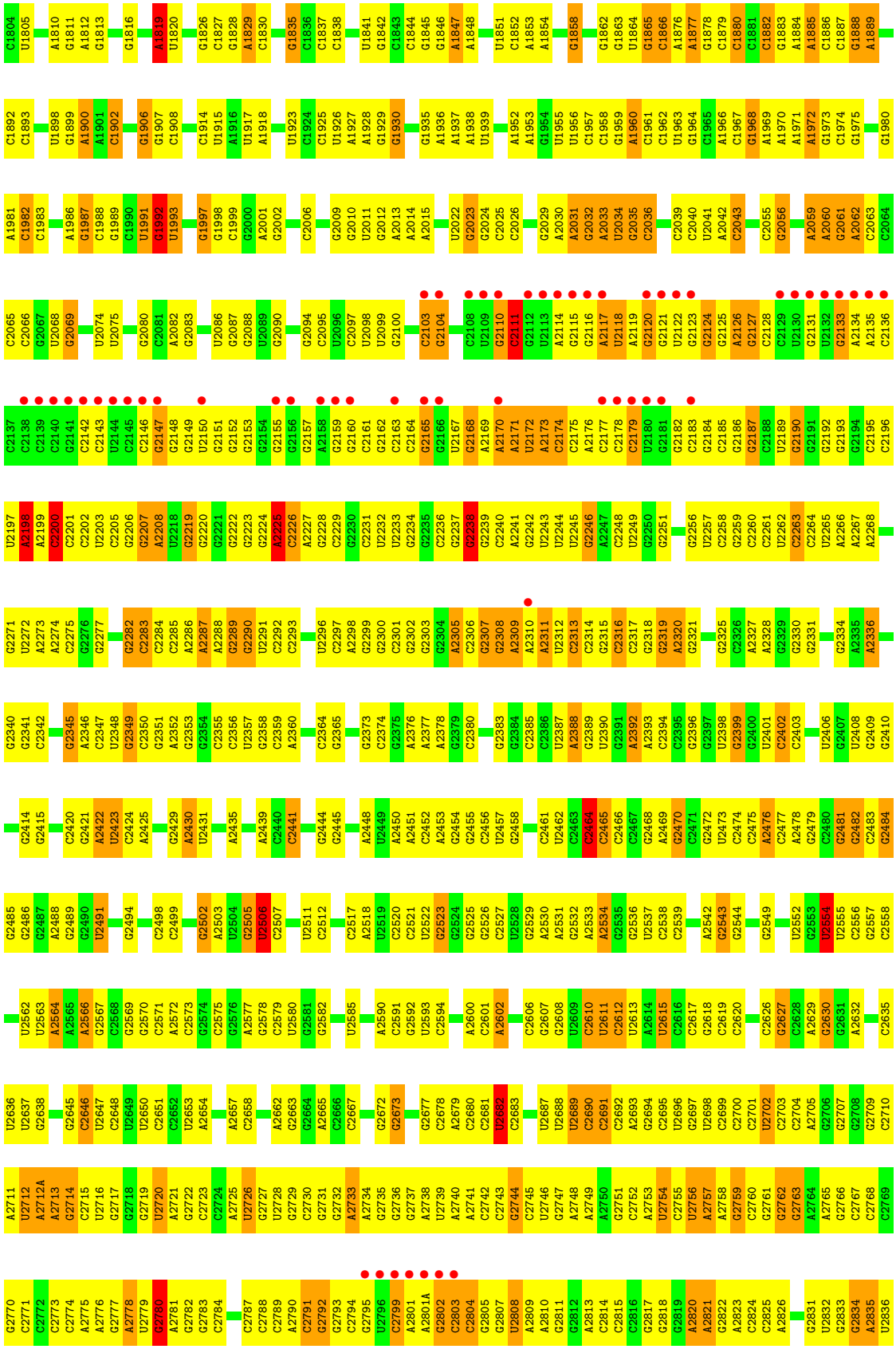


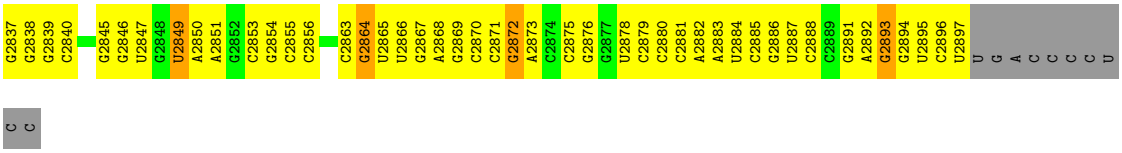
• Molecule 36: 23S Ribosomal RNA

Chain DA:



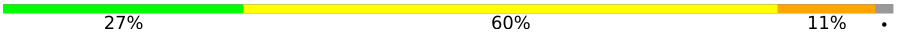


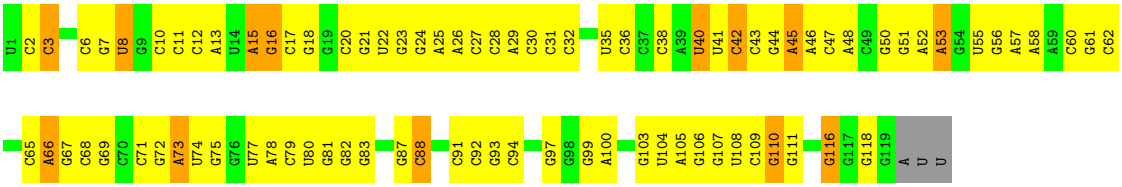




• Molecule 37: 5S RIBOSOMAL RNA

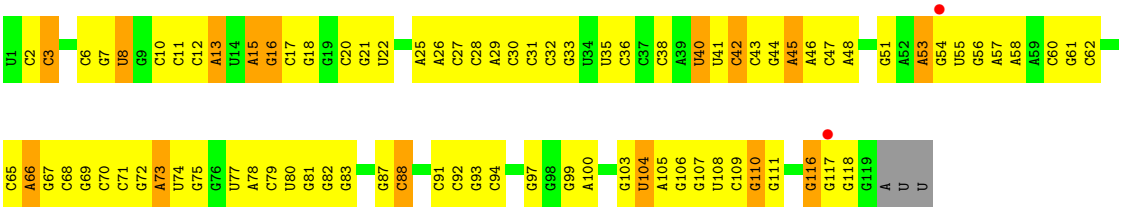
Chain BB:





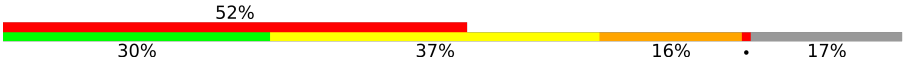
• Molecule 37: 5S RIBOSOMAL RNA

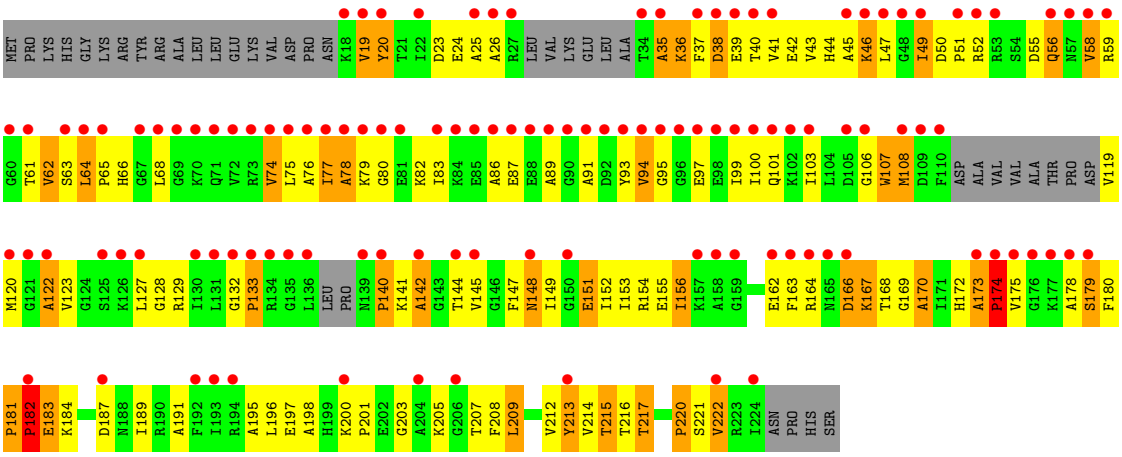
Chain DB:



• Molecule 38: 50S RIBOSOMAL PROTEIN L1

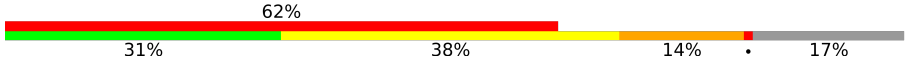
Chain BC:

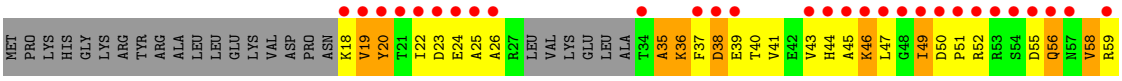


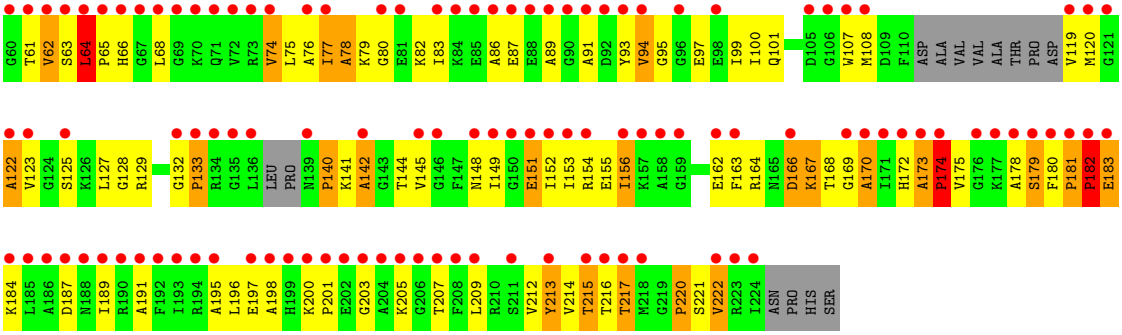


• Molecule 38: 50S RIBOSOMAL PROTEIN L1

Chain DC:

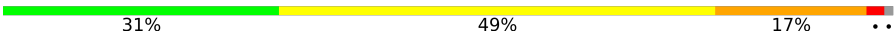


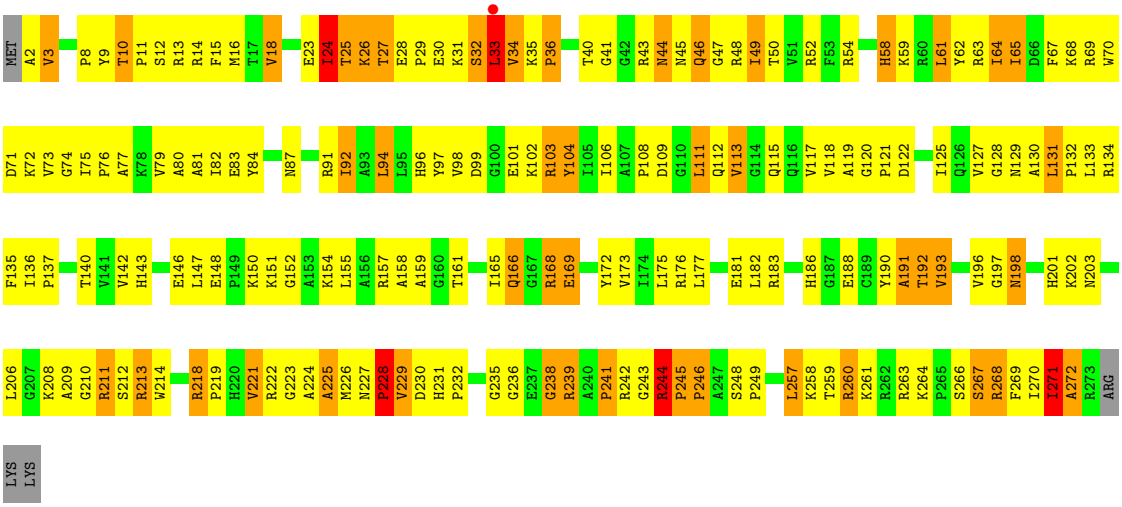




• Molecule 39: 50S RIBOSOMAL PROTEIN L2

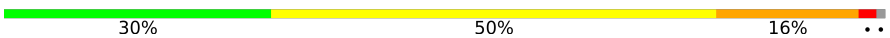
Chain BD:

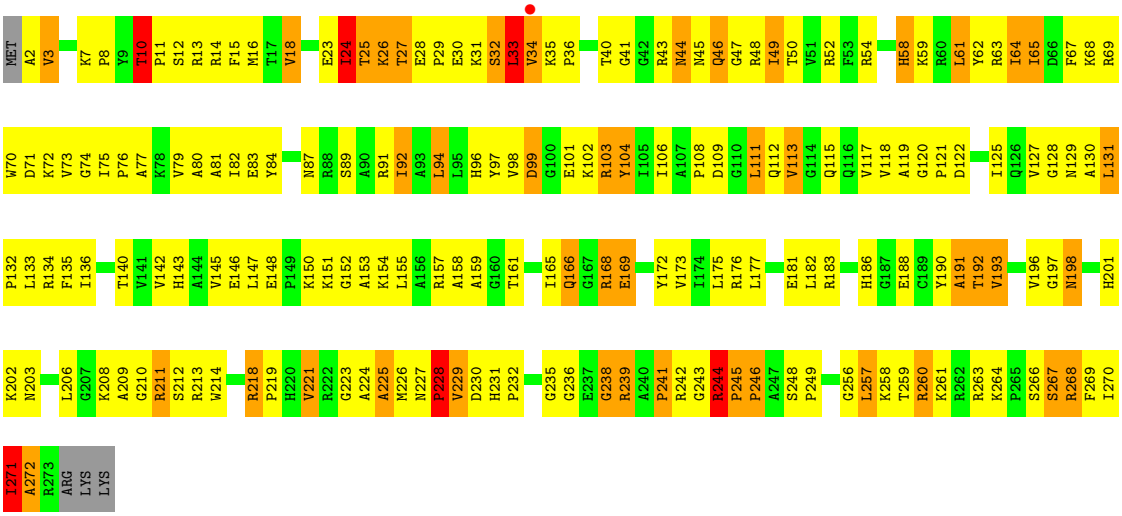




• Molecule 39: 50S RIBOSOMAL PROTEIN L2

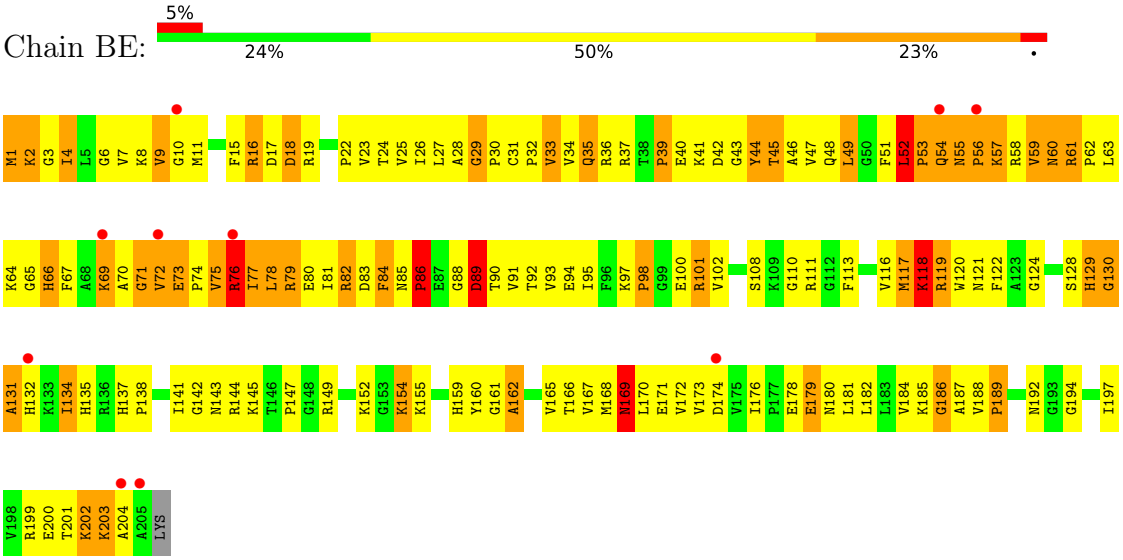
Chain DD:





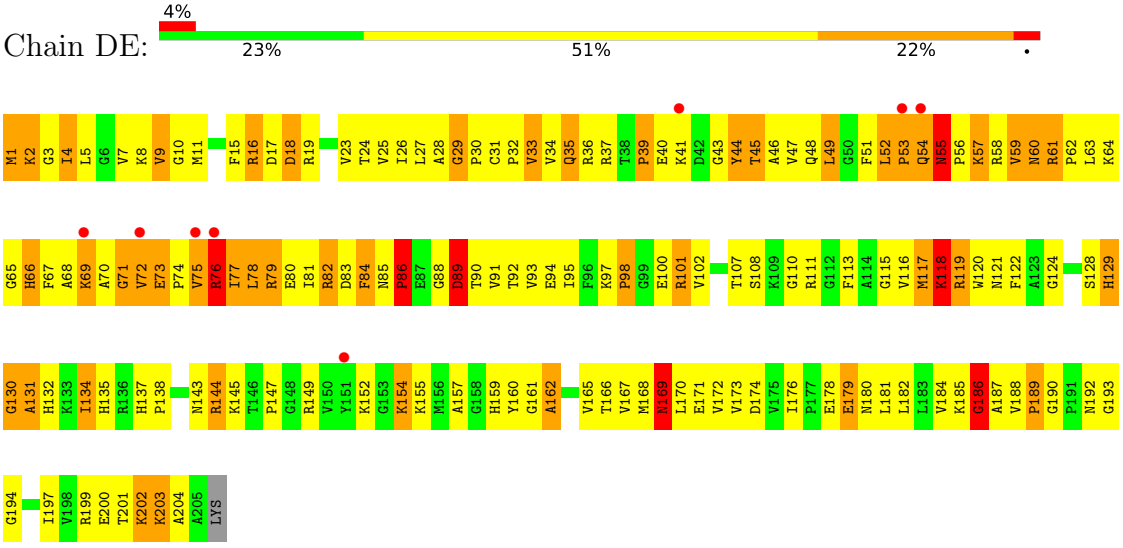
• Molecule 40: 50S RIBOSOMAL PROTEIN L3

Chain BE:



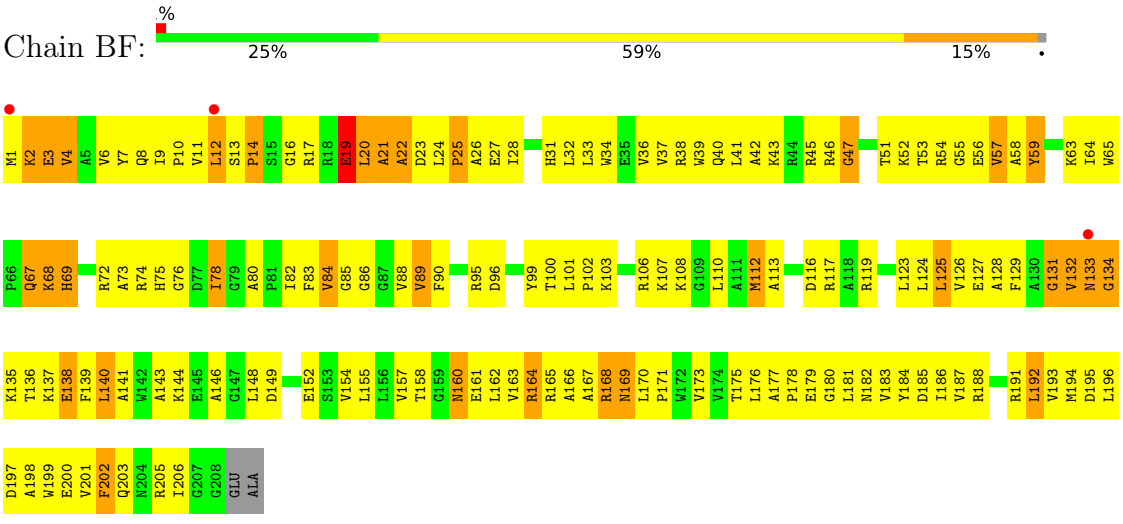
• Molecule 40: 50S RIBOSOMAL PROTEIN L3

Chain DE:



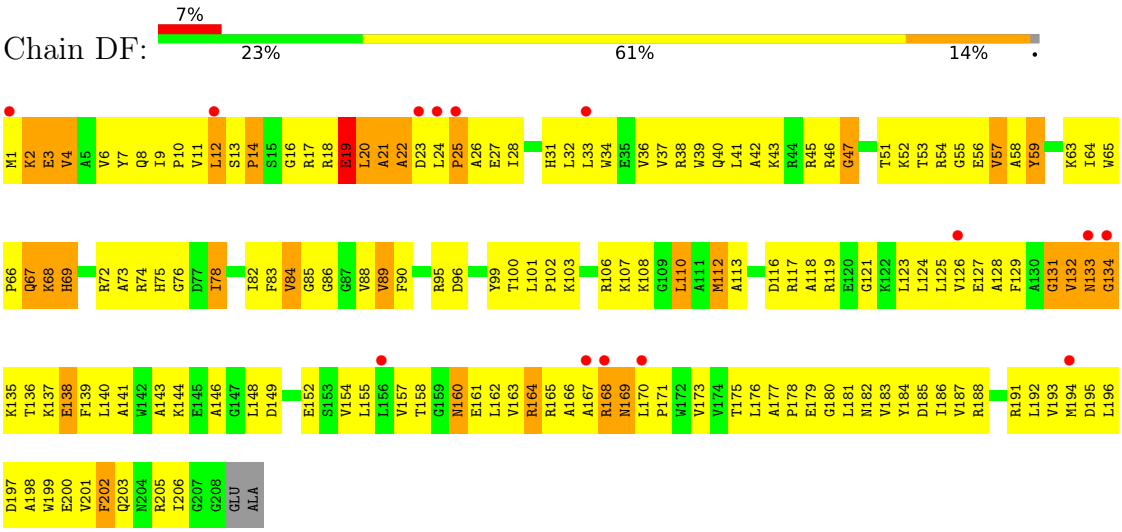
• Molecule 41: 50S RIBOSOMAL PROTEIN L4

Chain BF:



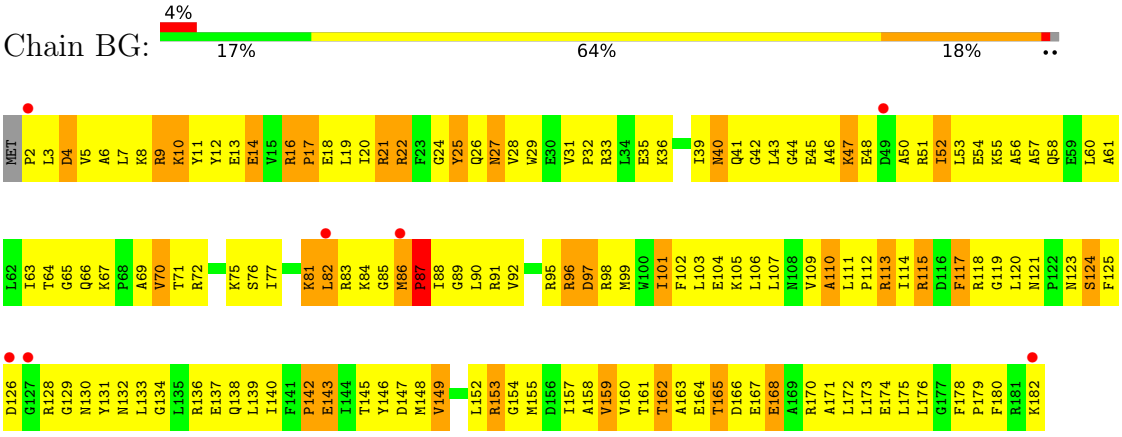
• Molecule 41: 50S RIBOSOMAL PROTEIN L4

Chain DF:



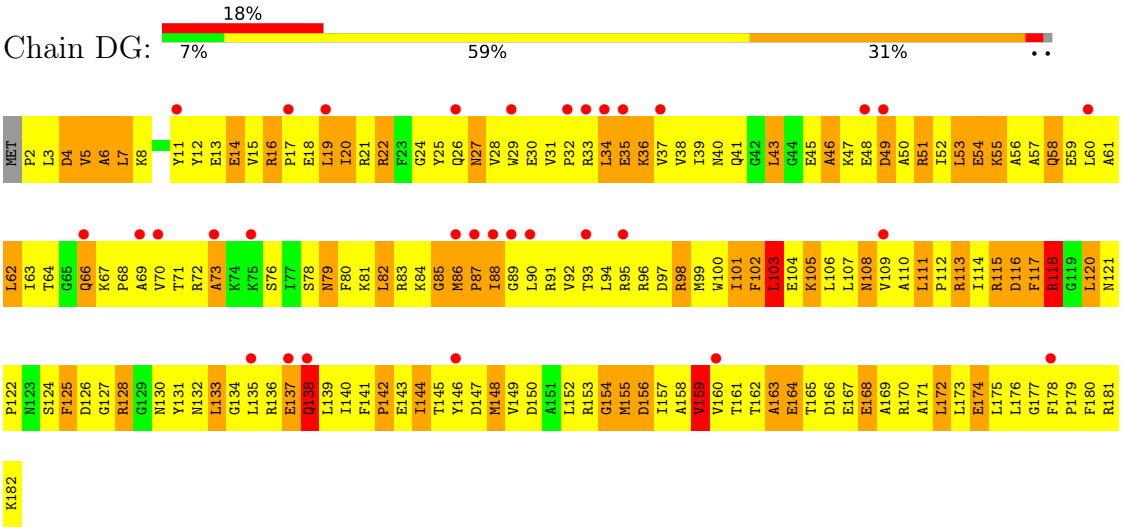
• Molecule 42: 50S RIBOSOMAL PROTEIN L5

Chain BG:

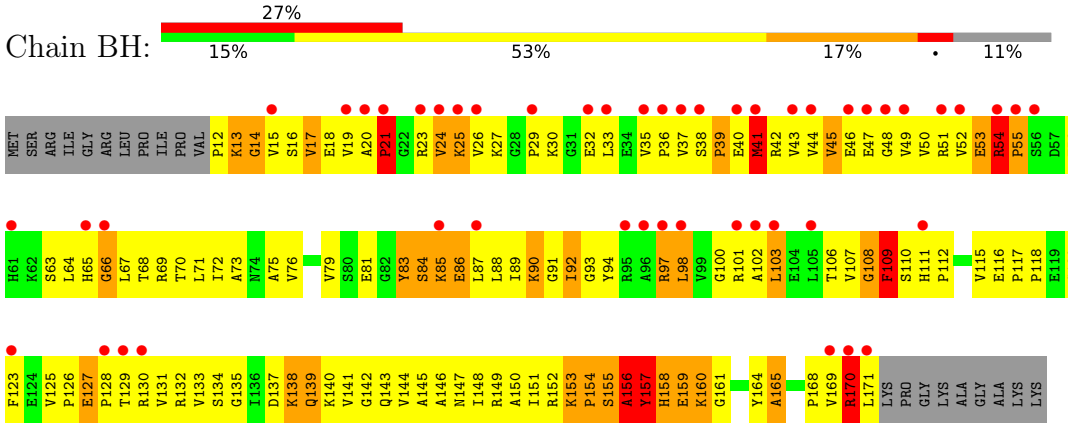


• Molecule 42: 50S RIBOSOMAL PROTEIN L5

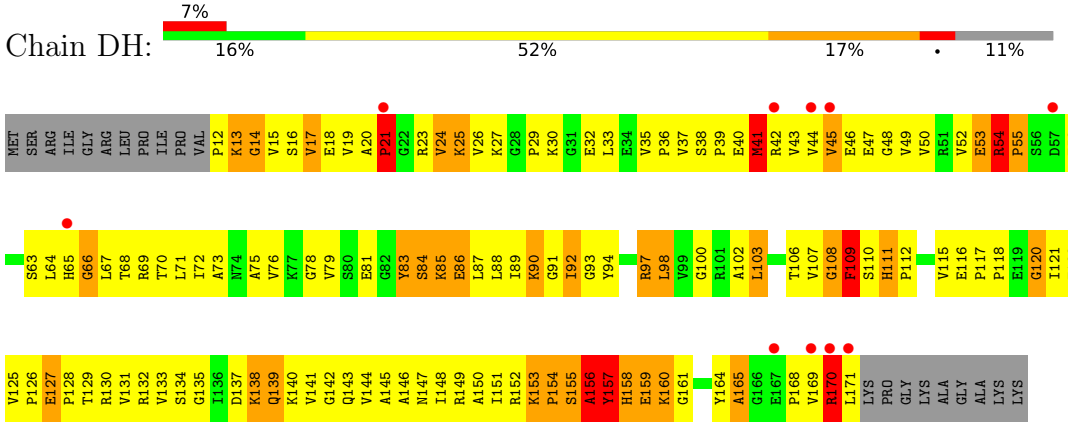
Chain DG:



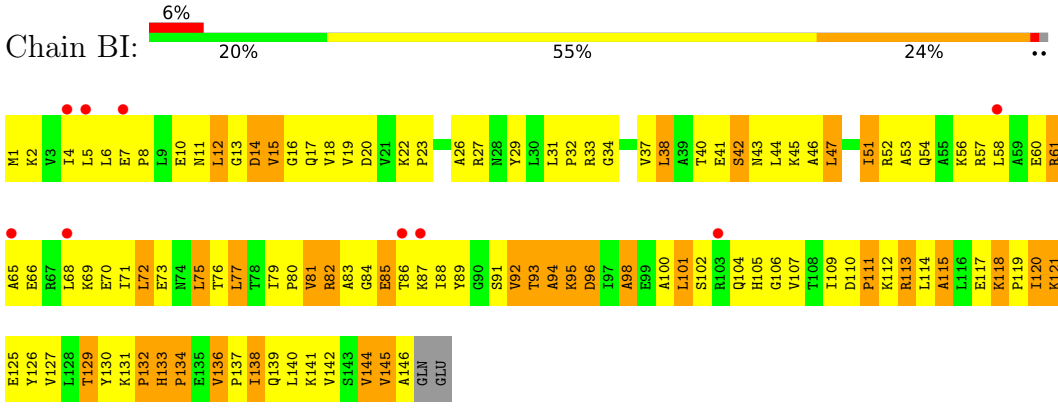
• Molecule 43: 50S RIBOSOMAL PROTEIN L6



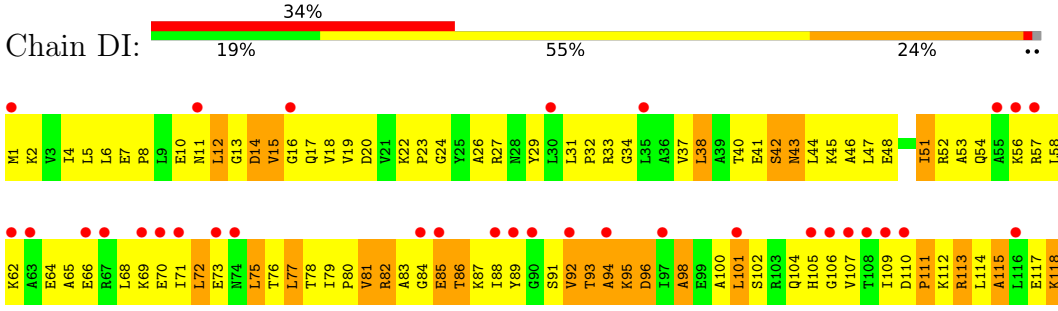
• Molecule 43: 50S RIBOSOMAL PROTEIN L6

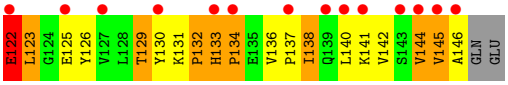


• Molecule 44: 50S RIBOSOMAL PROTEIN L9



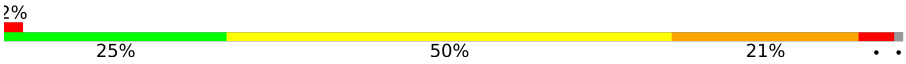
• Molecule 44: 50S RIBOSOMAL PROTEIN L9

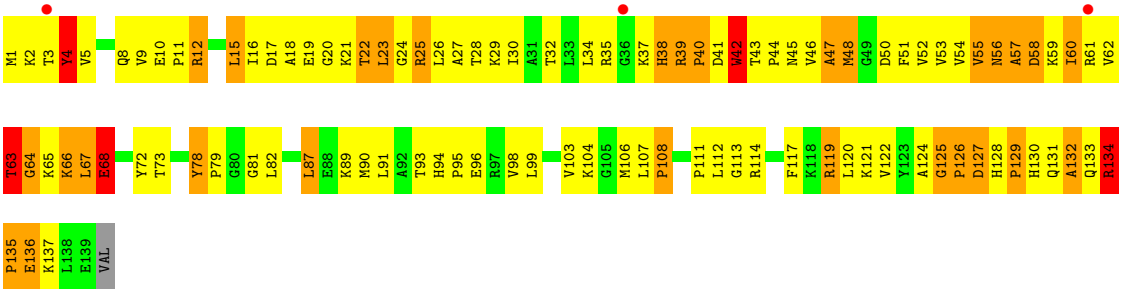




• Molecule 45: 50S RIBOSOMAL PROTEIN L13

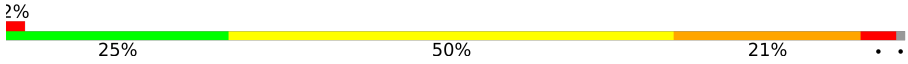
Chain BN:

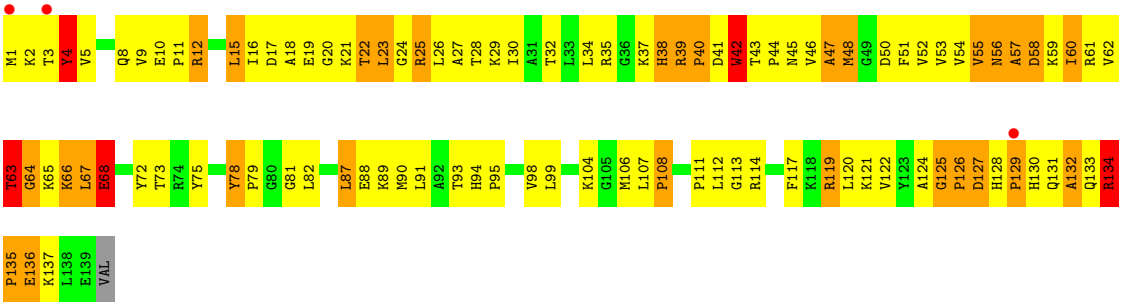




• Molecule 45: 50S RIBOSOMAL PROTEIN L13

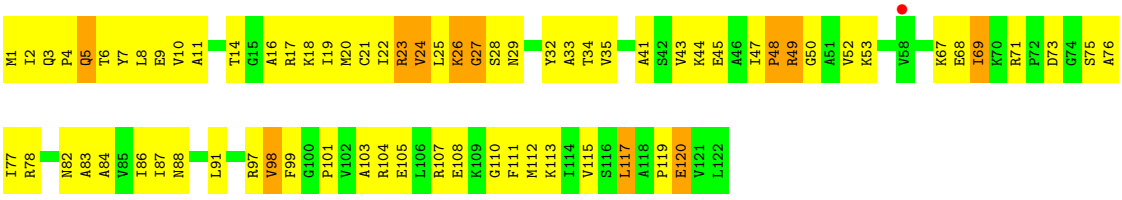
Chain DN:





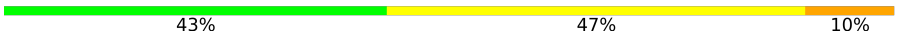
• Molecule 46: 50S RIBOSOMAL PROTEIN L14

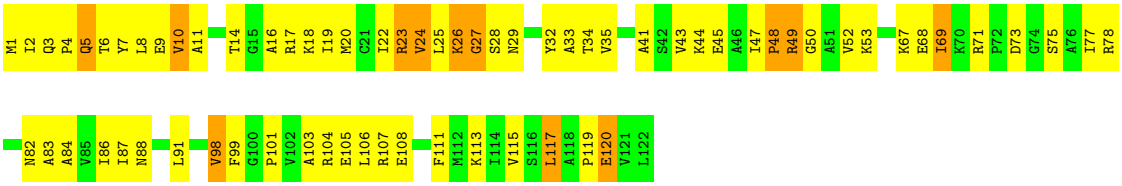
Chain BO:



• Molecule 46: 50S RIBOSOMAL PROTEIN L14

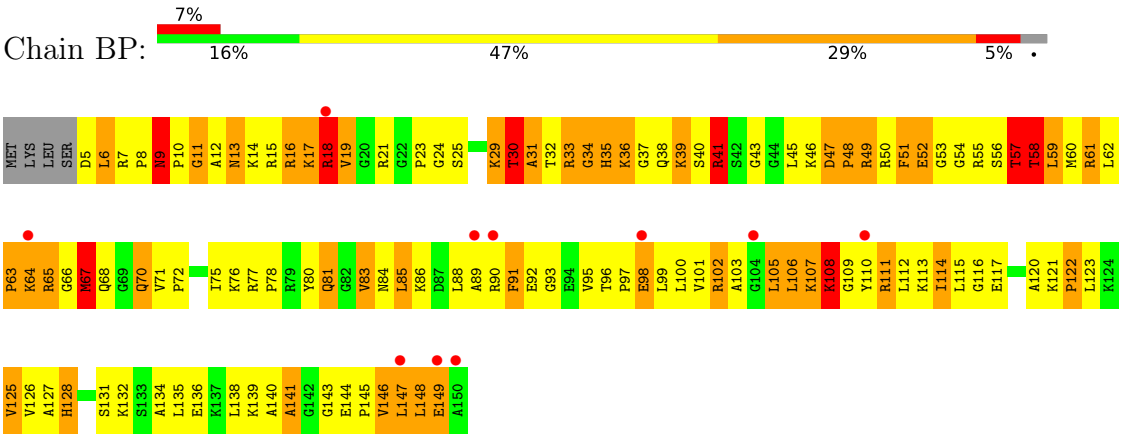
Chain DO:





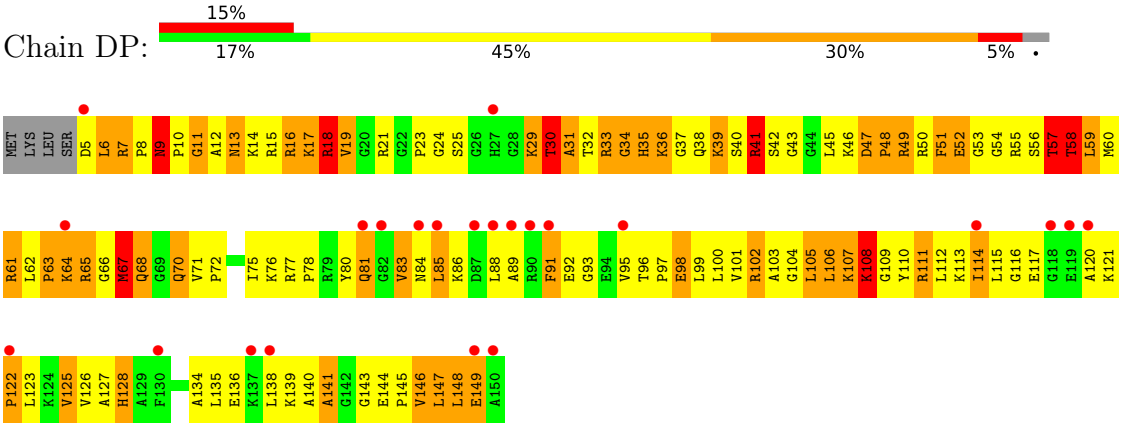
• Molecule 47: 50S RIBOSOMAL PROTEIN L15

Chain BP:



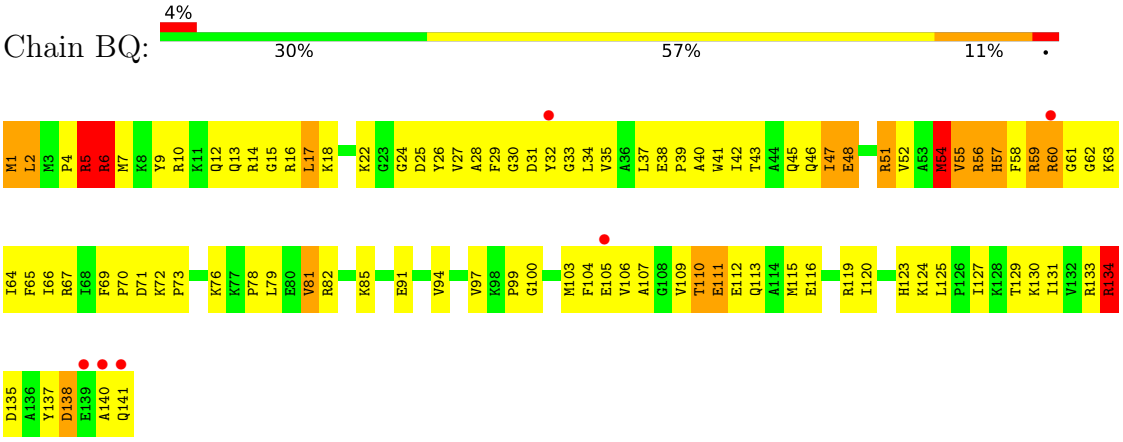
• Molecule 47: 50S RIBOSOMAL PROTEIN L15

Chain DP:



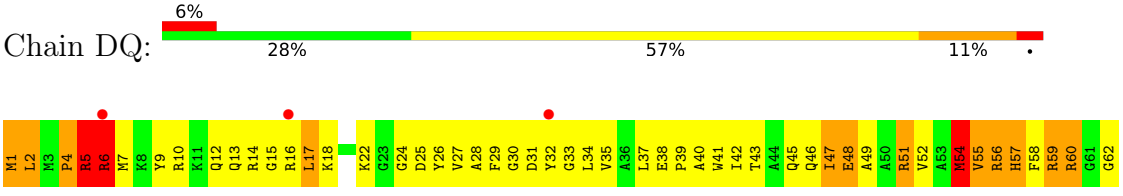
• Molecule 48: 50S RIBOSOMAL PROTEIN L16

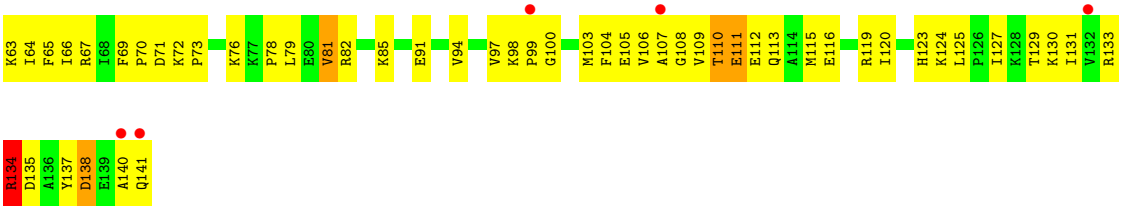
Chain BQ:



• Molecule 48: 50S RIBOSOMAL PROTEIN L16

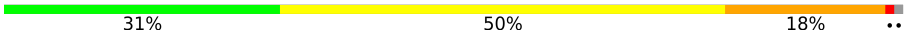
Chain DQ:

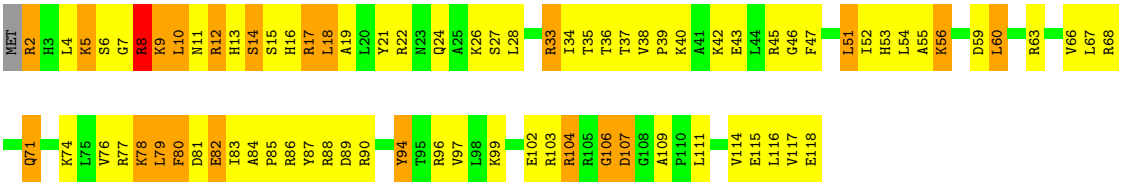




• Molecule 49: 50S RIBOSOMAL PROTEIN L17

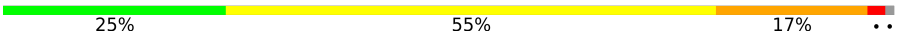
Chain BR:

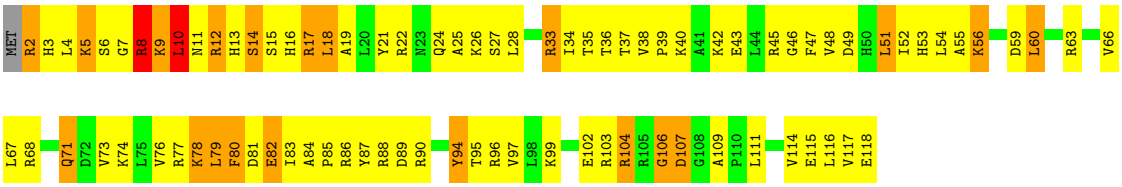




• Molecule 49: 50S RIBOSOMAL PROTEIN L17

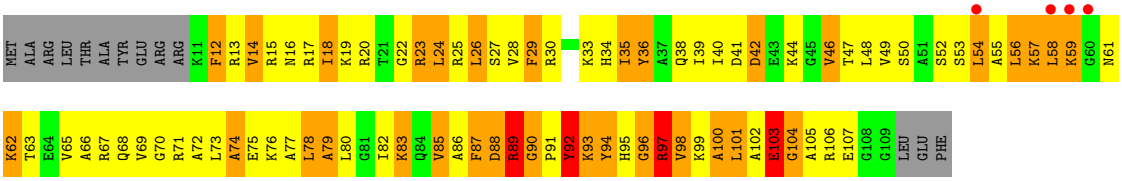
Chain DR:





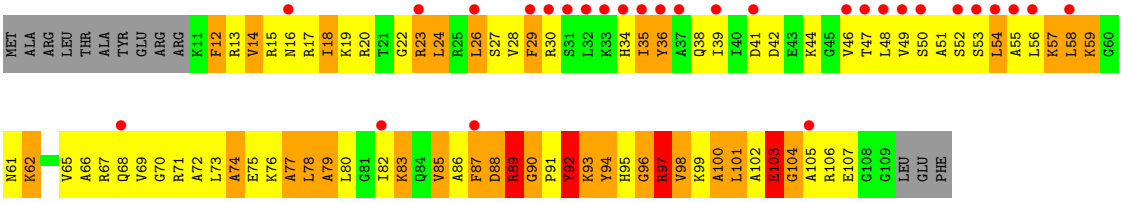
• Molecule 50: 50S RIBOSOMAL PROTEIN L18

Chain BS:



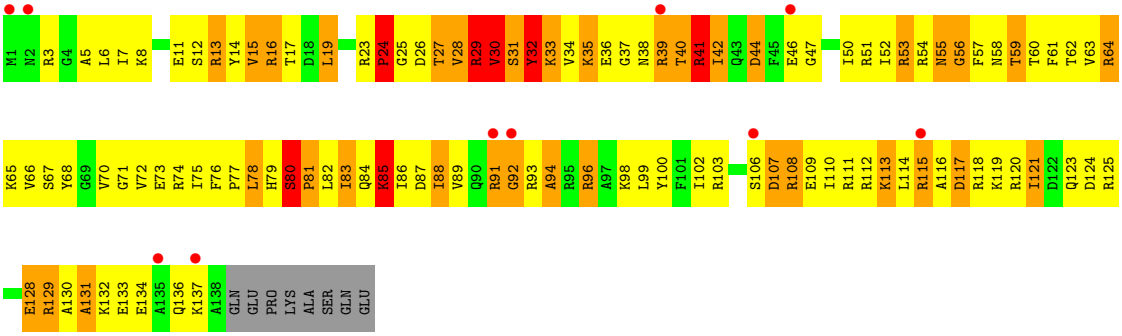
• Molecule 50: 50S RIBOSOMAL PROTEIN L18

Chain DS:



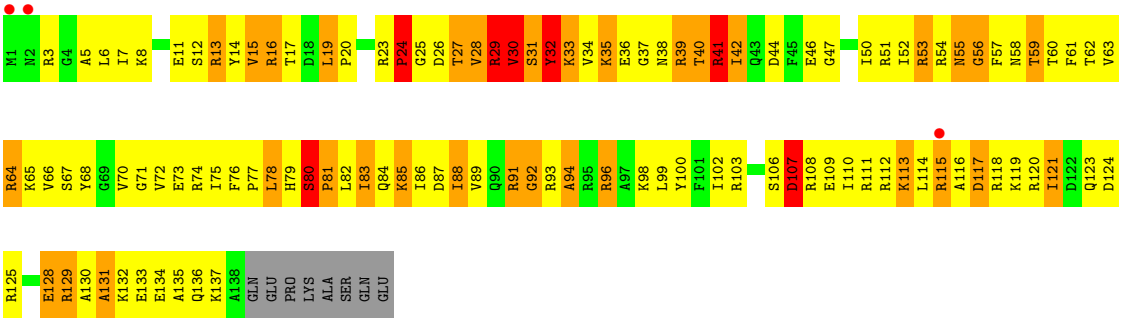
• Molecule 51: 50S RIBOSOMAL PROTEIN L19

Chain BT:



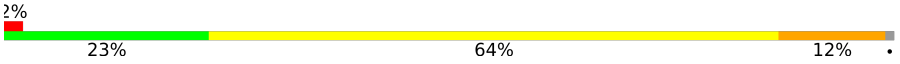
• Molecule 51: 50S RIBOSOMAL PROTEIN L19

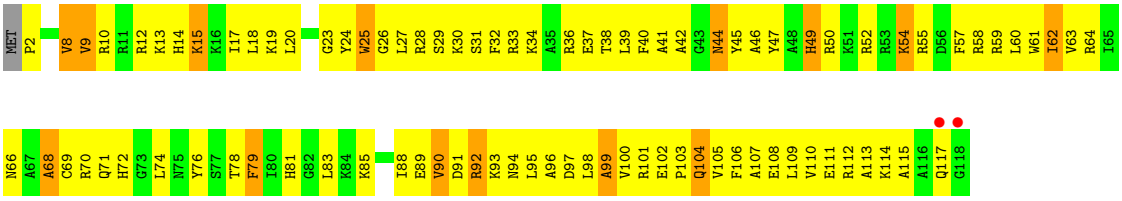
Chain DT:



• Molecule 52: 50S RIBOSOMAL PROTEIN L20

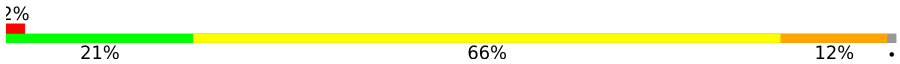
Chain BU:





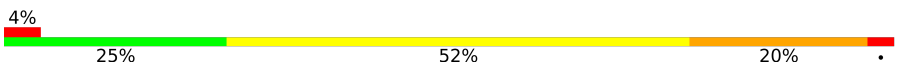
• Molecule 52: 50S RIBOSOMAL PROTEIN L20

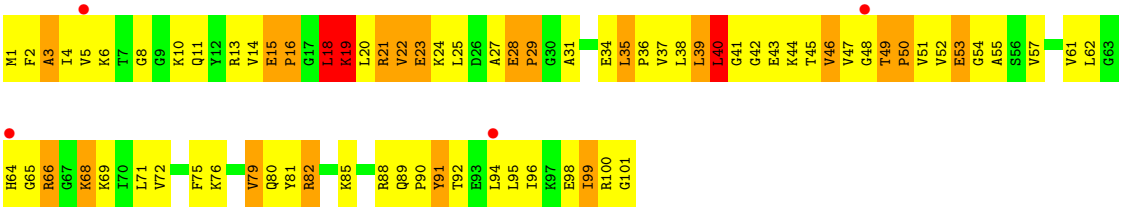
Chain DU:



• Molecule 53: 50S RIBOSOMAL PROTEIN L21

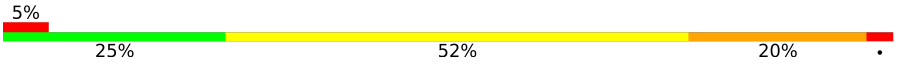
Chain BV:

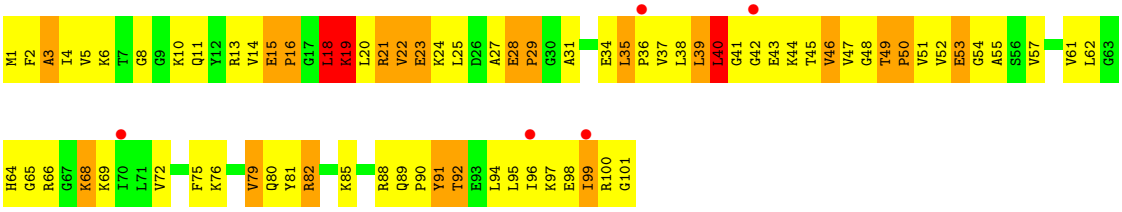




• Molecule 53: 50S RIBOSOMAL PROTEIN L21

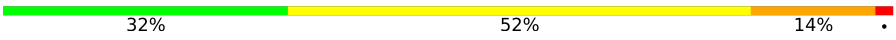
Chain DV:

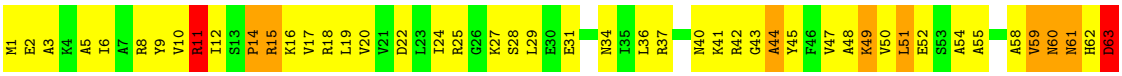


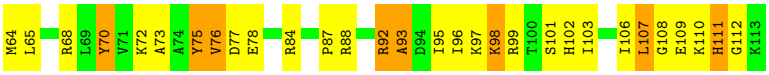


• Molecule 54: 50S RIBOSOMAL PROTEIN L22

Chain BW:

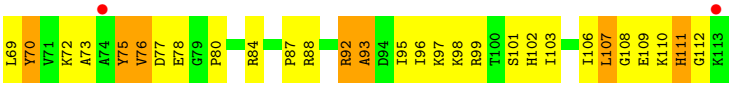






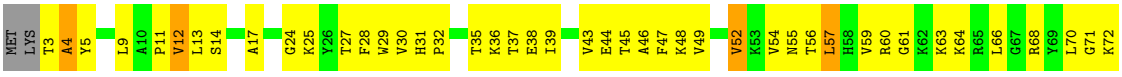
• Molecule 54: 50S RIBOSOMAL PROTEIN L22

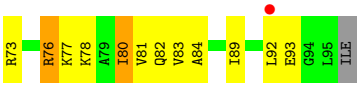
Chain DW:



• Molecule 55: 50S RIBOSOMAL PROTEIN L23

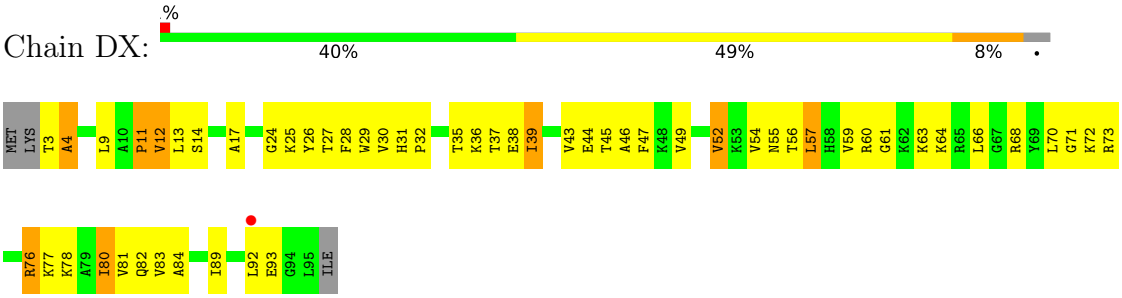
Chain BX:





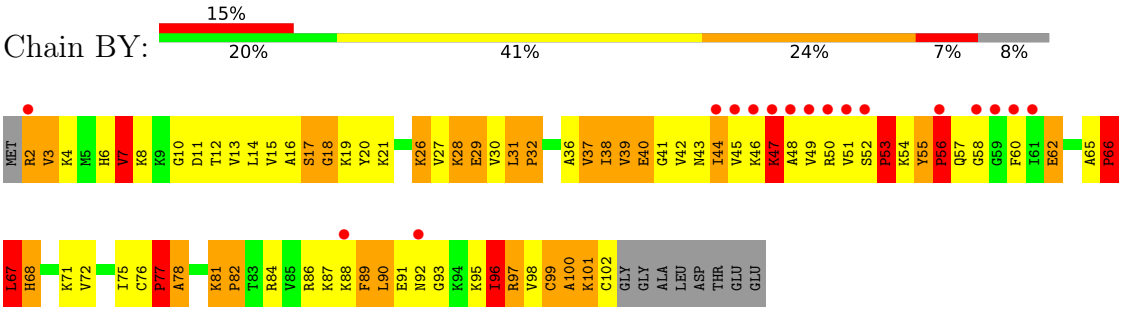
• Molecule 55: 50S RIBOSOMAL PROTEIN L23

Chain DX:



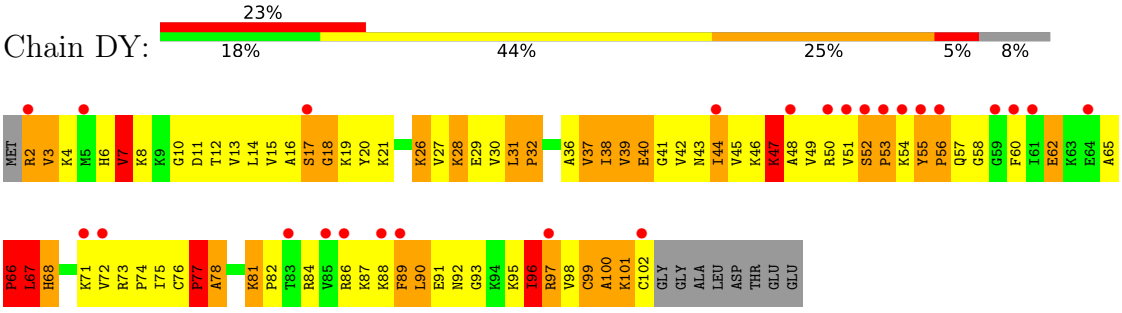
• Molecule 56: 50S RIBOSOMAL PROTEIN L24

Chain BY:



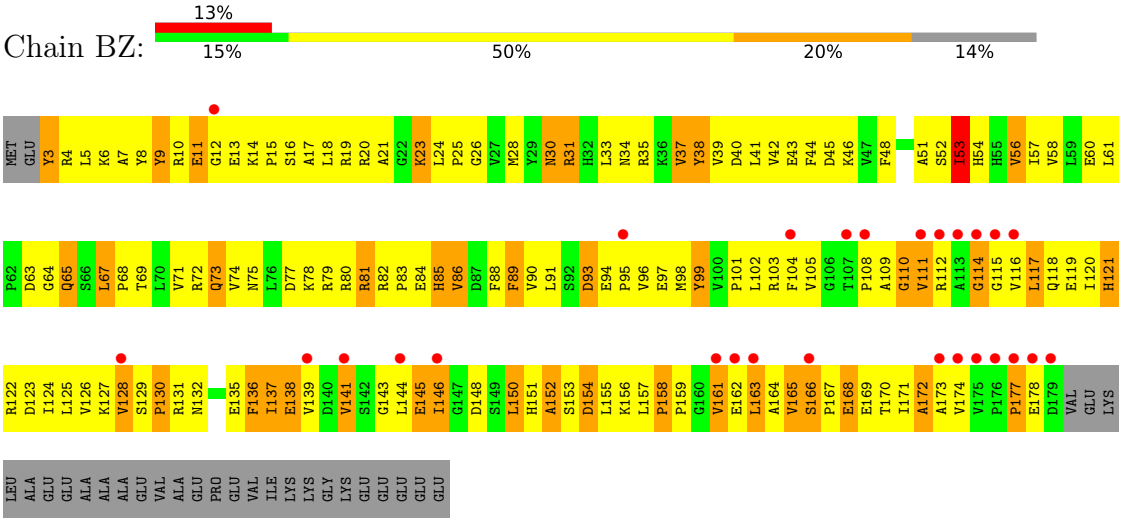
• Molecule 56: 50S RIBOSOMAL PROTEIN L24

Chain DY:



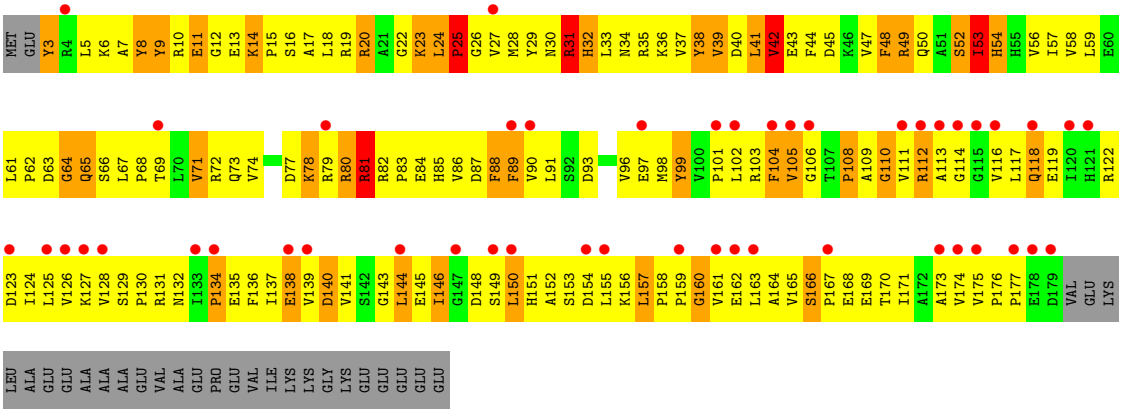
• Molecule 57: 50S RIBOSOMAL PROTEIN L25

Chain BZ:



• Molecule 57: 50S RIBOSOMAL PROTEIN L25

Chain DZ:


MET GLU Y3 R4 L5 K6 A7 Y8 Y9 R10 E11 G12 E13 K14 P15 S16 A17 L18 R19 R20 A21 G22 K23 L24 P25 G26 V27 M28 Y29 N30 R31 H32 L33 N34 R35 K36 V37 Y38 V39 D40 L41 V42 E43 F44 D45 K46 V47 F48 R49 Q50 A51 S52 I53 H54 H55 V56 I57 V58 L59 E60
L61 P62 D63 G64 Q65 S66 L67 P68 T69 L70 V71 R72 Q73 V74 D77 K78 R79 R80 R81 R82 P83 E84 H85 V86 D87 F88 F89 V90 L91 S92 D93 V96 E97 M98 Y99 V100 P101 L102 R103 F104 V105 G106 T107 P108 A109 G110 V111 R112 A113 G114 G115 V116 L117 Q118 E119 I120 H121 R122
D123 I124 L125 V126 K127 V128 S129 P130 R131 N132 I133 P134 E135 F136 I137 E138 V139 D140 V141 S142 G143 L144 E145 I146 G147 D148 S149 L150 H151 A152 S153 D154 L155 K156 L157 P158 P159 G160 V161 E162 L163 A164 V165 S166 P167 E168 E169 T170 I171 A172 A173 V174 V175 P176 P177 E178 D179 VAL GLU LYS
LEU ALA GLU GLU ALA ALA ALA GLU VAL ALA GLU PRO GLU VAL ILE LYS LYS GLY LYS GLU GLU GLU GLU GLU

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	212.13Å 450.80Å 629.62Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.30 49.99 – 3.01	Depositor EDS
% Data completeness (in resolution range)	99.4 (50.00-3.30) 98.2 (49.99-3.01)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.27 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.223 , 0.272 0.224 , 0.272	Depositor DCC
R_{free} test set	54674 reflections (4.71%)	wwPDB-VP
Wilson B-factor (Å^2)	78.6	Xtriage
Anisotropy	0.163	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 111.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.43$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	296168	wwPDB-VP
Average B, all atoms (Å^2)	112.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.40% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PAR, ZN, MG, 5MU, 8AN, PHA

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	0.45	0/36190	0.70	18/56486 (0.0%)
1	CA	0.43	0/36190	0.70	14/56486 (0.0%)
2	AB	0.34	0/1936	0.62	0/2611
2	CB	0.34	0/1936	0.61	0/2611
3	AC	0.35	0/1637	0.60	0/2207
3	CC	0.34	0/1637	0.59	0/2207
4	AD	0.39	0/1733	0.66	0/2318
4	CD	0.37	0/1733	0.65	0/2318
5	AE	0.39	0/1163	0.66	0/1566
5	CE	0.38	0/1163	0.65	0/1566
6	AF	0.36	0/856	0.65	0/1154
6	CF	0.35	0/856	0.65	0/1154
7	AG	0.34	0/1276	0.57	0/1709
7	CG	0.33	0/1276	0.57	0/1709
8	AH	0.34	0/1136	0.64	0/1527
8	CH	0.34	0/1136	0.64	0/1527
9	AI	0.33	0/1027	0.60	0/1372
9	CI	0.34	0/1027	0.60	0/1372
10	AJ	0.38	0/808	0.64	0/1087
10	CJ	0.37	0/808	0.64	0/1087
11	AK	0.36	0/900	0.66	0/1213
11	CK	0.36	0/900	0.66	0/1213
12	AL	0.43	0/987	0.76	0/1322
12	CL	0.43	0/987	0.76	0/1322
13	AM	0.35	0/994	0.67	0/1322
13	CM	0.33	0/994	0.66	0/1322
14	AN	0.37	0/501	0.63	0/664
14	CN	0.37	0/501	0.63	0/664
15	AO	0.36	0/745	0.58	0/992
15	CO	0.35	0/745	0.58	0/992
16	AP	0.38	0/717	0.65	0/965
16	CP	0.38	0/717	0.63	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.38	0/837	0.64	0/1119
17	CQ	0.36	0/837	0.63	0/1119
18	AR	0.38	0/579	0.71	0/768
18	CR	0.39	0/579	0.70	0/768
19	AS	0.37	0/643	0.63	0/867
19	CS	0.38	0/643	0.63	0/867
20	AT	0.35	0/765	0.64	0/1007
20	CT	0.31	0/765	0.63	0/1007
21	AU	0.45	0/213	0.59	0/279
21	CU	0.45	0/213	0.59	0/279
22	AV	0.47	0/1810	0.73	2/2821 (0.1%)
22	CV	0.46	0/1810	0.72	0/2821
23	AW	0.48	0/1809	0.73	0/2819
23	CW	0.53	0/1809	0.71	0/2819
24	AX	0.54	0/235	0.78	0/364
24	CX	0.46	0/235	0.74	1/364 (0.3%)
25	AY	0.48	0/1784	0.75	0/2780
25	CY	0.46	0/1784	0.75	0/2780
26	B0	0.39	0/671	0.67	0/892
26	D0	0.39	0/671	0.67	0/892
27	B1	0.46	0/739	0.84	1/983 (0.1%)
27	D1	0.46	0/739	0.83	1/983 (0.1%)
28	B2	0.43	0/600	0.71	0/793
28	D2	0.38	0/600	0.63	0/793
29	B3	0.38	0/473	0.67	0/636
29	D3	0.38	0/473	0.66	0/636
30	B4	0.44	0/229	0.65	0/311
30	D4	0.44	0/229	0.65	0/311
31	B5	0.37	0/473	0.68	0/639
31	D5	0.38	0/473	0.70	0/639
32	B6	0.43	0/387	0.61	0/517
32	D6	0.42	0/387	0.60	0/517
33	B7	0.56	0/427	0.74	0/563
33	D7	0.58	0/427	0.74	0/563
34	B8	0.52	0/516	0.85	0/681
34	D8	0.49	0/516	0.85	0/681
35	B9	0.31	0/302	0.58	0/397
35	D9	0.33	0/302	0.58	0/397
36	BA	0.53	3/67716 (0.0%)	0.75	39/105718 (0.0%)
36	DA	0.55	3/67716 (0.0%)	0.75	42/105718 (0.0%)
37	BB	0.40	0/2853	0.71	1/4451 (0.0%)
37	DB	0.44	0/2853	0.71	1/4451 (0.0%)
38	BC	0.37	0/1145	0.67	7/1556 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DC	0.38	0/1145	0.67	7/1556 (0.4%)
39	BD	0.53	0/2155	0.84	1/2907 (0.0%)
39	DD	0.54	0/2155	0.84	1/2907 (0.0%)
40	BE	0.44	0/1597	0.76	1/2155 (0.0%)
40	DE	0.46	0/1597	0.77	1/2155 (0.0%)
41	BF	0.45	0/1659	0.73	0/2246
41	DF	0.44	0/1659	0.73	0/2246
42	BG	0.41	0/1498	0.74	1/2013 (0.0%)
42	DG	0.37	0/1498	0.78	2/2013 (0.1%)
43	BH	0.37	0/1246	0.70	2/1684 (0.1%)
43	DH	0.40	0/1246	0.72	2/1684 (0.1%)
44	BI	0.37	0/1147	0.70	0/1553
44	DI	0.44	0/1147	0.71	0/1553
45	BN	0.39	0/1132	0.75	1/1527 (0.1%)
45	DN	0.41	0/1132	0.75	1/1527 (0.1%)
46	BO	0.41	0/943	0.72	0/1269
46	DO	0.46	0/943	0.74	0/1269
47	BP	0.50	0/1131	0.98	7/1504 (0.5%)
47	DP	0.46	0/1131	0.96	6/1504 (0.4%)
48	BQ	0.40	0/1143	0.69	0/1527
48	DQ	0.41	0/1143	0.70	0/1527
49	BR	0.39	0/974	0.76	0/1302
49	DR	0.42	0/974	0.78	1/1302 (0.1%)
50	BS	0.41	0/779	0.72	0/1038
50	DS	0.39	0/779	0.71	0/1038
51	BT	0.46	0/1156	0.83	2/1544 (0.1%)
51	DT	0.46	0/1156	0.82	3/1544 (0.2%)
52	BU	0.40	0/975	0.71	0/1297
52	DU	0.42	0/975	0.72	0/1297
53	BV	0.39	0/790	0.72	0/1057
53	DV	0.38	0/790	0.73	0/1057
54	BW	0.41	0/907	0.70	0/1216
54	DW	0.40	0/907	0.70	0/1216
55	BX	0.49	0/740	0.72	0/995
55	DX	0.48	0/740	0.72	0/995
56	BY	0.50	0/789	0.81	0/1053
56	DY	0.48	0/789	0.80	0/1053
57	BZ	0.39	0/1436	0.67	0/1951
57	DZ	0.39	0/1436	0.68	0/1951
All	All	0.48	6/320018 (0.0%)	0.72	166/478628 (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
1	AA	0	18
1	CA	0	19
22	AV	0	4
22	CV	0	3
25	AY	0	2
36	BA	3	51
36	DA	5	43
37	DB	0	1
39	BD	0	1
45	DN	0	1
All	All	8	143

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	DA	786	C	P-OP2	7.36	1.61	1.49
36	DA	652	C	C3'-O3'	6.63	1.51	1.42
36	BA	652	C	C3'-O3'	6.51	1.51	1.42
36	DA	652	C	O3'-P	5.39	1.67	1.61
36	BA	656	G	O5'-C5'	5.38	1.53	1.44
36	BA	652	C	O3'-P	5.11	1.67	1.61

All (166) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BA	1992	G	C2'-C3'-O3'	11.05	133.81	109.50
36	DA	1992	G	C2'-C3'-O3'	10.94	133.58	109.50
36	BA	1799	G	C2'-C3'-O3'	9.57	130.56	109.50
36	BA	1786	A	N9-C1'-C2'	9.41	126.24	114.00
47	DP	52	GLU	N-CA-C	9.36	136.27	111.00
47	BP	52	GLU	N-CA-C	9.35	136.26	111.00
36	DA	1653	G	C2'-C3'-O3'	9.34	130.06	109.50
36	BA	1653	G	C2'-C3'-O3'	9.30	129.96	109.50
36	DA	1799	G	C2'-C3'-O3'	9.30	129.95	109.50
36	DA	1786	A	N9-C1'-C2'	9.24	126.01	114.00
36	BA	283	A	C2'-C3'-O3'	9.14	129.61	109.50
36	DA	283	A	C2'-C3'-O3'	9.13	129.58	109.50
36	DA	1819	A	C2'-C3'-O3'	8.70	128.63	109.50
36	DA	2610	C	C2'-C3'-O3'	8.11	127.34	109.50
36	BA	1819	A	C2'-C3'-O3'	8.09	127.30	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	913	A	C2'-C3'-O3'	8.09	127.30	109.50
1	CA	913	A	C2'-C3'-O3'	8.04	127.19	109.50
1	AA	115	G	C2'-C3'-O3'	7.97	127.04	109.50
36	BA	2610	C	C2'-C3'-O3'	7.77	126.60	109.50
1	AA	366	C	C2'-C3'-O3'	7.75	126.56	109.50
1	CA	115	G	C2'-C3'-O3'	7.67	126.37	109.50
1	CA	366	C	C2'-C3'-O3'	7.48	125.96	109.50
1	AA	687	A	C2'-C3'-O3'	7.14	125.21	109.50
39	BD	244	ARG	C-N-CD	-7.14	104.90	120.60
1	CA	687	A	C2'-C3'-O3'	7.08	125.07	109.50
36	DA	1781	C	N1-C1'-C2'	7.05	123.16	114.00
47	BP	41	ARG	N-CA-C	-7.03	92.03	111.00
1	AA	266	G	C2'-C3'-O3'	6.99	124.89	113.70
47	DP	41	ARG	N-CA-C	-6.99	92.14	111.00
39	DD	244	ARG	C-N-CD	-6.97	105.27	120.60
1	CA	266	G	C2'-C3'-O3'	6.91	124.75	113.70
47	DP	53	GLY	N-CA-C	-6.91	95.84	113.10
47	BP	53	GLY	N-CA-C	-6.89	95.88	113.10
36	DA	272	G	C2'-C3'-O3'	6.69	124.41	113.70
36	BA	1781	C	N1-C1'-C2'	6.59	122.57	114.00
47	BP	58	THR	N-CA-C	-6.51	93.42	111.00
47	DP	58	THR	N-CA-C	-6.50	93.46	111.00
42	DG	54	GLU	N-CA-C	-6.47	93.53	111.00
36	BA	272	G	C2'-C3'-O3'	6.46	124.04	113.70
36	DA	673	C	C5'-C4'-C3'	-6.44	105.70	116.00
22	AV	75	C	N1-C1'-C2'	6.34	122.25	114.00
36	DA	2225	A	C2'-C3'-O3'	6.30	123.78	113.70
36	BA	673	C	C5'-C4'-C3'	-6.30	105.92	116.00
1	CA	533	A	C2'-C3'-O3'	6.30	123.78	113.70
47	DP	54	GLY	N-CA-C	-6.30	97.36	113.10
47	BP	54	GLY	N-CA-C	-6.24	97.50	113.10
36	BA	1379	A	N9-C1'-C2'	6.16	122.01	114.00
1	AA	533	A	C2'-C3'-O3'	6.12	123.48	113.70
36	DA	1493	C	N1-C1'-C2'	6.07	121.89	114.00
36	DA	1616	A	N9-C1'-C2'	6.03	121.84	114.00
1	CA	920	U	C5'-C4'-C3'	-5.93	106.51	116.00
36	DA	1379	A	N9-C1'-C2'	5.92	121.70	114.00
24	CX	22	A	C2'-C3'-O3'	5.88	123.11	113.70
1	AA	920	U	C5'-C4'-C3'	-5.84	106.65	116.00
36	BA	1616	A	N9-C1'-C2'	5.84	121.59	114.00
27	D1	46	LEU	CA-CB-CG	5.83	128.71	115.30
36	BA	1301	A	N9-C1'-C2'	5.80	121.54	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	DA	1799	G	C4'-C3'-O3'	5.76	124.53	113.00
1	AA	1225	A	N9-C1'-C2'	5.76	121.48	114.00
1	CA	1225	A	N9-C1'-C2'	5.75	121.48	114.00
36	DA	283	A	C4'-C3'-C2'	5.75	108.35	102.60
36	BA	1493	C	N1-C1'-C2'	5.73	121.45	114.00
1	AA	60	A	C2'-C3'-O3'	5.72	122.86	113.70
36	BA	2225	A	C2'-C3'-O3'	5.72	122.86	113.70
1	AA	1504	G	C2'-C3'-O3'	5.72	122.85	113.70
38	BC	181	PRO	N-CA-CB	5.70	110.14	103.30
36	DA	272(B)	G	C5'-C4'-C3'	5.69	125.11	116.00
36	BA	272(B)	G	C5'-C4'-C3'	5.68	125.08	116.00
43	DH	156	ALA	N-CA-C	-5.67	95.70	111.00
27	B1	46	LEU	CA-CB-CG	5.65	128.30	115.30
36	BA	1698	A	N9-C1'-C2'	5.64	121.33	114.00
51	DT	29	ARG	N-CA-C	5.63	126.21	111.00
1	AA	1067	A	C2'-C3'-O3'	5.59	122.65	113.70
1	CA	1054	C	N1-C1'-C2'	5.59	121.26	114.00
38	DC	181	PRO	N-CA-CB	5.59	110.00	103.30
51	BT	30	VAL	N-CA-C	5.57	126.03	111.00
43	BH	156	ALA	N-CA-C	-5.57	95.97	111.00
40	DE	186	GLY	N-CA-C	5.55	126.97	113.10
36	DA	676	A	O4'-C1'-N9	5.54	112.64	108.20
38	BC	174	PRO	N-CA-CB	5.54	109.95	103.30
1	CA	60	A	C2'-C3'-O3'	5.54	122.56	113.70
38	DC	174	PRO	N-CA-CB	5.51	109.92	103.30
38	DC	140	PRO	N-CA-CB	5.51	109.91	103.30
36	DA	1301	A	N9-C1'-C2'	5.50	121.15	114.00
51	BT	29	ARG	N-CA-C	5.50	125.85	111.00
38	BC	140	PRO	N-CA-CB	5.50	109.89	103.30
38	DC	201	PRO	N-CA-CB	5.50	109.90	103.30
1	AA	328	C	N1-C1'-C2'	5.49	121.14	114.00
36	BA	387	U	C2'-C3'-O3'	5.48	122.47	113.70
1	AA	1054	C	N1-C1'-C2'	5.47	121.12	114.00
36	DA	945	A	N9-C1'-C2'	5.47	121.11	114.00
37	BB	40	U	N1-C1'-C2'	5.46	121.09	114.00
1	CA	484	G	N9-C1'-C2'	5.46	121.09	114.00
1	CA	1504	G	C2'-C3'-O3'	5.44	122.41	113.70
38	BC	182	PRO	N-CA-CB	5.43	109.82	103.30
36	DA	1053	C	N1-C1'-C2'	5.42	121.04	114.00
38	BC	220	PRO	N-CA-CB	5.40	109.78	103.30
38	BC	201	PRO	N-CA-CB	5.40	109.78	103.30
36	BA	945	A	N9-C1'-C2'	5.39	121.01	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	DC	133	PRO	N-CA-CB	5.38	109.76	103.30
51	DT	30	VAL	N-CA-C	5.38	125.53	111.00
36	BA	1053	C	N1-C1'-C2'	5.38	120.99	114.00
36	DA	387	U	C2'-C3'-O3'	5.36	122.28	113.70
36	BA	1324	G	C5'-C4'-C3'	-5.34	107.46	116.00
38	DC	182	PRO	N-CA-CB	5.34	109.70	103.30
38	DC	220	PRO	N-CA-CB	5.33	109.69	103.30
36	DA	938	G	N9-C1'-C2'	-5.32	106.14	112.00
1	CA	328	C	N1-C1'-C2'	5.32	120.91	114.00
36	BA	2111	C	N1-C1'-C2'	5.31	120.91	114.00
40	BE	186	GLY	N-CA-C	5.31	126.37	113.10
36	BA	2827	C	C5'-C4'-C3'	-5.30	107.51	116.00
42	DG	34	LEU	CA-CB-CG	5.30	127.49	115.30
43	DH	157	TYR	N-CA-C	-5.28	96.74	111.00
36	BA	856	C	C2'-C3'-O3'	5.28	122.14	113.70
36	BA	2557	G	C5'-C4'-C3'	-5.27	107.56	116.00
36	BA	283	A	C4'-C3'-C2'	5.27	107.87	102.60
1	AA	484	G	N9-C1'-C2'	5.27	120.85	114.00
36	BA	352	G	N9-C1'-C2'	5.26	120.84	114.00
36	DA	1558	A	C2'-C3'-O3'	5.26	122.12	113.70
36	DA	1378	A	C2'-C3'-O3'	5.26	122.11	113.70
1	AA	428	G	C2'-C3'-O3'	5.25	122.10	113.70
36	BA	2506	U	C5'-C4'-O4'	-5.24	102.81	109.10
42	BG	87	PRO	N-CA-C	5.24	125.72	112.10
45	BN	67	LEU	N-CA-C	-5.24	96.86	111.00
43	BH	157	TYR	N-CA-C	-5.23	96.88	111.00
36	DA	1698	A	N9-C1'-C2'	5.23	120.80	114.00
1	CA	1067	A	C2'-C3'-O3'	5.22	122.05	113.70
36	DA	1324	G	C5'-C4'-C3'	-5.21	107.67	116.00
36	DA	790	C	N1-C1'-C2'	5.20	120.76	114.00
36	DA	2464	C	N1-C1'-C2'	-5.20	106.28	112.00
36	BA	790	C	N1-C1'-C2'	5.20	120.76	114.00
36	DA	2111	C	N1-C1'-C2'	5.19	120.75	114.00
36	BA	1799	G	C4'-C3'-O3'	5.18	123.37	113.00
36	BA	2117	A	N9-C1'-C2'	5.18	120.74	114.00
47	DP	51	PHE	N-CA-C	5.18	124.99	111.00
36	BA	1529	G	N9-C1'-C2'	5.18	120.73	114.00
36	BA	2035	G	N9-C1'-C2'	5.17	120.72	114.00
36	DA	786	C	N1-C1'-C2'	-5.17	106.31	112.00
22	AV	76	A	C2'-C3'-O3'	-5.14	98.18	109.50
38	BC	133	PRO	N-CA-CB	5.14	109.46	103.30
37	DB	40	U	N1-C1'-C2'	5.14	120.68	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	DA	1835	G	C5'-C4'-C3'	-5.13	107.79	116.00
36	DA	2506	U	C5'-C4'-O4'	-5.13	102.94	109.10
36	BA	272(B)	G	N9-C1'-C2'	-5.13	106.36	112.00
1	AA	1502	A	N9-C1'-C2'	5.13	120.67	114.00
36	DA	1819	A	C4'-C3'-C2'	5.13	107.73	102.60
45	DN	67	LEU	N-CA-C	-5.12	97.17	111.00
36	DA	2035	G	N9-C1'-C2'	5.10	120.63	114.00
51	DT	59	THR	N-CA-C	-5.09	97.25	111.00
1	AA	1299	A	N9-C1'-C2'	5.09	120.62	114.00
36	DA	1529	G	N9-C1'-C2'	5.09	120.62	114.00
1	AA	115	G	C4'-C3'-C2'	5.08	107.68	102.60
36	DA	2117	A	N9-C1'-C2'	5.07	120.59	114.00
47	BP	51	PHE	N-CA-C	5.06	124.67	111.00
49	DR	10	LEU	CA-CB-CG	5.06	126.94	115.30
36	BA	1781	C	O4'-C1'-N1	5.05	112.24	108.20
36	DA	1960	A	C5'-C4'-C3'	-5.04	107.94	116.00
36	BA	1835	G	C5'-C4'-C3'	-5.03	107.95	116.00
36	DA	2200	C	C5'-C4'-C3'	-5.03	107.95	116.00
36	DA	272(B)	G	N9-C1'-C2'	-5.03	106.47	112.00
36	DA	748	G	N9-C1'-C2'	5.03	120.53	114.00
47	BP	52	GLU	CA-C-N	-5.01	106.18	116.20
36	BA	265	A	N9-C1'-C2'	5.01	120.51	114.00
36	BA	1634	A	N9-C1'-C2'	5.00	120.50	114.00
36	BA	1819	A	C4'-C3'-O3'	5.00	123.01	113.00
36	DA	955	C	C5'-C4'-C3'	-5.00	108.00	116.00

All (8) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
36	BA	283	A	C3'
36	BA	1799	G	C3'
36	BA	1992	G	C3'
36	DA	283	A	C3'
36	DA	1653	G	C3'
36	DA	1799	G	C3'
36	DA	1819	A	C3'
36	DA	1992	G	C3'

All (143) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1077	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1293	G	Sidechain
1	AA	1330	U	Sidechain
1	AA	1434	A	Sidechain
1	AA	1493	A	Sidechain
1	AA	1502	A	Sidechain
1	AA	265	G	Sidechain
1	AA	436	C	Sidechain
1	AA	484	G	Sidechain
1	AA	56	U	Sidechain
1	AA	587	G	Sidechain
1	AA	666	G	Sidechain
1	AA	760	G	Sidechain
1	AA	832	C	Sidechain
1	AA	855	G	Sidechain
1	AA	898	G	Sidechain
1	AA	97	G	Sidechain
1	AA	991	U	Sidechain
22	AV	4	G	Sidechain
22	AV	52	G	Sidechain
22	AV	75	C	Sidechain
22	AV	8	U	Sidechain
25	AY	55	U	Sidechain
25	AY	61	C	Sidechain
36	BA	1025	G	Sidechain
36	BA	1112	G	Sidechain
36	BA	1141	U	Sidechain
36	BA	1158	C	Sidechain
36	BA	1191	G	Sidechain
36	BA	1271	G	Sidechain
36	BA	1288	U	Sidechain
36	BA	1313	U	Sidechain
36	BA	1323	U	Sidechain
36	BA	1324	G	Sidechain
36	BA	1379	A	Sidechain
36	BA	1385	G	Sidechain
36	BA	15	G	Sidechain
36	BA	1645	G	Sidechain
36	BA	1647	G	Sidechain
36	BA	1659	U	Sidechain
36	BA	1772	G	Sidechain
36	BA	1773	A	Sidechain
36	BA	1779	U	Sidechain

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Mol	Chain	Res	Type	Group
36	BA	1796	U	Sidechain
36	BA	1801	G	Sidechain
36	BA	1902	C	Sidechain
36	BA	1952	A	Sidechain
36	BA	1992	G	Sidechain
36	BA	2009	G	Sidechain
36	BA	2198	A	Sidechain
36	BA	2391	G	Sidechain
36	BA	2464	C	Sidechain
36	BA	2517	C	Sidechain
36	BA	2542	A	Sidechain
36	BA	2554	U	Sidechain
36	BA	2564	A	Sidechain
36	BA	2585	U	Sidechain
36	BA	2587	A	Sidechain
36	BA	2682	U	Sidechain
36	BA	271(Q)	G	Sidechain
36	BA	271(Y)	U	Sidechain
36	BA	272(B)	G	Sidechain
36	BA	2780	G	Sidechain
36	BA	379	G	Sidechain
36	BA	395	U	Sidechain
36	BA	472	A	Sidechain
36	BA	542	C	Sidechain
36	BA	543	C	Sidechain
36	BA	652	C	Sidechain
36	BA	670	A	Sidechain
36	BA	70	G	Sidechain
36	BA	760	G	Sidechain
36	BA	781	A	Sidechain
36	BA	787	U	Sidechain
36	BA	827	U	Sidechain
39	BD	9	TYR	Sidechain
1	CA	1293	G	Sidechain
1	CA	1330	U	Sidechain
1	CA	1405	G	Sidechain
1	CA	1498	U	Sidechain
1	CA	1502	A	Sidechain
1	CA	1522	U	Sidechain
1	CA	1526	G	Sidechain
1	CA	436	C	Sidechain
1	CA	484	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	528	C	Sidechain
1	CA	56	U	Sidechain
1	CA	587	G	Sidechain
1	CA	666	G	Sidechain
1	CA	688	G	Sidechain
1	CA	760	G	Sidechain
1	CA	832	C	Sidechain
1	CA	898	G	Sidechain
1	CA	97	G	Sidechain
1	CA	991	U	Sidechain
22	CV	16	C	Sidechain
22	CV	4	G	Sidechain
22	CV	52	G	Sidechain
36	DA	1025	G	Sidechain
36	DA	1112	G	Sidechain
36	DA	1141	U	Sidechain
36	DA	1191	G	Sidechain
36	DA	1271	G	Sidechain
36	DA	1288	U	Sidechain
36	DA	1323	U	Sidechain
36	DA	1379	A	Sidechain
36	DA	1385	G	Sidechain
36	DA	1396	U	Sidechain
36	DA	15	G	Sidechain
36	DA	1613	G	Sidechain
36	DA	1645	G	Sidechain
36	DA	1647	G	Sidechain
36	DA	1772	G	Sidechain
36	DA	1773	A	Sidechain
36	DA	1779	U	Sidechain
36	DA	1789	A	Sidechain
36	DA	1796	U	Sidechain
36	DA	1801	G	Sidechain
36	DA	1902	C	Sidechain
36	DA	1968	G	Sidechain
36	DA	1992	G	Sidechain
36	DA	201	C	Sidechain
36	DA	2198	A	Sidechain
36	DA	2238	G	Sidechain
36	DA	2452	C	Sidechain
36	DA	2464	C	Sidechain
36	DA	2517	C	Sidechain

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Mol	Chain	Res	Type	Group
36	DA	2542	A	Sidechain
36	DA	2554	U	Sidechain
36	DA	2564	A	Sidechain
36	DA	2585	U	Sidechain
36	DA	2627	G	Sidechain
36	DA	2682	U	Sidechain
36	DA	271(Q)	G	Sidechain
36	DA	2780	G	Sidechain
36	DA	395	U	Sidechain
36	DA	543	C	Sidechain
36	DA	652	C	Sidechain
36	DA	70	G	Sidechain
36	DA	781	A	Sidechain
36	DA	977	G	Sidechain
37	DB	104	U	Sidechain
45	DN	75	TYR	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	32329	0	16314	1190	0
1	CA	32329	0	16315	1198	0
2	AB	1901	0	1951	275	0
2	CB	1901	0	1951	287	0
3	AC	1613	0	1677	212	0
3	CC	1613	0	1677	206	0
4	AD	1703	0	1763	172	0
4	CD	1703	0	1763	167	0
5	AE	1147	0	1207	129	0
5	CE	1147	0	1207	128	0
6	AF	843	0	857	84	0
6	CF	843	0	857	87	0
7	AG	1257	0	1296	145	0
7	CG	1257	0	1296	145	0
8	AH	1116	0	1177	139	0
8	CH	1116	0	1177	150	0
9	AI	1011	0	1041	137	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	CI	1011	0	1041	141	0
10	AJ	795	0	840	152	0
10	CJ	795	0	840	148	0
11	AK	885	0	904	103	0
11	CK	885	0	904	115	0
12	AL	971	0	1057	110	0
12	CL	971	0	1057	109	0
13	AM	988	0	1055	130	0
13	CM	988	0	1055	132	0
14	AN	492	0	529	89	0
14	CN	492	0	529	92	0
15	AO	734	0	771	61	0
15	CO	734	0	771	67	0
16	AP	701	0	720	61	0
16	CP	701	0	720	64	0
17	AQ	824	0	891	67	0
17	CQ	824	0	891	70	0
18	AR	574	0	644	60	0
18	CR	574	0	644	62	0
19	AS	630	0	652	110	0
19	CS	630	0	652	115	0
20	AT	763	0	861	100	0
20	CT	763	0	861	102	0
21	AU	209	0	221	16	0
21	CU	209	0	221	18	0
22	AV	1641	0	839	63	0
22	CV	1641	0	839	62	0
23	AW	1619	0	822	93	0
23	CW	1619	0	820	78	0
24	AX	210	0	108	9	0
24	CX	210	0	109	9	0
25	AY	1630	0	831	102	0
25	CY	1630	0	831	101	0
26	B0	662	0	688	74	0
26	D0	662	0	688	80	0
27	B1	732	0	808	96	0
27	D1	732	0	808	92	0
28	B2	598	0	653	72	0
28	D2	598	0	653	75	0
29	B3	468	0	523	67	0
29	D3	468	0	523	69	0
30	B4	226	0	229	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	D4	226	0	229	32	0
31	B5	459	0	480	51	0
31	D5	459	0	480	51	1
32	B6	381	0	390	63	0
32	D6	381	0	390	64	0
33	B7	419	0	467	46	0
33	D7	419	0	467	44	0
34	B8	508	0	576	100	0
34	D8	508	0	576	95	0
35	B9	299	0	326	22	0
35	D9	299	0	326	24	0
36	BA	60459	0	30476	2031	0
36	DA	60459	0	30472	2077	0
37	BB	2551	0	1295	108	0
37	DB	2551	0	1295	125	0
38	BC	1142	0	865	105	0
38	DC	1142	0	865	100	0
39	BD	2105	0	2182	298	0
39	DD	2105	0	2182	297	0
40	BE	1564	0	1629	259	0
40	DE	1564	0	1629	258	0
41	BF	1624	0	1677	230	0
41	DF	1624	0	1677	229	0
42	BG	1474	0	1534	276	0
42	DG	1474	0	1534	430	0
43	BH	1223	0	1282	197	0
43	DH	1223	0	1282	206	0
44	BI	1132	0	1218	201	0
44	DI	1132	0	1218	209	0
45	BN	1105	0	1180	171	0
45	DN	1105	0	1180	171	0
46	BO	933	0	996	111	0
46	DO	933	0	996	105	0
47	BP	1114	0	1187	300	0
47	DP	1114	0	1187	298	0
48	BQ	1122	0	1179	142	0
48	DQ	1122	0	1179	146	0
49	BR	960	0	1021	145	0
49	DR	960	0	1021	154	0
50	BS	771	0	832	180	0
50	DS	771	0	832	177	0
51	BT	1142	0	1202	260	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	DT	1142	0	1202	261	0
52	BU	958	0	1015	179	0
52	DU	958	0	1014	177	0
53	BV	779	0	852	160	0
53	DV	779	0	852	157	1
54	BW	896	0	953	110	0
54	DW	896	0	953	107	0
55	BX	726	0	778	71	0
55	DX	726	0	778	72	0
56	BY	776	0	870	147	0
56	DY	776	0	870	144	0
57	BZ	1404	0	1432	228	0
57	DZ	1404	0	1432	279	0
58	AA	213	0	0	0	0
58	AD	1	0	0	0	0
58	AE	1	0	0	0	0
58	AG	1	0	0	0	0
58	AU	1	0	0	0	0
58	AV	8	0	0	0	0
58	AW	20	0	0	0	0
58	AX	4	0	0	0	0
58	B1	1	0	0	0	0
58	B2	2	0	0	0	0
58	B5	2	0	0	0	0
58	B7	1	0	0	0	0
58	BA	453	0	0	0	0
58	BB	19	0	0	0	0
58	BD	1	0	0	0	0
58	BE	1	0	0	0	0
58	BF	2	0	0	0	0
58	BN	2	0	0	0	0
58	BO	1	0	0	0	0
58	BP	2	0	0	0	0
58	BV	2	0	0	0	0
58	BW	1	0	0	0	0
58	BX	2	0	0	0	0
58	CA	216	0	0	0	0
58	CE	1	0	0	0	0
58	CK	1	0	0	0	0
58	CL	1	0	0	0	0
58	CV	8	0	0	0	0
58	CW	21	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	CX	3	0	0	0	0
58	D1	2	0	0	0	0
58	D2	3	0	0	0	0
58	D5	1	0	0	0	0
58	D7	2	0	0	0	0
58	DA	451	0	0	0	0
58	DB	18	0	0	0	0
58	DD	2	0	0	0	0
58	DE	2	0	0	0	0
58	DF	1	0	0	0	0
58	DN	3	0	0	0	0
58	DV	2	0	0	0	0
58	DX	3	0	0	0	0
59	AA	42	0	45	1	0
59	CA	42	0	45	3	0
60	AD	1	0	0	0	0
60	AN	1	0	0	0	0
60	B9	1	0	0	0	0
60	CD	1	0	0	0	0
60	CN	1	0	0	0	0
60	D9	1	0	0	0	0
All	All	296168	0	199731	19126	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 39.

All (19126) 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)
36:BA:1879:C:H2'	36:BA:1880:C:H5"	1.23	1.19
36:DA:1590:U:H2'	36:DA:1591:G:H5"	1.26	1.18
55:BX:27:THR:HG22	55:BX:80:ILE:HB	1.25	1.18
36:DA:271(S):G:H2'	36:DA:271(T):C:H5"	1.25	1.17
13:CM:112:GLY:HA2	13:CM:113:PRO:HD2	1.25	1.16
34:D8:62:LEU:HD13	36:DA:242:G:H5"	1.28	1.16
36:DA:2801(A):A:H4'	36:DA:2802:G:H5'	1.26	1.16
51:DT:28:VAL:HG22	51:DT:47:GLY:H	1.03	1.15
19:AS:6:LYS:HD3	19:AS:7:LYS:HE3	1.27	1.15
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.20	1.15
46:DO:104:ARG:HH12	51:DT:35:LYS:HD3	1.11	1.15
13:AM:112:GLY:HA2	13:AM:113:PRO:HD2	1.26	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:16:U:H5	25:AY:18:G:H5'	1.13	1.14
36:DA:2476:A:H2'	36:DA:2477:C:H5"	1.26	1.14
36:BA:2701:C:H3'	36:BA:2702:U:H5"	1.15	1.13
36:DA:2348:U:H2'	36:DA:2349:G:H5"	1.29	1.13
36:DA:2701:C:H3'	36:DA:2702:U:H5"	1.15	1.13
36:BA:2491:U:H5'	36:BA:2570:G:H5"	1.27	1.13
42:BG:22:ARG:HB3	42:BG:22:ARG:NH1	1.64	1.13
11:CK:127:LYS:HE2	11:CK:127:LYS:HA	1.31	1.13
42:DG:61:ALA:HB2	42:DG:68:PRO:HD3	1.20	1.13
48:DQ:54:MET:HB3	48:DQ:64:ILE:HD13	1.29	1.13
36:DA:2491:U:H5'	36:DA:2570:G:H5"	1.24	1.13
51:DT:30:VAL:HG11	51:DT:84:GLN:HG3	1.31	1.13
23:AW:38:A:H2'	23:AW:39:U:H5"	1.30	1.12
36:BA:2476:A:H2'	36:BA:2477:C:H5"	1.28	1.12
55:DX:12:VAL:HB	55:DX:17:ALA:HB1	1.30	1.12
37:DB:20:C:H2'	37:DB:21:G:H5"	1.24	1.12
36:DA:286:C:H2'	36:DA:287:C:H5"	1.29	1.12
38:BC:58:VAL:HG21	38:BC:166:ASP:H	1.15	1.12
53:BV:72:VAL:HG23	53:BV:85:LYS:HB3	1.20	1.12
42:DG:111:LEU:HB3	42:DG:112:PRO:HD3	1.27	1.12
36:BA:1884:A:H2'	36:BA:1885:A:H5"	1.23	1.11
37:BB:20:C:H2'	37:BB:21:G:H5"	1.24	1.10
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.29	1.10
36:DA:1884:A:H2'	36:DA:1885:A:H5"	1.25	1.10
50:BS:97:ARG:HH21	50:BS:98:VAL:HA	1.00	1.10
36:BA:612:C:H2'	36:BA:613:G:H5"	1.29	1.10
36:BA:2312:U:H2'	36:BA:2313:C:H5"	1.34	1.10
27:D1:86:SER:HB2	27:D1:89:GLU:HB2	1.14	1.10
36:DA:2758:A:H2'	36:DA:2759:G:H5"	1.34	1.10
50:DS:97:ARG:HH21	50:DS:98:VAL:HA	1.03	1.10
36:BA:1798:U:H5'	39:BD:259:THR:HG22	1.33	1.09
46:BO:104:ARG:HH12	51:BT:35:LYS:HD3	1.12	1.09
36:DA:612:C:C2'	36:DA:613:G:H5"	1.81	1.09
53:DV:72:VAL:HG23	53:DV:85:LYS:HB3	1.21	1.09
36:BA:1590:U:H2'	36:BA:1591:G:H5"	1.25	1.09
36:DA:612:C:H2'	36:DA:613:G:H5"	1.29	1.09
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.32	1.09
55:BX:12:VAL:HB	55:BX:17:ALA:HB1	1.31	1.09
19:CS:6:LYS:HD3	19:CS:7:LYS:HE3	1.30	1.09
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.20	1.09
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.35	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2348:U:H2'	36:BA:2349:G:H5"	1.30	1.09
53:BV:19:LYS:HG2	53:BV:94:LEU:HB2	1.35	1.09
25:AY:47:U:H5'	25:AY:48:C:H4'	1.35	1.08
51:BT:28:VAL:HG22	51:BT:47:GLY:H	1.04	1.08
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.17	1.08
37:BB:7:G:H3'	37:BB:8:U:H5"	1.34	1.08
42:DG:135:LEU:HD11	42:DG:157:ILE:HG22	1.32	1.08
36:BA:92:A:H2'	36:BA:93:G:H8	1.19	1.08
36:BA:271(S):G:H2'	36:BA:271(T):C:H5"	1.25	1.08
19:AS:41:VAL:HB	19:AS:44:MET:HG2	1.35	1.08
36:BA:1141:U:H2'	45:BN:63:THR:HG21	1.36	1.08
46:BO:2:ILE:HD11	46:BO:82:ASN:HD22	1.14	1.08
25:CY:50:U:H1'	25:CY:65:G:H1	1.14	1.08
51:DT:89:VAL:HG11	51:DT:91:ARG:HE	1.16	1.08
42:BG:22:ARG:HB3	42:BG:22:ARG:HH11	0.98	1.08
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.34	1.08
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.34	1.08
36:DA:2312:U:H2'	36:DA:2313:C:H5"	1.33	1.08
36:DA:2348:U:C2'	36:DA:2349:G:H5"	1.84	1.08
36:BA:612:C:C2'	36:BA:613:G:H5"	1.82	1.07
36:BA:2801(A):A:H4'	36:BA:2802:G:H5'	1.27	1.07
51:BT:30:VAL:HG11	51:BT:84:GLN:HG3	1.34	1.07
55:BX:12:VAL:HG23	55:BX:13:LEU:H	1.17	1.07
42:DG:144:ILE:HG22	42:DG:145:THR:H	1.18	1.07
25:CY:57:G:H3'	25:CY:58:A:H5"	1.36	1.07
36:BA:286:C:H2'	36:BA:287:C:H5"	1.30	1.07
36:DA:1879:C:H2'	36:DA:1880:C:H5"	1.25	1.07
36:BA:2348:U:C2'	36:BA:2349:G:H5"	1.85	1.07
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.36	1.07
25:CY:56:C:H3'	25:CY:57:G:H5"	1.32	1.07
48:BQ:54:MET:HB3	48:BQ:64:ILE:HD13	1.32	1.07
36:BA:914:C:H2'	36:BA:915:C:H5'	1.37	1.06
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.36	1.06
36:DA:1798:U:H5'	39:DD:259:THR:HG22	1.36	1.06
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.37	1.06
36:BA:2758:A:H2'	36:BA:2759:G:H5"	1.35	1.06
12:CL:41:ARG:HG2	12:CL:42:THR:H	1.16	1.06
1:AA:1116:C:H2'	1:AA:1117:G:H5"	1.35	1.06
44:DI:58:LEU:HA	44:DI:61:ARG:HE	1.14	1.06
8:AH:10:LEU:HD23	8:AH:83:ILE:HD11	1.36	1.06
39:BD:24:ILE:HG12	39:BD:25:THR:H	1.17	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:76:CYS:SG	56:BY:77:PRO:HD2	1.95	1.06
36:DA:92:A:H2'	36:DA:93:G:H8	1.18	1.06
46:DO:2:ILE:HD11	46:DO:82:ASN:HD22	1.20	1.06
29:B3:56:VAL:HG12	29:B3:57:GLU:H	1.17	1.05
8:CH:10:LEU:HD23	8:CH:83:ILE:HD11	1.37	1.05
5:AE:50:GLU:HB3	5:AE:53:LEU:HD13	1.38	1.05
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.18	1.05
39:BD:31:LYS:HG3	39:BD:33:LEU:HD13	1.37	1.05
1:CA:1116:C:H2'	1:CA:1117:G:H5"	1.34	1.05
42:DG:41:GLN:HE22	42:DG:153:ARG:HB3	1.20	1.05
36:BA:2068:U:N3	36:BA:2430:A:H2	1.53	1.05
50:BS:78:LEU:HD11	50:BS:103:GLU:HB3	1.38	1.05
36:DA:914:C:H2'	36:DA:915:C:H5'	1.37	1.05
40:DE:77:ILE:HG22	40:DE:78:LEU:H	1.17	1.05
45:DN:56:ASN:HA	45:DN:125:GLY:H	1.15	1.05
36:BA:1590:U:C2'	36:BA:1591:G:H5"	1.87	1.05
34:B8:62:LEU:HD13	36:BA:242:G:H5"	1.33	1.04
36:BA:1884:A:C2'	36:BA:1885:A:H5"	1.86	1.04
40:BE:36:ARG:NH2	40:BE:88:GLY:HA3	1.70	1.04
44:BI:58:LEU:HA	44:BI:61:ARG:HE	1.20	1.04
36:DA:1884:A:C2'	36:DA:1885:A:H5"	1.86	1.04
40:DE:36:ARG:NH2	40:DE:88:GLY:HA3	1.71	1.04
36:BA:925:C:H2'	36:BA:926:A:H5"	1.35	1.04
27:D1:52:ARG:HG3	27:D1:53:VAL:H	1.18	1.04
45:BN:56:ASN:HA	45:BN:125:GLY:H	1.18	1.04
37:DB:7:G:H3'	37:DB:8:U:H5"	1.35	1.04
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.17	1.04
43:BH:13:LYS:HE2	43:BH:13:LYS:HA	1.39	1.04
44:BI:77:LEU:HB3	44:BI:140:LEU:HD13	1.38	1.04
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.23	1.04
36:DA:1141:U:H2'	45:DN:63:THR:HG21	1.35	1.04
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.17	1.04
51:BT:89:VAL:HG11	51:BT:91:ARG:HE	1.17	1.04
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.36	1.04
36:DA:2068:U:N3	36:DA:2430:A:H2	1.55	1.04
39:DD:31:LYS:HG3	39:DD:33:LEU:HD13	1.40	1.04
39:BD:79:VAL:HG21	39:BD:111:LEU:HD11	1.40	1.03
55:BX:63:LYS:HE3	55:BX:72:LYS:HE3	1.40	1.03
55:DX:27:THR:HG22	55:DX:80:ILE:HB	1.33	1.03
52:BU:92:ARG:HD2	53:BV:11:GLN:NE2	1.74	1.03
14:CN:26:ARG:HG3	14:CN:27:CYS:H	1.21	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:28:VAL:HG22	51:DT:47:GLY:N	1.73	1.03
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.38	1.03
23:AW:38:A:C2'	23:AW:39:U:H5"	1.88	1.03
40:BE:77:ILE:HG22	40:BE:78:LEU:H	1.20	1.03
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.40	1.03
44:DI:38:LEU:HD12	44:DI:38:LEU:H	1.21	1.03
3:AC:16:ARG:HB2	3:AC:16:ARG:HH11	1.22	1.03
13:AM:3:ARG:HB2	30:B4:60:GLU:HG2	1.38	1.03
20:CT:89:ARG:HD2	20:CT:104:LEU:HD11	1.41	1.03
38:DC:58:VAL:HG21	38:DC:166:ASP:H	1.17	1.03
42:BG:52:ILE:HG22	42:BG:54:GLU:HG2	1.36	1.03
44:BI:92:VAL:HG11	44:BI:120:ILE:HD12	1.41	1.03
36:DA:2316:C:H1'	42:DG:128:ARG:HG3	1.40	1.03
36:DA:2712:U:O2'	36:DA:2712(A):A:H5"	1.57	1.03
56:DY:76:CYS:SG	56:DY:77:PRO:HD2	1.99	1.03
57:DZ:74:VAL:HG13	57:DZ:86:VAL:HG22	1.37	1.03
4:AD:150:GLU:HA	4:AD:153:ARG:HD2	1.37	1.02
36:BA:2712:U:O2'	36:BA:2712(A):A:H5"	1.58	1.02
36:DA:1590:U:C2'	36:DA:1591:G:H5"	1.89	1.02
55:DX:12:VAL:HG23	55:DX:13:LEU:H	1.20	1.02
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	1.89	1.02
23:AW:19:G:H5'	23:AW:20:U:H5	1.23	1.02
39:DD:24:ILE:HG12	39:DD:25:THR:H	1.23	1.02
40:DE:36:ARG:HH22	40:DE:88:GLY:HA3	1.22	1.02
53:DV:19:LYS:HG2	53:DV:94:LEU:HB2	1.37	1.02
56:DY:8:LYS:H	56:DY:8:LYS:HD2	1.20	1.02
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.42	1.02
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.35	1.02
36:DA:271(S):G:C2'	36:DA:271(T):C:H5"	1.90	1.02
43:DH:13:LYS:HE2	43:DH:13:LYS:HA	1.40	1.02
36:DA:389:G:H1	47:DP:71:VAL:HG12	1.25	1.02
49:DR:55:ALA:HA	49:DR:80:PHE:HE1	1.21	1.02
50:DS:78:LEU:HD11	50:DS:103:GLU:HB3	1.38	1.02
49:BR:55:ALA:HA	49:BR:80:PHE:HE1	1.22	1.02
51:BT:28:VAL:HG22	51:BT:47:GLY:N	1.75	1.02
25:CY:59:U:H2'	25:CY:60:U:H5'	1.37	1.02
55:DX:63:LYS:HE3	55:DX:72:LYS:HE3	1.37	1.02
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.42	1.01
36:DA:925:C:H2'	36:DA:926:A:H5"	1.38	1.01
47:DP:59:LEU:HA	47:DP:61:ARG:CZ	1.90	1.01
12:CL:47:LYS:HB3	12:CL:48:PRO:HD2	1.41	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.37	1.01
36:BA:271(S):G:C2'	36:BA:271(T):C:H5"	1.90	1.01
53:BV:39:LEU:HB3	53:BV:47:VAL:HG11	1.43	1.01
39:DD:79:VAL:HG21	39:DD:111:LEU:HD11	1.42	1.01
53:DV:25:LEU:H	53:DV:92:THR:HG21	1.24	1.01
1:AA:1239:A:H62	1:AA:1299:A:H62	1.08	1.01
50:BS:46:VAL:HG12	50:BS:47:THR:H	1.22	1.01
53:DV:39:LEU:HB3	53:DV:47:VAL:HG11	1.43	1.01
12:AL:89:ARG:HB2	12:AL:89:ARG:HH11	1.22	1.00
36:DA:1685:C:H2'	36:DA:1686:C:H5"	1.42	1.00
51:DT:106:SER:HA	51:DT:110:ILE:HG13	1.43	1.00
56:BY:8:LYS:HD2	56:BY:8:LYS:H	1.23	1.00
13:CM:27:LYS:HE3	13:CM:31:LYS:HE3	1.42	1.00
40:DE:59:VAL:HG22	40:DE:60:ASN:H	1.26	1.00
36:BA:925:C:C2'	36:BA:926:A:H5"	1.91	1.00
44:BI:38:LEU:H	44:BI:38:LEU:HD12	1.22	1.00
36:DA:925:C:C2'	36:DA:926:A:H5"	1.91	1.00
51:DT:83:ILE:HG13	51:DT:84:GLN:H	1.22	1.00
12:CL:89:ARG:HH11	12:CL:89:ARG:HB2	1.26	1.00
36:BA:847:U:H2'	36:BA:848:G:H5"	1.44	1.00
36:BA:1879:C:C2'	36:BA:1880:C:H5"	1.89	1.00
51:DT:28:VAL:HG13	51:DT:46:GLU:HA	1.44	1.00
52:DU:92:ARG:HD2	53:DV:11:GLN:NE2	1.76	1.00
41:DF:67:GLN:HG3	41:DF:67:GLN:O	1.60	1.00
42:DG:157:ILE:HG12	42:DG:158:ALA:H	1.25	1.00
44:DI:58:LEU:HA	44:DI:61:ARG:NE	1.75	1.00
47:BP:59:LEU:HA	47:BP:61:ARG:CZ	1.91	0.99
51:BT:83:ILE:HG13	51:BT:84:GLN:H	1.22	0.99
29:D3:56:VAL:HG12	29:D3:57:GLU:H	1.21	0.99
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.42	0.99
57:DZ:118:GLN:HG2	57:DZ:119:GLU:H	1.25	0.99
1:CA:1442(A):G:H3'	1:CA:1442(B):A:H5"	1.42	0.99
34:D8:13:ARG:HB3	47:DP:63:PRO:HB3	1.43	0.99
13:CM:40:ASN:HD22	13:CM:43:THR:HG23	1.27	0.99
57:DZ:28:MET:HE3	57:DZ:37:VAL:HG11	1.39	0.99
34:D8:25:MET:HG3	47:DP:64:LYS:HB3	1.41	0.99
47:DP:23:PRO:HB2	47:DP:33:ARG:CD	1.92	0.99
36:DA:1879:C:C2'	36:DA:1880:C:H5"	1.92	0.99
44:DI:77:LEU:HB3	44:DI:140:LEU:HD13	1.45	0.99
44:DI:87:LYS:HA	44:DI:122:GLU:HG2	1.44	0.99
53:BV:25:LEU:H	53:BV:92:THR:HG21	1.27	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.22	0.98
41:BF:2:LYS:HD3	41:BF:2:LYS:H	1.27	0.98
39:BD:10:THR:HG23	39:BD:13:ARG:HB3	1.42	0.98
47:DP:6:LEU:HG	47:DP:9:ASN:HD22	1.27	0.98
50:DS:46:VAL:HG12	50:DS:47:THR:H	1.27	0.98
53:DV:49:THR:HG22	53:DV:50:PRO:HD3	1.45	0.98
57:DZ:11:GLU:CD	57:DZ:11:GLU:H	1.60	0.98
40:BE:59:VAL:HG22	40:BE:60:ASN:H	1.27	0.98
51:BT:65:LYS:NZ	51:BT:66:VAL:H	1.62	0.98
9:AI:9:ARG:HG3	9:AI:14:VAL:HG22	1.44	0.98
34:B8:25:MET:HG3	47:BP:64:LYS:HB3	1.42	0.98
36:BA:1697:G:H3'	36:BA:1698:A:H5"	1.44	0.98
51:BT:28:VAL:HG13	51:BT:46:GLU:HA	1.43	0.98
53:BV:49:THR:HG22	53:BV:50:PRO:HD3	1.44	0.98
55:BX:12:VAL:HG12	55:BX:27:THR:OG1	1.63	0.98
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.25	0.98
43:BH:43:VAL:HG11	43:BH:52:VAL:HA	1.42	0.98
36:DA:404:C:H4'	36:DA:405:U:H5'	1.45	0.98
36:DA:2853:C:H2'	36:DA:2854:G:H8	1.29	0.98
36:BA:560:C:H4'	52:BU:52:ARG:HH22	1.29	0.98
36:BA:2762:G:H2'	36:BA:2763:G:H5"	1.46	0.98
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.45	0.98
43:DH:43:VAL:HG11	43:DH:52:VAL:HA	1.43	0.98
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.43	0.97
14:AN:13:THR:N	14:AN:14:PRO:HD2	1.76	0.97
38:BC:49:ILE:HD12	38:BC:49:ILE:H	1.28	0.97
14:AN:26:ARG:HH22	14:AN:47:LEU:HD21	1.26	0.97
34:B8:13:ARG:HB3	47:BP:63:PRO:HB3	1.44	0.97
22:CV:23:C:H2'	22:CV:24:U:C6	1.99	0.97
47:BP:6:LEU:HG	47:BP:9:ASN:HD22	1.26	0.97
1:CA:1239:A:H62	1:CA:1299:A:H62	1.06	0.97
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.45	0.97
36:DA:847:U:H2'	36:DA:848:G:H5"	1.44	0.97
39:DD:28:GLU:H	39:DD:29:PRO:HD2	1.28	0.97
12:AL:47:LYS:HB3	12:AL:48:PRO:HD2	1.41	0.97
36:BA:1685:C:H2'	36:BA:1686:C:H5"	1.42	0.97
1:AA:975:A:H4'	1:AA:976:G:H5"	1.45	0.97
22:AV:52:G:HO2'	22:AV:53:G:H8	1.03	0.97
51:BT:106:SER:HA	51:BT:110:ILE:HG13	1.43	0.97
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	1.94	0.97
28:D2:10:LEU:HD13	28:D2:14:ARG:HH22	1.30	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:404:C:H4'	36:BA:405:U:H5'	1.45	0.96
13:AM:40:ASN:HD22	13:AM:43:THR:HG23	1.26	0.96
23:AW:16:U:H3'	23:AW:17:C:H5'	1.47	0.96
40:BE:184:VAL:HG12	40:BE:185:LYS:H	1.30	0.96
37:BB:57:A:H5'	42:BG:27:ASN:HD22	1.31	0.96
57:BZ:4:ARG:HG3	57:BZ:58:VAL:O	1.64	0.96
38:BC:59:ARG:HB2	38:BC:62:VAL:HG22	1.46	0.96
57:BZ:5:LEU:HD21	57:BZ:43:GLU:HB3	1.47	0.96
38:DC:49:ILE:H	38:DC:49:ILE:HD12	1.27	0.96
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.28	0.96
43:BH:159:GLU:HG3	43:BH:160:LYS:H	1.30	0.96
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.46	0.96
36:BA:2853:C:H2'	36:BA:2854:G:H8	1.30	0.96
52:BU:90:VAL:HG12	52:BU:91:ASP:H	1.30	0.96
43:BH:44:VAL:HG12	43:BH:45:VAL:H	1.31	0.96
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.46	0.96
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	1.96	0.96
56:BY:76:CYS:HB3	56:BY:96:ILE:HD11	1.48	0.96
42:DG:39:ILE:HD12	42:DG:157:ILE:HB	1.44	0.96
52:DU:90:VAL:HG12	52:DU:91:ASP:H	1.30	0.96
36:BA:389:G:H1	47:BP:71:VAL:HG12	1.30	0.96
23:CW:12:U:H3	23:CW:23:A:H61	1.05	0.96
50:DS:19:LYS:HB3	50:DS:20:ARG:HH12	1.31	0.96
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.30	0.95
42:DG:88:ILE:HG12	42:DG:89:GLY:H	1.30	0.95
55:DX:12:VAL:HG12	55:DX:27:THR:OG1	1.66	0.95
3:AC:16:ARG:HB2	3:AC:16:ARG:NH1	1.80	0.95
36:BA:1798:U:H5'	39:BD:259:THR:CG2	1.96	0.95
51:BT:88:ILE:HG22	51:BT:89:VAL:HG23	1.48	0.95
1:CA:975:A:H4'	1:CA:976:G:H5"	1.45	0.95
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.79	0.95
36:DA:1697:G:H3'	36:DA:1698:A:H5"	1.48	0.95
38:DC:59:ARG:HB2	38:DC:62:VAL:HG22	1.46	0.95
52:BU:62:ILE:HD11	52:BU:93:LYS:HG2	1.49	0.95
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.29	0.95
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.48	0.95
39:BD:28:GLU:H	39:BD:29:PRO:HD2	1.29	0.95
47:BP:23:PRO:HB2	47:BP:33:ARG:CD	1.96	0.95
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.31	0.95
42:DG:39:ILE:HG22	42:DG:92:VAL:HG22	1.48	0.95
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.49	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:74:ALA:HB1	50:BS:103:GLU:HB2	1.48	0.95
36:DA:2681:C:H5	36:DA:2725:A:H62	1.03	0.95
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.28	0.95
4:CD:49:ARG:HD3	4:CD:50:ARG:H	1.29	0.95
42:DG:180:PHE:HB3	42:DG:182:LYS:HG3	1.49	0.95
41:DF:2:LYS:HD3	41:DF:2:LYS:H	1.30	0.95
14:CN:26:ARG:HH22	14:CN:47:LEU:HD21	1.31	0.95
48:DQ:134:ARG:HH21	57:DZ:122:ARG:HH21	0.98	0.95
48:DQ:141:GLN:HE22	57:DZ:72:ARG:HA	1.30	0.95
49:DR:51:LEU:HD23	49:DR:66:VAL:HG13	1.48	0.95
4:AD:49:ARG:HD3	4:AD:50:ARG:H	1.29	0.95
40:BE:36:ARG:HH22	40:BE:88:GLY:HA3	1.22	0.95
56:BY:27:VAL:HA	56:BY:28:LYS:NZ	1.82	0.95
36:DA:1685:C:C2’	36:DA:1686:C:H5”	1.96	0.95
36:DA:560:C:H4’	52:DU:52:ARG:HH22	1.29	0.95
39:DD:10:THR:HG23	39:DD:13:ARG:HB3	1.47	0.95
41:BF:132:VAL:HG22	41:BF:133:ASN:H	1.29	0.94
7:CG:73:MET:HG2	7:CG:90:GLU:HA	1.49	0.94
1:AA:1057:G:H5”	3:AC:154:SER:HB2	1.49	0.94
25:AY:57:G:H3’	25:AY:58:A:H5”	1.47	0.94
47:BP:38:GLN:HG3	47:BP:39:LYS:H	1.29	0.94
1:CA:979:C:H3’	1:CA:980:C:H5”	1.49	0.94
44:DI:92:VAL:HG11	44:DI:120:ILE:HD12	1.47	0.94
7:AG:60:LYS:HA	7:AG:60:LYS:NZ	1.82	0.94
41:BF:67:GLN:O	41:BF:67:GLN:HG3	1.62	0.94
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	1.97	0.94
43:BH:159:GLU:HG3	43:BH:160:LYS:HG3	1.48	0.94
49:BR:10:LEU:HD22	49:BR:17:ARG:HD2	1.50	0.94
43:DH:44:VAL:HG12	43:DH:45:VAL:H	1.31	0.94
27:D1:23:LYS:HE2	27:D1:28:GLY:H	1.30	0.94
50:DS:74:ALA:HB1	50:DS:103:GLU:HB2	1.48	0.94
57:DZ:97:GLU:HB3	57:DZ:125:LEU:HD11	1.46	0.94
1:AA:1123:A:H4’	10:AJ:36:GLY:HA3	1.50	0.94
36:BA:571:A:H5’	36:BA:2030:A:H62	1.33	0.94
1:CA:1133:G:N2	1:CA:1143:G:H1’	1.82	0.94
23:CW:69:G:H2’	23:CW:70:G:H5”	1.50	0.94
36:DA:2762:G:H2’	36:DA:2763:G:H5”	1.47	0.94
51:DT:65:LYS:NZ	51:DT:66:VAL:H	1.64	0.94
54:DW:59:VAL:HG12	54:DW:60:ASN:HD22	1.33	0.94
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.48	0.93
42:DG:98:ARG:HH11	42:DG:98:ARG:HG3	1.32	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:88:ILE:HG22	51:DT:89:VAL:HG23	1.48	0.93
4:AD:197:PRO:HD3	6:CF:16:GLN:HE21	1.31	0.93
44:BI:58:LEU:HA	44:BI:61:ARG:NE	1.82	0.93
36:DA:2712:U:H1'	36:DA:2712(A):A:C8	2.03	0.93
36:DA:1747(A):G:H2'	36:DA:1748:G:H5"	1.50	0.93
36:DA:2313:C:H4'	42:DG:40:ASN:ND2	1.83	0.93
49:DR:97:VAL:HG22	49:DR:114:VAL:HG22	1.48	0.93
1:CA:1116:C:C2'	1:CA:1117:G:H5"	1.98	0.93
32:D6:19:ARG:HG2	32:D6:20:ASN:H	1.32	0.93
44:DI:83:ALA:HB2	44:DI:88:ILE:HG23	1.50	0.93
36:BA:1140:C:H5"	45:BN:66:LYS:HZ3	1.34	0.93
1:CA:1057:G:H5"	3:CC:154:SER:HB2	1.50	0.93
36:DA:2645:G:H3'	36:DA:2646:C:H5'	1.50	0.93
36:BA:1140:C:H5"	45:BN:66:LYS:NZ	1.83	0.93
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.50	0.93
7:CG:60:LYS:HA	7:CG:60:LYS:NZ	1.83	0.93
40:DE:184:VAL:HG12	40:DE:185:LYS:H	1.34	0.93
1:AA:656:C:H4'	15:AO:62:GLN:HE22	1.31	0.93
36:DA:2892:A:H3'	36:DA:2893:G:H5"	1.49	0.93
42:DG:125:PHE:HA	42:DG:130:ASN:O	1.69	0.93
57:DZ:18:LEU:HD12	57:DZ:25:PRO:HG3	1.51	0.93
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.50	0.93
43:DH:159:GLU:HG3	43:DH:160:LYS:HG3	1.50	0.93
36:BA:2681:C:H5	36:BA:2725:A:H62	1.02	0.93
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.51	0.93
43:DH:159:GLU:HG3	43:DH:160:LYS:H	1.33	0.93
46:DO:119:PRO:HB2	51:DT:68:TYR:CE1	2.02	0.93
56:DY:76:CYS:HB3	56:DY:96:ILE:HD11	1.49	0.93
4:AD:53:ASP:HB3	4:AD:57:ARG:HH12	1.31	0.93
32:B6:19:ARG:HG2	32:B6:20:ASN:H	1.33	0.93
51:BT:91:ARG:HB3	51:BT:116:ALA:HA	1.50	0.93
42:DG:127:GLY:O	42:DG:128:ARG:HG2	1.69	0.93
51:DT:91:ARG:HB3	51:DT:116:ALA:HA	1.49	0.93
52:DU:62:ILE:HD11	52:DU:93:LYS:HG2	1.51	0.93
1:AA:979:C:H3'	1:AA:980:C:H5"	1.48	0.92
26:D0:41:ARG:H	26:D0:41:ARG:HD2	1.33	0.92
51:DT:83:ILE:HG13	51:DT:84:GLN:N	1.82	0.92
37:DB:42:C:O2	42:DG:92:VAL:HA	1.69	0.92
48:DQ:134:ARG:HH21	57:DZ:122:ARG:NH2	1.66	0.92
56:BY:28:LYS:HB2	56:BY:37:VAL:HB	1.50	0.92
42:BG:161:THR:HG22	42:BG:163:ALA:H	1.33	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:16:ARG:HB2	3:CC:16:ARG:NH1	1.84	0.92
41:DF:132:VAL:HG22	41:DF:133:ASN:H	1.33	0.92
42:DG:43:LEU:HD22	42:DG:43:LEU:H	1.32	0.92
23:AW:38:A:C3'	23:AW:39:U:H5"	2.00	0.92
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.52	0.92
36:BA:1880:C:H5'	36:BA:1880:C:H6	1.35	0.92
36:BA:2645:G:H3'	36:BA:2646:C:H5'	1.51	0.92
36:DA:1899:G:N2	36:DA:1902:C:N4	2.18	0.92
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.51	0.92
36:BA:2864:G:H8	36:BA:2864:G:H5'	1.35	0.92
56:DY:27:VAL:HA	56:DY:28:LYS:NZ	1.84	0.92
1:AA:1363(A):A:H4'	1:AA:1364:U:H5"	1.50	0.92
42:DG:73:ALA:HB2	42:DG:82:LEU:HD11	1.52	0.92
1:CA:1363(A):A:H4'	1:CA:1364:U:H5"	1.51	0.92
36:DA:1880:C:H5'	36:DA:1880:C:H6	1.34	0.92
42:DG:28:VAL:O	42:DG:31:VAL:HB	1.70	0.92
51:DT:54:ARG:HA	51:DT:59:THR:HB	1.52	0.92
1:AA:1133:G:N2	1:AA:1143:G:H1'	1.84	0.91
36:DA:1140:C:H5"	45:DN:66:LYS:NZ	1.84	0.91
36:DA:1798:U:H5'	39:DD:259:THR:CG2	1.99	0.91
1:AA:1116:C:C2'	1:AA:1117:G:H5"	1.97	0.91
36:BA:2712:U:H1'	36:BA:2712(A):A:C8	2.06	0.91
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.51	0.91
5:CE:76:ILE:HD11	5:CE:142:LEU:HD21	1.49	0.91
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	1.51	0.91
31:D5:2:ALA:HA	36:DA:2015:A:H1'	1.53	0.91
54:DW:5:ALA:HB2	54:DW:54:ALA:HB2	1.52	0.91
46:BO:119:PRO:HB2	51:BT:68:TYR:CE1	2.06	0.91
1:CA:656:C:H4'	15:CO:62:GLN:HE22	1.33	0.91
37:DB:20:C:C2'	37:DB:21:G:H5"	2.00	0.91
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	1.84	0.91
1:CA:942:G:H21	9:CI:124:GLN:HE22	1.16	0.91
9:CI:114:TYR:HD2	9:CI:114:TYR:H	1.17	0.91
38:DC:68:LEU:HD11	38:DC:179:SER:HA	1.52	0.91
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.50	0.91
49:BR:97:VAL:HG22	49:BR:114:VAL:HG22	1.49	0.91
50:BS:89:ARG:HB3	50:BS:92:TYR:HB3	1.52	0.91
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.53	0.91
42:DG:73:ALA:CB	42:DG:82:LEU:HD11	2.01	0.91
53:DV:21:ARG:HB3	53:DV:91:TYR:HB2	1.52	0.91
13:AM:125:ARG:HG3	25:AY:38:A:O2'	1.70	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BG:22:ARG:HH11	42:BG:22:ARG:CB	1.82	0.91
44:BI:87:LYS:HA	44:BI:122:GLU:HG2	1.49	0.91
56:DY:28:LYS:HB2	56:DY:37:VAL:HB	1.53	0.91
36:BA:2892:A:H3'	36:BA:2893:G:H5"	1.50	0.91
50:BS:97:ARG:NH2	50:BS:98:VAL:HA	1.83	0.91
47:DP:7:ARG:O	47:DP:10:PRO:HD2	1.70	0.91
50:DS:97:ARG:NH2	50:DS:98:VAL:HA	1.85	0.91
1:AA:877:C:H5"	8:AH:88:LYS:HD3	1.52	0.91
36:DA:571:A:H5'	36:DA:2030:A:H62	1.34	0.91
36:BA:92:A:H2'	36:BA:93:G:C8	2.06	0.91
36:BA:1685:C:C2'	36:BA:1686:C:H5"	1.99	0.91
31:B5:2:ALA:HA	36:BA:2015:A:H1'	1.51	0.90
10:AJ:50:ILE:HG12	14:AN:41:ARG:HD3	1.52	0.90
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.35	0.90
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.35	0.90
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.35	0.90
36:BA:1747(A):G:H2'	36:BA:1748:G:H5"	1.50	0.90
36:BA:2701:C:H3'	36:BA:2702:U:C5'	2.01	0.90
47:BP:21:ARG:HD3	47:BP:29:LYS:HE3	1.53	0.90
1:CA:1321:C:H3'	1:CA:1322:C:H5"	1.50	0.90
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.36	0.90
57:BZ:150:LEU:HD23	57:BZ:171:ILE:HG13	1.53	0.90
1:CA:255:G:H1'	17:CQ:16:GLN:HE21	1.37	0.90
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.36	0.90
57:DZ:6:LYS:H	57:DZ:6:LYS:HD2	1.34	0.90
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.34	0.90
34:D8:18:ALA:HB3	36:DA:651:G:H5"	1.54	0.90
36:DA:2036:C:H5'	36:DA:2036:C:H6	1.36	0.90
56:DY:26:LYS:HG2	56:DY:27:VAL:H	1.35	0.90
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	1.86	0.90
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.51	0.90
46:DO:104:ARG:HH21	51:DT:33:LYS:HE2	1.36	0.90
1:AA:1342:C:H1'	9:AI:124:GLN:HE21	1.34	0.90
48:BQ:134:ARG:HE	57:BZ:122:ARG:NH1	1.69	0.90
42:DG:73:ALA:HB3	42:DG:85:GLY:HA2	1.53	0.90
28:B2:48:HIS:O	28:B2:52:ASP:HB2	1.72	0.90
36:BA:1747(A):G:C2'	36:BA:1748:G:H5"	2.02	0.90
49:BR:55:ALA:HA	49:BR:80:PHE:CE1	2.07	0.90
36:DA:1747(A):G:C2'	36:DA:1748:G:H5"	2.01	0.90
43:BH:85:LYS:HD2	43:BH:141:VAL:HG13	1.53	0.90
53:BV:72:VAL:CG2	53:BV:85:LYS:HB3	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:26:LYS:HG2	56:BY:27:VAL:H	1.37	0.90
36:DA:676:A:H8	36:DA:2069:G:H21	1.17	0.90
9:AI:114:TYR:HD2	9:AI:114:TYR:H	1.16	0.90
36:BA:2394:C:OP1	47:BP:63:PRO:HD2	1.70	0.90
54:BW:5:ALA:HB2	54:BW:54:ALA:HB2	1.53	0.90
54:BW:59:VAL:HG12	54:BW:60:ASN:HD22	1.34	0.90
56:BY:28:LYS:HZ2	56:BY:28:LYS:H	1.20	0.90
25:CY:42:C:H3'	25:CY:43:C:H5"	1.51	0.90
45:DN:67:LEU:O	45:DN:68:GLU:HB2	1.71	0.90
16:AP:71:ARG:HA	16:AP:74:LEU:HD12	1.54	0.89
36:BA:676:A:H8	36:BA:2069:G:H21	1.19	0.89
36:BA:2693:A:H2'	36:BA:2694:G:H8	1.36	0.89
37:BB:20:C:C2'	37:BB:21:G:H5"	2.01	0.89
40:BE:101:ARG:NH2	40:BE:171:GLU:HB2	1.87	0.89
36:DA:2701:C:H3'	36:DA:2702:U:C5'	2.02	0.89
42:DG:135:LEU:HD22	42:DG:155:MET:HE1	1.54	0.89
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.34	0.89
36:BA:271(T):C:H5'	36:BA:271(T):C:H6	1.36	0.89
39:BD:181:GLU:HA	39:BD:272:ALA:HB3	1.55	0.89
1:CA:877:C:H5"	8:CH:88:LYS:HD3	1.53	0.89
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.52	0.89
36:DA:2873:A:C2	49:DR:6:SER:HB2	2.07	0.89
12:AL:46:LYS:HG2	12:AL:47:LYS:N	1.87	0.89
38:BC:68:LEU:HD11	38:BC:179:SER:HA	1.52	0.89
50:BS:19:LYS:HB3	50:BS:20:ARG:HH12	1.35	0.89
36:DA:271(T):C:H6	36:DA:271(T):C:H5'	1.35	0.89
36:DA:2206:G:N2	36:DA:2207:G:H5'	1.87	0.89
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.35	0.89
25:AY:16:U:C5	25:AY:18:G:H5'	2.05	0.89
36:BA:17:G:H4'	52:BU:25:TRP:CZ3	2.07	0.89
42:BG:133:LEU:HD11	42:BG:157:ILE:HD11	1.53	0.89
51:BT:80:SER:HB3	51:BT:81:PRO:CD	2.02	0.89
1:CA:984:C:H2'	1:CA:985:C:C6	2.08	0.89
23:CW:57:G:H2'	23:CW:58:A:H5'	1.52	0.89
36:DA:17:G:H4'	52:DU:25:TRP:CZ3	2.07	0.89
36:DA:2134:A:N6	36:DA:2157:G:H1'	1.88	0.89
39:DD:33:LEU:H	39:DD:33:LEU:HD12	1.36	0.89
36:BA:271(M):G:H2'	36:BA:271(N):U:H5"	1.55	0.89
36:DA:2758:A:C2'	36:DA:2759:G:H5"	2.03	0.89
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.54	0.89
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.38	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	1.86	0.89
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.53	0.89
1:CA:1342:C:H1'	9:CI:124:GLN:HE21	1.36	0.89
36:DA:1899:G:N2	36:DA:1902:C:H41	1.70	0.89
40:DE:49:LEU:H	40:DE:49:LEU:HD12	1.38	0.89
42:BG:111:LEU:HB2	42:BG:112:PRO:HD3	1.53	0.89
50:DS:89:ARG:HB3	50:DS:92:TYR:HB3	1.54	0.89
35:B9:2:LYS:HG3	36:BA:2526:G:H21	1.36	0.89
36:BA:1301:A:O2'	36:BA:1302:A:H2'	1.72	0.89
57:BZ:153:SER:HB2	57:BZ:167:PRO:HB3	1.52	0.89
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.55	0.89
23:CW:12:U:H3	23:CW:23:A:N6	1.69	0.89
36:DA:286:C:C2'	36:DA:287:C:H5"	2.02	0.89
47:DP:38:GLN:HG3	47:DP:39:LYS:H	1.36	0.89
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.54	0.88
7:AG:79:ARG:HG2	7:AG:84:ASN:OD1	1.72	0.88
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.55	0.88
36:DA:2864:G:H8	36:DA:2864:G:H5'	1.37	0.88
49:DR:10:LEU:HD22	49:DR:17:ARG:HD2	1.53	0.88
49:DR:55:ALA:HA	49:DR:80:PHE:CE1	2.06	0.88
1:CA:1194:U:H2'	1:CA:1195:C:H6	1.38	0.88
36:DA:1593:G:C2'	36:DA:1594:G:H5"	2.01	0.88
36:DA:2103:C:H3'	36:DA:2104:G:H5"	1.54	0.88
1:AA:984:C:H2'	1:AA:985:C:C6	2.08	0.88
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.56	0.88
14:AN:12:ARG:C	14:AN:14:PRO:HD2	1.92	0.88
15:AO:2:PRO:HB2	15:AO:3:ILE:HD13	1.54	0.88
47:BP:7:ARG:O	47:BP:10:PRO:HD2	1.72	0.88
53:BV:64:HIS:ND1	53:BV:92:THR:HG22	1.88	0.88
1:CA:942:G:N2	9:CI:124:GLN:HE22	1.71	0.88
42:DG:58:GLN:HE22	42:DG:59:GLU:HG3	1.36	0.88
43:DH:85:LYS:HD2	43:DH:141:VAL:HG13	1.53	0.88
14:CN:12:ARG:C	14:CN:14:PRO:HD2	1.94	0.88
36:DA:2394:C:OP1	47:DP:63:PRO:HD2	1.73	0.88
57:DZ:61:LEU:HD12	57:DZ:65:GLN:HE21	1.35	0.88
36:BA:286:C:C2'	36:BA:287:C:H5"	2.03	0.88
51:BT:54:ARG:HA	51:BT:59:THR:HB	1.53	0.88
51:BT:83:ILE:HG13	51:BT:84:GLN:N	1.83	0.88
36:DA:1593:G:H2'	36:DA:1594:G:H5"	1.56	0.88
20:AT:72:LEU:HD23	20:AT:73:HIS:N	1.89	0.88
34:B8:18:ALA:HB3	36:BA:651:G:H5"	1.53	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:144:ILE:HG22	42:DG:145:THR:N	1.86	0.88
1:AA:750:G:N3	15:AO:23:GLY:HA3	1.88	0.88
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.56	0.88
2:AB:87:ARG:HE	2:AB:233:SER:HB2	1.36	0.88
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.09	0.88
29:B3:56:VAL:HG12	29:B3:57:GLU:N	1.89	0.88
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.53	0.88
44:DI:88:ILE:HD11	44:DI:123:LEU:HG	1.53	0.88
43:BH:41:MET:HE3	43:BH:55:PRO:HD2	1.55	0.88
53:BV:21:ARG:HB3	53:BV:91:TYR:HB2	1.53	0.88
7:CG:79:ARG:HG2	7:CG:84:ASN:OD1	1.73	0.88
56:DY:81:LYS:HD3	56:DY:97:ARG:HB3	1.56	0.88
57:DZ:39:VAL:HG21	57:DZ:44:PHE:CD2	2.09	0.88
36:BA:2758:A:C2'	36:BA:2759:G:H5"	2.04	0.88
44:DI:5:LEU:HD11	44:DI:19:VAL:HG12	1.56	0.88
36:BA:2206:G:N2	36:BA:2207:G:H5'	1.88	0.88
44:BI:133:HIS:HB2	44:BI:134:PRO:CD	2.04	0.88
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	1.89	0.88
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.55	0.88
36:BA:774:A:H2	36:BA:787:U:HO2'	1.22	0.87
36:BA:2036:C:H5'	36:BA:2036:C:H6	1.36	0.87
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.20	0.87
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.74	0.87
39:BD:35:LYS:NZ	39:BD:103:ARG:HA	1.88	0.87
41:BF:11:VAL:HG12	41:BF:12:LEU:H	1.39	0.87
42:BG:75:LYS:HE3	42:BG:77:ILE:HD11	1.55	0.87
36:BA:1899:G:N2	36:BA:1902:C:N4	2.22	0.87
41:BF:178:PRO:HG2	41:BF:179:GLU:OE2	1.74	0.87
51:BT:50:ILE:HD11	51:BT:102:ILE:HD11	1.56	0.87
36:DA:1301:A:O2'	36:DA:1302:A:H2'	1.72	0.87
36:BA:1170:G:H1	36:BA:1179:C:H42	1.19	0.87
36:BA:2134:A:N6	36:BA:2157:G:H1'	1.88	0.87
36:BA:2873:A:C2	49:BR:6:SER:HB2	2.08	0.87
42:BG:128:ARG:C	42:BG:130:ASN:H	1.77	0.87
47:BP:58:THR:O	47:BP:61:ARG:NE	2.07	0.87
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.38	0.87
26:D0:25:ARG:HD2	26:D0:29:GLN:NE2	1.89	0.87
27:D1:56:GLN:HE21	27:D1:56:GLN:HA	1.37	0.87
36:DA:92:A:H2'	36:DA:93:G:C8	2.07	0.87
36:DA:1689:A:H62	36:DA:1698:A:H2	1.19	0.87
49:BR:51:LEU:HD23	49:BR:66:VAL:HG13	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:34:LYS:HE2	52:BU:34:LYS:HA	1.55	0.87
40:DE:101:ARG:NH2	40:DE:171:GLU:HB2	1.88	0.87
45:DN:57:ALA:H	45:DN:124:ALA:HA	1.39	0.87
50:DS:67:ARG:NH1	50:DS:100:ALA:HB3	1.89	0.87
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.55	0.87
23:AW:45:U:O2'	23:AW:46:G:H5'	1.74	0.87
36:BA:1689:A:H62	36:BA:1698:A:H2	1.21	0.87
52:BU:79:PHE:O	52:BU:83:LEU:HD13	1.75	0.87
1:CA:750:G:N3	15:CO:23:GLY:HA3	1.90	0.87
57:DZ:134:PRO:HB3	57:DZ:137:ILE:HD11	1.56	0.87
36:BA:27:G:HO2'	36:BA:28:A:H8	1.20	0.87
36:BA:528:A:C2	36:BA:2043:C:H4'	2.10	0.87
52:BU:62:ILE:CD1	52:BU:93:LYS:HG2	2.05	0.87
1:CA:345:C:H5'	51:DT:36:GLU:HG3	1.55	0.87
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.57	0.87
2:CB:172:ILE:HD12	2:CB:172:ILE:H	1.40	0.87
53:DV:72:VAL:CG2	53:DV:85:LYS:HB3	2.03	0.87
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.39	0.87
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.75	0.87
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.55	0.87
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.54	0.87
36:DA:1231:G:H2'	36:DA:1232:G:H8	1.39	0.87
36:DA:2502:G:H5"	36:DA:2503:A:H5"	1.56	0.87
51:DT:50:ILE:HD11	51:DT:102:ILE:HD11	1.55	0.87
1:AA:942:G:N2	9:AI:124:GLN:HE22	1.73	0.87
57:BZ:144:LEU:HG	57:BZ:150:LEU:HD12	1.57	0.87
25:CY:59:U:C2'	25:CY:60:U:H5'	2.04	0.87
36:DA:2347:C:H2'	36:DA:2348:U:H6	1.38	0.87
37:DB:3:C:H42	37:DB:118:G:H1	1.22	0.87
40:DE:3:GLY:HA3	40:DE:81:ILE:HG21	1.55	0.87
52:DU:88:ILE:O	52:DU:88:ILE:HG13	1.75	0.87
45:BN:67:LEU:O	45:BN:68:GLU:HB2	1.73	0.86
1:CA:88:A:OP1	1:CA:90:U:H1'	1.75	0.86
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.56	0.86
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.57	0.86
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.10	0.86
10:CJ:50:ILE:HG12	14:CN:41:ARG:HD3	1.55	0.86
36:DA:2866:U:C6	36:DA:2868:A:H1'	2.10	0.86
1:AA:88:A:OP1	1:AA:90:U:H1'	1.75	0.86
47:BP:71:VAL:HG13	47:BP:72:PRO:HD3	1.56	0.86
49:BR:38:VAL:HB	49:BR:39:PRO:HD3	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:151:HIS:HB3	57:BZ:170:THR:HG22	1.57	0.86
36:DA:365:C:H5'	36:DA:365:C:H6	1.39	0.86
26:B0:41:ARG:HD2	26:B0:41:ARG:H	1.37	0.86
27:B1:86:SER:HB2	27:B1:89:GLU:HB2	1.56	0.86
36:BA:2103:C:H3'	36:BA:2104:G:H5"	1.55	0.86
47:BP:71:VAL:CG1	47:BP:72:PRO:HD3	2.05	0.86
49:BR:4:LEU:HD21	49:BR:8:ARG:NH2	1.91	0.86
50:BS:89:ARG:HD2	50:BS:92:TYR:HA	1.58	0.86
56:BY:28:LYS:HB2	56:BY:38:ILE:H	1.39	0.86
36:DA:1170:G:H1	36:DA:1179:C:H42	1.18	0.86
36:DA:2312:U:C2'	36:DA:2313:C:H5"	2.06	0.86
47:DP:71:VAL:HG13	47:DP:72:PRO:HD3	1.56	0.86
51:DT:80:SER:HB3	51:DT:81:PRO:CD	2.05	0.86
26:B0:25:ARG:HD2	26:B0:29:GLN:NE2	1.90	0.86
27:B1:41:ARG:HH12	36:BA:1365:A:H5"	1.41	0.86
39:BD:24:ILE:HG12	39:BD:25:THR:N	1.90	0.86
39:BD:24:ILE:CG1	39:BD:25:THR:N	2.39	0.86
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.56	0.86
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.40	0.86
28:D2:2:LYS:CB	36:DA:97:C:H5"	2.06	0.86
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.57	0.86
23:AW:6:G:O2'	23:AW:7:A:H5'	1.75	0.86
27:B1:52:ARG:HG3	27:B1:53:VAL:H	1.38	0.86
36:BA:613:G:H8	36:BA:613:G:H5'	1.41	0.86
43:BH:25:LYS:HD3	43:BH:25:LYS:H	1.41	0.86
44:BI:5:LEU:HD11	44:BI:19:VAL:HG12	1.58	0.86
1:CA:1179:A:H5'	9:CI:102:LEU:HD12	1.55	0.86
36:DA:271(M):G:H2'	36:DA:271(N):U:H5"	1.55	0.86
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.91	0.86
42:DG:66:GLN:HG2	42:DG:98:ARG:HD2	1.57	0.86
44:DI:98:ALA:HA	44:DI:109:ILE:HG12	1.57	0.86
39:BD:33:LEU:HD12	39:BD:33:LEU:H	1.38	0.86
45:BN:57:ALA:H	45:BN:124:ALA:HA	1.40	0.86
36:DA:1290:C:H2'	36:DA:1291:C:H6	1.39	0.86
36:BA:90:U:O2'	36:BA:92:A:H5"	1.76	0.86
5:CE:57:LYS:HG2	5:CE:61:TYR:HE2	1.41	0.86
36:DA:2693:A:H2'	36:DA:2694:G:H8	1.37	0.86
56:DY:28:LYS:H	56:DY:28:LYS:HZ2	1.20	0.86
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.57	0.86
36:DA:1171:G:H3'	36:DA:1173:G:H4'	1.58	0.86
50:DS:89:ARG:HD2	50:DS:92:TYR:HA	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:335:C:H2'	36:BA:336:C:H6	1.41	0.86
44:BI:83:ALA:HB2	44:BI:88:ILE:HG23	1.56	0.86
50:BS:67:ARG:NH1	50:BS:100:ALA:HB3	1.90	0.86
56:BY:27:VAL:HG12	56:BY:29:GLU:H	1.40	0.86
36:DA:1021:A:H3'	36:DA:1021:A:H8	1.41	0.86
43:DH:47:GLU:HG2	43:DH:48:GLY:H	1.41	0.86
53:DV:39:LEU:HD12	53:DV:50:PRO:O	1.76	0.86
36:BA:2134:A:C2	36:BA:2159:G:H1'	2.11	0.85
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.58	0.85
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.58	0.85
39:DD:25:THR:HG22	39:DD:26:LYS:H	1.41	0.85
47:DP:58:THR:O	47:DP:61:ARG:NE	2.06	0.85
50:BS:30:ARG:HH22	50:BS:62:LYS:HD2	1.40	0.85
56:BY:81:LYS:HD3	56:BY:97:ARG:HB3	1.56	0.85
7:CG:50:ILE:HB	7:CG:58:PRO:HG3	1.59	0.85
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.76	0.85
36:DA:2206:G:H21	36:DA:2207:G:H5'	1.40	0.85
36:DA:1140:C:H5"	45:DN:66:LYS:HZ3	1.37	0.85
49:DR:4:LEU:HD21	49:DR:8:ARG:NH2	1.90	0.85
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.19	0.85
1:AA:1179:A:H5'	9:AI:102:LEU:HD12	1.58	0.85
40:BE:49:LEU:H	40:BE:49:LEU:HD12	1.42	0.85
36:DA:27:G:HO2'	36:DA:28:A:H8	1.19	0.85
36:DA:528:A:C2	36:DA:2043:C:H4'	2.10	0.85
36:DA:2853:C:H2'	36:DA:2854:G:C8	2.11	0.85
42:DG:174:GLU:HA	42:DG:178:PHE:H	1.41	0.85
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.41	0.85
36:BA:365:C:H5'	36:BA:365:C:H6	1.40	0.85
36:BA:560:C:H4'	52:BU:52:ARG:NH2	1.90	0.85
42:BG:88:ILE:HD12	42:BG:89:GLY:N	1.91	0.85
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.77	0.85
57:DZ:134:PRO:HG2	57:DZ:161:VAL:HG21	1.58	0.85
37:BB:3:C:H42	37:BB:118:G:H1	1.22	0.85
12:CL:46:LYS:HG2	12:CL:47:LYS:N	1.89	0.85
36:DA:90:U:O2'	36:DA:92:A:H5"	1.77	0.85
41:DF:8:GLN:HB3	41:DF:126:VAL:HA	1.57	0.85
8:AH:60:ARG:HH11	8:AH:60:ARG:HG3	1.41	0.85
41:BF:8:GLN:HB3	41:BF:126:VAL:HA	1.57	0.85
56:BY:31:LEU:HB2	56:BY:32:PRO:HA	1.59	0.85
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.56	0.85
53:DV:64:HIS:ND1	53:DV:92:THR:HG22	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B5:32:PRO:O	31:B5:33:CYS:HB3	1.76	0.85
40:BE:3:GLY:HA3	40:BE:81:ILE:HG21	1.59	0.85
51:BT:91:ARG:HA	51:BT:117:ASP:H	1.40	0.85
29:D3:8:LEU:HA	29:D3:54:VAL:HG22	1.58	0.85
36:DA:2476:A:C2'	36:DA:2477:C:H5"	2.07	0.85
44:DI:79:ILE:CG2	44:DI:81:VAL:HG23	2.07	0.85
44:DI:133:HIS:HB2	44:DI:134:PRO:CD	2.06	0.85
36:BA:2305:A:H5"	42:BG:134:GLY:HA3	1.58	0.85
39:BD:25:THR:HG22	39:BD:26:LYS:H	1.42	0.85
29:D3:56:VAL:HG12	29:D3:57:GLU:N	1.92	0.85
39:DD:181:GLU:HA	39:DD:272:ALA:HB3	1.55	0.85
49:DR:56:LYS:HE2	49:DR:94:TYR:HE2	1.40	0.85
5:AE:57:LYS:HG2	5:AE:61:TYR:HE2	1.40	0.85
36:BA:1593:G:C2'	36:BA:1594:G:H5"	2.07	0.85
42:BG:111:LEU:HB3	42:BG:117:PHE:CE2	2.12	0.85
46:BO:104:ARG:HH21	51:BT:33:LYS:HE2	1.41	0.85
47:BP:23:PRO:HB2	47:BP:33:ARG:HD2	1.57	0.85
1:CA:1149:C:H2'	1:CA:1150:U:H6	1.41	0.85
51:DT:89:VAL:HG11	51:DT:91:ARG:NE	1.91	0.85
42:BG:88:ILE:HD12	42:BG:89:GLY:H	1.41	0.84
7:CG:84:ASN:HD22	23:CW:33:U:H4'	1.42	0.84
39:DD:147:LEU:HD13	39:DD:155:LEU:HD11	1.56	0.84
47:DP:71:VAL:CG1	47:DP:72:PRO:HD3	2.06	0.84
51:DT:91:ARG:HA	51:DT:117:ASP:H	1.40	0.84
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	1.59	0.84
23:AW:48:C:H2'	23:AW:59:U:H4'	1.58	0.84
39:BD:26:LYS:NZ	39:BD:82:ILE:H	1.75	0.84
42:BG:39:ILE:HD11	42:BG:155:MET:HB2	1.58	0.84
47:BP:45:LEU:HD23	47:BP:46:LYS:H	1.40	0.84
49:BR:8:ARG:HE	49:BR:8:ARG:HA	1.42	0.84
27:D1:12:PRO:HB3	27:D1:43:TYR:HD2	1.42	0.84
40:DE:33:VAL:HG13	40:DE:69:LYS:HE3	1.59	0.84
48:DQ:43:THR:OG1	48:DQ:46:GLN:HG3	1.77	0.84
1:AA:266:G:H5"	1:AA:268:C:H41	1.42	0.84
1:AA:1228:C:OP1	13:AM:115:LYS:HE3	1.75	0.84
6:AF:21:LEU:O	6:AF:24:GLU:HG2	1.77	0.84
18:AR:86:VAL:O	18:AR:87:ARG:HD3	1.77	0.84
36:BA:1171:G:H3'	36:BA:1173:G:H4'	1.57	0.84
36:BA:2347:C:H2'	36:BA:2348:U:H6	1.42	0.84
42:BG:60:LEU:O	42:BG:63:ILE:HG12	1.76	0.84
44:BI:98:ALA:HA	44:BI:109:ILE:HG12	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.60	0.84
12:CL:41:ARG:HH11	12:CL:41:ARG:HB3	1.42	0.84
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.17	0.84
27:D1:80:LEU:HD13	27:D1:82:LEU:HD21	1.56	0.84
36:DA:613:G:H5'	36:DA:613:G:H8	1.39	0.84
36:DA:2863:C:C2'	36:DA:2864:G:H5"	2.07	0.84
43:DH:85:LYS:HD3	43:DH:133:VAL:HB	1.59	0.84
27:B1:5:CYS:SG	27:B1:62:VAL:HG23	2.17	0.84
34:D8:59:LYS:HD3	47:DP:50:ARG:HB3	1.58	0.84
36:BA:2312:U:C2'	36:BA:2313:C:H5"	2.07	0.84
36:BA:2863:C:C2'	36:BA:2864:G:H5"	2.06	0.84
1:CA:266:G:H5"	1:CA:268:C:H41	1.42	0.84
50:DS:30:ARG:HH22	50:DS:62:LYS:HD2	1.42	0.84
52:DU:79:PHE:O	52:DU:83:LEU:HD13	1.77	0.84
36:BA:1290:C:H2'	36:BA:1291:C:H6	1.41	0.84
36:BA:1779:U:H5	36:BA:1784:A:N7	1.76	0.84
36:BA:2263:C:H5'	36:BA:2263:C:H6	1.43	0.84
36:BA:2866:U:C6	36:BA:2868:A:H1'	2.13	0.84
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	1.92	0.84
31:D5:32:PRO:O	31:D5:33:CYS:HB3	1.76	0.84
46:DO:104:ARG:NH1	51:DT:35:LYS:HD3	1.92	0.84
2:AB:172:ILE:H	2:AB:172:ILE:HD12	1.39	0.84
36:BA:2853:C:H2'	36:BA:2854:G:C8	2.12	0.84
39:BD:223:GLY:O	39:BD:226:MET:HG3	1.77	0.84
42:BG:43:LEU:HB2	42:BG:88:ILE:HG12	1.59	0.84
48:BQ:43:THR:OG1	48:BQ:46:GLN:HG3	1.76	0.84
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.92	0.84
23:CW:16:U:H3'	23:CW:17:C:H5'	1.58	0.84
25:CY:19:G:C6	36:DA:881:G:H4'	2.13	0.84
26:D0:40:GLN:NE2	26:D0:43:THR:HA	1.93	0.84
36:DA:560:C:H4'	52:DU:52:ARG:NH2	1.91	0.84
43:DH:41:MET:HE3	43:DH:55:PRO:HD2	1.57	0.84
49:DR:38:VAL:HB	49:DR:39:PRO:HD3	1.57	0.84
57:DZ:14:LYS:H	57:DZ:14:LYS:NZ	1.75	0.84
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.57	0.84
53:BV:46:VAL:HG22	53:BV:47:VAL:H	1.41	0.84
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.60	0.84
35:D9:2:LYS:HG3	36:DA:2526:G:H21	1.39	0.84
39:DD:35:LYS:NZ	39:DD:103:ARG:HA	1.93	0.84
56:DY:27:VAL:HG12	56:DY:29:GLU:H	1.43	0.84
57:DZ:24:LEU:O	57:DZ:24:LEU:HD23	1.77	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:63:THR:HG22	19:AS:66:MET:HE2	1.59	0.84
29:B3:8:LEU:HA	29:B3:54:VAL:HG22	1.58	0.84
36:BA:2850:A:H2'	36:BA:2851:A:H8	1.42	0.84
20:CT:72:LEU:HD23	20:CT:73:HIS:N	1.92	0.84
50:DS:85:VAL:HG23	50:DS:106:ARG:HG3	1.60	0.84
56:BY:28:LYS:HA	56:BY:39:VAL:H	1.42	0.84
57:BZ:163:LEU:H	57:BZ:163:LEU:HD12	1.42	0.84
1:CA:1133:G:H22	1:CA:1143:G:H1'	1.40	0.84
43:DH:25:LYS:HD3	43:DH:25:LYS:H	1.41	0.84
47:DP:23:PRO:HB2	47:DP:33:ARG:HD2	1.57	0.84
1:AA:1133:G:H22	1:AA:1143:G:H1'	1.41	0.83
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.60	0.83
13:AM:65:LYS:HA	13:AM:66:LEU:HG	1.57	0.83
14:AN:37:PHE:HZ	14:AN:56:VAL:HG21	1.42	0.83
28:B2:16:LEU:O	28:B2:20:GLU:HB3	1.77	0.83
36:BA:845:G:H21	36:BA:933:A:H61	1.26	0.83
36:BA:1899:G:N2	36:BA:1902:C:H41	1.76	0.83
1:CA:1228:C:OP1	13:CM:115:LYS:HE3	1.76	0.83
5:CE:101:ILE:HD13	5:CE:101:ILE:H	1.38	0.83
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.60	0.83
13:CM:65:LYS:HA	13:CM:66:LEU:HG	1.59	0.83
39:DD:186:HIS:HD2	39:DD:188:GLU:H	1.25	0.83
57:DZ:145:GLU:HG3	57:DZ:146:ILE:HG12	1.58	0.83
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.21	0.83
7:AG:50:ILE:HB	7:AG:58:PRO:HG3	1.58	0.83
36:BA:1231:G:H2'	36:BA:1232:G:H8	1.42	0.83
1:CA:17:U:H2'	1:CA:18:C:C6	2.11	0.83
45:DN:15:LEU:HD13	45:DN:16:ILE:H	1.43	0.83
52:DU:62:ILE:CD1	52:DU:93:LYS:HG2	2.08	0.83
1:AA:1203:C:OP1	14:AN:3:ARG:HD3	1.78	0.83
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.60	0.83
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.78	0.83
46:BO:2:ILE:HD11	46:BO:82:ASN:ND2	1.92	0.83
1:CA:460:G:O6	1:CA:470:C:H5"	1.78	0.83
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	1.78	0.83
4:CD:15:GLU:HG2	4:CD:63:LYS:HG3	1.60	0.83
33:D7:47:ARG:NH2	55:DX:60:ARG:HH12	1.76	0.83
36:DA:480:A:OP2	56:DY:46:LYS:HE2	1.77	0.83
47:DP:64:LYS:C	47:DP:66:GLY:H	1.82	0.83
48:DQ:12:GLN:HG2	48:DQ:73:PRO:HD2	1.59	0.83
52:DU:34:LYS:HA	52:DU:34:LYS:HE2	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:125:LEU:HG	57:DZ:164:ALA:HB3	1.59	0.83
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.44	0.83
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.61	0.83
29:D3:31:LEU:HD12	36:DA:1157:G:O2'	1.77	0.83
36:DA:2762:G:C2'	36:DA:2763:G:H5"	2.09	0.83
20:AT:50:GLU:HG3	20:AT:51:GLU:N	1.93	0.83
20:AT:100:ILE:HD12	20:AT:100:ILE:N	1.93	0.83
25:AY:56:C:H3'	25:AY:57:G:H5"	1.58	0.83
39:BD:24:ILE:CG1	39:BD:25:THR:H	1.91	0.83
39:BD:43:ARG:HB3	39:BD:54:ARG:HB2	1.59	0.83
1:CA:939:G:H5"	7:CG:102:ARG:NH2	1.94	0.83
41:DF:53:THR:HG23	41:DF:55:GLY:H	1.43	0.83
42:DG:157:ILE:HG12	42:DG:158:ALA:N	1.93	0.83
36:BA:1614:A:H62	54:BW:93:ALA:HB2	1.43	0.83
36:BA:2206:G:H21	36:BA:2207:G:H5'	1.41	0.83
23:CW:62:C:H2'	23:CW:63:G:H8	1.43	0.83
39:DD:43:ARG:HB3	39:DD:54:ARG:HB2	1.60	0.83
41:DF:198:ALA:O	41:DF:201:VAL:HG12	1.78	0.83
57:DZ:14:LYS:H	57:DZ:14:LYS:HZ2	1.24	0.83
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.60	0.83
36:BA:2537:U:H2'	36:BA:2538:C:H6	1.43	0.83
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.78	0.83
36:DA:2537:U:H2'	36:DA:2538:C:H6	1.43	0.83
36:DA:2850:A:H2'	36:DA:2851:A:H8	1.44	0.83
2:AB:15:VAL:HG21	2:AB:209:ARG:HH21	1.44	0.83
32:B6:47:THR:HG22	32:B6:48:VAL:H	1.44	0.83
36:DA:612:C:H2'	36:DA:613:G:C5'	2.08	0.83
36:DA:2263:C:H5'	36:DA:2263:C:H6	1.41	0.83
36:DA:2681:C:H5	36:DA:2725:A:N6	1.76	0.83
39:DD:31:LYS:HE3	39:DD:94:LEU:HD11	1.61	0.83
47:DP:21:ARG:HD3	47:DP:29:LYS:HE3	1.58	0.83
13:AM:57:ARG:NH2	30:B4:60:GLU:HG3	1.94	0.83
36:BA:17:G:H4'	52:BU:25:TRP:CH2	2.14	0.83
46:BO:2:ILE:CD1	46:BO:82:ASN:HD22	1.91	0.83
42:DG:16:ARG:HE	42:DG:31:VAL:HG11	1.40	0.83
45:DN:73:THR:HG23	45:DN:82:LEU:HD11	1.61	0.83
47:DP:47:ASP:HB3	47:DP:48:PRO:C	1.99	0.83
49:DR:4:LEU:HD21	49:DR:8:ARG:HH21	1.44	0.83
49:DR:8:ARG:HA	49:DR:8:ARG:HE	1.42	0.83
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	1.58	0.83
8:AH:109:ILE:HG12	8:AH:110:ALA:H	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B7:47:ARG:NH2	55:BX:60:ARG:HH12	1.77	0.83
43:BH:30:LYS:NZ	43:BH:81:GLU:HG2	1.94	0.83
47:BP:85:LEU:HD23	47:BP:85:LEU:H	1.42	0.83
28:D2:2:LYS:HB2	36:DA:97:C:H5"	1.58	0.83
36:DA:2645:G:H3'	36:DA:2646:C:C5'	2.07	0.83
41:DF:3:GLU:HB2	41:DF:24:LEU:HG	1.61	0.83
42:DG:51:ARG:NE	42:DG:51:ARG:HA	1.92	0.83
42:DG:106:LEU:HD12	42:DG:111:LEU:HB2	1.61	0.83
46:DO:49:ARG:HH11	46:DO:49:ARG:HG2	1.44	0.83
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	1.94	0.82
37:BB:57:A:H5'	42:BG:27:ASN:ND2	1.93	0.82
1:CA:1030:C:C2'	1:CA:1030(A):G:H5'	2.08	0.82
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.60	0.82
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.43	0.82
18:CR:66:LEU:HD11	18:CR:70:ILE:HD11	1.59	0.82
36:DA:17:G:H4'	52:DU:25:TRP:CH2	2.14	0.82
41:DF:11:VAL:HG12	41:DF:12:LEU:H	1.42	0.82
41:DF:178:PRO:HG2	41:DF:179:GLU:OE2	1.77	0.82
7:AG:50:ILE:HG21	7:AG:58:PRO:HA	1.61	0.82
36:BA:1593:G:H2'	36:BA:1594:G:H5"	1.59	0.82
36:BA:1846:G:H5'	36:BA:1847:A:OP2	1.78	0.82
36:BA:2512:C:H4'	40:BE:122:PHE:CE2	2.13	0.82
47:BP:47:ASP:HB3	47:BP:48:PRO:C	1.98	0.82
49:BR:11:ASN:O	49:BR:12:ARG:HG3	1.79	0.82
36:DA:1779:U:H5	36:DA:1784:A:N7	1.77	0.82
1:AA:460:G:O6	1:AA:470:C:H5"	1.79	0.82
1:AA:1030:C:C2'	1:AA:1030(A):G:H5'	2.09	0.82
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.62	0.82
34:B8:59:LYS:HD3	47:BP:50:ARG:HB3	1.58	0.82
36:BA:2502:G:H5"	36:BA:2503:A:H5"	1.60	0.82
36:BA:2762:G:C2'	36:BA:2763:G:H5"	2.10	0.82
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.14	0.82
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.60	0.82
22:CV:23:C:H2'	22:CV:24:U:H6	1.43	0.82
36:DA:2134:A:C2	36:DA:2159:G:H1'	2.12	0.82
40:DE:39:PRO:HA	40:DE:43:GLY:HA2	1.61	0.82
47:DP:85:LEU:HD23	47:DP:85:LEU:H	1.43	0.82
49:DR:56:LYS:HE2	49:DR:94:TYR:CE2	2.14	0.82
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.59	0.82
36:BA:1721:G:C6	36:BA:1739:U:H5'	2.15	0.82
42:BG:112:PRO:C	42:BG:113:ARG:HA	1.99	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:109:ILE:HG12	8:CH:110:ALA:H	1.43	0.82
27:D1:45:ASN:HD21	27:D1:47:GLN:NE2	1.78	0.82
41:BF:53:THR:HG23	41:BF:55:GLY:H	1.44	0.82
53:BV:76:LYS:HB2	53:BV:81:TYR:HB3	1.61	0.82
40:DE:77:ILE:HG22	40:DE:78:LEU:N	1.93	0.82
48:DQ:29:PHE:HB2	48:DQ:105:GLU:OE2	1.79	0.82
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.59	0.82
12:AL:53:ARG:HH12	12:AL:92:ASP:HB2	1.45	0.82
44:BI:81:VAL:HG21	44:BI:142:VAL:HG13	1.59	0.82
13:CM:112:GLY:O	13:CM:113:PRO:HG2	1.80	0.82
36:DA:1639:U:C2'	36:DA:1640:C:H5"	2.10	0.82
44:DI:81:VAL:HG21	44:DI:142:VAL:HG13	1.61	0.82
26:B0:40:GLN:NE2	26:B0:43:THR:HA	1.95	0.82
29:B3:31:LEU:HD12	36:BA:1157:G:O2'	1.79	0.82
47:BP:64:LYS:C	47:BP:66:GLY:H	1.82	0.82
52:BU:88:ILE:O	52:BU:88:ILE:HG13	1.78	0.82
1:CA:579:G:H5'	1:CA:728:A:H1'	1.61	0.82
1:CA:1190:G:H3'	3:CC:3:ASN:ND2	1.95	0.82
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.44	0.82
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.79	0.82
12:AL:89:ARG:HB2	12:AL:89:ARG:NH1	1.95	0.82
15:AO:3:ILE:HD13	15:AO:3:ILE:H	1.41	0.82
43:BH:47:GLU:HG2	43:BH:48:GLY:H	1.44	0.82
42:DG:61:ALA:CB	42:DG:68:PRO:HD3	2.07	0.82
51:DT:92:GLY:C	51:DT:94:ALA:H	1.83	0.82
1:AA:255:G:H1'	17:AQ:16:GLN:HE21	1.41	0.82
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	1.94	0.82
46:BO:49:ARG:HH11	46:BO:49:ARG:HG2	1.44	0.82
46:BO:104:ARG:NH1	51:BT:35:LYS:HD3	1.93	0.82
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	1.80	0.82
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	1.61	0.82
30:D4:48:ILE:HD12	30:D4:48:ILE:H	1.45	0.82
36:DA:1721:G:C6	36:DA:1739:U:H5'	2.15	0.82
36:DA:1846:G:H5'	36:DA:1847:A:OP2	1.79	0.82
39:DD:44:ASN:HB3	39:DD:49:ILE:HA	1.61	0.82
42:DG:60:LEU:HD21	42:DG:92:VAL:HG21	1.59	0.82
56:DY:31:LEU:HB2	56:DY:32:PRO:HA	1.59	0.82
1:AA:736:C:H2'	1:AA:737:A:C8	2.15	0.82
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.60	0.82
27:B1:3:LYS:HG3	27:B1:4:VAL:H	1.43	0.82
36:BA:27:G:H22	36:BA:512:G:H2'	1.45	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:100:ILE:HD12	20:CT:100:ILE:N	1.95	0.82
36:DA:1914:C:H2'	36:DA:1915:U:O4'	1.80	0.82
53:DV:46:VAL:HG22	53:DV:47:VAL:H	1.41	0.82
42:BG:76:SER:CB	42:BG:83:ARG:HB2	2.09	0.81
1:CA:1206:G:H4'	3:CC:192:THR:O	1.80	0.81
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.62	0.81
53:DV:25:LEU:N	53:DV:92:THR:HG21	1.95	0.81
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.42	0.81
25:AY:25:C:H2'	25:AY:26:A:C8	2.15	0.81
48:BQ:12:GLN:HG2	48:BQ:73:PRO:HD2	1.62	0.81
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.61	0.81
2:CB:178:ARG:O	8:CH:71:GLY:HA2	1.80	0.81
20:CT:50:GLU:HG3	20:CT:51:GLU:N	1.93	0.81
36:DA:389:G:N1	47:DP:71:VAL:HG12	1.95	0.81
36:DA:1614:A:H62	54:DW:93:ALA:HB2	1.43	0.81
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.45	0.81
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	1.81	0.81
41:BF:132:VAL:HG22	41:BF:133:ASN:N	1.95	0.81
45:BN:15:LEU:HD13	45:BN:16:ILE:H	1.46	0.81
47:BP:47:ASP:HB3	47:BP:48:PRO:CA	2.10	0.81
56:BY:42:VAL:HB	56:BY:65:ALA:HB3	1.63	0.81
1:CA:1442(B):A:OP1	1:CA:1442(B):A:H4'	1.79	0.81
7:CG:50:ILE:HG21	7:CG:58:PRO:HA	1.59	0.81
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.61	0.81
39:DD:26:LYS:NZ	39:DD:82:ILE:H	1.77	0.81
40:DE:199:ARG:HH11	40:DE:199:ARG:HB2	1.45	0.81
53:DV:76:LYS:HB2	53:DV:81:TYR:HB3	1.61	0.81
1:AA:1346:A:H5"	9:AI:120:ARG:HH12	1.46	0.81
36:BA:1021:A:H3'	36:BA:1021:A:H8	1.46	0.81
36:BA:1914:C:H2'	36:BA:1915:U:O4'	1.80	0.81
46:BO:35:VAL:HG21	46:BO:69:ILE:HD13	1.63	0.81
51:BT:30:VAL:HG23	51:BT:31:SER:N	1.94	0.81
36:DA:27:G:H22	36:DA:512:G:H2'	1.45	0.81
39:DD:24:ILE:HG12	39:DD:25:THR:N	1.94	0.81
44:DI:68:LEU:HD23	44:DI:136:VAL:HG11	1.63	0.81
36:BA:364:C:H2'	36:BA:365:C:H5"	1.62	0.81
43:BH:85:LYS:HD3	43:BH:133:VAL:HB	1.63	0.81
44:BI:88:ILE:HD11	44:BI:123:LEU:HG	1.63	0.81
45:BN:131:GLN:HE22	45:BN:134:ARG:HD2	1.44	0.81
49:BR:4:LEU:HD21	49:BR:8:ARG:HH21	1.44	0.81
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D6:47:THR:HG22	32:D6:48:VAL:H	1.43	0.81
36:DA:335:C:H2'	36:DA:336:C:H6	1.44	0.81
56:DY:28:LYS:HB2	56:DY:38:ILE:H	1.44	0.81
36:BA:2245:U:H5'	36:BA:2246:G:H5'	1.63	0.81
39:BD:44:ASN:HB3	39:BD:49:ILE:HA	1.62	0.81
51:BT:89:VAL:HG11	51:BT:91:ARG:NE	1.93	0.81
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.45	0.81
47:DP:18:ARG:HH11	47:DP:18:ARG:HB3	1.44	0.81
55:DX:12:VAL:HB	55:DX:17:ALA:CB	2.11	0.81
3:AC:16:ARG:HH11	3:AC:16:ARG:CB	1.94	0.81
36:BA:1902:C:O2'	39:BD:244:ARG:HB2	1.79	0.81
40:BE:33:VAL:HG13	40:BE:69:LYS:HE3	1.61	0.81
45:BN:9:VAL:HG12	45:BN:10:GLU:H	1.46	0.81
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.80	0.81
36:DA:863:A:O2'	36:DA:864:G:H5'	1.81	0.81
40:DE:60:ASN:OD1	40:DE:62:PRO:HD2	1.81	0.81
42:DG:39:ILE:HD11	42:DG:155:MET:HE1	1.62	0.81
25:AY:59:U:H3'	25:AY:60:U:H5"	1.61	0.81
36:BA:1639:U:H2'	36:BA:1640:C:H5"	1.62	0.81
52:BU:20:LEU:HD13	52:BU:20:LEU:O	1.81	0.81
9:CI:63:ILE:HD11	9:CI:81:ILE:HD11	1.60	0.81
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.63	0.81
36:DA:322:A:H3'	41:DF:169:ASN:ND2	1.96	0.81
36:DA:845:G:H21	36:DA:933:A:H61	1.26	0.81
45:DN:131:GLN:HE22	45:DN:134:ARG:HD2	1.45	0.81
47:DP:30:THR:HG22	47:DP:31:ALA:H	1.45	0.81
51:DT:113:LYS:O	51:DT:114:LEU:HD23	1.80	0.81
54:DW:60:ASN:HD22	54:DW:60:ASN:N	1.78	0.81
36:BA:2681:C:H5	36:BA:2725:A:N6	1.77	0.81
50:BS:85:VAL:HG23	50:BS:106:ARG:HG3	1.62	0.81
1:CA:673:G:H2'	1:CA:674:G:C8	2.16	0.81
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.63	0.81
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.46	0.81
41:DF:20:LEU:HG	41:DF:21:ALA:H	1.46	0.81
47:DP:45:LEU:HD23	47:DP:46:LYS:H	1.46	0.81
57:DZ:166:SER:HB2	57:DZ:167:PRO:C	2.01	0.81
1:AA:939:G:H5"	7:AG:102:ARG:NH2	1.96	0.81
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.60	0.81
25:AY:11:C:H42	25:AY:24:G:H1	1.27	0.81
28:B2:42:GLY:O	28:B2:44:LEU:N	2.14	0.81
36:BA:480:A:OP2	56:BY:46:LYS:HE2	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:30:VAL:HG22	56:BY:37:VAL:HG12	1.63	0.81
57:BZ:102:LEU:HD13	57:BZ:123:ASP:HA	1.63	0.81
25:CY:66:U:H2'	25:CY:67:C:C6	2.16	0.81
53:DV:21:ARG:HG2	53:DV:91:TYR:CD2	2.15	0.81
54:DW:65:LEU:HD22	54:DW:68:ARG:H	1.46	0.81
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.47	0.80
27:B1:44:PRO:O	27:B1:46:LEU:HD13	1.81	0.80
30:B4:50:THR:HG21	42:BG:104:GLU:HG2	1.64	0.80
36:BA:27:G:N2	36:BA:512:G:H2'	1.95	0.80
36:BA:1523:U:H2'	36:BA:1524:G:H8	1.46	0.80
41:BF:78:ILE:HD13	41:BF:78:ILE:H	1.46	0.80
42:BG:76:SER:HB2	42:BG:83:ARG:HB2	1.63	0.80
48:BQ:29:PHE:HB2	48:BQ:105:GLU:OE2	1.80	0.80
36:DA:481:G:H1'	36:DA:506:G:H21	1.46	0.80
1:AA:979:C:H3'	1:AA:980:C:C5'	2.11	0.80
10:AJ:45:ARG:HG3	10:AJ:45:ARG:HH11	1.47	0.80
23:AW:19:G:H5'	23:AW:20:U:C5	2.14	0.80
36:BA:2850:A:H2'	36:BA:2851:A:C8	2.16	0.80
41:BF:3:GLU:HB2	41:BF:24:LEU:HG	1.63	0.80
53:BV:21:ARG:HG2	53:BV:91:TYR:CD2	2.17	0.80
6:CF:21:LEU:O	6:CF:24:GLU:HG2	1.80	0.80
36:DA:27:G:N2	36:DA:512:G:H2'	1.96	0.80
36:DA:2347:C:H2'	36:DA:2348:U:C6	2.17	0.80
42:DG:19:LEU:HD13	42:DG:31:VAL:HG13	1.63	0.80
36:BA:2476:A:C2'	36:BA:2477:C:H5"	2.08	0.80
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.62	0.80
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.63	0.80
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.62	0.80
23:CW:76:A:N6	36:DA:2421:G:H2'	1.96	0.80
46:DO:35:VAL:HG11	46:DO:103:ALA:HB3	1.63	0.80
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.63	0.80
49:BR:10:LEU:CD2	49:BR:17:ARG:HD2	2.12	0.80
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HB3	1.64	0.80
40:DE:59:VAL:HG22	40:DE:60:ASN:N	1.96	0.80
45:DN:120:LEU:CD1	45:DN:122:VAL:HG23	2.11	0.80
57:DZ:141:VAL:HG21	57:DZ:144:LEU:HB2	1.62	0.80
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.62	0.80
19:AS:6:LYS:HD2	19:AS:7:LYS:N	1.96	0.80
27:B1:67:ILE:N	27:B1:68:PRO:HD2	1.96	0.80
36:BA:1024:G:H3'	36:BA:1025:G:H5"	1.64	0.80
40:BE:59:VAL:HG22	40:BE:60:ASN:N	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:736:C:H2'	1:CA:737:A:C8	2.16	0.80
22:CV:65:C:H2'	22:CV:66:C:H5'	1.62	0.80
25:CY:14:A:H62	25:CY:15:G:H21	1.30	0.80
37:DB:43:C:H4'	42:DG:66:GLN:HE22	1.46	0.80
36:BA:1639:U:C2'	36:BA:1640:C:H5"	2.11	0.80
1:CA:1346:A:H5"	9:CI:120:ARG:HH12	1.47	0.80
36:DA:1523:U:H2'	36:DA:1524:G:H8	1.47	0.80
57:DZ:22:GLY:HA2	57:DZ:41:LEU:HD11	1.63	0.80
23:AW:11:C:H2'	23:AW:12:U:H6	1.45	0.80
36:BA:612:C:H2'	36:BA:613:G:C5'	2.10	0.80
39:BD:45:ASN:CG	39:BD:46:GLN:H	1.85	0.80
40:BE:199:ARG:HB2	40:BE:199:ARG:HH11	1.43	0.80
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.44	0.80
57:DZ:102:LEU:HD22	57:DZ:139:VAL:HG22	1.62	0.80
36:BA:481:G:H1'	36:BA:506:G:H21	1.47	0.80
56:BY:27:VAL:HA	56:BY:28:LYS:HZ1	1.44	0.80
7:CG:60:LYS:HA	7:CG:60:LYS:HZ2	1.46	0.80
10:CJ:4:ILE:HA	10:CJ:100:THR:HG22	1.64	0.80
10:CJ:45:ARG:HH11	10:CJ:45:ARG:HG3	1.47	0.80
19:CS:15:LEU:HD11	19:CS:33:THR:HB	1.64	0.80
36:DA:1411:C:H2'	36:DA:1412:A:C8	2.17	0.80
39:DD:24:ILE:CG1	39:DD:25:THR:N	2.43	0.80
47:DP:18:ARG:HB3	47:DP:18:ARG:NH1	1.97	0.80
50:DS:24:LEU:HB3	50:DS:85:VAL:HG12	1.63	0.80
47:BP:18:ARG:HH11	47:BP:18:ARG:HB3	1.46	0.80
55:BX:12:VAL:HG23	55:BX:13:LEU:N	1.97	0.80
15:CO:70:LEU:HD11	15:CO:77:ARG:HG3	1.64	0.80
34:D8:62:LEU:CD1	36:DA:242:G:H5"	2.11	0.80
36:DA:1114:G:H3'	36:DA:1115:G:H5"	1.64	0.80
39:DD:172:TYR:HD1	39:DD:186:HIS:HA	1.47	0.80
46:DO:87:ILE:CG2	46:DO:91:LEU:HA	2.12	0.80
50:DS:83:LYS:HG3	50:DS:105:ALA:HB3	1.64	0.80
51:DT:30:VAL:HG23	51:DT:31:SER:N	1.96	0.80
48:BQ:62:GLY:O	57:BZ:178:GLU:HG3	1.82	0.80
49:BR:56:LYS:HE2	49:BR:94:TYR:HE2	1.46	0.80
51:BT:92:GLY:C	51:BT:94:ALA:H	1.83	0.80
3:CC:34:LEU:HD21	3:CC:38:ARG:CZ	2.11	0.80
9:CI:70:LYS:O	9:CI:74:ILE:HG13	1.81	0.80
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.62	0.80
39:DD:172:TYR:CD1	39:DD:186:HIS:HA	2.17	0.80
51:DT:28:VAL:CG2	51:DT:46:GLU:HG3	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:15:LEU:HD11	19:AS:33:THR:HB	1.62	0.79
36:BA:541:C:H2'	36:BA:542:C:C6	2.17	0.79
36:BA:2189:U:H3'	36:BA:2190:G:H5"	1.63	0.79
36:BA:2645:G:H3'	36:BA:2646:C:C5'	2.10	0.79
39:BD:11:PRO:C	39:BD:13:ARG:H	1.82	0.79
55:BX:12:VAL:HB	55:BX:17:ALA:CB	2.12	0.79
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.47	0.79
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.64	0.79
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.82	0.79
36:DA:2512:C:H4'	40:DE:122:PHE:CE2	2.17	0.79
39:DD:223:GLY:O	39:DD:226:MET:HG3	1.81	0.79
51:DT:65:LYS:HZ2	51:DT:66:VAL:H	1.30	0.79
2:AB:131:PRO:HG2	2:AB:134:GLU:HB2	1.65	0.79
3:AC:34:LEU:HD21	3:AC:38:ARG:CZ	2.12	0.79
20:AT:44:ALA:HA	20:AT:92:LEU:HD21	1.62	0.79
36:BA:1403:C:H5"	36:BA:1471:A:H1'	1.64	0.79
36:BA:2189:U:C3'	36:BA:2190:G:H5"	2.11	0.79
41:BF:198:ALA:O	41:BF:201:VAL:HG12	1.81	0.79
49:BR:10:LEU:HB3	49:BR:17:ARG:NE	1.97	0.79
53:BV:39:LEU:HD12	53:BV:50:PRO:O	1.80	0.79
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.12	0.79
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.63	0.79
12:CL:41:ARG:HG2	12:CL:42:THR:N	1.97	0.79
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.92	0.79
26:D0:41:ARG:H	26:D0:41:ARG:CD	1.96	0.79
40:DE:36:ARG:HH22	40:DE:88:GLY:CA	1.95	0.79
42:DG:15:VAL:HG13	42:DG:175:LEU:HG	1.63	0.79
42:DG:111:LEU:HB3	42:DG:112:PRO:CD	2.11	0.79
45:DN:4:TYR:HB2	52:DU:64:ARG:HH22	1.46	0.79
47:DP:47:ASP:HB3	47:DP:48:PRO:CA	2.11	0.79
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.18	0.79
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.81	0.79
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.64	0.79
11:AK:29:ILE:HD12	11:AK:43:SER:O	1.82	0.79
39:BD:172:TYR:CD1	39:BD:186:HIS:HA	2.18	0.79
40:BE:77:ILE:HG22	40:BE:78:LEU:N	1.97	0.79
36:DA:27:G:O2'	36:DA:28:A:H8	1.64	0.79
36:DA:2189:U:C3'	36:DA:2190:G:H5"	2.11	0.79
39:DD:11:PRO:C	39:DD:13:ARG:H	1.81	0.79
42:DG:144:ILE:CG2	42:DG:145:THR:H	1.93	0.79
48:DQ:16:ARG:HG2	48:DQ:17:LEU:H	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:579:G:H5'	1:AA:728:A:H1'	1.65	0.79
40:BE:176:ILE:HG22	40:BE:179:GLU:H	1.45	0.79
41:BF:20:LEU:HG	41:BF:21:ALA:H	1.45	0.79
1:CA:979:C:H3'	1:CA:980:C:C5'	2.12	0.79
36:DA:774:A:H2	36:DA:787:U:HO2'	1.31	0.79
57:DZ:144:LEU:O	57:DZ:174:VAL:HG21	1.81	0.79
3:AC:52:LEU:H	3:AC:52:LEU:HD23	1.48	0.79
31:B5:2:ALA:HA	36:BA:2015:A:C1'	2.13	0.79
52:BU:52:ARG:HD3	52:BU:55:ARG:HE	1.46	0.79
52:BU:91:ASP:C	52:BU:92:ARG:HD3	2.03	0.79
1:CA:625:G:H2'	1:CA:626:U:C6	2.17	0.79
36:DA:925:C:H2'	36:DA:926:A:C5'	2.13	0.79
2:AB:219:VAL:HA	2:AB:222:ILE:CD1	2.12	0.79
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.64	0.79
13:AM:112:GLY:O	13:AM:113:PRO:HG2	1.83	0.79
40:BE:39:PRO:HA	40:BE:43:GLY:HA2	1.64	0.79
42:BG:43:LEU:HD23	42:BG:88:ILE:HD11	1.63	0.79
42:BG:115:ARG:NH1	42:BG:136:ARG:HD3	1.96	0.79
51:BT:28:VAL:HG21	51:BT:46:GLU:HG3	1.65	0.79
40:DE:4:ILE:HG12	40:DE:28:ALA:HB1	1.64	0.79
43:DH:30:LYS:NZ	43:DH:81:GLU:HG2	1.96	0.79
56:DY:28:LYS:HA	56:DY:39:VAL:H	1.46	0.79
4:AD:30:LYS:C	4:AD:32:ALA:H	1.82	0.79
13:AM:69:GLU:HA	13:AM:70:LEU:N	1.98	0.79
40:BE:34:VAL:O	40:BE:35:GLN:HB2	1.82	0.79
30:D4:44:CYS:SG	30:D4:64:LYS:HB2	2.22	0.79
36:DA:2189:U:H3'	36:DA:2190:G:H5"	1.62	0.79
51:DT:28:VAL:HG21	51:DT:46:GLU:HG3	1.63	0.79
57:DZ:53:ILE:HG23	57:DZ:71:VAL:HG23	1.64	0.79
8:AH:84:ARG:HG3	8:AH:85:ARG:N	1.98	0.79
20:AT:26:ASN:HD22	20:AT:26:ASN:H	1.31	0.79
25:AY:28:G:H2'	25:AY:29:G:H8	1.46	0.79
25:AY:59:U:H3'	25:AY:60:U:C5'	2.13	0.79
36:BA:2562:U:H1'	46:BO:23:ARG:NH1	1.98	0.79
57:BZ:6:LYS:HE2	57:BZ:8:TYR:OH	1.83	0.79
1:CA:1264:C:H2'	1:CA:1265:G:C8	2.17	0.79
40:DE:176:ILE:HG22	40:DE:179:GLU:H	1.48	0.79
52:DU:52:ARG:HD3	52:DU:55:ARG:HE	1.46	0.79
2:AB:18:GLY:H	2:AB:42:ILE:CG2	1.96	0.79
7:AG:60:LYS:HA	7:AG:60:LYS:HZ2	1.47	0.79
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:14:LYS:HA	20:AT:17:ARG:HE	1.47	0.79
30:B4:44:CYS:SG	30:B4:64:LYS:HB2	2.23	0.79
39:BD:31:LYS:HE3	39:BD:94:LEU:HD11	1.63	0.79
40:BE:60:ASN:OD1	40:BE:62:PRO:HD2	1.82	0.79
45:BN:73:THR:HG23	45:BN:82:LEU:HD11	1.61	0.79
50:BS:83:LYS:HG3	50:BS:105:ALA:HB3	1.64	0.79
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.47	0.79
27:D1:52:ARG:HG3	27:D1:53:VAL:N	1.96	0.79
36:DA:2481:G:HO2'	36:DA:2482:G:P	2.05	0.79
40:DE:34:VAL:O	40:DE:35:GLN:HB2	1.82	0.79
44:DI:88:ILE:HD11	44:DI:123:LEU:H	1.48	0.79
46:DO:107:ARG:NH1	51:DT:36:GLU:H	1.81	0.79
1:AA:625:G:H2'	1:AA:626:U:C6	2.18	0.79
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.83	0.79
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.63	0.79
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	1.97	0.79
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.63	0.79
36:BA:2801(A):A:C4'	36:BA:2802:G:H5'	2.12	0.79
40:BE:36:ARG:HH22	40:BE:88:GLY:CA	1.95	0.79
46:BO:35:VAL:HG11	46:BO:103:ALA:HB3	1.65	0.79
46:BO:87:ILE:CG2	46:BO:91:LEU:HA	2.13	0.79
36:DA:1021:A:H3'	36:DA:1021:A:C8	2.17	0.79
40:DE:77:ILE:CG2	40:DE:78:LEU:H	1.94	0.79
41:DF:132:VAL:HG22	41:DF:133:ASN:N	1.98	0.79
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.48	0.78
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.83	0.78
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.64	0.78
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.83	0.78
27:D1:56:GLN:HE21	27:D1:56:GLN:CA	1.96	0.78
49:DR:10:LEU:HB3	49:DR:17:ARG:NE	1.97	0.78
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.13	0.78
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.63	0.78
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.84	0.78
25:AY:6:G:O2'	25:AY:7:A:H5'	1.82	0.78
25:AY:50:U:H2'	25:AY:51:U:C6	2.18	0.78
36:BA:286:C:H2'	36:BA:287:C:C5'	2.13	0.78
47:BP:16:ARG:NH1	47:BP:16:ARG:HB2	1.98	0.78
1:CA:1229:A:H2'	1:CA:1230:C:H6	1.46	0.78
36:DA:1290:C:H2'	36:DA:1291:C:C6	2.19	0.78
36:DA:2850:A:H2'	36:DA:2851:A:C8	2.18	0.78
47:DP:23:PRO:O	47:DP:33:ARG:HD2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:17:U:H2'	1:AA:18:C:C6	2.19	0.78
1:AA:92:C:H2'	1:AA:93:G:H8	1.48	0.78
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HB3	1.64	0.78
25:AY:57:G:H3'	25:AY:58:A:C5'	2.11	0.78
45:BN:4:TYR:HB2	52:BU:64:ARG:HH22	1.48	0.78
47:BP:101:VAL:HB	47:BP:107:LYS:HA	1.65	0.78
53:BV:25:LEU:N	53:BV:92:THR:HG21	1.98	0.78
44:DI:8:PRO:HD3	44:DI:15:VAL:HG12	1.66	0.78
1:AA:656:C:H4'	15:AO:62:GLN:NE2	1.98	0.78
23:AW:39:U:O2	23:AW:39:U:H5'	1.84	0.78
36:BA:2290:G:H8	36:BA:2290:G:H5'	1.48	0.78
47:BP:13:ASN:C	47:BP:13:ASN:HD22	1.86	0.78
51:BT:23:ARG:O	51:BT:25:GLY:N	2.14	0.78
54:BW:65:LEU:HD22	54:BW:68:ARG:H	1.48	0.78
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.47	0.78
16:CP:50:LYS:HD3	16:CP:51:VAL:N	1.97	0.78
51:DT:30:VAL:HG11	51:DT:84:GLN:CG	2.11	0.78
51:DT:91:ARG:CB	51:DT:116:ALA:HA	2.12	0.78
2:AB:194:PRO:O	2:AB:196:LEU:N	2.17	0.78
25:AY:56:C:C3'	25:AY:57:G:H5"	2.12	0.78
36:BA:2845:G:O2'	36:BA:2846:G:H5'	1.84	0.78
39:BD:76:PRO:HG2	39:BD:98:VAL:HG21	1.65	0.78
49:BR:56:LYS:HE2	49:BR:94:TYR:CE2	2.17	0.78
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	1.98	0.78
34:D8:6:THR:HG22	34:D8:63:PRO:HD3	1.66	0.78
36:DA:2562:U:H1'	46:DO:23:ARG:NH1	1.99	0.78
39:DD:112:GLN:HB2	39:DD:115:GLN:HE21	1.47	0.78
52:DU:91:ASP:C	52:DU:92:ARG:HD3	2.04	0.78
1:AA:1206:G:H4'	3:AC:192:THR:O	1.83	0.78
52:BU:92:ARG:HD2	53:BV:11:GLN:CD	2.03	0.78
9:CI:116:LYS:O	9:CI:118:LYS:N	2.17	0.78
10:CJ:50:ILE:HD13	10:CJ:50:ILE:N	1.98	0.78
36:DA:1187:G:H5"	53:DV:81:TYR:CE2	2.18	0.78
36:DA:2476:A:H2'	36:DA:2477:C:C5'	2.12	0.78
36:DA:2537:U:H2'	36:DA:2538:C:C6	2.18	0.78
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.82	0.78
40:BE:1:MET:HE3	40:BE:83:ASP:HB2	1.66	0.78
40:BE:81:ILE:HG22	40:BE:81:ILE:O	1.83	0.78
49:BR:47:PHE:O	49:BR:51:LEU:HD12	1.82	0.78
51:BT:91:ARG:CB	51:BT:116:ALA:HA	2.12	0.78
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:38:A:H3'	23:CW:39:U:H5"	1.65	0.78
36:DA:2245:U:H5'	36:DA:2246:G:H5'	1.63	0.78
42:DG:61:ALA:HB2	42:DG:68:PRO:CD	2.09	0.78
44:DI:8:PRO:HD3	44:DI:15:VAL:CG1	2.13	0.78
47:DP:16:ARG:HB2	47:DP:16:ARG:NH1	1.99	0.78
53:DV:39:LEU:HD12	53:DV:51:VAL:HA	1.65	0.78
14:AN:26:ARG:HG3	14:AN:27:CYS:N	1.97	0.78
36:BA:322:A:H3'	41:BF:169:ASN:ND2	1.99	0.78
36:BA:389:G:N1	47:BP:71:VAL:HG12	1.98	0.78
36:BA:645:C:O2	36:BA:645:C:H2'	1.84	0.78
53:BV:19:LYS:NZ	53:BV:20:LEU:H	1.82	0.78
4:CD:30:LYS:C	4:CD:32:ALA:H	1.82	0.78
25:CY:42:C:C3'	25:CY:43:C:H5"	2.13	0.78
36:DA:1114:G:C3'	36:DA:1115:G:H5"	2.14	0.78
45:DN:9:VAL:HG12	45:DN:10:GLU:H	1.47	0.78
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.65	0.78
7:AG:150:ALA:HB2	11:AK:50:TYR:OH	1.84	0.78
36:BA:2537:U:H2'	36:BA:2538:C:C6	2.19	0.78
51:BT:28:VAL:CG2	51:BT:46:GLU:HG3	2.13	0.78
53:BV:39:LEU:HD12	53:BV:51:VAL:HA	1.66	0.78
22:CV:59:A:H2'	22:CV:60:U:H5'	1.65	0.78
36:DA:521:G:H2'	36:DA:522:G:C8	2.19	0.78
39:DD:45:ASN:CG	39:DD:46:GLN:H	1.83	0.78
42:DG:19:LEU:CD1	42:DG:32:PRO:HD2	2.14	0.78
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.66	0.78
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.66	0.78
34:B8:50:LEU:HD12	34:B8:51:ALA:H	1.46	0.78
51:BT:100:TYR:HD2	51:BT:103:ARG:HH21	1.29	0.78
1:CA:625:G:H2'	1:CA:626:U:H6	1.49	0.78
15:CO:26:GLU:OE2	15:CO:77:ARG:HD2	1.84	0.78
16:CP:8:ARG:NH2	16:CP:15:PRO:HG3	1.98	0.78
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.84	0.78
1:AA:1239:A:H62	1:AA:1299:A:N6	1.82	0.77
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.48	0.77
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.49	0.77
20:AT:26:ASN:H	20:AT:26:ASN:ND2	1.82	0.77
41:BF:2:LYS:HD3	41:BF:2:LYS:N	1.98	0.77
44:BI:79:ILE:CG2	44:BI:81:VAL:HG23	2.13	0.77
45:BN:120:LEU:CD1	45:BN:122:VAL:HG23	2.14	0.77
54:BW:50:VAL:HG13	54:BW:51:LEU:H	1.48	0.77
13:CM:3:ARG:HA	13:CM:9:ILE:HG13	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.83	0.77
36:DA:1403:C:H5"	36:DA:1471:A:H1'	1.64	0.77
36:DA:2845:G:O2'	36:DA:2846:G:H5'	1.82	0.77
39:DD:28:GLU:N	39:DD:29:PRO:HD2	1.99	0.77
45:DN:120:LEU:HD11	45:DN:122:VAL:HG23	1.66	0.77
46:DO:2:ILE:HD11	46:DO:82:ASN:ND2	1.97	0.77
56:DY:10:GLY:HA2	56:DY:27:VAL:HG13	1.65	0.77
1:AA:1226:C:N4	13:AM:104:ARG:HD2	1.99	0.77
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.14	0.77
42:BG:76:SER:HB3	42:BG:84:LYS:N	1.99	0.77
42:BG:112:PRO:O	42:BG:113:ARG:HD3	1.84	0.77
47:BP:18:ARG:HB3	47:BP:18:ARG:NH1	1.99	0.77
50:BS:24:LEU:HB3	50:BS:85:VAL:HG12	1.66	0.77
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.65	0.77
12:CL:53:ARG:HH12	12:CL:92:ASP:HB2	1.48	0.77
20:CT:44:ALA:HA	20:CT:92:LEU:HD21	1.66	0.77
36:DA:914:C:C2'	36:DA:915:C:H5'	2.15	0.77
50:DS:83:LYS:CG	50:DS:105:ALA:HB3	2.14	0.77
1:AA:1194:U:H4'	5:AE:22:GLY:HA2	1.66	0.77
47:BP:47:ASP:HB3	47:BP:48:PRO:O	1.84	0.77
47:BP:84:ASN:HA	47:BP:115:LEU:O	1.84	0.77
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.66	0.77
15:CO:17:ARG:HH11	15:CO:17:ARG:HG3	1.49	0.77
31:D5:2:ALA:HA	36:DA:2015:A:C1'	2.14	0.77
42:DG:114:ILE:HG22	42:DG:116:ASP:H	1.49	0.77
46:DO:2:ILE:CD1	46:DO:82:ASN:HD22	1.97	0.77
47:DP:84:ASN:HA	47:DP:115:LEU:O	1.84	0.77
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.85	0.77
30:B4:48:ILE:H	30:B4:48:ILE:HD12	1.46	0.77
36:BA:1523:U:H2'	36:BA:1524:G:C8	2.19	0.77
36:BA:1754:C:OP1	51:BT:96:ARG:NH1	2.17	0.77
36:BA:2701:C:C3'	36:BA:2702:U:H5"	2.08	0.77
39:BD:28:GLU:N	39:BD:29:PRO:HD2	1.99	0.77
45:BN:47:ALA:HB2	45:BN:112:LEU:HD11	1.64	0.77
52:BU:91:ASP:OD2	52:BU:96:ALA:HB2	1.85	0.77
1:CA:656:C:H4'	15:CO:62:GLN:NE2	2.00	0.77
36:DA:769:G:O2'	36:DA:770:G:H5'	1.84	0.77
57:DZ:39:VAL:HG21	57:DZ:44:PHE:HD2	1.48	0.77
36:BA:1247:A:OP1	41:BF:95:ARG:NH2	2.17	0.77
36:BA:2863:C:H2'	36:BA:2864:G:H5"	1.66	0.77
39:BD:172:TYR:HD1	39:BD:186:HIS:HA	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:30:VAL:HG11	51:BT:84:GLN:CG	2.14	0.77
56:BY:10:GLY:HA2	56:BY:27:VAL:HG13	1.67	0.77
1:CA:1442(A):G:H3'	1:CA:1442(B):A:C5'	2.12	0.77
36:DA:1794:U:H2'	36:DA:1795:C:H6	1.48	0.77
36:DA:2701:C:C3'	36:DA:2702:U:H5"	2.08	0.77
37:DB:41:U:O4	42:DG:71:THR:HB	1.83	0.77
55:DX:12:VAL:HG23	55:DX:13:LEU:N	1.99	0.77
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.67	0.77
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.65	0.77
14:CN:26:ARG:NH2	14:CN:47:LEU:HD21	1.99	0.77
46:DO:119:PRO:HB2	51:DT:68:TYR:HE1	1.50	0.77
47:DP:105:LEU:N	47:DP:105:LEU:HD23	1.99	0.77
49:DR:11:ASN:O	49:DR:12:ARG:HG3	1.84	0.77
50:DS:26:LEU:HG	50:DS:39:ILE:HD11	1.66	0.77
52:DU:91:ASP:OD2	52:DU:96:ALA:HB2	1.85	0.77
14:AN:26:ARG:HD2	14:AN:43:CYS:SG	2.25	0.77
19:AS:9:VAL:O	19:AS:11:VAL:N	2.18	0.77
36:BA:1187:G:H5"	53:BV:81:TYR:CE2	2.20	0.77
40:BE:4:ILE:HG12	40:BE:28:ALA:HB1	1.65	0.77
44:BI:101:LEU:HB3	44:BI:109:ILE:HD11	1.65	0.77
50:BS:49:VAL:HG12	50:BS:50:SER:H	1.49	0.77
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.13	0.77
23:CW:69:G:C2'	23:CW:70:G:H5"	2.14	0.77
45:DN:47:ALA:HB2	45:DN:112:LEU:HD11	1.67	0.77
47:DP:125:VAL:O	47:DP:145:PRO:HD2	1.84	0.77
1:AA:673:G:H2'	1:AA:674:G:C8	2.20	0.77
34:B8:52:LYS:N	34:B8:53:PRO:HD2	2.00	0.77
36:BA:2476:A:H2'	36:BA:2477:C:C5'	2.12	0.77
39:BD:49:ILE:HD11	39:BD:52:ARG:HA	1.67	0.77
45:BN:125:GLY:HA3	45:BN:126:PRO:O	1.84	0.77
50:BS:83:LYS:CG	50:BS:105:ALA:HB3	2.14	0.77
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.66	0.77
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.84	0.77
13:CM:11:ARG:O	13:CM:13:LYS:N	2.18	0.77
26:D0:43:THR:HG22	36:DA:2331:G:O2'	1.85	0.77
44:DI:79:ILE:HG21	44:DI:81:VAL:HG23	1.66	0.77
49:DR:10:LEU:CD2	49:DR:17:ARG:HD2	2.13	0.77
51:DT:23:ARG:O	51:DT:25:GLY:N	2.13	0.77
56:DY:30:VAL:HG22	56:DY:37:VAL:HG12	1.67	0.77
57:DZ:5:LEU:HD21	57:DZ:39:VAL:HB	1.65	0.77
2:AB:70:PHE:O	2:AB:93:VAL:HG22	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.98	0.77
19:AS:41:VAL:HB	19:AS:44:MET:CG	2.15	0.77
22:AV:17:C:H5"	22:AV:17(A):U:C5	2.20	0.77
36:BA:863:A:O2'	36:BA:864:G:H5'	1.84	0.77
42:BG:44:GLY:HA2	42:BG:88:ILE:HG21	1.67	0.77
2:CB:194:PRO:O	2:CB:196:LEU:N	2.18	0.77
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.47	0.77
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.49	0.77
36:DA:744:G:OP1	40:DE:132:HIS:HB3	1.84	0.77
36:DA:2263:C:O2'	36:DA:2264:C:H5'	1.85	0.77
43:DH:89:ILE:HD12	43:DH:90:LYS:O	1.83	0.77
46:DO:35:VAL:HG21	46:DO:69:ILE:HD13	1.66	0.77
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.65	0.77
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.66	0.77
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	1.99	0.77
13:AM:112:GLY:HA2	13:AM:113:PRO:CD	2.11	0.77
36:BA:1286:A:H2'	36:BA:1288:U:OP2	1.85	0.77
36:BA:1722:A:O2'	36:BA:1739:U:H5"	1.84	0.77
42:BG:111:LEU:HB3	42:BG:117:PHE:HE2	1.50	0.77
57:BZ:158:PRO:HB2	57:BZ:159:PRO:CD	2.14	0.77
1:CA:1226:C:N4	13:CM:104:ARG:HD2	2.00	0.77
1:CA:1239:A:H62	1:CA:1299:A:N6	1.80	0.77
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.84	0.77
20:CT:26:ASN:H	20:CT:26:ASN:HD22	1.32	0.77
25:CY:25:C:H2'	25:CY:26:A:C8	2.20	0.77
36:DA:491:G:H2'	36:DA:492:A:H8	1.50	0.77
1:AA:1134:G:H2'	1:AA:1135:U:H5'	1.68	0.76
19:AS:6:LYS:HD3	19:AS:7:LYS:CE	2.11	0.76
25:AY:47:U:H5'	25:AY:48:C:C4'	2.13	0.76
29:B3:8:LEU:CD1	29:B3:31:LEU:HD23	2.15	0.76
36:BA:271(S):G:H2'	36:BA:271(T):C:C5'	2.12	0.76
36:BA:2347:C:H2'	36:BA:2348:U:C6	2.19	0.76
11:CK:38:ASN:N	11:CK:38:ASN:HD22	1.81	0.76
44:DI:68:LEU:CD2	44:DI:136:VAL:HG11	2.15	0.76
47:DP:13:ASN:C	47:DP:13:ASN:HD22	1.89	0.76
48:DQ:39:PRO:HB3	48:DQ:99:PRO:HD3	1.65	0.76
51:DT:23:ARG:HG2	51:DT:120:ARG:NH1	1.99	0.76
51:DT:31:SER:C	51:DT:32:TYR:HD2	1.88	0.76
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.50	0.76
3:AC:14:ILE:HG12	3:AC:15:THR:N	1.97	0.76
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B8:46:ARG:O	34:B8:47:LYS:HB3	1.86	0.76
36:BA:363(E):U:H2'	36:BA:363(F):A:H1'	1.67	0.76
40:BE:116:VAL:O	40:BE:117:MET:HB3	1.83	0.76
42:BG:161:THR:HG22	42:BG:163:ALA:N	2.00	0.76
48:BQ:39:PRO:HB3	48:BQ:99:PRO:HD3	1.67	0.76
53:BV:29:PRO:O	53:BV:61:VAL:HG22	1.83	0.76
4:CD:196:LEU:H	4:CD:196:LEU:HD12	1.50	0.76
30:D4:46:ASN:HD22	30:D4:47:VAL:N	1.84	0.76
36:DA:364:C:H2'	36:DA:365:C:H5"	1.65	0.76
36:DA:1247:A:OP1	41:DF:95:ARG:NH2	2.18	0.76
38:DC:41:VAL:HA	38:DC:213:TYR:HA	1.67	0.76
39:DD:16:MET:HE1	39:DD:208:LYS:HD2	1.66	0.76
40:DE:116:VAL:O	40:DE:117:MET:HB3	1.84	0.76
42:DG:101:ILE:O	42:DG:105:LYS:HE3	1.83	0.76
48:DQ:65:PHE:HB2	48:DQ:105:GLU:HG3	1.67	0.76
9:AI:116:LYS:O	9:AI:118:LYS:N	2.17	0.76
32:B6:36:LEU:HD13	32:B6:50:ARG:NH1	2.00	0.76
43:BH:41:MET:CE	43:BH:55:PRO:HD2	2.16	0.76
44:BI:92:VAL:HG11	44:BI:120:ILE:CD1	2.15	0.76
47:BP:30:THR:HG22	47:BP:31:ALA:H	1.49	0.76
1:CA:92:C:H2'	1:CA:93:G:H8	1.49	0.76
35:D9:9:ARG:NH1	35:D9:9:ARG:HB3	2.00	0.76
36:DA:2801(A):A:C4'	36:DA:2802:G:H5'	2.12	0.76
36:BA:27:G:O2'	36:BA:28:A:H8	1.69	0.76
36:BA:1290:C:H2'	36:BA:1291:C:C6	2.19	0.76
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.66	0.76
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.68	0.76
36:DA:2863:C:H2'	36:DA:2864:G:H5"	1.67	0.76
37:DB:43:C:C4'	42:DG:66:GLN:HE22	1.99	0.76
48:DQ:134:ARG:NH2	57:DZ:122:ARG:HH21	1.81	0.76
42:BG:31:VAL:HG22	42:BG:32:PRO:HD2	1.66	0.76
42:BG:106:LEU:HA	42:BG:110:ALA:HB3	1.65	0.76
44:BI:84:GLY:O	44:BI:85:GLU:HB2	1.85	0.76
2:CB:75:LYS:HG2	2:CB:78:GLN:NE2	2.01	0.76
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.67	0.76
7:CG:113:GLU:O	7:CG:119:ARG:HD3	1.84	0.76
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.67	0.76
23:CW:27:G:H1	23:CW:43:C:H42	1.30	0.76
40:DE:81:ILE:HG22	40:DE:81:ILE:O	1.84	0.76
41:DF:168:ARG:HA	41:DF:175:THR:HG21	1.67	0.76
44:DI:38:LEU:H	44:DI:38:LEU:CD1	1.98	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:19:LYS:NZ	53:DV:20:LEU:H	1.82	0.76
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.51	0.76
34:B8:6:THR:HG22	34:B8:63:PRO:HD3	1.67	0.76
38:BC:41:VAL:HA	38:BC:213:TYR:HA	1.66	0.76
47:BP:7:ARG:HA	47:BP:7:ARG:NE	1.99	0.76
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.85	0.76
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.67	0.76
36:DA:1523:U:H2'	36:DA:1524:G:C8	2.19	0.76
4:AD:49:ARG:HD3	4:AD:50:ARG:N	2.01	0.76
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.01	0.76
36:BA:925:C:H2'	36:BA:926:A:C5'	2.13	0.76
36:BA:2834:G:H5'	36:BA:2835:A:OP2	1.85	0.76
39:BD:155:LEU:HD23	39:BD:177:LEU:CD2	2.15	0.76
41:BF:177:ALA:HB1	41:BF:178:PRO:HD2	1.67	0.76
44:BI:8:PRO:HD3	44:BI:15:VAL:HG12	1.67	0.76
51:BT:113:LYS:O	51:BT:114:LEU:HD23	1.86	0.76
14:CN:26:ARG:HG3	14:CN:27:CYS:N	1.99	0.76
34:D8:25:MET:CG	47:DP:64:LYS:HB3	2.15	0.76
36:DA:1024:G:H3'	36:DA:1025:G:H5"	1.65	0.76
36:DA:2290:G:H5'	36:DA:2290:G:H8	1.50	0.76
36:DA:2873:A:N3	49:DR:6:SER:HB2	1.99	0.76
39:DD:155:LEU:HD23	39:DD:177:LEU:CD2	2.16	0.76
43:DH:53:GLU:O	43:DH:54:ARG:HB3	1.86	0.76
1:AA:190:U:H2'	1:AA:191:G:H8	1.50	0.76
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.68	0.76
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.65	0.76
36:BA:135:G:O2'	36:BA:136:G:H5'	1.86	0.76
36:BA:491:G:H2'	36:BA:492:A:H8	1.51	0.76
48:BQ:110:THR:HG23	48:BQ:113:GLN:OE1	1.86	0.76
2:CB:68:ILE:HD12	2:CB:161:ALA:HB3	1.68	0.76
19:CS:6:LYS:HD2	19:CS:7:LYS:N	2.01	0.76
29:D3:8:LEU:CD1	29:D3:31:LEU:HD23	2.16	0.76
37:DB:57:A:H4'	42:DG:30:GLU:OE1	1.86	0.76
47:DP:101:VAL:HB	47:DP:107:LYS:HA	1.64	0.76
36:BA:521:G:H2'	36:BA:522:G:C8	2.21	0.76
42:BG:171:ALA:O	42:BG:175:LEU:HD13	1.85	0.76
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.15	0.76
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.00	0.76
5:CE:53:LEU:H	5:CE:53:LEU:HD12	1.49	0.76
11:CK:122:LYS:O	11:CK:126:ARG:HG3	1.86	0.76
36:DA:1639:U:H2'	36:DA:1640:C:H5"	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.48	0.76
26:B0:43:THR:HG22	36:BA:2331:G:O2'	1.86	0.76
29:B3:56:VAL:CG1	29:B3:57:GLU:H	1.98	0.76
39:BD:186:HIS:HD2	39:BD:188:GLU:H	1.29	0.76
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.20	0.76
36:DA:1378:A:O2'	36:DA:1379:A:H5'	1.86	0.76
36:DA:2103:C:C3'	36:DA:2104:G:H5"	2.15	0.76
38:DC:41:VAL:HG23	38:DC:178:ALA:HB3	1.67	0.76
39:DD:108:PRO:HB3	39:DD:143:HIS:CE1	2.21	0.76
41:DF:2:LYS:HD3	41:DF:2:LYS:N	2.00	0.76
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	1.86	0.75
4:AD:196:LEU:H	4:AD:196:LEU:HD12	1.51	0.75
19:AS:6:LYS:HD2	19:AS:7:LYS:H	1.50	0.75
30:B4:46:ASN:HD22	30:B4:47:VAL:N	1.84	0.75
36:BA:197:A:H8	36:BA:197:A:H5'	1.51	0.75
36:BA:1884:A:H2'	36:BA:1885:A:C5'	2.12	0.75
36:BA:2864:G:H5'	36:BA:2864:G:C8	2.21	0.75
52:BU:92:ARG:HH11	52:BU:92:ARG:HG2	1.50	0.75
57:BZ:37:VAL:O	57:BZ:38:TYR:HB3	1.85	0.75
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.66	0.75
1:CA:1326:C:OP1	21:CU:12:LYS:HD2	1.85	0.75
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.21	0.75
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	1.87	0.75
19:CS:41:VAL:HB	19:CS:44:MET:CG	2.16	0.75
36:DA:286:C:H2'	36:DA:287:C:C5'	2.12	0.75
39:DD:210:GLY:O	39:DD:211:ARG:HB3	1.86	0.75
42:DG:55:LYS:HD3	42:DG:56:ALA:N	2.01	0.75
57:DZ:13:GLU:O	57:DZ:15:PRO:HD3	1.84	0.75
6:AF:11:ASN:O	6:AF:14:LEU:HG	1.86	0.75
7:AG:47:CYS:HA	7:AG:50:ILE:HG12	1.68	0.75
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.67	0.75
26:B0:49:LYS:H	26:B0:80:HIS:HB3	1.51	0.75
36:BA:2103:C:C3'	36:BA:2104:G:H5"	2.16	0.75
36:BA:2873:A:N3	49:BR:6:SER:HB2	2.01	0.75
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.87	0.75
8:CH:86:ILE:HG22	8:CH:87:SER:H	1.51	0.75
23:CW:6:G:O2'	23:CW:7:A:H5'	1.84	0.75
41:DF:101:LEU:HD12	41:DF:102:PRO:HD2	1.68	0.75
45:DN:125:GLY:HA3	45:DN:126:PRO:O	1.86	0.75
50:DS:49:VAL:HG12	50:DS:50:SER:H	1.49	0.75
57:DZ:6:LYS:HD2	57:DZ:6:LYS:N	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:114:GLY:HA3	57:DZ:177:PRO:HG3	1.69	0.75
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.16	0.75
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.68	0.75
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.84	0.75
36:BA:322:A:H3'	41:BF:169:ASN:HD21	1.52	0.75
48:BQ:16:ARG:HG2	48:BQ:17:LEU:H	1.50	0.75
50:BS:46:VAL:HG12	50:BS:47:THR:N	2.01	0.75
54:BW:60:ASN:HD22	54:BW:60:ASN:N	1.83	0.75
13:CM:69:GLU:HA	13:CM:70:LEU:N	2.00	0.75
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.67	0.75
32:D6:10:LEU:HD12	34:D8:34:TRP:CD1	2.21	0.75
34:D8:50:LEU:HD12	34:D8:51:ALA:H	1.51	0.75
36:DA:1722:A:O2'	36:DA:1739:U:H5"	1.85	0.75
37:DB:60:C:H2'	37:DB:61:G:H8	1.50	0.75
41:DF:28:ILE:HG21	41:DF:116:ASP:HB2	1.68	0.75
42:DG:88:ILE:HG12	42:DG:89:GLY:N	2.01	0.75
44:DI:79:ILE:HG12	44:DI:140:LEU:HD11	1.66	0.75
44:DI:84:GLY:O	44:DI:85:GLU:HB2	1.85	0.75
57:DZ:53:ILE:H	57:DZ:71:VAL:CG2	1.99	0.75
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.22	0.75
47:BP:125:VAL:O	47:BP:145:PRO:HD2	1.86	0.75
53:BV:18:LEU:HD22	53:BV:19:LYS:H	1.50	0.75
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.21	0.75
2:CB:18:GLY:H	2:CB:42:ILE:CG2	1.96	0.75
3:CC:83:ARG:O	3:CC:86:VAL:HG22	1.86	0.75
19:CS:9:VAL:O	19:CS:11:VAL:N	2.18	0.75
26:D0:25:ARG:HA	26:D0:29:GLN:HE22	1.50	0.75
32:D6:15:GLU:HG2	32:D6:15:GLU:O	1.87	0.75
36:DA:1018:C:O2'	36:DA:1019:U:H5'	1.87	0.75
52:DU:92:ARG:HH11	52:DU:92:ARG:HG2	1.51	0.75
53:DV:52:VAL:HG13	53:DV:55:ALA:HB3	1.68	0.75
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	1.86	0.75
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.01	0.75
28:B2:64:LEU:O	28:B2:68:ARG:HG2	1.85	0.75
36:BA:2348:U:H2'	36:BA:2349:G:C5'	2.15	0.75
56:BY:52:SER:O	56:BY:54:LYS:N	2.20	0.75
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.67	0.75
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.86	0.75
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.52	0.75
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.01	0.75
23:CW:30:G:H2'	23:CW:31:A:C8	2.22	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:541:C:H2'	36:DA:542:C:C6	2.22	0.75
39:DD:48:ARG:HH11	39:DD:48:ARG:HG3	1.51	0.75
39:DD:49:ILE:HD11	39:DD:52:ARG:HA	1.68	0.75
42:DG:39:ILE:HG13	42:DG:155:MET:SD	2.26	0.75
42:DG:106:LEU:HG	42:DG:111:LEU:HD12	1.66	0.75
57:DZ:53:ILE:N	57:DZ:53:ILE:HD13	2.01	0.75
1:AA:76:C:H42	1:AA:93:G:H1	1.32	0.75
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.20	0.75
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.01	0.75
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.68	0.75
42:BG:146:TYR:O	42:BG:149:VAL:HG22	1.87	0.75
47:BP:105:LEU:HD23	47:BP:105:LEU:N	2.02	0.75
1:CA:984:C:H2'	1:CA:985:C:H6	1.50	0.75
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.87	0.75
46:DO:18:LYS:HB2	46:DO:45:GLU:HG2	1.67	0.75
50:DS:92:TYR:O	50:DS:93:LYS:HB3	1.85	0.75
52:DU:92:ARG:HD2	53:DV:11:GLN:CD	2.07	0.75
1:AA:434:U:H2'	1:AA:435:C:C6	2.22	0.75
1:AA:979:C:C3'	1:AA:980:C:H5"	2.17	0.75
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.68	0.75
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.69	0.75
44:BI:88:ILE:HD11	44:BI:123:LEU:H	1.49	0.75
47:BP:71:VAL:HG13	47:BP:72:PRO:CD	2.15	0.75
49:BR:45:ARG:HG3	49:BR:46:GLY:N	2.02	0.75
53:BV:52:VAL:HG13	53:BV:55:ALA:HB3	1.68	0.75
1:CA:76:C:H42	1:CA:93:G:H1	1.34	0.75
19:CS:63:THR:HG22	19:CS:66:MET:HE2	1.68	0.75
36:DA:528:A:N1	36:DA:2042:A:H2'	2.02	0.75
42:DG:51:ARG:NH1	42:DG:53:LEU:HG	2.02	0.75
57:DZ:23:LYS:HE2	57:DZ:38:TYR:HE1	1.52	0.75
23:AW:16:U:H3'	23:AW:17:C:C5'	2.16	0.75
28:B2:65:ASN:HD22	28:B2:69:ARG:HH22	1.33	0.75
35:B9:9:ARG:HB3	35:B9:9:ARG:NH1	2.00	0.75
36:BA:631:A:OP1	47:BP:64:LYS:HE2	1.87	0.75
36:BA:1042:G:H1'	36:BA:1114:G:N2	2.02	0.75
36:BA:1348:G:H2'	36:BA:1349:A:H5"	1.68	0.75
36:BA:1925:C:O2'	36:BA:1926:U:H5'	1.87	0.75
36:BA:1986:A:C3'	36:BA:1987:G:H5"	2.16	0.75
41:BF:34:TRP:CZ2	47:BP:12:ALA:HB2	2.22	0.75
44:BI:8:PRO:HD3	44:BI:15:VAL:CG1	2.16	0.75
46:BO:18:LYS:HB2	46:BO:45:GLU:HG2	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:26:LEU:HG	50:BS:39:ILE:HD11	1.69	0.75
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	1.97	0.75
7:CG:49:ILE:HG23	7:CG:53:LYS:HD2	1.69	0.75
32:D6:36:LEU:HD13	32:D6:50:ARG:NH1	2.02	0.75
36:DA:1902:C:O2'	39:DD:244:ARG:HB2	1.86	0.75
7:AG:113:GLU:O	7:AG:119:ARG:HD3	1.86	0.75
11:AK:85:ARG:HG2	11:AK:111:ASP:O	1.87	0.75
27:B1:3:LYS:HG3	27:B1:4:VAL:N	2.01	0.75
32:B6:15:GLU:O	32:B6:15:GLU:HG2	1.86	0.75
38:BC:49:ILE:H	38:BC:49:ILE:CD1	1.99	0.75
40:BE:51:PHE:CE1	40:BE:52:LEU:HD13	2.22	0.75
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.02	0.75
19:CS:6:LYS:HD3	19:CS:7:LYS:CE	2.15	0.75
36:DA:1658:C:OP1	40:DE:132:HIS:ND1	2.20	0.75
39:DD:35:LYS:HZ1	39:DD:103:ARG:HA	1.51	0.75
41:DF:46:ARG:HG3	41:DF:46:ARG:HH11	1.52	0.75
44:DI:123:LEU:CD2	44:DI:142:VAL:HG12	2.17	0.75
51:DT:100:TYR:HD2	51:DT:103:ARG:HH21	1.34	0.75
57:DZ:175:VAL:HB	57:DZ:176:PRO:HD2	1.69	0.75
1:AA:984:C:H2'	1:AA:985:C:H6	1.48	0.74
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.22	0.74
11:AK:38:ASN:HD22	11:AK:38:ASN:N	1.84	0.74
13:AM:11:ARG:O	13:AM:13:LYS:N	2.20	0.74
36:BA:2693:A:H2'	36:BA:2694:G:C8	2.22	0.74
39:BD:210:GLY:O	39:BD:211:ARG:HB3	1.85	0.74
51:BT:23:ARG:HG2	51:BT:120:ARG:NH1	2.01	0.74
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.52	0.74
7:CG:78:ARG:HD2	7:CG:79:ARG:H	1.50	0.74
8:CH:84:ARG:HG3	8:CH:85:ARG:N	2.01	0.74
36:DA:1042:G:H1'	36:DA:1114:G:N2	2.01	0.74
36:DA:2732:G:O2'	36:DA:2733:A:H5'	1.87	0.74
39:DD:31:LYS:NZ	39:DD:102:LYS:HZ2	1.85	0.74
47:DP:7:ARG:NE	47:DP:7:ARG:HA	2.02	0.74
47:DP:59:LEU:HA	47:DP:61:ARG:NH1	2.01	0.74
56:DY:28:LYS:HZ2	56:DY:28:LYS:N	1.85	0.74
56:DY:95:LYS:HG2	56:DY:100:ALA:HA	1.68	0.74
2:AB:44:LEU:H	2:AB:44:LEU:HD12	1.51	0.74
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.87	0.74
28:B2:65:ASN:HB3	28:B2:69:ARG:NH2	2.01	0.74
39:BD:108:PRO:HB3	39:BD:143:HIS:CE1	2.22	0.74
1:CA:1321:C:H5"	1:CA:1322:C:H5"	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:47:CYS:HA	7:CG:50:ILE:HG12	1.69	0.74
28:D2:10:LEU:HD13	28:D2:14:ARG:NH2	2.00	0.74
41:DF:34:TRP:CZ2	47:DP:12:ALA:HB2	2.22	0.74
53:DV:29:PRO:O	53:DV:61:VAL:HG22	1.86	0.74
54:DW:50:VAL:HG13	54:DW:51:LEU:H	1.52	0.74
15:AO:82:ILE:O	15:AO:82:ILE:HD13	1.87	0.74
23:AW:57:G:H2'	23:AW:58:A:H5'	1.69	0.74
40:BE:134:ILE:HG12	40:BE:134:ILE:O	1.87	0.74
46:BO:107:ARG:NH1	51:BT:36:GLU:H	1.84	0.74
47:BP:23:PRO:O	47:BP:33:ARG:HD2	1.86	0.74
1:CA:1057:G:H5"	3:CC:154:SER:CB	2.17	0.74
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.51	0.74
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	1.87	0.74
13:CM:112:GLY:HA2	13:CM:113:PRO:CD	2.11	0.74
20:CT:26:ASN:H	20:CT:26:ASN:ND2	1.82	0.74
36:DA:197:A:H8	36:DA:197:A:H5'	1.51	0.74
36:DA:1231:G:H2'	36:DA:1232:G:C8	2.23	0.74
36:DA:1348:G:H2'	36:DA:1349:A:H5"	1.67	0.74
42:DG:2:PRO:C	42:DG:4:ASP:H	1.89	0.74
42:DG:58:GLN:NE2	42:DG:59:GLU:HG3	2.02	0.74
42:DG:125:PHE:HB2	42:DG:166:ASP:CB	2.18	0.74
43:DH:65:HIS:O	43:DH:69:ARG:HD3	1.87	0.74
49:DR:47:PHE:O	49:DR:51:LEU:HD12	1.86	0.74
4:AD:63:LYS:HD2	4:AD:198:VAL:HG23	1.69	0.74
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.67	0.74
13:AM:97:PRO:HA	13:AM:98:VAL:HA	1.69	0.74
32:B6:10:LEU:HD12	34:B8:34:TRP:CD1	2.22	0.74
48:BQ:30:GLY:HA2	48:BQ:107:ALA:HB2	1.69	0.74
50:BS:15:ARG:HB3	50:BS:18:ILE:HG21	1.69	0.74
50:BS:92:TYR:O	50:BS:93:LYS:HB3	1.88	0.74
53:BV:15:GLU:HB3	53:BV:16:PRO:CD	2.18	0.74
1:CA:148:G:O2'	1:CA:149:A:H5'	1.87	0.74
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.02	0.74
14:CN:40:CYS:O	14:CN:44:LEU:HB3	1.86	0.74
33:D7:41:ARG:HD3	33:D7:45:ALA:HB2	1.69	0.74
36:DA:1484:G:H3'	36:DA:1485:G:H5"	1.69	0.74
36:DA:2753:A:O2'	36:DA:2754:U:H5'	1.87	0.74
36:DA:2834:G:H5'	36:DA:2835:A:OP2	1.86	0.74
41:DF:78:ILE:H	41:DF:78:ILE:HD13	1.49	0.74
43:DH:41:MET:CE	43:DH:55:PRO:HD2	2.16	0.74
23:AW:16:U:C3'	23:AW:17:C:H5'	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1114:G:H3'	36:BA:1115:G:H5"	1.68	0.74
36:BA:1411:C:H2'	36:BA:1412:A:C8	2.22	0.74
36:BA:2732:G:O2'	36:BA:2733:A:H5'	1.87	0.74
37:BB:65:C:H41	37:BB:109:C:H2'	1.53	0.74
47:BP:59:LEU:HA	47:BP:61:ARG:NH1	2.02	0.74
52:BU:92:ARG:NH2	52:BU:94:ASN:HD22	1.85	0.74
3:CC:14:ILE:HG12	3:CC:15:THR:N	1.97	0.74
36:DA:1986:A:C3'	36:DA:1987:G:H5"	2.17	0.74
44:DI:87:LYS:CA	44:DI:122:GLU:HG2	2.16	0.74
49:DR:28:LEU:HD11	49:DR:116:LEU:HD21	1.69	0.74
51:DT:13:ARG:HA	51:DT:13:ARG:NE	2.03	0.74
52:DU:92:ARG:NH2	52:DU:94:ASN:HD22	1.85	0.74
57:DZ:126:VAL:HG12	57:DZ:163:LEU:HA	1.70	0.74
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.70	0.74
1:AA:1125:U:O4	10:AJ:5:ARG:HD3	1.88	0.74
1:AA:1326:C:OP1	21:AU:12:LYS:HD2	1.87	0.74
26:B0:25:ARG:HA	26:B0:29:GLN:HE22	1.52	0.74
26:B0:49:LYS:N	26:B0:80:HIS:HB3	2.03	0.74
44:BI:38:LEU:H	44:BI:38:LEU:CD1	1.99	0.74
1:CA:738:C:H5"	6:CF:69:GLU:HB2	1.69	0.74
36:DA:481:G:H1'	36:DA:506:G:N2	2.01	0.74
44:DI:66:GLU:O	44:DI:70:GLU:HG2	1.88	0.74
44:DI:72:LEU:CD1	44:DI:138:ILE:HD13	2.17	0.74
47:DP:71:VAL:HG13	47:DP:72:PRO:CD	2.18	0.74
49:DR:45:ARG:HG3	49:DR:46:GLY:N	2.02	0.74
1:AA:148:G:O2'	1:AA:149:A:H5'	1.87	0.74
7:AG:148:ASN:HD22	7:AG:148:ASN:N	1.84	0.74
26:B0:41:ARG:H	26:B0:41:ARG:CD	1.99	0.74
28:B2:67:LYS:O	28:B2:70:GLN:HG2	1.87	0.74
36:BA:914:C:C2'	36:BA:915:C:H5'	2.15	0.74
36:BA:1484:G:H3'	36:BA:1485:G:H5"	1.69	0.74
56:BY:7:VAL:HB	56:BY:8:LYS:HZ2	1.53	0.74
26:D0:49:LYS:H	26:D0:80:HIS:HB3	1.51	0.74
7:AG:78:ARG:HD2	7:AG:79:ARG:H	1.52	0.74
36:BA:1686:C:H5'	36:BA:1686:C:H6	1.52	0.74
41:BF:101:LEU:HD12	41:BF:102:PRO:HD2	1.68	0.74
51:BT:3:ARG:O	51:BT:7:ILE:HG12	1.87	0.74
51:BT:96:ARG:HH11	51:BT:96:ARG:HG2	1.53	0.74
56:BY:28:LYS:HZ2	56:BY:28:LYS:N	1.85	0.74
1:CA:190:U:H2'	1:CA:191:G:H8	1.51	0.74
1:CA:393:A:O2'	1:CA:394:G:H5'	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:57:LYS:HG2	5:CE:61:TYR:CE2	2.22	0.74
42:DG:135:LEU:CD1	42:DG:157:ILE:H	1.99	0.74
44:DI:101:LEU:HB3	44:DI:109:ILE:HD11	1.69	0.74
15:AO:17:ARG:HG3	15:AO:17:ARG:HH11	1.51	0.74
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.68	0.74
36:BA:1018:C:O2'	36:BA:1019:U:H5'	1.88	0.74
36:BA:1019:U:H3	36:BA:1142(A):A:H62	1.35	0.74
36:BA:1021:A:H3'	36:BA:1021:A:C8	2.21	0.74
39:BD:112:GLN:HB2	39:BD:115:GLN:HE21	1.51	0.74
51:BT:28:VAL:CG2	51:BT:47:GLY:H	1.95	0.74
1:CA:382:A:H2'	1:CA:383:A:C8	2.22	0.74
6:CF:11:ASN:O	6:CF:14:LEU:HG	1.88	0.74
25:CY:66:U:H2'	25:CY:67:C:H6	1.52	0.74
36:DA:1754:C:OP1	51:DT:96:ARG:NH1	2.20	0.74
36:DA:2679:A:H4'	40:DE:165:VAL:HG11	1.70	0.74
36:DA:2693:A:H2'	36:DA:2694:G:C8	2.21	0.74
42:DG:66:GLN:HG3	42:DG:94:LEU:HD23	1.69	0.74
1:AA:1346:A:C5'	9:AI:120:ARG:HH12	2.01	0.74
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.53	0.74
10:AJ:8:LEU:HB3	10:AJ:16:LEU:HD21	1.69	0.74
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.88	0.74
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.69	0.74
28:B2:40:SER:C	28:B2:42:GLY:H	1.91	0.74
33:B7:41:ARG:HD3	33:B7:45:ALA:HB2	1.68	0.74
36:BA:481:G:H1'	36:BA:506:G:N2	2.01	0.74
36:BA:1045:A:H2'	36:BA:1045:A:N3	2.03	0.74
38:BC:41:VAL:HG23	38:BC:178:ALA:HB3	1.69	0.74
48:BQ:65:PHE:HB2	48:BQ:105:GLU:HG3	1.68	0.74
19:CS:18:LYS:O	19:CS:22:LEU:HD23	1.87	0.74
33:D7:43:THR:HG23	33:D7:44:PRO:HD2	1.70	0.74
34:D8:46:ARG:O	34:D8:47:LYS:HB3	1.87	0.74
36:DA:322:A:H3'	41:DF:169:ASN:HD21	1.49	0.74
48:DQ:110:THR:HG23	48:DQ:113:GLN:OE1	1.87	0.74
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.87	0.73
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.87	0.73
22:AV:72:A:H3'	22:AV:73:A:H8	1.53	0.73
41:BF:168:ARG:HA	41:BF:175:THR:HG21	1.69	0.73
45:BN:58:ASP:C	45:BN:60:ILE:H	1.91	0.73
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.18	0.73
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.87	0.73
13:CM:54:VAL:O	13:CM:58:GLU:HG2	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:645:C:H2'	36:DA:645:C:O2	1.86	0.73
36:DA:1324:G:H1'	36:DA:1616:A:N6	2.03	0.73
37:DB:43:C:H4'	42:DG:66:GLN:NE2	2.03	0.73
41:DF:157:VAL:HB	41:DF:194:MET:HB3	1.69	0.73
42:DG:135:LEU:CD1	42:DG:157:ILE:HG22	2.17	0.73
44:DI:109:ILE:HG22	44:DI:111:PRO:HD3	1.67	0.73
1:AA:1321:C:H5"	1:AA:1322:C:H5"	1.70	0.73
1:AA:1342:C:H1'	9:AI:124:GLN:NE2	2.02	0.73
5:AE:57:LYS:HG2	5:AE:61:TYR:CE2	2.21	0.73
22:AV:51:C:H2'	22:AV:52:G:H5"	1.69	0.73
34:B8:25:MET:CG	47:BP:64:LYS:HB3	2.16	0.73
36:BA:528:A:N1	36:BA:2042:A:H2'	2.03	0.73
36:BA:1114:G:C3'	36:BA:1115:G:H5"	2.17	0.73
40:BE:77:ILE:CG2	40:BE:78:LEU:H	1.96	0.73
43:BH:76:VAL:O	43:BH:79:VAL:HG22	1.88	0.73
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.23	0.73
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.45	0.73
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	1.88	0.73
39:DD:76:PRO:HG2	39:DD:98:VAL:HG21	1.68	0.73
51:DT:60:THR:HG22	51:DT:77:PRO:HA	1.70	0.73
57:DZ:117:LEU:HA	57:DZ:174:VAL:HG22	1.69	0.73
27:B1:7:ILE:HG22	27:B1:8:SER:N	2.03	0.73
2:CB:181:PHE:HD1	8:CH:70:GLN:HB3	1.51	0.73
32:D6:39:TYR:HE1	36:DA:2347:C:H4'	1.53	0.73
36:DA:363(E):U:H2'	36:DA:363(F):A:H1'	1.67	0.73
36:DA:1286:A:H2'	36:DA:1288:U:OP2	1.87	0.73
50:DS:67:ARG:HH12	50:DS:100:ALA:HB3	1.53	0.73
1:AA:823:G:H21	8:AH:1:MET:HE3	1.53	0.73
25:AY:68:C:H2'	25:AY:69:G:C8	2.24	0.73
42:BG:39:ILE:HD13	42:BG:157:ILE:HG23	1.70	0.73
43:BH:53:GLU:O	43:BH:54:ARG:HB3	1.87	0.73
25:CY:50:U:H1'	25:CY:65:G:N1	1.98	0.73
36:DA:613:G:H5'	36:DA:613:G:C8	2.23	0.73
42:DG:102:PHE:O	42:DG:104:GLU:N	2.21	0.73
45:DN:58:ASP:C	45:DN:60:ILE:H	1.90	0.73
49:DR:74:LYS:HD2	49:DR:77:ARG:HH21	1.54	0.73
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.87	0.73
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.04	0.73
23:AW:68:C:H2'	23:AW:69:G:H8	1.51	0.73
27:B1:8:SER:HB3	27:B1:66:HIS:CD2	2.22	0.73
40:BE:1:MET:HB2	40:BE:83:ASP:O	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:89:ILE:HD12	43:BH:90:LYS:O	1.88	0.73
1:CA:979:C:C3'	1:CA:980:C:H5"	2.17	0.73
1:CA:1084:G:H5'	1:CA:1102:A:OP2	1.89	0.73
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.70	0.73
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.69	0.73
36:DA:1221:C:OP1	53:DV:68:LYS:HE3	1.88	0.73
36:DA:1884:A:H2'	36:DA:1885:A:C5'	2.12	0.73
36:DA:2348:U:H2'	36:DA:2349:G:C5'	2.14	0.73
40:DE:51:PHE:CE1	40:DE:52:LEU:HD13	2.24	0.73
44:DI:58:LEU:HD12	44:DI:61:ARG:NE	2.04	0.73
50:DS:13:ARG:O	50:DS:15:ARG:HG2	1.88	0.73
57:DZ:68:PRO:HB2	57:DZ:91:LEU:HB2	1.71	0.73
36:BA:528:A:H2	36:BA:2043:C:C5'	2.02	0.73
43:BH:102:ALA:HB2	43:BH:117:PRO:HD3	1.71	0.73
44:BI:68:LEU:HD23	44:BI:136:VAL:HG11	1.69	0.73
57:BZ:53:ILE:CG2	57:BZ:71:VAL:HB	2.19	0.73
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.68	0.73
36:DA:528:A:H2	36:DA:2043:C:H4'	1.52	0.73
40:DE:101:ARG:HD3	40:DE:169:ASN:ND2	2.03	0.73
42:DG:125:PHE:HB2	42:DG:166:ASP:HB3	1.70	0.73
43:DH:109:PHE:HD1	43:DH:109:PHE:H	1.37	0.73
52:DU:47:TYR:HA	52:DU:50:ARG:NH2	2.02	0.73
56:DY:27:VAL:HA	56:DY:28:LYS:HZ1	1.51	0.73
1:AA:625:G:H2'	1:AA:626:U:H6	1.51	0.73
12:AL:46:LYS:CG	12:AL:47:LYS:H	1.92	0.73
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.03	0.73
36:BA:141:A:H8	36:BA:1408:C:HO2'	1.30	0.73
38:BC:36:LYS:HD3	38:BC:37:PHE:H	1.54	0.73
39:BD:35:LYS:HZ1	39:BD:103:ARG:HA	1.52	0.73
40:BE:30:PRO:HD3	40:BE:180:ASN:ND2	2.04	0.73
41:BF:9:ILE:HA	41:BF:13:SER:O	1.88	0.73
43:BH:109:PHE:H	43:BH:109:PHE:HD1	1.37	0.73
44:BI:68:LEU:CD2	44:BI:136:VAL:HG11	2.19	0.73
44:BI:75:LEU:HD21	44:BI:105:HIS:CE1	2.23	0.73
52:BU:31:SER:HB3	52:BU:34:LYS:HB2	1.70	0.73
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	1.69	0.73
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.89	0.73
27:D1:19:GLN:HB2	27:D1:35:THR:HG22	1.71	0.73
34:D8:25:MET:HG3	47:DP:64:LYS:CB	2.19	0.73
42:DG:16:ARG:NE	42:DG:31:VAL:HG11	2.03	0.73
42:DG:55:LYS:O	42:DG:58:GLN:HG3	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:57:ILE:HG22	57:DZ:58:VAL:N	2.03	0.73
14:AN:40:CYS:O	14:AN:44:LEU:HB3	1.89	0.73
30:B4:57:ILE:HD12	42:BG:142:PRO:O	1.88	0.73
41:BF:7:TYR:HB3	41:BF:16:GLY:H	1.54	0.73
47:BP:96:THR:HG22	47:BP:126:VAL:HB	1.71	0.73
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.53	0.73
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.69	0.73
26:D0:77:ARG:HH22	36:DA:857:C:H5'	1.54	0.73
40:DE:73:GLU:HG3	40:DE:74:PRO:HD2	1.70	0.73
44:DI:75:LEU:HD21	44:DI:105:HIS:CE1	2.23	0.73
57:DZ:150:LEU:HB2	57:DZ:154:ASP:OD1	1.89	0.73
1:AA:963:G:H21	10:AJ:55:LYS:HZ2	1.36	0.73
11:AK:12:ARG:HH21	11:AK:14:VAL:HG12	1.54	0.73
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.54	0.73
37:BB:60:C:H2'	37:BB:61:G:H8	1.53	0.73
45:BN:55:VAL:HG22	45:BN:126:PRO:HA	1.71	0.73
48:BQ:64:ILE:HG23	48:BQ:106:VAL:HG12	1.70	0.73
51:BT:13:ARG:HA	51:BT:13:ARG:NE	2.02	0.73
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.53	0.73
2:CB:77:ALA:HB2	2:CB:211:ILE:HD12	1.71	0.73
3:CC:173:VAL:O	3:CC:175:LEU:HD12	1.89	0.73
8:CH:6:ILE:O	8:CH:10:LEU:HD12	1.89	0.73
34:D8:52:LYS:N	34:D8:53:PRO:HD2	2.02	0.73
44:DI:72:LEU:HD12	44:DI:138:ILE:HD13	1.69	0.73
47:DP:126:VAL:HG12	47:DP:148:LEU:HD11	1.70	0.73
56:DY:7:VAL:HB	56:DY:8:LYS:HZ2	1.54	0.73
1:AA:738:C:H5"	6:AF:69:GLU:HB2	1.69	0.73
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.53	0.73
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.53	0.73
36:BA:2009:G:N3	49:BR:107:ASP:HA	2.04	0.73
51:BT:60:THR:HG22	51:BT:77:PRO:HA	1.71	0.73
52:BU:66:ASN:HB2	52:BU:76:TYR:HB2	1.70	0.73
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.17	0.73
22:CV:10:G:N2	22:CV:26:G:H1'	2.04	0.73
26:D0:49:LYS:N	26:D0:80:HIS:HB3	2.03	0.73
36:DA:1803:A:O2'	39:DD:259:THR:HG21	1.87	0.73
43:DH:13:LYS:HE2	43:DH:13:LYS:CA	2.19	0.73
44:DI:58:LEU:CA	44:DI:61:ARG:HE	1.96	0.73
53:DV:15:GLU:HB3	53:DV:16:PRO:CD	2.18	0.73
55:DX:12:VAL:CB	55:DX:17:ALA:HB1	2.16	0.73
56:DY:42:VAL:HB	56:DY:65:ALA:HB3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.54	0.72
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.19	0.72
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.03	0.72
36:BA:528:A:H2	36:BA:2043:C:H4'	1.52	0.72
36:BA:613:G:H5'	36:BA:613:G:C8	2.24	0.72
50:BS:48:LEU:HD22	50:BS:82:ILE:HD11	1.71	0.72
4:CD:31:CYS:C	4:CD:33:MET:H	1.91	0.72
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	1.89	0.72
27:D1:45:ASN:HD21	36:DA:2090:G:H21	1.37	0.72
47:DP:6:LEU:HG	47:DP:9:ASN:ND2	2.03	0.72
47:DP:99:LEU:HA	47:DP:102:ARG:HH22	1.53	0.72
48:DQ:64:ILE:HG23	48:DQ:106:VAL:HG12	1.71	0.72
51:DT:96:ARG:HH11	51:DT:96:ARG:HG2	1.53	0.72
1:AA:1084:G:H5'	1:AA:1102:A:OP2	1.89	0.72
4:AD:31:CYS:C	4:AD:33:MET:H	1.93	0.72
36:BA:2134:A:H62	36:BA:2157:G:H1'	1.53	0.72
54:BW:59:VAL:HG12	54:BW:60:ASN:N	2.03	0.72
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.03	0.72
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.87	0.72
15:CO:82:ILE:HD13	15:CO:82:ILE:O	1.89	0.72
22:CV:36:U:H2'	22:CV:37:A:H8	1.55	0.72
34:D8:6:THR:CG2	34:D8:63:PRO:HD3	2.19	0.72
36:DA:271(S):G:H2'	36:DA:271(T):C:C5'	2.12	0.72
36:DA:631:A:OP1	47:DP:64:LYS:HE2	1.88	0.72
36:DA:1045:A:H2'	36:DA:1045:A:N3	2.02	0.72
36:DA:2062:A:O2'	36:DA:2063:C:H5'	1.87	0.72
42:DG:15:VAL:HG13	42:DG:175:LEU:CG	2.18	0.72
8:AH:86:ILE:HG22	8:AH:87:SER:H	1.55	0.72
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	1.89	0.72
13:AM:54:VAL:O	13:AM:58:GLU:HG2	1.90	0.72
36:BA:1748:G:H8	36:BA:1748:G:H5'	1.54	0.72
40:BE:92:THR:O	40:BE:95:ILE:HD13	1.89	0.72
40:BE:199:ARG:HB2	40:BE:199:ARG:NH1	2.04	0.72
47:BP:126:VAL:HG12	47:BP:148:LEU:HD11	1.71	0.72
36:DA:608:A:OP1	41:DF:100:THR:HG21	1.90	0.72
36:DA:1593:G:C3'	36:DA:1594:G:H5"	2.20	0.72
39:DD:24:ILE:CG1	39:DD:25:THR:H	1.97	0.72
41:DF:9:ILE:HA	41:DF:13:SER:O	1.89	0.72
48:DQ:141:GLN:HB2	57:DZ:98:MET:HA	1.69	0.72
51:DT:28:VAL:CG2	51:DT:47:GLY:H	1.94	0.72
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.70	0.72
36:BA:1119:C:H2'	36:BA:1120:G:H8	1.55	0.72
40:BE:154:LYS:HA	40:BE:154:LYS:HE3	1.71	0.72
1:CA:389:A:H2'	1:CA:390:C:H5'	1.72	0.72
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.72	0.72
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.04	0.72
26:D0:46:LYS:HB3	26:D0:47:PRO:HD2	1.70	0.72
38:DC:36:LYS:HD3	38:DC:37:PHE:H	1.52	0.72
57:DZ:39:VAL:HG23	57:DZ:40:ASP:N	2.04	0.72
1:AA:393:A:O2'	1:AA:394:G:H5'	1.90	0.72
8:AH:6:ILE:O	8:AH:10:LEU:HD12	1.89	0.72
25:AY:18:G:N2	25:AY:57:G:N7	2.37	0.72
28:B2:63:VAL:O	28:B2:66:GLU:HG2	1.89	0.72
39:BD:11:PRO:O	39:BD:13:ARG:N	2.21	0.72
47:BP:112:LEU:HD22	47:BP:113:LYS:H	1.54	0.72
5:CE:144:THR:O	5:CE:148:VAL:HG23	1.89	0.72
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.17	0.72
36:DA:863:A:H2'	36:DA:864:G:H8	1.52	0.72
36:DA:1719:G:O2'	36:DA:1720:U:H5'	1.89	0.72
43:DH:76:VAL:O	43:DH:79:VAL:HG22	1.90	0.72
44:DI:79:ILE:HG22	44:DI:81:VAL:H	1.55	0.72
47:DP:96:THR:HG22	47:DP:126:VAL:HB	1.71	0.72
47:DP:122:PRO:HG3	47:DP:141:ALA:HB3	1.71	0.72
48:DQ:141:GLN:NE2	57:DZ:72:ARG:HA	2.04	0.72
1:AA:382:A:H2'	1:AA:383:A:C8	2.25	0.72
1:AA:1057:G:H5"	3:AC:154:SER:CB	2.18	0.72
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.05	0.72
5:AE:144:THR:O	5:AE:148:VAL:HG23	1.90	0.72
7:AG:49:ILE:HG23	7:AG:53:LYS:HD2	1.70	0.72
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	2.20	0.72
36:BA:1717:G:C3'	36:BA:1718:G:H5"	2.19	0.72
36:BA:1719:G:O2'	36:BA:1720:U:H5'	1.88	0.72
36:BA:2691:C:H5'	36:BA:2691:C:H6	1.55	0.72
39:BD:26:LYS:CE	39:BD:82:ILE:H	2.02	0.72
42:BG:11:TYR:O	42:BG:16:ARG:HB2	1.88	0.72
42:BG:64:THR:HG23	42:BG:65:GLY:H	1.55	0.72
47:BP:112:LEU:HD22	47:BP:113:LYS:N	2.03	0.72
49:BR:28:LEU:HD11	49:BR:116:LEU:HD21	1.69	0.72
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.25	0.72
1:CA:1321:C:C3'	1:CA:1322:C:H5"	2.18	0.72
1:CA:1378:C:H5"	7:CG:6:ARG:HE	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:576:U:H2'	36:DA:577:G:C8	2.25	0.72
36:DA:1019:U:H3	36:DA:1142(A):A:H62	1.35	0.72
36:DA:1717:G:C3'	36:DA:1718:G:H5"	2.20	0.72
36:DA:2579:C:O3'	40:DE:131:ALA:HB2	1.89	0.72
37:DB:48:A:H4'	50:DS:95:HIS:HD2	1.55	0.72
44:DI:2:LYS:HD2	44:DI:20:ASP:HB3	1.71	0.72
1:AA:1190:G:H3'	3:AC:3:ASN:HD21	1.55	0.72
36:BA:2875:C:H4'	51:BT:5:ALA:HB2	1.71	0.72
44:BI:87:LYS:CA	44:BI:122:GLU:HG2	2.19	0.72
36:DA:1876:A:H2'	36:DA:1877:A:C8	2.25	0.72
36:DA:2134:A:H62	36:DA:2157:G:H1'	1.54	0.72
37:DB:65:C:H41	37:DB:109:C:H2'	1.54	0.72
41:DF:7:TYR:HB3	41:DF:16:GLY:H	1.55	0.72
48:DQ:66:ILE:HG22	48:DQ:104:PHE:CE2	2.25	0.72
56:DY:31:LEU:N	56:DY:31:LEU:HD22	2.04	0.72
1:AA:93:G:H2'	1:AA:96:U:H5'	1.72	0.72
2:AB:91:PRO:CG	2:AB:155:LEU:HD23	2.20	0.72
26:B0:77:ARG:HH22	36:BA:857:C:H5'	1.55	0.72
36:BA:1713:U:O2'	36:BA:1714:G:H5'	1.90	0.72
39:BD:31:LYS:NZ	39:BD:102:LYS:HZ2	1.86	0.72
53:BV:19:LYS:HB3	53:BV:94:LEU:O	1.88	0.72
2:CB:70:PHE:O	2:CB:93:VAL:HG22	1.88	0.72
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.72	0.72
19:CS:40:ILE:HB	19:CS:67:VAL:O	1.88	0.72
25:CY:56:C:H3'	25:CY:57:G:C5'	2.14	0.72
36:DA:1119:C:H2'	36:DA:1120:G:H8	1.54	0.72
42:DG:37:VAL:HG12	42:DG:157:ILE:HD11	1.70	0.72
44:DI:83:ALA:CB	44:DI:88:ILE:HD12	2.20	0.72
45:DN:133:GLN:HG2	45:DN:135:PRO:HD3	1.72	0.72
56:DY:14:LEU:HD12	56:DY:15:VAL:H	1.55	0.72
2:AB:87:ARG:O	2:AB:87:ARG:HD2	1.89	0.72
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.20	0.72
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.55	0.72
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.89	0.72
36:BA:610:G:N2	36:BA:619:G:H1'	2.05	0.72
36:BA:1902:C:H4'	39:BD:244:ARG:HA	1.72	0.72
40:BE:110:GLY:HA2	40:BE:161:GLY:HA3	1.72	0.72
42:BG:40:ASN:HB2	42:BG:91:ARG:HB2	1.70	0.72
45:BN:133:GLN:HG2	45:BN:135:PRO:HD3	1.70	0.72
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.05	0.72
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:97:PRO:HA	13:CM:98:VAL:HA	1.69	0.72
27:D1:12:PRO:HB3	27:D1:43:TYR:CD2	2.25	0.72
36:DA:521:G:H2'	36:DA:522:G:H8	1.53	0.72
42:DG:32:PRO:HB2	42:DG:172:LEU:HD11	1.72	0.72
47:DP:33:ARG:O	47:DP:35:HIS:O	2.08	0.72
47:DP:46:LYS:HG2	47:DP:52:GLU:OE2	1.90	0.72
52:DU:31:SER:HB3	52:DU:34:LYS:HB2	1.72	0.72
1:AA:405:U:H3'	1:AA:406:G:H5'	1.72	0.72
1:AA:1378:C:H5"	7:AG:6:ARG:HE	1.53	0.72
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.25	0.72
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.72	0.72
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	1.89	0.72
36:BA:1528(A):A:H3'	36:BA:1529:G:H5"	1.71	0.72
43:BH:18:GLU:HB2	43:BH:25:LYS:HG2	1.70	0.72
54:BW:95:ILE:O	54:BW:95:ILE:HG13	1.90	0.72
1:CA:1190:G:OP1	3:CC:5:ILE:HG13	1.89	0.72
7:CG:115:ARG:O	7:CG:118:VAL:HG22	1.88	0.72
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.05	0.72
32:D6:19:ARG:HG2	32:D6:20:ASN:N	2.03	0.72
36:DA:806:C:OP2	47:DP:39:LYS:HD3	1.90	0.72
39:DD:11:PRO:O	39:DD:13:ARG:N	2.23	0.72
40:DE:45:THR:HG22	40:DE:83:ASP:HA	1.70	0.72
49:DR:4:LEU:O	49:DR:4:LEU:HD13	1.89	0.72
50:DS:15:ARG:HB3	50:DS:18:ILE:HG21	1.71	0.72
2:AB:75:LYS:HG2	2:AB:78:GLN:NE2	2.03	0.71
2:AB:233:SER:OG	2:AB:234:PRO:HD2	1.90	0.71
7:AG:116:ALA:O	7:AG:120:ILE:HG12	1.90	0.71
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.89	0.71
36:BA:2679:A:H4'	40:BE:165:VAL:HG11	1.71	0.71
40:BE:184:VAL:HG12	40:BE:185:LYS:N	2.03	0.71
4:CD:170:VAL:CG1	4:CD:174:LEU:HB2	2.20	0.71
5:CE:76:ILE:HD11	5:CE:142:LEU:CD2	2.20	0.71
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.54	0.71
19:CS:20:LEU:O	19:CS:23:ASN:HB3	1.90	0.71
36:DA:1484:G:C3'	36:DA:1485:G:H5"	2.20	0.71
36:DA:2523:G:H5'	36:DA:2523:G:H8	1.55	0.71
48:DQ:30:GLY:HA2	48:DQ:107:ALA:HB2	1.71	0.71
56:DY:52:SER:O	56:DY:54:LYS:N	2.22	0.71
1:AA:1321:C:C3'	1:AA:1322:C:H5"	2.20	0.71
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.71	0.71
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.05	0.71
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	1.90	0.71
16:AP:26:ARG:HH11	16:AP:26:ARG:HB3	1.54	0.71
33:B7:11:LYS:HE2	36:BA:686:G:H5"	1.71	0.71
36:BA:744:G:OP1	40:BE:132:HIS:HB3	1.90	0.71
36:BA:2863:C:H2'	36:BA:2864:G:C5'	2.20	0.71
39:BD:31:LYS:HZ2	39:BD:102:LYS:HZ2	1.36	0.71
42:BG:47:LYS:HE3	42:BG:81:LYS:HB2	1.72	0.71
48:BQ:66:ILE:HG22	48:BQ:104:PHE:CE2	2.25	0.71
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.25	0.71
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.06	0.71
9:CI:16:ARG:O	9:CI:63:ILE:HG23	1.91	0.71
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	1.90	0.71
25:CY:27:G:H2'	25:CY:28:G:C8	2.25	0.71
50:DS:48:LEU:HD22	50:DS:82:ILE:HD11	1.69	0.71
51:DT:66:VAL:HA	51:DT:71:GLY:HA2	1.72	0.71
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.55	0.71
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.72	0.71
25:AY:33:U:C3'	25:AY:34:G:H5"	2.20	0.71
34:B8:62:LEU:CD1	36:BA:242:G:H5"	2.18	0.71
51:BT:66:VAL:HA	51:BT:71:GLY:HA2	1.71	0.71
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.90	0.71
2:CB:87:ARG:O	2:CB:87:ARG:HD2	1.89	0.71
31:D5:4:HIS:HB3	31:D5:5:PRO:CD	2.19	0.71
36:DA:135:G:O2'	36:DA:136:G:H5'	1.88	0.71
36:DA:903:C:H2'	36:DA:904:C:C6	2.25	0.71
36:DA:1230:C:H2'	36:DA:1231:G:H8	1.54	0.71
41:DF:177:ALA:HB1	41:DF:178:PRO:HD2	1.72	0.71
48:DQ:34:LEU:HD11	48:DQ:129:THR:HB	1.70	0.71
56:DY:87:LYS:HG3	56:DY:88:LYS:N	2.06	0.71
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.89	0.71
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.25	0.71
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.73	0.71
23:AW:11:C:H2'	23:AW:12:U:C6	2.25	0.71
31:B5:4:HIS:HB3	31:B5:5:PRO:HD3	1.72	0.71
33:B7:5:TRP:CZ3	36:BA:464:U:H4'	2.25	0.71
36:BA:191:A:O2'	36:BA:192:C:H5'	1.90	0.71
38:BC:36:LYS:HZ3	38:BC:36:LYS:HB2	1.55	0.71
41:BF:28:ILE:HG21	41:BF:116:ASP:HB2	1.70	0.71
41:BF:46:ARG:HH11	41:BF:46:ARG:HG3	1.55	0.71
36:DA:1899:G:O2'	36:DA:1900:A:H5"	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2864:G:H5'	36:DA:2864:G:C8	2.22	0.71
44:DI:88:ILE:HD11	44:DI:123:LEU:CG	2.21	0.71
45:DN:58:ASP:O	45:DN:60:ILE:HG13	1.90	0.71
47:DP:91:PHE:CE2	47:DP:95:VAL:HG12	2.26	0.71
57:DZ:16:SER:O	57:DZ:20:ARG:HG3	1.90	0.71
57:DZ:151:HIS:HB3	57:DZ:170:THR:HA	1.71	0.71
1:AA:736:C:H2'	1:AA:737:A:H8	1.54	0.71
1:AA:1030(A):G:H1'	1:AA:1031:G:H22	1.56	0.71
13:AM:16:ASP:HB2	13:AM:27:LYS:NZ	2.06	0.71
36:BA:1484:G:C3'	36:BA:1485:G:H5"	2.21	0.71
36:BA:2062:A:O2'	36:BA:2063:C:H5'	1.91	0.71
36:BA:2415:G:O3'	47:BP:66:GLY:HA3	1.90	0.71
51:BT:31:SER:C	51:BT:32:TYR:HD2	1.94	0.71
1:CA:66:G:H4'	1:CA:173:U:C5	2.25	0.71
1:CA:405:U:H3'	1:CA:406:G:H5'	1.71	0.71
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.54	0.71
1:CA:1442(A):G:C3'	1:CA:1442(B):A:H5"	2.20	0.71
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.26	0.71
36:DA:1528(A):A:H3'	36:DA:1529:G:H5"	1.72	0.71
50:DS:28:VAL:HB	50:DS:89:ARG:HG2	1.71	0.71
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.55	0.71
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.72	0.71
7:AG:11:GLN:NE2	7:AG:12:LEU:H	1.88	0.71
28:B2:55:ARG:HH11	36:BA:75:G:H4'	1.55	0.71
36:BA:1658:C:OP1	40:BE:132:HIS:ND1	2.22	0.71
36:BA:1879:C:H2'	36:BA:1880:C:C5'	2.14	0.71
47:BP:6:LEU:HG	47:BP:9:ASN:ND2	2.01	0.71
52:BU:91:ASP:CG	52:BU:96:ALA:HB2	2.11	0.71
1:CA:1514:C:H2'	1:CA:1515:C:H6	1.55	0.71
2:CB:233:SER:OG	2:CB:234:PRO:HD2	1.91	0.71
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.72	0.71
11:CK:12:ARG:HH21	11:CK:14:VAL:HG12	1.55	0.71
19:CS:6:LYS:HD2	19:CS:7:LYS:H	1.53	0.71
20:CT:50:GLU:HG3	20:CT:51:GLU:H	1.54	0.71
29:D3:4:LEU:HD12	29:D3:39:ASP:OD1	1.89	0.71
36:DA:2305:A:H1'	42:DG:136:ARG:HH11	1.55	0.71
42:DG:41:GLN:HE22	42:DG:153:ARG:CB	2.00	0.71
42:DG:124:SER:HB2	42:DG:131:TYR:CD1	2.26	0.71
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.06	0.71
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.06	0.71
34:B8:30:ARG:HA	34:B8:30:ARG:HE	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:47:ILE:HG22	48:BQ:48:GLU:N	2.06	0.71
49:BR:74:LYS:HD2	49:BR:77:ARG:HH21	1.55	0.71
54:BW:61:ASN:N	54:BW:61:ASN:HD22	1.89	0.71
1:CA:1125:U:O4	10:CJ:5:ARG:HD3	1.90	0.71
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.26	0.71
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.54	0.71
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.70	0.71
5:CE:8:GLU:HA	5:CE:34:VAL:HG22	1.73	0.71
7:CG:148:ASN:N	7:CG:148:ASN:HD22	1.88	0.71
10:CJ:32:ALA:H	10:CJ:76:ASN:HB3	1.56	0.71
25:CY:55:U:O4	25:CY:58:A:H5'	1.91	0.71
31:D5:4:HIS:HB3	31:D5:5:PRO:HD3	1.72	0.71
33:D7:5:TRP:CZ3	36:DA:464:U:H4'	2.26	0.71
39:DD:26:LYS:CE	39:DD:82:ILE:H	2.04	0.71
42:DG:88:ILE:CG1	42:DG:89:GLY:H	2.03	0.71
42:DG:96:ARG:N	42:DG:99:MET:HE2	2.05	0.71
52:DU:66:ASN:HB2	52:DU:76:TYR:HB2	1.72	0.71
52:DU:91:ASP:CG	52:DU:96:ALA:HB2	2.11	0.71
52:DU:104:GLN:HB2	53:DV:44:LYS:HZ3	1.55	0.71
53:DV:18:LEU:HD22	53:DV:19:LYS:H	1.53	0.71
54:DW:59:VAL:HG12	54:DW:60:ASN:ND2	2.06	0.71
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	1.91	0.71
26:B0:46:LYS:HB3	26:B0:47:PRO:HD2	1.73	0.71
33:B7:43:THR:HG23	33:B7:44:PRO:HD2	1.72	0.71
36:BA:1231:G:H2'	36:BA:1232:G:C8	2.25	0.71
44:BI:66:GLU:O	44:BI:70:GLU:HG2	1.88	0.71
1:CA:963:G:H21	10:CJ:55:LYS:HZ2	1.37	0.71
1:CA:1346:A:C5'	9:CI:120:ARG:HH12	2.02	0.71
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.71	0.71
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.73	0.71
36:DA:2863:C:H2'	36:DA:2864:G:C5'	2.20	0.71
45:DN:40:PRO:HB3	52:DU:68:ALA:HB2	1.73	0.71
47:DP:6:LEU:HD23	47:DP:6:LEU:H	1.55	0.71
57:DZ:22:GLY:O	57:DZ:23:LYS:HG2	1.91	0.71
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.26	0.71
9:AI:16:ARG:O	9:AI:63:ILE:HG23	1.91	0.71
31:B5:4:HIS:HB3	31:B5:5:PRO:CD	2.21	0.71
36:BA:1876:A:H2'	36:BA:1877:A:C8	2.26	0.71
39:BD:16:MET:HE1	39:BD:208:LYS:HD2	1.73	0.71
44:BI:2:LYS:HD2	44:BI:20:ASP:HB3	1.72	0.71
50:BS:13:ARG:O	50:BS:15:ARG:HG2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:13:ARG:HA	51:BT:13:ARG:CZ	2.20	0.71
4:CD:63:LYS:HD2	4:CD:198:VAL:HG23	1.71	0.71
13:CM:65:LYS:NZ	13:CM:65:LYS:HB3	2.06	0.71
36:DA:191:A:O2'	36:DA:192:C:H5'	1.90	0.71
36:DA:1419:A:O2'	36:DA:1420:U:H5"	1.91	0.71
36:DA:1430:C:H2'	36:DA:1431:U:C6	2.26	0.71
36:DA:1510:G:O2'	36:DA:1511:C:H5'	1.91	0.71
36:DA:1748:G:H5'	36:DA:1748:G:H8	1.56	0.71
39:DD:28:GLU:H	39:DD:29:PRO:CD	2.03	0.71
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.30	0.71
3:AC:206:GLU:O	3:AC:208:ILE:N	2.24	0.71
36:BA:903:C:H2'	36:BA:904:C:C6	2.25	0.71
36:BA:1436:G:H3'	36:BA:1437:C:H5"	1.73	0.71
51:BT:89:VAL:CG1	51:BT:91:ARG:HE	2.01	0.71
51:BT:108:ARG:HB2	51:BT:108:ARG:HH11	1.56	0.71
1:CA:823:G:H21	8:CH:1:MET:HE3	1.54	0.71
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.25	0.71
1:CA:1179:A:H5'	9:CI:102:LEU:CD1	2.21	0.71
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.55	0.71
1:CA:1463:C:O2'	1:CA:1464:G:H5'	1.90	0.71
2:CB:95:GLN:HE21	2:CB:147:LYS:HG2	1.56	0.71
4:CD:153:ARG:HH11	4:CD:153:ARG:HB3	1.54	0.71
23:CW:18:G:N1	23:CW:55:U:H1'	2.06	0.71
30:D4:62:CYS:HB2	42:DG:108:ASN:O	1.91	0.71
35:D9:2:LYS:HD2	35:D9:3:VAL:HG23	1.71	0.71
40:DE:1:MET:HB2	40:DE:83:ASP:O	1.89	0.71
42:DG:102:PHE:O	42:DG:105:LYS:HG2	1.90	0.71
44:DI:140:LEU:HD12	44:DI:141:LYS:N	2.05	0.71
47:DP:47:ASP:HB3	47:DP:48:PRO:O	1.90	0.71
53:DV:69:LYS:HA	53:DV:88:ARG:HG2	1.71	0.71
1:AA:636:U:H2'	1:AA:637:G:C8	2.25	0.70
1:AA:1053:G:N7	1:AA:1200:C:H5"	2.06	0.70
36:BA:1230:C:H2'	36:BA:1231:G:H8	1.56	0.70
36:BA:1278:A:H5"	49:BR:36:THR:HG22	1.73	0.70
36:BA:1717:G:H3'	36:BA:1718:G:H5"	1.73	0.70
42:BG:51:ARG:HA	42:BG:51:ARG:NE	2.05	0.70
45:BN:120:LEU:HD11	45:BN:122:VAL:HG23	1.71	0.70
46:BO:4:PRO:O	46:BO:5:GLN:HB2	1.89	0.70
48:BQ:39:PRO:HA	48:BQ:97:VAL:O	1.91	0.70
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.73	0.70
23:CW:16:U:C3'	23:CW:17:C:H5'	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D0:10:THR:HG22	26:D0:12:ASN:H	1.57	0.70
33:D7:11:LYS:HE2	36:DA:686:G:H5"	1.72	0.70
36:DA:576:U:H2'	36:DA:577:G:H8	1.55	0.70
36:DA:2897:U:H2'	36:DA:2897:U:O2	1.90	0.70
37:DB:117:G:H4'	50:DS:55:ALA:HB1	1.72	0.70
40:DE:59:VAL:O	40:DE:60:ASN:HB3	1.91	0.70
43:DH:102:ALA:HB2	43:DH:117:PRO:HD3	1.73	0.70
45:DN:15:LEU:HD13	45:DN:16:ILE:N	2.05	0.70
51:DT:13:ARG:HA	51:DT:13:ARG:CZ	2.21	0.70
57:DZ:53:ILE:H	57:DZ:71:VAL:HG21	1.56	0.70
1:AA:66:G:H4'	1:AA:173:U:C5	2.26	0.70
22:AV:51:C:H2'	22:AV:52:G:C5'	2.21	0.70
23:AW:53:G:O2'	23:AW:54:U:H5'	1.90	0.70
25:AY:50:U:H2'	25:AY:51:U:H6	1.55	0.70
29:B3:4:LEU:HD12	29:B3:39:ASP:OD1	1.91	0.70
34:B8:6:THR:CG2	34:B8:63:PRO:HD3	2.21	0.70
36:BA:1419:A:O2'	36:BA:1420:U:H5"	1.91	0.70
36:BA:2892:A:H2'	36:BA:2893:G:H4'	1.73	0.70
50:BS:28:VAL:HB	50:BS:89:ARG:HG2	1.73	0.70
52:BU:92:ARG:HH22	52:BU:94:ASN:HD22	1.39	0.70
1:CA:736:C:H2'	1:CA:737:A:H8	1.55	0.70
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.71	0.70
40:DE:30:PRO:HD3	40:DE:180:ASN:ND2	2.05	0.70
40:DE:110:GLY:HA2	40:DE:161:GLY:HA3	1.72	0.70
48:DQ:109:VAL:HG13	48:DQ:113:GLN:OE1	1.91	0.70
49:DR:18:LEU:HD11	49:DR:22:ARG:CZ	2.20	0.70
51:DT:32:TYR:CD2	51:DT:32:TYR:N	2.60	0.70
52:DU:20:LEU:HD13	52:DU:20:LEU:O	1.90	0.70
54:DW:95:ILE:O	54:DW:95:ILE:HG13	1.91	0.70
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.72	0.70
7:AG:23:VAL:HG13	7:AG:43:PHE:HE2	1.55	0.70
27:B1:40:ARG:HD3	27:B1:40:ARG:C	2.12	0.70
28:B2:14:ARG:HG3	28:B2:14:ARG:HH11	1.55	0.70
36:BA:2263:C:O2'	36:BA:2264:C:H5'	1.90	0.70
42:BG:6:ALA:HB3	42:BG:104:GLU:OE1	1.91	0.70
43:BH:65:HIS:O	43:BH:69:ARG:HD3	1.90	0.70
47:BP:46:LYS:HG2	47:BP:52:GLU:OE2	1.91	0.70
55:BX:27:THR:CG2	55:BX:80:ILE:HB	2.15	0.70
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.92	0.70
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.74	0.70
14:CN:13:THR:N	14:CN:14:PRO:CD	2.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:969:U:H2'	36:DA:970:C:C6	2.24	0.70
36:DA:1713:U:O2'	36:DA:1714:G:H5'	1.91	0.70
36:DA:2327:A:H2'	36:DA:2328:A:C8	2.26	0.70
39:DD:181:GLU:HA	39:DD:272:ALA:CB	2.21	0.70
47:DP:81:GLN:HG2	47:DP:106:LEU:HD12	1.72	0.70
55:DX:25:LYS:NZ	55:DX:80:ILE:HD11	2.06	0.70
1:AA:636:U:H2'	1:AA:637:G:H8	1.57	0.70
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.26	0.70
4:AD:28:SER:O	4:AD:30:LYS:N	2.25	0.70
5:AE:12:LEU:HD13	5:AE:13:ILE:N	2.06	0.70
10:AJ:32:ALA:H	10:AJ:76:ASN:HB3	1.57	0.70
14:AN:13:THR:N	14:AN:14:PRO:CD	2.53	0.70
44:BI:94:ALA:HB1	44:BI:111:PRO:CB	2.22	0.70
44:BI:129:THR:HA	44:BI:137:PRO:HA	1.73	0.70
47:BP:144:GLU:N	47:BP:145:PRO:HD3	2.06	0.70
1:CA:636:U:H2'	1:CA:637:G:C8	2.26	0.70
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.31	0.70
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.72	0.70
13:CM:66:LEU:N	13:CM:70:LEU:HB2	2.06	0.70
27:D1:45:ASN:ND2	27:D1:47:GLN:NE2	2.38	0.70
28:D2:47:ASN:HD21	36:DA:94(A):G:H1'	1.56	0.70
36:DA:6:A:O2'	45:DN:130:HIS:HB3	1.91	0.70
36:DA:1278:A:H5"	49:DR:36:THR:HG22	1.72	0.70
36:DA:2009:G:N3	49:DR:107:ASP:HA	2.07	0.70
40:DE:1:MET:HE3	40:DE:83:ASP:HB2	1.73	0.70
43:DH:159:GLU:HG3	43:DH:160:LYS:CG	2.22	0.70
45:DN:58:ASP:O	45:DN:60:ILE:N	2.23	0.70
48:DQ:14:ARG:HG2	48:DQ:41:TRP:HH2	1.56	0.70
50:DS:93:LYS:HG3	50:DS:93:LYS:O	1.92	0.70
51:DT:132:LYS:C	51:DT:134:GLU:H	1.95	0.70
54:DW:68:ARG:HD2	54:DW:110:LYS:CB	2.22	0.70
57:DZ:134:PRO:CB	57:DZ:137:ILE:HD11	2.21	0.70
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.26	0.70
6:AF:17:SER:O	6:AF:21:LEU:HD23	1.92	0.70
13:AM:10:PRO:CB	13:AM:18:ALA:HB1	2.22	0.70
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.21	0.70
32:B6:19:ARG:HG2	32:B6:20:ASN:N	2.03	0.70
34:B8:13:ARG:HD2	47:BP:61:ARG:HD3	1.74	0.70
39:BD:31:LYS:O	39:BD:35:LYS:HB2	1.92	0.70
42:BG:43:LEU:HB2	42:BG:88:ILE:CG1	2.20	0.70
44:BI:88:ILE:HD13	44:BI:88:ILE:N	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:106:ARG:HD2	50:BS:107:GLU:O	1.92	0.70
56:BY:31:LEU:N	56:BY:31:LEU:HD22	2.05	0.70
56:BY:95:LYS:HE2	56:BY:100:ALA:HB2	1.73	0.70
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.55	0.70
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.57	0.70
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.05	0.70
16:CP:26:ARG:HB3	16:CP:26:ARG:HH11	1.55	0.70
25:CY:14:A:N6	25:CY:15:G:H21	1.89	0.70
40:DE:92:THR:O	40:DE:95:ILE:HD13	1.91	0.70
50:DS:74:ALA:HB1	50:DS:103:GLU:CB	2.20	0.70
52:DU:104:GLN:HE22	52:DU:105:VAL:HG23	1.56	0.70
1:AA:250:A:H4'	1:AA:251:G:O5'	1.91	0.70
2:AB:77:ALA:HB2	2:AB:211:ILE:HD12	1.74	0.70
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.56	0.70
4:AD:153:ARG:HH11	4:AD:153:ARG:HB3	1.55	0.70
13:AM:66:LEU:N	13:AM:70:LEU:HB2	2.07	0.70
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.92	0.70
36:BA:1221:C:OP1	53:BV:68:LYS:HE3	1.91	0.70
36:BA:1378:A:O2'	36:BA:1379:A:H5'	1.90	0.70
42:BG:161:THR:CG2	42:BG:163:ALA:H	2.04	0.70
45:BN:17:ASP:OD1	45:BN:56:ASN:HB3	1.91	0.70
51:BT:88:ILE:HG22	51:BT:89:VAL:N	2.07	0.70
51:BT:132:LYS:C	51:BT:134:GLU:H	1.94	0.70
56:BY:8:LYS:HD2	56:BY:8:LYS:N	2.04	0.70
1:CA:434:U:H2'	1:CA:435:C:C6	2.27	0.70
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.56	0.70
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.57	0.70
3:CC:206:GLU:O	3:CC:208:ILE:N	2.24	0.70
7:CG:79:ARG:HG3	7:CG:79:ARG:HH11	1.55	0.70
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.74	0.70
28:D2:3:LEU:O	28:D2:3:LEU:HD23	1.91	0.70
28:D2:35:LEU:HB3	28:D2:50:ILE:CD1	2.21	0.70
36:DA:528:A:H2	36:DA:2043:C:C5'	2.04	0.70
57:DZ:74:VAL:HG13	57:DZ:86:VAL:CG2	2.19	0.70
57:DZ:99:TYR:HD2	57:DZ:99:TYR:H	1.40	0.70
1:AA:179:A:H2'	1:AA:180:U:C6	2.26	0.70
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	1.91	0.70
19:AS:43:GLU:C	19:AS:45:VAL:H	1.93	0.70
36:BA:2126:A:H5"	38:BC:36:LYS:HG2	1.73	0.70
36:BA:2753:A:O2'	36:BA:2754:U:H5'	1.92	0.70
39:BD:27:THR:HG21	39:BD:83:GLU:HG2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BE:45:THR:HG22	40:BE:83:ASP:HA	1.73	0.70
53:BV:49:THR:HG22	53:BV:50:PRO:CD	2.20	0.70
54:BW:50:VAL:HG13	54:BW:51:LEU:N	2.06	0.70
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	2.32	0.70
7:CG:11:GLN:NE2	7:CG:12:LEU:H	1.90	0.70
36:DA:1434:A:H61	36:DA:1558:A:H62	1.37	0.70
36:DA:2415:G:O3'	47:DP:66:GLY:HA3	1.91	0.70
36:DA:2892:A:H2'	36:DA:2893:G:H4'	1.74	0.70
54:DW:60:ASN:HD22	54:DW:60:ASN:H	1.37	0.70
1:AA:67:C:H2'	1:AA:68:G:C8	2.27	0.70
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.26	0.70
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.21	0.70
8:AH:23:SER:HA	8:AH:63:LEU:HD22	1.73	0.70
12:AL:28:LYS:HE2	12:AL:33:ARG:HH22	1.55	0.70
13:AM:65:LYS:NZ	13:AM:65:LYS:HB3	2.07	0.70
36:BA:2122:U:H2'	36:BA:2123:G:C8	2.27	0.70
36:BA:2579:C:O3'	40:BE:131:ALA:HB2	1.92	0.70
36:BA:2680:C:H5'	40:BE:189:PRO:HA	1.74	0.70
47:BP:146:VAL:O	47:BP:148:LEU:HG	1.92	0.70
56:BY:95:LYS:HG2	56:BY:100:ALA:HA	1.72	0.70
1:CA:1190:G:H3'	3:CC:3:ASN:HD21	1.55	0.70
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.07	0.70
6:CF:17:SER:O	6:CF:21:LEU:HD23	1.91	0.70
27:D1:26:ARG:NH2	36:DA:389:G:H5"	2.07	0.70
28:D2:22:GLU:O	28:D2:26:ARG:HG3	1.91	0.70
39:DD:13:ARG:NH1	39:DD:16:MET:SD	2.64	0.70
48:DQ:54:MET:HG2	48:DQ:64:ILE:HG21	1.74	0.70
55:DX:25:LYS:HZ2	55:DX:80:ILE:HD11	1.56	0.70
57:DZ:43:GLU:O	57:DZ:47:VAL:HG12	1.91	0.70
1:AA:757:U:H2'	1:AA:758:G:O4'	1.91	0.70
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	1.74	0.70
15:AO:7:GLU:O	15:AO:10:LYS:HG3	1.92	0.70
36:BA:174:C:H3'	36:BA:175:G:H5"	1.74	0.70
36:BA:483:A:HO2'	56:BY:60:PHE:HZ	1.40	0.70
36:BA:863:A:H2'	36:BA:864:G:H8	1.56	0.70
36:BA:2300:G:N2	36:BA:2317:C:H1'	2.07	0.70
40:BE:44:TYR:O	40:BE:45:THR:HB	1.90	0.70
42:BG:113:ARG:HH11	42:BG:113:ARG:HG2	1.57	0.70
46:BO:119:PRO:HB2	51:BT:68:TYR:HE1	1.52	0.70
51:BT:65:LYS:HZ2	51:BT:66:VAL:H	1.35	0.70
57:BZ:137:ILE:HD13	57:BZ:156:LYS:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:179:A:H2'	1:CA:180:U:C6	2.27	0.70
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.74	0.70
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.73	0.70
29:D3:52:HIS:CD2	37:DB:83:G:H4'	2.27	0.70
32:D6:10:LEU:HD12	34:D8:34:TRP:NE1	2.07	0.70
36:DA:108:U:H2'	36:DA:109:G:H8	1.57	0.70
36:DA:2712:U:H1'	36:DA:2712(A):A:H8	1.55	0.70
39:DD:71:ASP:HB2	39:DD:103:ARG:HH22	1.56	0.70
42:DG:11:TYR:O	42:DG:16:ARG:HB2	1.92	0.70
43:DH:13:LYS:HA	43:DH:13:LYS:CE	2.20	0.70
51:DT:89:VAL:HG12	51:DT:91:ARG:HG3	1.74	0.70
52:DU:104:GLN:HB2	53:DV:44:LYS:NZ	2.07	0.70
53:DV:49:THR:HG22	53:DV:50:PRO:CD	2.20	0.70
1:AA:417:C:O2'	1:AA:418:C:H5'	1.91	0.70
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.91	0.70
36:BA:608:A:OP1	41:BF:100:THR:HG21	1.91	0.70
36:BA:825:C:H1'	47:BP:55:ARG:HD3	1.73	0.70
36:BA:1171:G:H5"	36:BA:1173:G:H4'	1.74	0.70
39:BD:71:ASP:HB2	39:BD:103:ARG:HH22	1.56	0.70
43:BH:159:GLU:HG3	43:BH:160:LYS:CG	2.20	0.70
44:BI:58:LEU:HD12	44:BI:61:ARG:NE	2.06	0.70
46:BO:24:VAL:CG2	46:BO:33:ALA:HB2	2.22	0.70
50:BS:27:SER:HA	50:BS:88:ASP:HB3	1.74	0.70
50:BS:74:ALA:HB1	50:BS:103:GLU:CB	2.20	0.70
53:BV:69:LYS:HA	53:BV:88:ARG:HG2	1.73	0.70
57:BZ:166:SER:HB2	57:BZ:168:GLU:N	2.07	0.70
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.72	0.70
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.57	0.70
36:DA:78:A:H2'	36:DA:79:G:H8	1.55	0.70
36:DA:1436:G:H3'	36:DA:1437:C:H5"	1.73	0.70
40:DE:49:LEU:HD12	40:DE:49:LEU:N	2.07	0.70
40:DE:199:ARG:HB2	40:DE:199:ARG:NH1	2.07	0.70
42:DG:138:GLN:N	42:DG:152:LEU:HD12	2.07	0.70
43:DH:18:GLU:HB2	43:DH:25:LYS:HG2	1.72	0.70
46:DO:113:LYS:O	46:DO:117:LEU:HB2	1.92	0.70
47:DP:146:VAL:O	47:DP:148:LEU:HG	1.92	0.70
1:AA:390:C:H2'	1:AA:391:G:C8	2.27	0.69
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.27	0.69
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.72	0.69
25:AY:59:U:H2'	25:AY:59:U:O2	1.90	0.69
28:B2:7:ARG:HG2	28:B2:7:ARG:HH11	1.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B5:45:VAL:HG13	31:B5:50:GLY:HA2	1.73	0.69
35:B9:2:LYS:HD2	35:B9:3:VAL:HG23	1.72	0.69
42:BG:105:LYS:HB3	42:BG:142:PRO:HG3	1.72	0.69
47:BP:6:LEU:HD23	47:BP:6:LEU:H	1.57	0.69
1:CA:757:U:H2'	1:CA:758:G:O4'	1.91	0.69
6:CF:82:ARG:HH11	6:CF:82:ARG:HB3	1.57	0.69
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.57	0.69
25:CY:8:U:H2'	25:CY:46:G:H21	1.56	0.69
43:DH:107:VAL:O	43:DH:109:PHE:N	2.25	0.69
48:DQ:133:ARG:HH11	48:DQ:133:ARG:HG3	1.57	0.69
53:DV:19:LYS:HG3	53:DV:20:LEU:N	2.05	0.69
53:DV:19:LYS:HB3	53:DV:94:LEU:O	1.92	0.69
26:B0:10:THR:HG22	26:B0:12:ASN:H	1.56	0.69
34:B8:18:ALA:HB3	36:BA:651:G:C5'	2.22	0.69
36:BA:1805:U:O2	39:BD:50:THR:HB	1.92	0.69
39:BD:28:GLU:H	39:BD:29:PRO:CD	2.05	0.69
47:BP:99:LEU:HA	47:BP:102:ARG:HH22	1.55	0.69
48:BQ:109:VAL:HG13	48:BQ:113:GLN:OE1	1.92	0.69
49:BR:28:LEU:C	49:BR:28:LEU:HD13	2.12	0.69
1:CA:1399:C:H4'	1:CA:1400:C:O5'	1.92	0.69
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.16	0.69
20:CT:89:ARG:CD	20:CT:104:LEU:HD11	2.21	0.69
34:D8:53:PRO:HA	34:D8:56:GLU:HB2	1.73	0.69
44:DI:94:ALA:HB1	44:DI:111:PRO:CB	2.20	0.69
51:DT:102:ILE:HB	51:DT:110:ILE:HD11	1.73	0.69
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.55	0.69
12:AL:24:VAL:HG12	12:AL:24:VAL:O	1.92	0.69
34:B8:13:ARG:CB	47:BP:63:PRO:HB3	2.22	0.69
36:BA:521:G:H2'	36:BA:522:G:H8	1.57	0.69
36:BA:1826:G:H4'	39:BD:242:ARG:HH21	1.58	0.69
42:BG:46:ALA:C	42:BG:82:LEU:HD11	2.13	0.69
48:BQ:54:MET:HG2	48:BQ:64:ILE:HG21	1.75	0.69
52:BU:47:TYR:HA	52:BU:50:ARG:NH2	2.07	0.69
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.22	0.69
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	2.22	0.69
36:DA:2300:G:N2	36:DA:2317:C:H1'	2.06	0.69
43:DH:156:ALA:H	43:DH:158:HIS:H	1.40	0.69
44:DI:98:ALA:HA	44:DI:109:ILE:CG1	2.22	0.69
44:DI:129:THR:HA	44:DI:137:PRO:HA	1.73	0.69
1:AA:977:A:H1'	1:AA:982:U:O4	1.92	0.69
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.27	0.69
10:AJ:67:THR:O	10:AJ:67:THR:HG23	1.91	0.69
26:B0:53:MET:HB3	26:B0:59:LEU:HD23	1.73	0.69
27:B1:45:ASN:HD22	27:B1:45:ASN:C	1.94	0.69
36:BA:1899:G:O2'	36:BA:1900:A:H5"	1.91	0.69
38:BC:86:ALA:HB1	38:BC:94:VAL:HG11	1.74	0.69
47:BP:45:LEU:HD23	47:BP:46:LYS:N	2.06	0.69
49:BR:4:LEU:HD13	49:BR:4:LEU:O	1.91	0.69
52:BU:92:ARG:HH21	52:BU:95:LEU:HG	1.56	0.69
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.28	0.69
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.92	0.69
29:D3:4:LEU:HB2	29:D3:39:ASP:HB2	1.73	0.69
36:DA:2415:G:H4'	47:DP:67:MET:N	2.07	0.69
40:DE:101:ARG:HH21	40:DE:171:GLU:CA	2.05	0.69
41:DF:33:LEU:O	41:DF:37:VAL:HG23	1.93	0.69
42:DG:110:ALA:HB1	42:DG:140:ILE:HB	1.75	0.69
43:DH:159:GLU:HG3	43:DH:160:LYS:N	2.06	0.69
49:DR:2:ARG:NH2	49:DR:5:LYS:NZ	2.41	0.69
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.08	0.69
5:AE:8:GLU:HA	5:AE:34:VAL:HG22	1.73	0.69
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.23	0.69
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.92	0.69
25:AY:42:C:C3'	25:AY:43:C:H5"	2.23	0.69
36:BA:1021:A:H62	36:BA:1141:U:H3	1.39	0.69
36:BA:2712:U:H1'	36:BA:2712(A):A:H8	1.58	0.69
40:BE:101:ARG:HD3	40:BE:169:ASN:ND2	2.08	0.69
48:BQ:14:ARG:HG2	48:BQ:41:TRP:HH2	1.57	0.69
55:BX:25:LYS:NZ	55:BX:80:ILE:HD11	2.08	0.69
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.07	0.69
19:CS:43:GLU:C	19:CS:45:VAL:H	1.94	0.69
23:CW:72:C:H2'	23:CW:73:A:O4'	1.92	0.69
36:DA:1639:U:O2'	36:DA:1640:C:H5"	1.91	0.69
40:DE:32:PRO:HB3	40:DE:69:LYS:HB3	1.74	0.69
42:DG:103:LEU:HD23	42:DG:103:LEU:N	2.07	0.69
48:DQ:63:LYS:NZ	57:DZ:175:VAL:HG21	2.07	0.69
51:DT:30:VAL:CG1	51:DT:84:GLN:HG3	2.17	0.69
18:AR:35:ARG:O	18:AR:37:VAL:N	2.26	0.69
31:B5:29:THR:HG21	36:BA:2814:C:O2'	1.93	0.69
42:BG:82:LEU:HD22	42:BG:87:PRO:HG3	1.74	0.69
43:BH:121:ILE:CG2	43:BH:133:VAL:HG12	2.22	0.69
44:BI:79:ILE:HG21	44:BI:81:VAL:HG23	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:83:ALA:CB	44:BI:88:ILE:HD12	2.22	0.69
44:BI:98:ALA:HA	44:BI:109:ILE:CG1	2.23	0.69
50:BS:93:LYS:O	50:BS:93:LYS:HG3	1.92	0.69
1:CA:156:G:O2'	1:CA:157:G:H5'	1.93	0.69
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.23	0.69
2:CB:57:PHE:CD2	2:CB:185:ILE:HD11	2.28	0.69
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.22	0.69
14:CN:3:ARG:HG2	14:CN:3:ARG:O	1.92	0.69
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.75	0.69
26:D0:48:GLY:HA3	26:D0:80:HIS:ND1	2.08	0.69
29:D3:4:LEU:HD21	29:D3:56:VAL:CG1	2.22	0.69
34:D8:18:ALA:HB3	36:DA:651:G:C5'	2.22	0.69
36:DA:174:C:H3'	36:DA:175:G:H5"	1.72	0.69
36:DA:1021:A:H62	36:DA:1141:U:H3	1.40	0.69
37:DB:44:G:H1'	37:DB:47:C:H42	1.56	0.69
39:DD:31:LYS:HZ2	39:DD:102:LYS:HZ2	1.41	0.69
40:DE:134:ILE:HG12	40:DE:134:ILE:O	1.92	0.69
55:DX:64:LYS:HD3	55:DX:73:ARG:NE	2.06	0.69
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.23	0.69
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.71	0.69
34:B8:53:PRO:HA	34:B8:56:GLU:HB2	1.75	0.69
44:BI:72:LEU:HD12	44:BI:138:ILE:HD13	1.73	0.69
56:BY:87:LYS:HG3	56:BY:88:LYS:N	2.06	0.69
57:BZ:14:LYS:HD3	57:BZ:17:ALA:HB3	1.74	0.69
15:CO:51:HIS:O	15:CO:54:ARG:HB3	1.92	0.69
18:CR:35:ARG:O	18:CR:37:VAL:N	2.26	0.69
22:CV:42:G:H2'	22:CV:43:A:H8	1.58	0.69
36:DA:28:A:N6	36:DA:512:G:H1'	2.08	0.69
43:DH:85:LYS:CD	43:DH:133:VAL:HB	2.23	0.69
43:DH:121:ILE:HG23	43:DH:134:SER:O	1.93	0.69
44:DI:123:LEU:HD11	44:DI:144:VAL:HG13	1.75	0.69
47:DP:112:LEU:HD22	47:DP:113:LYS:N	2.08	0.69
54:DW:59:VAL:HG12	54:DW:60:ASN:N	2.07	0.69
1:AA:389:A:H2'	1:AA:390:C:H5'	1.74	0.69
6:AF:45:LEU:HD12	6:AF:46:ARG:H	1.58	0.69
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.07	0.69
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.73	0.69
10:AJ:50:ILE:HG12	14:AN:41:ARG:CD	2.22	0.69
36:BA:2875:C:O2'	51:BT:5:ALA:HB3	1.92	0.69
39:BD:33:LEU:HD22	39:BD:102:LYS:HD2	1.74	0.69
41:BF:24:LEU:O	41:BF:26:ALA:N	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BG:9:ARG:HH11	42:BG:9:ARG:HG2	1.57	0.69
43:BH:30:LYS:HZ2	43:BH:81:GLU:HG2	1.58	0.69
44:BI:130:TYR:HB3	44:BI:136:VAL:HG13	1.73	0.69
45:BN:58:ASP:O	45:BN:60:ILE:HG13	1.92	0.69
47:BP:122:PRO:HG3	47:BP:141:ALA:HB3	1.74	0.69
51:BT:8:LYS:HA	51:BT:11:GLU:OE1	1.92	0.69
51:BT:80:SER:HB3	51:BT:81:PRO:HD2	1.73	0.69
52:BU:91:ASP:OD1	52:BU:96:ALA:HB2	1.91	0.69
56:BY:26:LYS:HG2	56:BY:27:VAL:N	2.07	0.69
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.28	0.69
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.27	0.69
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.08	0.69
8:CH:23:SER:HA	8:CH:63:LEU:HD22	1.75	0.69
26:D0:53:MET:HB3	26:D0:59:LEU:HD23	1.74	0.69
29:D3:15:TYR:O	29:D3:20:LYS:HE2	1.92	0.69
34:D8:30:ARG:HE	34:D8:30:ARG:HA	1.57	0.69
36:DA:1162:G:H4'	53:DV:24:LYS:HB2	1.75	0.69
36:DA:1230:C:H2'	36:DA:1231:G:C8	2.28	0.69
36:DA:1686:C:H5'	36:DA:1686:C:H6	1.57	0.69
36:DA:2691:C:H5'	36:DA:2691:C:H6	1.57	0.69
38:DC:36:LYS:HB2	38:DC:36:LYS:HZ3	1.58	0.69
39:DD:148:GLU:HB2	39:DD:151:LYS:HD2	1.74	0.69
40:DE:184:VAL:HG12	40:DE:185:LYS:N	2.06	0.69
41:DF:8:GLN:HG2	41:DF:126:VAL:HG12	1.73	0.69
42:DG:15:VAL:HG13	42:DG:175:LEU:CD2	2.22	0.69
42:DG:19:LEU:HD13	42:DG:32:PRO:HD2	1.73	0.69
42:DG:39:ILE:HG22	42:DG:92:VAL:CG2	2.22	0.69
42:DG:64:THR:HG23	42:DG:66:GLN:HB2	1.73	0.69
42:DG:73:ALA:HB3	42:DG:85:GLY:CA	2.22	0.69
42:DG:167:GLU:C	42:DG:169:ALA:H	1.96	0.69
43:DH:121:ILE:CG2	43:DH:133:VAL:HG12	2.23	0.69
44:DI:38:LEU:HD12	44:DI:38:LEU:N	2.04	0.69
44:DI:65:ALA:HA	44:DI:131:LYS:HE2	1.74	0.69
45:DN:18:ALA:HB1	45:DN:21:LYS:HB2	1.75	0.69
46:DO:107:ARG:HH11	51:DT:36:GLU:H	1.39	0.69
51:DT:53:ARG:HH11	51:DT:53:ARG:HG2	1.58	0.69
51:DT:89:VAL:CG1	51:DT:91:ARG:HE	2.01	0.69
56:DY:8:LYS:HD2	56:DY:8:LYS:N	2.01	0.69
6:AF:60:PHE:O	6:AF:61:LEU:HD12	1.93	0.69
6:AF:82:ARG:HH11	6:AF:82:ARG:HB3	1.58	0.69
14:AN:3:ARG:HG2	14:AN:3:ARG:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:20:LEU:O	19:AS:23:ASN:HB3	1.92	0.69
32:B6:39:TYR:HE1	36:BA:2347:C:H4'	1.58	0.69
36:BA:1119:C:H2'	36:BA:1120:G:C8	2.27	0.69
41:BF:167:ALA:HB1	41:BF:173:VAL:HG11	1.75	0.69
42:BG:107:LEU:HD11	42:BG:178:PHE:CE1	2.28	0.69
45:BN:15:LEU:HD13	45:BN:16:ILE:N	2.07	0.69
47:BP:50:ARG:O	47:BP:57:THR:HG22	1.93	0.69
52:BU:92:ARG:CZ	53:BV:11:GLN:HB2	2.23	0.69
56:BY:47:LYS:N	56:BY:47:LYS:HD2	2.08	0.69
57:BZ:44:PHE:CE2	57:BZ:86:VAL:HG21	2.28	0.69
1:CA:1053:G:N7	1:CA:1200:C:H5"	2.07	0.69
2:CB:91:PRO:CG	2:CB:155:LEU:HD23	2.23	0.69
7:CG:116:ALA:O	7:CG:120:ILE:HG12	1.93	0.69
10:CJ:67:THR:O	10:CJ:67:THR:HG23	1.93	0.69
12:CL:28:LYS:HE2	12:CL:33:ARG:HH22	1.57	0.69
32:D6:27:LYS:HE3	36:DA:2285:C:H5	1.58	0.69
36:DA:610:G:N2	36:DA:619:G:H1'	2.07	0.69
38:DC:49:ILE:H	38:DC:49:ILE:CD1	1.99	0.69
40:DE:44:TYR:O	40:DE:45:THR:HB	1.93	0.69
41:DF:83:PHE:O	41:DF:84:VAL:HB	1.91	0.69
42:DG:18:GLU:O	42:DG:22:ARG:HG2	1.93	0.69
45:DN:55:VAL:HG22	45:DN:126:PRO:HA	1.74	0.69
51:DT:29:ARG:HG2	51:DT:86:ILE:HG22	1.75	0.69
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.58	0.69
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.92	0.69
9:AI:77:ILE:O	9:AI:81:ILE:HG12	1.93	0.69
15:AO:7:GLU:O	15:AO:11:VAL:HG23	1.93	0.69
36:BA:2327:A:H2'	36:BA:2328:A:C8	2.28	0.69
43:BH:159:GLU:HG3	43:BH:160:LYS:N	2.04	0.69
51:BT:61:PHE:CE2	51:BT:76:PHE:HB2	2.27	0.69
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.93	0.69
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.57	0.69
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.74	0.69
10:CJ:16:LEU:HD13	10:CJ:16:LEU:O	1.92	0.69
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.92	0.69
32:D6:39:TYR:CE1	36:DA:2347:C:H4'	2.28	0.69
36:DA:1044:G:H1'	36:DA:1111:A:N1	2.08	0.69
42:DG:21:ARG:HH21	42:DG:22:ARG:CD	2.05	0.69
42:DG:41:GLN:HB2	42:DG:90:LEU:H	1.57	0.69
44:DI:123:LEU:HD11	44:DI:144:VAL:CG1	2.22	0.69
47:DP:144:GLU:N	47:DP:145:PRO:HD3	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:26:LYS:HG2	56:DY:27:VAL:N	2.06	0.69
4:AD:189:PRO:HB2	4:AD:194:LEU:CD2	2.23	0.68
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.92	0.68
36:BA:576:U:H2'	36:BA:577:G:C8	2.28	0.68
36:BA:2302:G:H21	42:BG:128:ARG:HG3	1.57	0.68
36:BA:2523:G:H8	36:BA:2523:G:H5'	1.58	0.68
36:BA:2897:U:O2	36:BA:2897:U:H2'	1.92	0.68
38:BC:59:ARG:HB2	38:BC:62:VAL:CG2	2.23	0.68
41:BF:83:PHE:O	41:BF:84:VAL:HB	1.92	0.68
41:BF:157:VAL:HB	41:BF:194:MET:HB3	1.75	0.68
43:BH:107:VAL:O	43:BH:109:PHE:N	2.26	0.68
54:BW:88:ARG:HB2	54:BW:92:ARG:HB3	1.74	0.68
1:CA:636:U:H2'	1:CA:637:G:H8	1.58	0.68
6:CF:39:LYS:HG2	6:CF:40:VAL:H	1.58	0.68
6:CF:60:PHE:O	6:CF:61:LEU:HD12	1.93	0.68
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.27	0.68
13:CM:16:ASP:HB2	13:CM:27:LYS:NZ	2.06	0.68
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.23	0.68
19:CS:64:GLU:O	19:CS:67:VAL:HG23	1.93	0.68
25:CY:39:U:H2'	25:CY:40:C:C6	2.27	0.68
36:DA:78:A:H2'	36:DA:79:G:C8	2.28	0.68
36:DA:2126:A:H5"	38:DC:36:LYS:HG2	1.75	0.68
36:DA:2777:G:H4'	36:DA:2778:A:H5'	1.74	0.68
39:DD:31:LYS:O	39:DD:35:LYS:HB2	1.93	0.68
39:DD:166:GLN:CA	39:DD:166:GLN:HE21	2.05	0.68
39:DD:176:ARG:HH11	39:DD:176:ARG:HG2	1.57	0.68
47:DP:66:GLY:O	47:DP:67:MET:HB3	1.92	0.68
47:DP:122:PRO:HB3	47:DP:141:ALA:HB1	1.74	0.68
57:DZ:114:GLY:HA3	57:DZ:177:PRO:CG	2.21	0.68
1:AA:586:C:O2'	1:AA:587:G:H5'	1.93	0.68
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.28	0.68
1:AA:1385:G:O2'	1:AA:1386:G:H5'	1.92	0.68
3:AC:84:ILE:O	3:AC:88:ARG:HG3	1.93	0.68
29:B3:4:LEU:HD21	29:B3:56:VAL:CG1	2.22	0.68
36:BA:1044:G:H1'	36:BA:1111:A:N1	2.08	0.68
36:BA:1803:A:O2'	39:BD:259:THR:HG21	1.93	0.68
36:BA:2314:C:H2'	36:BA:2315:G:H8	1.58	0.68
37:BB:52:A:N7	50:BS:33:LYS:HE3	2.07	0.68
42:BG:39:ILE:HD13	42:BG:157:ILE:CG2	2.23	0.68
49:BR:18:LEU:HD11	49:BR:22:ARG:CZ	2.23	0.68
50:BS:67:ARG:HH12	50:BS:100:ALA:HB3	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:390:C:H2'	1:CA:391:G:C8	2.28	0.68
4:CD:28:SER:O	4:CD:30:LYS:N	2.25	0.68
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.56	0.68
29:D3:29:ARG:HH11	29:D3:29:ARG:HG3	1.58	0.68
36:DA:869:G:H2'	36:DA:870:A:H8	1.57	0.68
36:DA:2876:G:H4'	51:DT:3:ARG:HD3	1.74	0.68
41:DF:24:LEU:O	41:DF:26:ALA:N	2.27	0.68
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.08	0.68
8:AH:82:HIS:CD2	8:AH:82:HIS:C	2.66	0.68
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.93	0.68
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.22	0.68
23:AW:38:A:H3'	23:AW:39:U:C5'	2.24	0.68
36:BA:6:A:O2'	45:BN:130:HIS:HB3	1.91	0.68
36:BA:906:G:H5'	48:BQ:26:TYR:OH	1.93	0.68
39:BD:147:LEU:HD13	39:BD:155:LEU:HD11	1.73	0.68
40:BE:101:ARG:HH21	40:BE:171:GLU:CA	2.05	0.68
52:BU:104:GLN:HB2	53:BV:44:LYS:NZ	2.09	0.68
53:BV:41:GLY:HA3	53:BV:45:THR:OG1	1.93	0.68
54:BW:111:HIS:CG	54:BW:112:GLY:H	2.11	0.68
1:CA:972:C:H4'	10:CJ:57:LYS:HG3	1.75	0.68
1:CA:973:G:H3'	1:CA:974:A:H5"	1.75	0.68
36:DA:1171:G:H5"	36:DA:1173:G:H4'	1.74	0.68
36:DA:1805:U:O2	39:DD:50:THR:HB	1.93	0.68
39:DD:58:HIS:HD2	39:DD:59:LYS:O	1.76	0.68
42:DG:13:GLU:O	42:DG:14:GLU:HB3	1.92	0.68
48:DQ:27:VAL:H	48:DQ:137:TYR:HE1	1.41	0.68
51:DT:28:VAL:O	51:DT:29:ARG:HB2	1.93	0.68
1:AA:475:G:H2'	1:AA:476:G:H8	1.58	0.68
13:AM:118:ALA:HB2	22:AV:29:G:H5'	1.76	0.68
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.29	0.68
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.23	0.68
20:AT:50:GLU:HG3	20:AT:51:GLU:H	1.56	0.68
27:B1:23:LYS:HE2	27:B1:28:GLY:HA3	1.76	0.68
32:B6:32:ASN:CG	32:B6:33:LYS:H	1.97	0.68
33:B7:47:ARG:NH2	55:BX:60:ARG:HH22	1.91	0.68
36:BA:78:A:H2'	36:BA:79:G:H8	1.57	0.68
36:BA:1324:G:H1'	36:BA:1616:A:N6	2.08	0.68
37:BB:71:C:H2'	37:BB:72:G:H8	1.58	0.68
41:BF:134:GLY:H	41:BF:162:LEU:HG	1.59	0.68
42:BG:28:VAL:O	42:BG:31:VAL:HG12	1.93	0.68
47:BP:38:GLN:HG3	47:BP:39:LYS:N	2.07	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:586:C:O2'	1:CA:587:G:H5'	1.94	0.68
4:CD:8:VAL:C	4:CD:10:ARG:H	1.96	0.68
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.93	0.68
19:CS:45:VAL:C	19:CS:47:HIS:H	1.96	0.68
27:D1:44:PRO:HB2	27:D1:46:LEU:CD1	2.24	0.68
47:DP:18:ARG:HH11	47:DP:18:ARG:CB	2.06	0.68
48:DQ:69:PHE:CD1	48:DQ:70:PRO:HD2	2.27	0.68
54:DW:22:ASP:HA	54:DW:25:ARG:HH12	1.59	0.68
54:DW:111:HIS:CG	54:DW:112:GLY:H	2.11	0.68
1:AA:1485:U:O2'	1:AA:1486:G:H5'	1.94	0.68
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.74	0.68
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.23	0.68
36:BA:1997:G:O2'	36:BA:1998:G:H5'	1.93	0.68
39:BD:25:THR:O	39:BD:26:LYS:HG2	1.94	0.68
41:BF:143:ALA:HB1	41:BF:148:LEU:HB2	1.75	0.68
51:BT:30:VAL:CG1	51:BT:84:GLN:HG3	2.19	0.68
55:BX:64:LYS:HD3	55:BX:73:ARG:NE	2.09	0.68
56:BY:88:LYS:HZ1	56:BY:93:GLY:HA3	1.59	0.68
1:CA:250:A:H4'	1:CA:251:G:O5'	1.92	0.68
3:CC:9:GLY:HA2	3:CC:12:LEU:HD23	1.75	0.68
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.09	0.68
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	1.94	0.68
15:CO:7:GLU:O	15:CO:10:LYS:HG3	1.93	0.68
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.74	0.68
28:D2:35:LEU:HB3	28:D2:50:ILE:HD13	1.74	0.68
28:D2:48:HIS:CD2	36:DA:96:G:H4'	2.29	0.68
36:DA:271(P):C:O2'	36:DA:271(Q):G:H5'	1.94	0.68
36:DA:1192:G:O2'	36:DA:1193:G:H5'	1.93	0.68
36:DA:2875:C:O2'	51:DT:5:ALA:HB3	1.94	0.68
42:DG:20:ILE:HG23	42:DG:25:TYR:O	1.94	0.68
42:DG:99:MET:HG2	42:DG:100:TRP:N	2.07	0.68
44:DI:88:ILE:CD1	44:DI:123:LEU:HG	2.22	0.68
48:DQ:47:ILE:HG22	48:DQ:48:GLU:N	2.07	0.68
53:DV:39:LEU:CD1	53:DV:51:VAL:HA	2.22	0.68
57:DZ:19:ARG:HH12	57:DZ:84:GLU:CA	2.07	0.68
2:AB:218:ALA:O	2:AB:222:ILE:HG13	1.94	0.68
6:AF:39:LYS:HG2	6:AF:40:VAL:H	1.58	0.68
19:AS:41:VAL:O	19:AS:44:MET:HB2	1.94	0.68
23:AW:27:G:H2'	23:AW:28:G:H8	1.59	0.68
41:BF:17:ARG:HH11	41:BF:17:ARG:HG3	1.59	0.68
42:BG:69:ALA:CB	42:BG:91:ARG:HH21	2.05	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:13:LYS:HA	43:BH:13:LYS:CE	2.20	0.68
44:BI:109:ILE:HG22	44:BI:111:PRO:HD3	1.76	0.68
45:BN:12:ARG:HB3	45:BN:50:ASP:OD1	1.94	0.68
46:BO:113:LYS:O	46:BO:117:LEU:HB2	1.94	0.68
51:BT:28:VAL:O	51:BT:29:ARG:HB2	1.92	0.68
53:BV:19:LYS:HG3	53:BV:20:LEU:N	2.07	0.68
57:BZ:146:ILE:HG22	57:BZ:174:VAL:HG12	1.76	0.68
10:CJ:40:LEU:HB2	10:CJ:41:PRO:CD	2.21	0.68
23:CW:62:C:H2'	23:CW:63:G:C8	2.26	0.68
33:D7:47:ARG:NH2	55:DX:60:ARG:HH22	1.91	0.68
36:DA:1119:C:H2'	36:DA:1120:G:C8	2.27	0.68
41:DF:143:ALA:HB1	41:DF:148:LEU:HB2	1.75	0.68
41:DF:176:LEU:HD21	41:DF:180:GLY:O	1.94	0.68
47:DP:80:TYR:CE1	47:DP:111:ARG:HD3	2.28	0.68
48:DQ:12:GLN:HE21	48:DQ:72:LYS:HA	1.58	0.68
48:DQ:39:PRO:HA	48:DQ:97:VAL:O	1.93	0.68
50:DS:14:VAL:HG12	50:DS:15:ARG:N	2.09	0.68
52:DU:112:ARG:HH21	53:DV:46:VAL:HG11	1.58	0.68
54:DW:59:VAL:O	54:DW:63:ASP:N	2.23	0.68
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.76	0.68
19:AS:45:VAL:C	19:AS:47:HIS:H	1.95	0.68
36:BA:813:U:H2'	36:BA:814:C:C6	2.29	0.68
36:BA:953:A:O2'	36:BA:954:G:H5'	1.94	0.68
40:BE:73:GLU:HG3	40:BE:74:PRO:HD2	1.75	0.68
51:BT:53:ARG:HH11	51:BT:53:ARG:HG2	1.59	0.68
51:BT:80:SER:CB	51:BT:81:PRO:CD	2.72	0.68
55:BX:25:LYS:HZ2	55:BX:80:ILE:HD11	1.59	0.68
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.23	0.68
22:CV:40:C:H2'	22:CV:41:C:H6	1.59	0.68
38:DC:59:ARG:HB2	38:DC:62:VAL:CG2	2.23	0.68
43:DH:156:ALA:HB3	43:DH:159:GLU:HB3	1.76	0.68
45:DN:17:ASP:OD1	45:DN:56:ASN:HB3	1.92	0.68
47:DP:23:PRO:HB2	47:DP:33:ARG:CG	2.24	0.68
52:DU:46:ALA:O	52:DU:50:ARG:HG3	1.94	0.68
7:AG:76:ARG:HH11	7:AG:76:ARG:HG2	1.59	0.68
27:B1:50:ARG:NH1	27:B1:50:ARG:HG2	2.09	0.68
31:B5:49:CYS:O	31:B5:56:LYS:HB3	1.94	0.68
36:BA:1510:G:O2'	36:BA:1511:C:H5'	1.94	0.68
47:BP:66:GLY:O	47:BP:67:MET:HB3	1.94	0.68
48:BQ:141:GLN:HE22	57:BZ:72:ARG:HA	1.58	0.68
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.29	0.68
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.76	0.68
8:CH:104:ARG:HB3	8:CH:107:LEU:HB2	1.75	0.68
17:CQ:50:LYS:HE3	17:CQ:51:TYR:CE1	2.29	0.68
23:CW:18:G:H1	23:CW:55:U:H1'	1.57	0.68
36:DA:483:A:HO2'	56:DY:60:PHE:HZ	1.38	0.68
36:DA:492:A:H2'	36:DA:493:G:O4'	1.94	0.68
36:DA:557:U:H2'	36:DA:558:G:H8	1.58	0.68
36:DA:1449:A:N3	36:DA:1529:G:H1'	2.08	0.68
36:DA:2712:U:HO2'	36:DA:2712(A):A:H5"	1.56	0.68
54:DW:61:ASN:HD22	54:DW:61:ASN:N	1.90	0.68
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.29	0.68
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.08	0.68
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.76	0.68
3:AC:165:THR:HG22	3:AC:165:THR:O	1.92	0.68
3:AC:173:VAL:O	3:AC:175:LEU:HD12	1.93	0.68
8:AH:48:TYR:HA	8:AH:60:ARG:O	1.94	0.68
29:B3:4:LEU:HB2	29:B3:39:ASP:HB2	1.74	0.68
33:B7:8:ASN:C	33:B7:8:ASN:HD22	1.97	0.68
34:B8:50:LEU:HD12	34:B8:54:GLU:OE2	1.93	0.68
36:BA:108:U:H2'	36:BA:109:G:H8	1.57	0.68
36:BA:1192:G:O2'	36:BA:1193:G:H5'	1.94	0.68
36:BA:1987:G:H5'	36:BA:1987:G:H8	1.59	0.68
44:BI:38:LEU:HD12	44:BI:38:LEU:N	2.04	0.68
48:BQ:133:ARG:HH11	48:BQ:133:ARG:HG3	1.58	0.68
50:BS:14:VAL:HG12	50:BS:15:ARG:N	2.08	0.68
51:BT:102:ILE:HB	51:BT:110:ILE:HD11	1.74	0.68
55:BX:64:LYS:NZ	55:BX:73:ARG:HH21	1.92	0.68
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.27	0.68
4:CD:170:VAL:HG12	4:CD:174:LEU:HB2	1.76	0.68
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.74	0.68
36:DA:953:A:O2'	36:DA:954:G:H5'	1.92	0.68
36:DA:2562:U:H1'	46:DO:23:ARG:HH11	1.59	0.68
36:DA:2593:U:H2'	36:DA:2594:C:C6	2.29	0.68
42:DG:41:GLN:NE2	42:DG:153:ARG:HB3	2.03	0.68
50:DS:99:LYS:O	50:DS:101:LEU:N	2.26	0.68
51:DT:50:ILE:HD11	51:DT:102:ILE:CD1	2.24	0.68
57:DZ:144:LEU:HD12	57:DZ:174:VAL:HG23	1.76	0.68
1:AA:194:C:H2'	1:AA:195:A:H5"	1.76	0.68
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.09	0.68
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:23:LYS:O	12:AL:24:VAL:HG23	1.93	0.68
36:BA:144:C:H2'	36:BA:145:G:H8	1.58	0.68
36:BA:203:C:H3'	36:BA:204:A:H5"	1.76	0.68
36:BA:1230:C:H2'	36:BA:1231:G:C8	2.29	0.68
39:BD:76:PRO:O	39:BD:98:VAL:HG23	1.94	0.68
41:BF:108:LYS:O	41:BF:112:MET:HB2	1.93	0.68
42:BG:10:LYS:HE3	42:BG:14:GLU:OE1	1.94	0.68
47:BP:18:ARG:HH11	47:BP:18:ARG:CB	2.07	0.68
47:BP:91:PHE:CE2	47:BP:95:VAL:HG12	2.29	0.68
48:BQ:59:ARG:O	48:BQ:60:ARG:HB2	1.93	0.68
51:BT:23:ARG:HB2	51:BT:24:PRO:HD2	1.75	0.68
57:BZ:128:VAL:HG21	57:BZ:132:ASN:O	1.94	0.68
3:CC:116:VAL:O	3:CC:119:ARG:HB3	1.93	0.68
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.76	0.68
13:CM:95:GLY:O	13:CM:96:LEU:HG	1.94	0.68
32:D6:32:ASN:CG	32:D6:33:LYS:H	1.97	0.68
39:DD:48:ARG:HG3	39:DD:48:ARG:NH1	2.07	0.68
40:DE:61:ARG:HB3	40:DE:62:PRO:CD	2.24	0.68
41:DF:89:VAL:HG12	41:DF:90:PHE:N	2.09	0.68
42:DG:101:ILE:HD12	42:DG:102:PHE:N	2.09	0.68
48:DQ:63:LYS:HZ3	57:DZ:175:VAL:HG21	1.59	0.68
52:DU:104:GLN:NE2	52:DU:105:VAL:HG23	2.09	0.68
1:AA:963:G:N2	10:AJ:55:LYS:HZ2	1.92	0.67
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.29	0.67
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.76	0.67
25:AY:63:G:H2'	25:AY:64:A:C8	2.29	0.67
36:BA:2195:C:O2'	36:BA:2196:C:H5'	1.94	0.67
39:BD:48:ARG:HG3	39:BD:48:ARG:HH11	1.58	0.67
41:BF:8:GLN:HG2	41:BF:126:VAL:HG12	1.75	0.67
41:BF:89:VAL:HG12	41:BF:90:PHE:N	2.09	0.67
42:BG:47:LYS:NZ	42:BG:82:LEU:HD12	2.08	0.67
53:BV:15:GLU:HB3	53:BV:16:PRO:HD2	1.76	0.67
53:BV:99:ILE:HD13	53:BV:99:ILE:H	1.59	0.67
54:BW:68:ARG:HD2	54:BW:110:LYS:CB	2.23	0.67
57:BZ:102:LEU:HD11	57:BZ:124:ILE:HG22	1.77	0.67
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.09	0.67
8:CH:48:TYR:HA	8:CH:60:ARG:O	1.93	0.67
22:CV:65:C:C2'	22:CV:66:C:H5'	2.24	0.67
36:DA:528:A:C2	36:DA:2042:A:H2'	2.29	0.67
36:DA:2122:U:H2'	36:DA:2123:G:C8	2.29	0.67
36:DA:2875:C:H4'	51:DT:5:ALA:HB2	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:41:GLN:HA	42:DG:155:MET:HB3	1.76	0.67
44:DI:73:GLU:HB2	44:DI:136:VAL:HG23	1.76	0.67
57:DZ:166:SER:HB2	57:DZ:168:GLU:N	2.09	0.67
1:AA:1179:A:H5'	9:AI:102:LEU:CD1	2.24	0.67
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.29	0.67
4:AD:8:VAL:C	4:AD:10:ARG:H	1.96	0.67
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.23	0.67
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.94	0.67
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.24	0.67
27:B1:84:GLY:O	27:B1:86:SER:N	2.27	0.67
36:BA:492:A:H2'	36:BA:493:G:O4'	1.94	0.67
36:BA:1590:U:H2'	36:BA:1591:G:C5'	2.16	0.67
37:BB:48:A:H4'	50:BS:95:HIS:HD2	1.58	0.67
39:BD:181:GLU:HA	39:BD:272:ALA:CB	2.23	0.67
40:BE:3:GLY:O	40:BE:4:ILE:HB	1.94	0.67
43:BH:121:ILE:HG23	43:BH:134:SER:O	1.94	0.67
43:BH:144:VAL:O	43:BH:148:ILE:HG12	1.94	0.67
46:BO:47:ILE:HG23	46:BO:48:PRO:HD2	1.74	0.67
50:BS:26:LEU:HG	50:BS:39:ILE:CD1	2.24	0.67
53:BV:62:LEU:HD21	53:BV:95:LEU:HB2	1.76	0.67
55:BX:12:VAL:CB	55:BX:17:ALA:HB1	2.17	0.67
1:CA:977:A:H1'	1:CA:982:U:O4	1.94	0.67
1:CA:1501:C:OP2	1:CA:1504:G:H2'	1.94	0.67
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.26	0.67
13:CM:13:LYS:O	13:CM:45:VAL:HG23	1.94	0.67
19:CS:41:VAL:O	19:CS:44:MET:HB2	1.94	0.67
37:DB:44:G:H1'	37:DB:47:C:N4	2.09	0.67
41:DF:67:GLN:O	41:DF:67:GLN:CG	2.40	0.67
44:DI:73:GLU:HA	44:DI:138:ILE:HG23	1.74	0.67
51:DT:3:ARG:O	51:DT:7:ILE:HG12	1.93	0.67
56:DY:47:LYS:HD2	56:DY:47:LYS:N	2.08	0.67
2:AB:67:THR:HB	2:AB:155:LEU:HD21	1.75	0.67
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.74	0.67
15:AO:37:ASN:N	15:AO:37:ASN:HD22	1.92	0.67
28:B2:45:SER:O	28:B2:46:GLN:NE2	2.27	0.67
36:BA:1165:U:H2'	36:BA:1166:C:C6	2.29	0.67
40:BE:32:PRO:HB3	40:BE:69:LYS:HB3	1.74	0.67
42:BG:85:GLY:C	42:BG:87:PRO:HD2	2.15	0.67
43:BH:121:ILE:HG22	43:BH:133:VAL:HG12	1.75	0.67
46:BO:98:VAL:HG12	46:BO:117:LEU:HD22	1.76	0.67
47:BP:64:LYS:O	47:BP:66:GLY:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:104:GLN:HE22	52:BU:105:VAL:HG23	1.59	0.67
55:BX:54:VAL:HG22	55:BX:81:VAL:HG12	1.75	0.67
57:BZ:17:ALA:O	57:BZ:20:ARG:HB2	1.94	0.67
1:CA:93:G:H2'	1:CA:96:U:H5'	1.74	0.67
1:CA:1385:G:O2'	1:CA:1386:G:H5'	1.93	0.67
4:CD:189:PRO:HB2	4:CD:194:LEU:CD2	2.23	0.67
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.95	0.67
27:D1:62:VAL:HG22	27:D1:63:ALA:N	2.09	0.67
31:D5:29:THR:HG21	36:DA:2814:C:O2'	1.94	0.67
36:DA:1022:G:O2'	36:DA:1023:U:OP2	2.12	0.67
36:DA:2314:C:H2'	36:DA:2315:G:H8	1.58	0.67
41:DF:134:GLY:H	41:DF:162:LEU:HG	1.57	0.67
42:DG:134:GLY:C	42:DG:135:LEU:HD12	2.15	0.67
46:DO:4:PRO:O	46:DO:5:GLN:HB2	1.93	0.67
48:DQ:34:LEU:HD11	48:DQ:129:THR:CB	2.24	0.67
49:DR:18:LEU:HD11	49:DR:22:ARG:NH2	2.09	0.67
57:DZ:56:VAL:HG12	57:DZ:57:ILE:N	2.09	0.67
57:DZ:58:VAL:HA	57:DZ:67:LEU:O	1.93	0.67
57:DZ:118:GLN:HG2	57:DZ:119:GLU:N	2.06	0.67
25:AY:42:C:H3'	25:AY:43:C:H5"	1.76	0.67
36:BA:271(P):C:O2'	36:BA:271(Q):G:H5'	1.94	0.67
36:BA:1593:G:C3'	36:BA:1594:G:H5"	2.25	0.67
42:BG:112:PRO:O	42:BG:113:ARG:HA	1.93	0.67
45:BN:40:PRO:HB3	52:BU:68:ALA:HB2	1.76	0.67
48:BQ:27:VAL:H	48:BQ:137:TYR:HE1	1.39	0.67
52:BU:46:ALA:O	52:BU:50:ARG:HG3	1.94	0.67
1:CA:1321:C:H5"	1:CA:1322:C:C5'	2.24	0.67
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	1.77	0.67
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.76	0.67
12:CL:23:LYS:O	12:CL:24:VAL:HG23	1.93	0.67
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.24	0.67
21:CU:18:TYR:CD2	21:CU:24:ARG:HG2	2.29	0.67
26:D0:40:GLN:HE21	26:D0:43:THR:HA	1.58	0.67
32:D6:33:LYS:HE2	32:D6:33:LYS:HA	1.77	0.67
36:DA:833:U:H1'	47:DP:55:ARG:HH11	1.59	0.67
36:DA:984:A:H5"	36:DA:985:C:H5	1.58	0.67
36:DA:1717:G:H3'	36:DA:1718:G:H5"	1.74	0.67
41:DF:123:LEU:HD12	41:DF:124:LEU:H	1.58	0.67
48:DQ:55:VAL:O	48:DQ:59:ARG:HA	1.93	0.67
50:DS:26:LEU:HG	50:DS:39:ILE:CD1	2.23	0.67
51:DT:128:GLU:O	51:DT:130:ALA:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:57:PHE:CD2	2:AB:185:ILE:HD11	2.29	0.67
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	1.77	0.67
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.09	0.67
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.76	0.67
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.95	0.67
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.10	0.67
27:B1:41:ARG:HD3	27:B1:43:TYR:CE2	2.30	0.67
32:B6:10:LEU:HD12	34:B8:34:TRP:NE1	2.08	0.67
36:BA:1434:A:H61	36:BA:1558:A:H62	1.41	0.67
36:BA:1578:U:H2'	36:BA:1579:A:C5'	2.24	0.67
39:BD:129:ASN:O	39:BD:193:VAL:HG12	1.95	0.67
44:BI:133:HIS:HB2	44:BI:134:PRO:HD3	1.75	0.67
53:BV:19:LYS:HG2	53:BV:94:LEU:CB	2.17	0.67
57:BZ:158:PRO:HB2	57:BZ:159:PRO:HD2	1.75	0.67
1:CA:57:G:H2'	1:CA:58:C:C6	2.29	0.67
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.25	0.67
29:D3:11:SER:OG	29:D3:13:ILE:HD13	1.94	0.67
36:DA:1190:G:H5"	47:DP:35:HIS:HA	1.75	0.67
39:DD:11:PRO:C	39:DD:13:ARG:N	2.48	0.67
41:DF:108:LYS:O	41:DF:112:MET:HB2	1.95	0.67
42:DG:38:VAL:O	42:DG:157:ILE:HG13	1.95	0.67
42:DG:133:LEU:HD23	42:DG:133:LEU:H	1.58	0.67
44:DI:102:SER:OG	44:DI:109:ILE:HD13	1.95	0.67
50:DS:85:VAL:CG2	50:DS:106:ARG:HG3	2.24	0.67
50:DS:106:ARG:HD2	50:DS:107:GLU:O	1.94	0.67
2:AB:178:ARG:HH11	2:AB:178:ARG:CB	2.07	0.67
2:AB:217:ARG:O	2:AB:221:LEU:HD23	1.94	0.67
3:AC:116:VAL:O	3:AC:119:ARG:HB3	1.93	0.67
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.94	0.67
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.60	0.67
23:AW:14:A:H3'	23:AW:15:G:C8	2.29	0.67
29:B3:29:ARG:HH11	29:B3:29:ARG:HG3	1.59	0.67
30:B4:36:VAL:HB	30:B4:37:PRO:HD2	1.76	0.67
36:BA:769:G:O2'	36:BA:770:G:H5'	1.94	0.67
36:BA:1796:U:H2'	36:BA:1797:C:C6	2.29	0.67
39:BD:176:ARG:HH11	39:BD:176:ARG:HG2	1.60	0.67
48:BQ:55:VAL:O	48:BQ:59:ARG:HA	1.95	0.67
54:BW:84:ARG:HB2	54:BW:96:ILE:HG22	1.77	0.67
2:CB:217:ARG:O	2:CB:221:LEU:HD23	1.94	0.67
3:CC:165:THR:HG22	3:CC:165:THR:O	1.94	0.67
13:CM:84:ILE:HG12	19:CS:66:MET:HE1	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	2.25	0.67
23:CW:67:C:O2'	23:CW:68:C:H5'	1.95	0.67
27:D1:44:PRO:HB2	27:D1:46:LEU:HD13	1.76	0.67
29:D3:56:VAL:CG1	29:D3:57:GLU:H	2.01	0.67
44:DI:92:VAL:HG11	44:DI:120:ILE:CD1	2.20	0.67
48:DQ:140:ALA:HB1	57:DZ:99:TYR:HB2	1.77	0.67
56:DY:49:VAL:O	56:DY:53:PRO:HG3	1.94	0.67
57:DZ:14:LYS:HZ2	57:DZ:14:LYS:N	1.92	0.67
2:AB:63:MET:HG3	2:AB:64:ARG:N	2.10	0.67
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.77	0.67
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.09	0.67
20:AT:49:ALA:HB1	20:AT:100:ILE:HD11	1.75	0.67
36:BA:2468:G:H2'	36:BA:2476:A:N7	2.10	0.67
36:BA:2876:G:H4'	51:BT:3:ARG:HD3	1.75	0.67
40:BE:61:ARG:HB3	40:BE:62:PRO:CD	2.24	0.67
42:BG:128:ARG:C	42:BG:130:ASN:N	2.47	0.67
45:BN:58:ASP:O	45:BN:60:ILE:N	2.23	0.67
50:BS:99:LYS:O	50:BS:101:LEU:N	2.27	0.67
52:BU:104:GLN:NE2	52:BU:105:VAL:HG23	2.10	0.67
10:CJ:50:ILE:HG12	14:CN:41:ARG:CD	2.25	0.67
31:D5:45:VAL:HG13	31:D5:50:GLY:HA2	1.76	0.67
36:DA:144:C:H2'	36:DA:145:G:H8	1.60	0.67
36:DA:1902:C:H4'	39:DD:244:ARG:HA	1.76	0.67
36:DA:1925:C:O2'	36:DA:1926:U:H5'	1.94	0.67
36:DA:2680:C:H5'	40:DE:189:PRO:HA	1.75	0.67
41:DF:34:TRP:CH2	47:DP:12:ALA:HB2	2.29	0.67
42:DG:11:TYR:CE2	42:DG:16:ARG:HG2	2.30	0.67
43:DH:121:ILE:HG22	43:DH:133:VAL:HG12	1.77	0.67
53:DV:99:ILE:H	53:DV:99:ILE:HD13	1.59	0.67
57:DZ:93:ASP:HA	57:DZ:130:PRO:HG3	1.77	0.67
1:AA:156:G:O2'	1:AA:157:G:H5'	1.95	0.67
1:AA:972:C:H4'	10:AJ:57:LYS:HG3	1.77	0.67
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.58	0.67
36:BA:806:C:OP2	47:BP:39:LYS:HD3	1.94	0.67
36:BA:1190:G:H5"	47:BP:35:HIS:HA	1.76	0.67
45:BN:10:GLU:OE2	45:BN:11:PRO:HD2	1.94	0.67
47:BP:122:PRO:HA	47:BP:141:ALA:O	1.95	0.67
22:CV:19:G:H3'	22:CV:20:U:O4'	1.95	0.67
42:DG:26:GLN:O	42:DG:27:ASN:HB2	1.94	0.67
42:DG:125:PHE:CE2	42:DG:170:ARG:HA	2.30	0.67
44:DI:140:LEU:HD12	44:DI:141:LYS:H	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DS:27:SER:HA	50:DS:88:ASP:HB3	1.76	0.67
51:DT:23:ARG:HB2	51:DT:24:PRO:HD2	1.76	0.67
51:DT:61:PHE:CE2	51:DT:76:PHE:HB2	2.30	0.67
51:DT:108:ARG:HB2	51:DT:108:ARG:HH11	1.58	0.67
52:DU:92:ARG:HH22	52:DU:94:ASN:HD22	1.39	0.67
57:DZ:89:PHE:CE1	57:DZ:96:VAL:HG21	2.29	0.67
22:AV:51:C:C2'	22:AV:52:G:H5"	2.25	0.67
23:AW:38:A:H3'	23:AW:39:U:H5"	1.75	0.67
26:B0:48:GLY:HA3	26:B0:80:HIS:ND1	2.09	0.67
33:B7:47:ARG:CZ	55:BX:60:ARG:HH22	2.07	0.67
36:BA:28:A:N6	36:BA:512:G:H1'	2.09	0.67
36:BA:151:C:O2'	36:BA:152:G:H5'	1.95	0.67
36:BA:984:A:H5"	36:BA:985:C:H5	1.60	0.67
36:BA:1887:C:H2'	36:BA:1888:G:H5"	1.76	0.67
40:BE:49:LEU:HD12	40:BE:49:LEU:N	2.09	0.67
41:BF:34:TRP:CH2	47:BP:12:ALA:HB2	2.29	0.67
42:BG:41:GLN:HE22	42:BG:153:ARG:HG2	1.58	0.67
44:BI:58:LEU:CA	44:BI:61:ARG:HE	2.03	0.67
48:BQ:37:LEU:HD21	48:BQ:130:LYS:HB2	1.77	0.67
49:BR:9:LYS:O	49:BR:10:LEU:HG	1.95	0.67
53:BV:19:LYS:HG3	53:BV:20:LEU:O	1.94	0.67
1:CA:67:C:H2'	1:CA:68:G:C8	2.29	0.67
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.58	0.67
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.42	0.67
10:CJ:8:LEU:CD2	10:CJ:96:ILE:HG22	2.25	0.67
12:CL:24:VAL:O	12:CL:24:VAL:HG12	1.95	0.67
31:D5:49:CYS:O	31:D5:56:LYS:HB3	1.94	0.67
32:D6:11:LEU:HG	32:D6:26:ASN:ND2	2.10	0.67
36:DA:2126:A:H4'	36:DA:2127:G:O5'	1.95	0.67
36:DA:2387:U:H5'	36:DA:2388:A:OP2	1.95	0.67
41:DF:17:ARG:HG3	41:DF:17:ARG:HH11	1.59	0.67
42:DG:135:LEU:HD22	42:DG:155:MET:CE	2.25	0.67
45:DN:134:ARG:N	45:DN:135:PRO:HD3	2.10	0.67
51:DT:80:SER:CB	51:DT:81:PRO:CD	2.73	0.67
52:DU:91:ASP:OD1	52:DU:96:ALA:HB2	1.94	0.67
56:DY:95:LYS:HE2	56:DY:100:ALA:HB2	1.74	0.67
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.58	0.67
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.77	0.67
23:AW:14:A:H3'	23:AW:15:G:H8	1.60	0.67
23:AW:68:C:H2'	23:AW:69:G:C8	2.30	0.67
27:B1:80:LEU:HD13	27:B1:82:LEU:HD11	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B8:25:MET:HG3	47:BP:64:LYS:CB	2.20	0.67
41:BF:32:LEU:O	41:BF:32:LEU:HD23	1.94	0.67
42:BG:4:ASP:HA	42:BG:8:LYS:HD2	1.77	0.67
42:BG:64:THR:HG23	42:BG:65:GLY:N	2.10	0.67
43:BH:18:GLU:HB3	43:BH:25:LYS:NZ	2.09	0.67
51:BT:50:ILE:HD11	51:BT:102:ILE:CD1	2.25	0.67
52:BU:17:ILE:HG23	52:BU:39:LEU:HD12	1.77	0.67
7:CG:148:ASN:C	7:CG:150:ALA:H	1.98	0.67
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.77	0.67
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.77	0.67
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.77	0.67
25:CY:52:G:O3'	48:DQ:56:ARG:NH1	2.28	0.67
36:DA:825:C:H1'	47:DP:55:ARG:HD3	1.77	0.67
39:DD:36:PRO:HB2	39:DD:61:LEU:HD12	1.76	0.67
43:DH:18:GLU:HB3	43:DH:25:LYS:NZ	2.10	0.67
48:DQ:16:ARG:HG2	48:DQ:17:LEU:N	2.09	0.67
1:AA:10:A:OP2	5:AE:126:ARG:HD3	1.94	0.66
1:AA:190:U:H2'	1:AA:191:G:C8	2.30	0.66
1:AA:1116:C:H2'	1:AA:1117:G:C5'	2.20	0.66
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.59	0.66
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.10	0.66
20:AT:72:LEU:HD23	20:AT:73:HIS:H	1.58	0.66
25:AY:33:U:H3'	25:AY:34:G:H5"	1.76	0.66
36:BA:528:A:C2	36:BA:2042:A:H2'	2.30	0.66
36:BA:2111:C:H1'	36:BA:2118:U:O4'	1.95	0.66
36:BA:2126:A:H4'	36:BA:2127:G:O5'	1.95	0.66
40:BE:59:VAL:O	40:BE:60:ASN:HB3	1.93	0.66
44:BI:72:LEU:CD1	44:BI:138:ILE:HD13	2.25	0.66
47:BP:80:TYR:CE1	47:BP:111:ARG:HD3	2.29	0.66
47:BP:84:ASN:C	47:BP:86:LYS:H	1.97	0.66
1:CA:522:C:H41	12:CL:53:ARG:NH2	1.93	0.66
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.10	0.66
1:CA:1499:A:H8	1:CA:1499:A:H5'	1.60	0.66
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.72	0.66
31:D5:37:LYS:HG3	31:D5:38:ALA:N	2.10	0.66
33:D7:8:ASN:HD22	33:D7:8:ASN:C	1.98	0.66
36:DA:2111:C:H1'	36:DA:2118:U:O4'	1.95	0.66
40:DE:120:TRP:CD2	40:DE:155:LYS:HD3	2.30	0.66
42:DG:45:GLU:HG3	42:DG:46:ALA:H	1.57	0.66
45:DN:12:ARG:HB3	45:DN:50:ASP:OD1	1.95	0.66
57:DZ:81:ARG:O	57:DZ:81:ARG:HG3	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:169:GLU:HG2	57:DZ:170:THR:N	2.10	0.66
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.30	0.66
2:AB:67:THR:O	2:AB:68:ILE:HD13	1.95	0.66
12:AL:28:LYS:CE	12:AL:33:ARG:HH22	2.08	0.66
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.25	0.66
20:AT:50:GLU:HA	20:AT:100:ILE:HG12	1.77	0.66
25:AY:1:G:H2'	25:AY:1:G:N3	2.08	0.66
44:BI:79:ILE:HG12	44:BI:140:LEU:HD11	1.77	0.66
47:BP:48:PRO:HG2	47:BP:49:ARG:H	1.60	0.66
50:BS:85:VAL:CG2	50:BS:106:ARG:HG3	2.26	0.66
54:BW:59:VAL:O	54:BW:63:ASP:N	2.26	0.66
56:BY:14:LEU:HD12	56:BY:15:VAL:H	1.60	0.66
4:CD:25:ARG:C	4:CD:27:TYR:H	1.99	0.66
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.10	0.66
22:CV:59:A:C2'	22:CV:60:U:H5'	2.26	0.66
23:CW:58:A:H1'	23:CW:60:U:C5	2.29	0.66
36:DA:1722:A:C2	36:DA:1740:G:H8	2.13	0.66
37:DB:42:C:H4'	42:DG:67:LYS:O	1.94	0.66
42:DG:19:LEU:CD1	42:DG:31:VAL:HG13	2.25	0.66
45:DN:48:MET:HE3	45:DN:48:MET:H	1.58	0.66
48:DQ:59:ARG:O	48:DQ:60:ARG:HB2	1.94	0.66
57:DZ:136:PHE:O	57:DZ:137:ILE:HD13	1.95	0.66
21:AU:18:TYR:CD2	21:AU:24:ARG:HG2	2.30	0.66
22:AV:73:A:H5'	22:AV:74:C:H5'	1.76	0.66
30:B4:46:ASN:HD22	30:B4:47:VAL:H	1.42	0.66
36:BA:576:U:H2'	36:BA:577:G:H8	1.59	0.66
36:BA:1578:U:H2'	36:BA:1579:A:H5"	1.77	0.66
36:BA:1826:G:H4'	39:BD:242:ARG:NH2	2.09	0.66
36:BA:2808:U:O2'	36:BA:2809:A:H5'	1.96	0.66
44:BI:110:ASP:O	44:BI:112:LYS:N	2.28	0.66
50:BS:54:LEU:H	50:BS:54:LEU:HD22	1.58	0.66
3:CC:82:GLU:O	3:CC:86:VAL:HG13	1.96	0.66
6:CF:45:LEU:HD12	6:CF:46:ARG:H	1.59	0.66
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.44	0.66
25:CY:57:G:H3'	25:CY:58:A:C5'	2.20	0.66
26:D0:25:ARG:HD2	26:D0:29:GLN:HE22	1.58	0.66
28:D2:2:LYS:HA	28:D2:5:GLU:OE1	1.96	0.66
31:D5:43:HIS:HD2	36:DA:2815:C:O2'	1.78	0.66
36:DA:910:A:C5	48:DQ:13:GLN:HG3	2.29	0.66
36:DA:1794:U:H2'	36:DA:1795:C:C6	2.30	0.66
36:DA:1826:G:H4'	39:DD:242:ARG:HH21	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1997:G:O2'	36:DA:1998:G:H5'	1.95	0.66
38:DC:86:ALA:HB1	38:DC:94:VAL:HG11	1.77	0.66
40:DE:23:VAL:HA	40:DE:184:VAL:O	1.96	0.66
45:DN:10:GLU:OE2	45:DN:11:PRO:HD2	1.95	0.66
47:DP:122:PRO:HA	47:DP:141:ALA:O	1.95	0.66
49:DR:9:LYS:O	49:DR:10:LEU:HG	1.94	0.66
50:DS:54:LEU:HD22	50:DS:54:LEU:H	1.60	0.66
51:DT:80:SER:HB3	51:DT:81:PRO:HD2	1.76	0.66
51:DT:88:ILE:HG22	51:DT:89:VAL:N	2.09	0.66
55:DX:29:TRP:CZ3	55:DX:78:LYS:HB3	2.30	0.66
57:DZ:42:VAL:HG13	57:DZ:43:GLU:OE1	1.95	0.66
15:AO:5:LYS:O	15:AO:9:GLN:HG2	1.96	0.66
15:AO:51:HIS:O	15:AO:54:ARG:HB3	1.95	0.66
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.76	0.66
32:B6:33:LYS:HE2	32:B6:33:LYS:HA	1.77	0.66
36:BA:1430:C:H2'	36:BA:1431:U:C6	2.30	0.66
36:BA:2172:U:H1'	36:BA:2173:A:OP1	1.94	0.66
48:BQ:27:VAL:HG23	48:BQ:137:TYR:HE1	1.61	0.66
53:BV:46:VAL:HG22	53:BV:47:VAL:N	2.11	0.66
56:BY:27:VAL:HA	56:BY:28:LYS:HZ2	1.61	0.66
1:CA:170:U:O2'	1:CA:171:A:H5'	1.95	0.66
1:CA:1442:G:N7	1:CA:1442(B):A:C8	2.64	0.66
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.77	0.66
2:CB:92:TYR:CE1	2:CB:151:GLY:HA3	2.30	0.66
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.77	0.66
9:CI:10:ARG:HG2	9:CI:104:ARG:O	1.95	0.66
23:CW:39:U:H2'	23:CW:40:C:H5'	1.78	0.66
36:DA:906:G:H5'	48:DQ:26:TYR:OH	1.96	0.66
42:DG:15:VAL:O	42:DG:18:GLU:HB3	1.94	0.66
48:DQ:54:MET:HB3	48:DQ:64:ILE:CD1	2.18	0.66
51:DT:29:ARG:HG3	51:DT:30:VAL:CG1	2.25	0.66
3:AC:35:GLU:HA	3:AC:38:ARG:HD2	1.77	0.66
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.43	0.66
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.77	0.66
34:B8:30:ARG:HA	34:B8:30:ARG:NE	2.09	0.66
36:BA:871:U:OP1	48:BQ:5:ARG:HG3	1.96	0.66
36:BA:2777:G:H4'	36:BA:2778:A:H5'	1.77	0.66
41:BF:65:TRP:HZ3	41:BF:73:ALA:O	1.79	0.66
43:BH:107:VAL:HG21	43:BH:152:ARG:HG3	1.76	0.66
44:BI:11:ASN:O	44:BI:12:LEU:HB3	1.95	0.66
47:BP:13:ASN:C	47:BP:13:ASN:ND2	2.47	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:122:PRO:HB3	47:BP:141:ALA:HB1	1.77	0.66
1:CA:194:C:H2'	1:CA:195:A:H5"	1.76	0.66
2:CB:67:THR:HB	2:CB:155:LEU:HD21	1.76	0.66
2:CB:71:VAL:HA	2:CB:93:VAL:CG2	2.25	0.66
4:CD:76:ARG:O	4:CD:80:GLU:HG2	1.96	0.66
13:CM:10:PRO:CB	13:CM:18:ALA:HB1	2.23	0.66
33:D7:41:ARG:HD3	33:D7:45:ALA:CB	2.26	0.66
39:DD:172:TYR:CE2	39:DD:269:PHE:HE1	2.13	0.66
42:DG:104:GLU:C	42:DG:106:LEU:H	1.98	0.66
44:DI:130:TYR:HB3	44:DI:136:VAL:HG13	1.76	0.66
46:DO:98:VAL:HG12	46:DO:117:LEU:HD22	1.77	0.66
47:DP:64:LYS:O	47:DP:66:GLY:N	2.27	0.66
1:AA:170:U:O2'	1:AA:171:A:H5'	1.95	0.66
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.76	0.66
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.22	0.66
27:B1:18:ILE:HD13	36:BA:380:U:H5'	1.77	0.66
28:B2:40:SER:C	28:B2:42:GLY:N	2.48	0.66
36:BA:90:U:HO2'	36:BA:92:A:H5"	1.59	0.66
36:BA:335:C:H2'	36:BA:336:C:C6	2.28	0.66
36:BA:969:U:H2'	36:BA:970:C:C6	2.31	0.66
36:BA:1779:U:C5	36:BA:1784:A:N7	2.62	0.66
36:BA:2062:A:O2'	36:BA:2063:C:C5'	2.44	0.66
37:BB:7:G:C3'	37:BB:8:U:H5"	2.21	0.66
43:BH:13:LYS:HE2	43:BH:13:LYS:CA	2.19	0.66
43:BH:85:LYS:HD2	43:BH:141:VAL:CG1	2.26	0.66
50:BS:53:SER:OG	50:BS:54:LEU:HD22	1.96	0.66
54:BW:22:ASP:HA	54:BW:25:ARG:HH12	1.59	0.66
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.31	0.66
2:CB:79:ASP:O	2:CB:82:ARG:HB3	1.96	0.66
9:CI:3:GLN:HG2	9:CI:20:ARG:NH1	2.11	0.66
31:D5:4:HIS:O	36:DA:2056:G:N2	2.29	0.66
36:DA:676:A:H2	36:DA:802:A:H61	1.44	0.66
36:DA:2025:C:H2'	36:DA:2026:C:C6	2.30	0.66
36:DA:2359:C:H2'	36:DA:2360:A:O4'	1.96	0.66
37:DB:71:C:H2'	37:DB:72:G:H8	1.59	0.66
39:DD:26:LYS:O	39:DD:27:THR:HB	1.93	0.66
40:DE:203:LYS:HE2	40:DE:204:ALA:HB2	1.78	0.66
42:DG:7:LEU:HD22	42:DG:100:TRP:CE3	2.30	0.66
43:DH:135:GLY:HA3	43:DH:141:VAL:HG21	1.78	0.66
44:DI:4:ILE:HG12	44:DI:18:VAL:HG22	1.76	0.66
54:DW:84:ARG:HB2	54:DW:96:ILE:HG22	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.26	0.66
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.30	0.66
1:AA:1452:C:H1'	1:AA:1456:G:N2	2.11	0.66
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.53	0.66
8:AH:104:ARG:HB3	8:AH:107:LEU:HB2	1.77	0.66
13:AM:95:GLY:O	13:AM:96:LEU:HG	1.95	0.66
36:BA:528:A:H2	36:BA:2043:C:C4'	2.08	0.66
36:BA:614(C):A:HO2'	36:BA:615:G:C4'	2.08	0.66
36:BA:1042:G:H1'	36:BA:1114:G:H22	1.61	0.66
43:BH:156:ALA:H	43:BH:158:HIS:H	1.42	0.66
44:BI:77:LEU:HB3	44:BI:140:LEU:CD1	2.21	0.66
45:BN:1:MET:HG2	45:BN:2:LYS:N	2.10	0.66
45:BN:10:GLU:CD	45:BN:11:PRO:HD2	2.16	0.66
51:BT:128:GLU:O	51:BT:130:ALA:N	2.27	0.66
1:CA:7:G:H21	5:CE:121:LYS:HG2	1.59	0.66
1:CA:16:A:O2'	1:CA:17:U:H5'	1.96	0.66
1:CA:723:U:O2	1:CA:723:U:H2'	1.95	0.66
13:CM:3:ARG:HG2	13:CM:9:ILE:CG1	2.25	0.66
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.95	0.66
36:DA:1165:U:H2'	36:DA:1166:C:C6	2.30	0.66
36:DA:1566:A:OP1	39:DD:211:ARG:NH1	2.28	0.66
36:DA:2152:G:H2'	36:DA:2153:G:H8	1.61	0.66
36:DA:2172:U:H1'	36:DA:2173:A:OP1	1.95	0.66
43:DH:144:VAL:O	43:DH:148:ILE:HG12	1.96	0.66
53:DV:55:ALA:HA	53:DV:101:GLY:HA2	1.78	0.66
57:DZ:9:TYR:HE1	57:DZ:61:LEU:HD13	1.61	0.66
1:AA:973:G:H3'	1:AA:974:A:H5"	1.77	0.66
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.76	0.66
15:AO:54:ARG:HH11	15:AO:54:ARG:HG2	1.60	0.66
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.96	0.66
23:AW:32:U:H2'	23:AW:33:U:H5'	1.78	0.66
36:BA:1449:A:N3	36:BA:1529:G:H1'	2.09	0.66
40:BE:76:ARG:O	40:BE:77:ILE:O	2.13	0.66
42:BG:76:SER:CA	42:BG:83:ARG:HB2	2.25	0.66
43:BH:85:LYS:CD	43:BH:133:VAL:HB	2.26	0.66
44:BI:123:LEU:HD11	44:BI:144:VAL:HG13	1.78	0.66
54:BW:27:LYS:HE3	54:BW:31:GLU:HG2	1.78	0.66
1:CA:1499:A:H5'	1:CA:1499:A:C8	2.30	0.66
41:DF:9:ILE:HG23	41:DF:11:VAL:O	1.95	0.66
42:DG:37:VAL:CG1	42:DG:94:LEU:HD12	2.25	0.66
42:DG:114:ILE:HB	42:DG:117:PHE:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DN:1:MET:HG2	45:DN:2:LYS:N	2.08	0.66
47:DP:84:ASN:C	47:DP:86:LYS:H	1.98	0.66
1:AA:1502:A:H2	1:AA:1505:G:H1	1.43	0.66
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.76	0.66
27:B1:64:ALA:O	27:B1:67:ILE:HG13	1.96	0.66
29:B3:15:TYR:O	29:B3:20:LYS:HE2	1.96	0.66
33:B7:41:ARG:HD3	33:B7:45:ALA:CB	2.25	0.66
36:BA:792:G:H5"	36:BA:793:A:H5'	1.78	0.66
36:BA:2415:G:H4'	47:BP:67:MET:N	2.11	0.66
40:BE:4:ILE:CG1	40:BE:28:ALA:HB1	2.26	0.66
40:BE:167:VAL:HG22	40:BE:170:LEU:HD11	1.77	0.66
51:BT:51:ARG:O	51:BT:61:PHE:HA	1.96	0.66
54:BW:92:ARG:HH11	54:BW:92:ARG:HG2	1.61	0.66
1:CA:417:C:O2'	1:CA:418:C:H5'	1.95	0.66
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.60	0.66
10:CJ:48:THR:HG23	10:CJ:62:HIS:HB3	1.77	0.66
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.10	0.66
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.95	0.66
27:D1:67:ILE:N	27:D1:68:PRO:HD2	2.10	0.66
27:D1:80:LEU:HD22	27:D1:82:LEU:CD1	2.25	0.66
36:DA:360:G:H2'	36:DA:361:G:H8	1.61	0.66
40:DE:120:TRP:CE3	40:DE:155:LYS:HD3	2.31	0.66
43:DH:54:ARG:O	43:DH:54:ARG:HG3	1.96	0.66
44:DI:133:HIS:HB2	44:DI:134:PRO:HD3	1.75	0.66
47:DP:50:ARG:O	47:DP:57:THR:HG22	1.94	0.66
47:DP:112:LEU:HD22	47:DP:113:LYS:H	1.60	0.66
57:DZ:82:ARG:HH11	57:DZ:82:ARG:HG2	1.61	0.66
1:AA:16:A:O2'	1:AA:17:U:H5'	1.96	0.66
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.76	0.66
19:AS:64:GLU:O	19:AS:67:VAL:HG23	1.96	0.66
25:AY:57:G:C3'	25:AY:58:A:H5"	2.25	0.66
39:BD:36:PRO:HB2	39:BD:61:LEU:HD12	1.78	0.66
48:BQ:137:TYR:OH	57:BZ:81:ARG:NH2	2.23	0.66
53:BV:38:LEU:C	53:BV:39:LEU:HD13	2.16	0.66
57:BZ:33:LEU:HD12	57:BZ:34:ASN:H	1.61	0.66
1:CA:190:U:H2'	1:CA:191:G:C8	2.31	0.66
2:CB:8:LYS:O	2:CB:12:GLU:HG3	1.96	0.66
22:CV:3:C:H2'	22:CV:4:G:H5'	1.78	0.66
25:CY:64:A:H2'	25:CY:65:G:C8	2.31	0.66
27:D1:56:GLN:HA	27:D1:56:GLN:NE2	2.09	0.66
33:D7:47:ARG:CZ	55:DX:60:ARG:HH22	2.08	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:994:C:H2'	52:DU:54:LYS:HE3	1.77	0.66
36:DA:1042:G:H1'	36:DA:1114:G:H22	1.59	0.66
37:DB:61:G:H2'	37:DB:62:C:C6	2.31	0.66
39:DD:33:LEU:HD22	39:DD:102:LYS:HD2	1.76	0.66
42:DG:36:LYS:HZ1	42:DG:38:VAL:HG21	1.60	0.66
50:DS:56:LEU:O	50:DS:57:LYS:HB2	1.96	0.66
51:DT:31:SER:C	51:DT:32:TYR:CD2	2.69	0.66
54:DW:88:ARG:HB2	54:DW:92:ARG:HB3	1.78	0.66
56:DY:27:VAL:HA	56:DY:28:LYS:HZ2	1.59	0.66
57:DZ:28:MET:HB2	57:DZ:90:VAL:HG23	1.77	0.66
57:DZ:61:LEU:HD12	57:DZ:65:GLN:NE2	2.11	0.66
1:AA:522:C:H41	12:AL:53:ARG:NH2	1.94	0.65
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.30	0.65
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.61	0.65
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	1.97	0.65
12:AL:7:ILE:HA	12:AL:10:LEU:HD12	1.77	0.65
27:B1:64:ALA:HA	27:B1:67:ILE:HD11	1.76	0.65
36:BA:1722:A:C2	36:BA:1740:G:H8	2.14	0.65
36:BA:1986:A:C2'	36:BA:1987:G:H5"	2.26	0.65
38:BC:86:ALA:HB3	38:BC:94:VAL:HG21	1.79	0.65
39:BD:11:PRO:C	39:BD:13:ARG:N	2.49	0.65
39:BD:166:GLN:HE21	39:BD:166:GLN:CA	2.09	0.65
41:BF:2:LYS:H	41:BF:2:LYS:CD	2.06	0.65
43:BH:156:ALA:C	43:BH:158:HIS:N	2.48	0.65
44:BI:123:LEU:HD11	44:BI:144:VAL:CG1	2.26	0.65
51:BT:29:ARG:HG2	51:BT:86:ILE:HG22	1.77	0.65
57:BZ:82:ARG:HG2	57:BZ:83:PRO:HD2	1.78	0.65
57:BZ:135:GLU:O	57:BZ:136:PHE:HB3	1.95	0.65
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.10	0.65
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	1.76	0.65
23:CW:38:A:C3'	23:CW:39:U:H5"	2.26	0.65
36:DA:227:A:H5"	47:DP:76:LYS:HE2	1.77	0.65
36:DA:528:A:H2	36:DA:2043:C:C4'	2.09	0.65
36:DA:581:C:OP1	52:DU:33:ARG:HG2	1.97	0.65
36:DA:2468:G:H2'	36:DA:2476:A:N7	2.11	0.65
41:DF:178:PRO:HB2	41:DF:201:VAL:HG11	1.77	0.65
44:DI:71:ILE:HG13	44:DI:72:LEU:N	2.11	0.65
47:DP:146:VAL:HG13	47:DP:147:LEU:H	1.61	0.65
51:DT:8:LYS:HA	51:DT:11:GLU:OE1	1.96	0.65
57:DZ:108:PRO:HB3	57:DZ:117:LEU:HD22	1.79	0.65
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:25:ARG:C	4:AD:27:TYR:H	1.99	0.65
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.20	0.65
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.78	0.65
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.95	0.65
26:B0:40:GLN:HE21	26:B0:43:THR:HA	1.60	0.65
32:B6:35:GLU:HB3	32:B6:51:GLU:CG	2.26	0.65
41:BF:123:LEU:HD12	41:BF:124:LEU:H	1.59	0.65
45:BN:23:LEU:HB3	45:BN:60:ILE:HG21	1.77	0.65
51:BT:27:THR:OG1	51:BT:28:VAL:N	2.29	0.65
53:BV:39:LEU:CD1	53:BV:51:VAL:HA	2.27	0.65
1:CA:963:G:N2	10:CJ:55:LYS:HZ2	1.93	0.65
1:CA:1026:G:H2'	1:CA:1026:G:N3	2.11	0.65
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.31	0.65
1:CA:1194:U:H4'	5:CE:22:GLY:HA2	1.78	0.65
25:CY:16:U:N3	25:CY:18:G:H5'	2.11	0.65
27:D1:23:LYS:CE	27:D1:28:GLY:H	2.07	0.65
36:DA:1316:U:O2'	36:DA:1317:A:H5'	1.96	0.65
45:DN:57:ALA:O	45:DN:58:ASP:O	2.14	0.65
53:DV:2:PHE:HB2	53:DV:42:GLY:HA2	1.78	0.65
53:DV:19:LYS:HG2	53:DV:94:LEU:CB	2.21	0.65
56:DY:81:LYS:CD	56:DY:97:ARG:HB3	2.26	0.65
57:DZ:11:GLU:CD	57:DZ:11:GLU:N	2.42	0.65
1:AA:501:C:H2'	1:AA:502:G:H8	1.61	0.65
2:AB:114:ARG:HH11	2:AB:114:ARG:HG3	1.61	0.65
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.27	0.65
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.77	0.65
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.11	0.65
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.11	0.65
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.96	0.65
36:BA:2310:A:O2'	36:BA:2311:A:H5'	1.96	0.65
36:BA:2317:C:O2'	36:BA:2318:G:H5'	1.96	0.65
39:BD:108:PRO:HG2	39:BD:111:LEU:HB2	1.78	0.65
41:BF:9:ILE:HG23	41:BF:11:VAL:O	1.95	0.65
42:BG:106:LEU:HA	42:BG:110:ALA:CB	2.26	0.65
43:BH:98:LEU:HB2	43:BH:125:VAL:HG21	1.77	0.65
54:BW:59:VAL:HG12	54:BW:60:ASN:ND2	2.10	0.65
57:BZ:33:LEU:HD11	57:BZ:35:ARG:HB2	1.78	0.65
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.97	0.65
36:DA:1762:A:H8	36:DA:1762:A:O5'	1.80	0.65
36:DA:2317:C:O2'	36:DA:2318:G:H5'	1.96	0.65
37:DB:15:A:H3'	37:DB:16:G:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DB:43:C:H4'	42:DG:66:GLN:OE1	1.96	0.65
48:DQ:43:THR:HA	48:DQ:94:VAL:HG12	1.78	0.65
57:DZ:22:GLY:HA2	57:DZ:41:LEU:CD1	2.26	0.65
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.62	0.65
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.77	0.65
9:AI:3:GLN:HG2	9:AI:20:ARG:NH1	2.11	0.65
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.96	0.65
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.77	0.65
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.79	0.65
36:BA:1162:G:H4'	53:BV:24:LYS:HB2	1.78	0.65
36:BA:1590:U:C3'	36:BA:1591:G:H5"	2.26	0.65
36:BA:2632:A:N3	40:BE:61:ARG:HD3	2.12	0.65
39:BD:264:LYS:HG2	39:BD:266:SER:HB3	1.79	0.65
42:BG:46:ALA:O	42:BG:82:LEU:HD21	1.96	0.65
46:BO:107:ARG:HH11	51:BT:36:GLU:H	1.43	0.65
48:BQ:69:PHE:CD1	48:BQ:70:PRO:HD2	2.31	0.65
50:BS:62:LYS:H	50:BS:65:VAL:HG23	1.61	0.65
51:BT:32:TYR:N	51:BT:32:TYR:CD2	2.65	0.65
57:BZ:99:TYR:HA	57:BZ:124:ILE:O	1.97	0.65
57:BZ:166:SER:HB2	57:BZ:167:PRO:C	2.17	0.65
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.96	0.65
3:CC:69:HIS:HA	3:CC:104:GLN:O	1.97	0.65
3:CC:182:ILE:HG23	3:CC:202:ILE:O	1.96	0.65
15:CO:3:ILE:HD13	15:CO:3:ILE:N	2.09	0.65
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.26	0.65
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.96	0.65
26:D0:72:ARG:HB3	26:D0:75:LEU:HB3	1.76	0.65
27:D1:80:LEU:HD22	27:D1:82:LEU:HD13	1.79	0.65
29:D3:59:VAL:HG12	29:D3:60:GLU:N	2.12	0.65
36:DA:141:A:H8	36:DA:1408:C:O2'	1.79	0.65
36:DA:1434:A:H61	36:DA:1558:A:N6	1.94	0.65
40:DE:79:ARG:HH11	40:DE:79:ARG:HG2	1.62	0.65
40:DE:132:HIS:CD2	40:DE:135:HIS:NE2	2.64	0.65
41:DF:47:GLY:HA3	41:DF:95:ARG:O	1.95	0.65
42:DG:98:ARG:HG3	42:DG:98:ARG:NH1	2.03	0.65
44:DI:111:PRO:O	44:DI:112:LYS:HG3	1.97	0.65
47:DP:45:LEU:HD23	47:DP:46:LYS:N	2.11	0.65
47:DP:80:TYR:CZ	47:DP:111:ARG:HD3	2.30	0.65
51:DT:51:ARG:O	51:DT:61:PHE:HA	1.96	0.65
54:DW:27:LYS:HE3	54:DW:31:GLU:HG2	1.79	0.65
2:AB:71:VAL:HA	2:AB:93:VAL:CG2	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	1.79	0.65
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.27	0.65
23:AW:30:G:H2'	23:AW:31:A:H8	1.61	0.65
23:AW:64:A:H2'	23:AW:65:G:C8	2.31	0.65
28:B2:38:GLN:NE2	28:B2:44:LEU:HD12	2.12	0.65
37:BB:44:G:H1'	37:BB:47:C:H42	1.62	0.65
38:BC:78:ALA:CB	38:BC:82:LYS:HB2	2.26	0.65
48:BQ:16:ARG:HG2	48:BQ:17:LEU:N	2.12	0.65
48:BQ:34:LEU:HD11	48:BQ:129:THR:HB	1.78	0.65
50:BS:92:TYR:CD1	50:BS:93:LYS:N	2.64	0.65
51:BT:28:VAL:HG13	51:BT:46:GLU:CA	2.24	0.65
51:BT:65:LYS:HZ1	51:BT:66:VAL:H	1.45	0.65
52:BU:112:ARG:HH21	53:BV:46:VAL:HG11	1.60	0.65
56:BY:49:VAL:O	56:BY:53:PRO:HG3	1.95	0.65
57:BZ:69:THR:HG22	57:BZ:90:VAL:HG22	1.77	0.65
1:CA:688:G:H2'	1:CA:689:C:H6	1.62	0.65
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.61	0.65
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.79	0.65
12:CL:27:LEU:HD11	12:CL:64:TYR:CZ	2.30	0.65
38:DC:93:TYR:O	38:DC:94:VAL:HG13	1.96	0.65
39:DD:83:GLU:HB2	39:DD:92:ILE:HD11	1.79	0.65
47:DP:16:ARG:HD3	47:DP:17:LYS:N	2.11	0.65
52:DU:17:ILE:HG23	52:DU:39:LEU:HD12	1.77	0.65
1:AA:817:C:H1'	1:AA:819:A:H5'	1.79	0.65
1:AA:950:U:H4'	1:AA:971:G:N2	2.12	0.65
1:AA:1178:G:OP2	9:AI:97:LYS:HD2	1.97	0.65
2:AB:63:MET:HG3	2:AB:64:ARG:H	1.62	0.65
22:AV:49:G:C2	22:AV:50:U:H1'	2.31	0.65
26:B0:25:ARG:HD2	26:B0:29:GLN:HE22	1.57	0.65
40:BE:120:TRP:CD2	40:BE:155:LYS:HD3	2.31	0.65
48:BQ:4:PRO:HG3	48:BQ:71:ASP:HA	1.79	0.65
9:CI:16:ARG:HB2	9:CI:64:THR:CG2	2.27	0.65
14:CN:15:LYS:HD2	14:CN:16:PHE:CE2	2.31	0.65
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.31	0.65
25:CY:48:C:H5"	25:CY:59:U:H4'	1.79	0.65
28:D2:21:LEU:HB2	28:D2:64:LEU:HD12	1.78	0.65
39:DD:108:PRO:HG2	39:DD:111:LEU:HB2	1.77	0.65
42:DG:58:GLN:HE22	42:DG:59:GLU:CG	2.08	0.65
44:DI:133:HIS:ND1	44:DI:134:PRO:HD2	2.11	0.65
1:AA:637:G:H2'	1:AA:638:G:H8	1.60	0.65
3:AC:150:LYS:HA	3:AC:169:ALA:CB	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:84:VAL:HG23	11:AK:110:ASP:HA	1.79	0.65
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.27	0.65
27:B1:6:GLU:HG3	27:B1:61:ARG:O	1.95	0.65
34:B8:4:MET:SD	34:B8:61:LEU:HD22	2.36	0.65
36:BA:1566:A:OP1	39:BD:211:ARG:NH1	2.29	0.65
36:BA:1666:G:O3'	46:BO:6:THR:HG23	1.96	0.65
42:BG:91:ARG:HD2	42:BG:92:VAL:N	2.12	0.65
43:BH:156:ALA:HB3	43:BH:159:GLU:HB3	1.77	0.65
44:BI:5:LEU:H	44:BI:5:LEU:HD12	1.61	0.65
48:BQ:43:THR:HA	48:BQ:94:VAL:HG12	1.79	0.65
57:BZ:97:GLU:HB3	57:BZ:125:LEU:HD11	1.79	0.65
2:CB:63:MET:HG3	2:CB:64:ARG:N	2.11	0.65
14:CN:9:LYS:HA	14:CN:12:ARG:CZ	2.27	0.65
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.27	0.65
28:D2:48:HIS:O	28:D2:52:ASP:HB2	1.96	0.65
36:DA:151:C:O2'	36:DA:152:G:H5'	1.97	0.65
36:DA:1578:U:H2'	36:DA:1579:A:C5'	2.26	0.65
42:DG:15:VAL:HG21	42:DG:176:LEU:HD23	1.79	0.65
48:DQ:4:PRO:HG3	48:DQ:71:ASP:HA	1.77	0.65
51:DT:27:THR:OG1	51:DT:28:VAL:N	2.30	0.65
52:DU:92:ARG:CZ	53:DV:11:GLN:HB2	2.26	0.65
1:AA:349:A:O2'	1:AA:350:G:H5'	1.97	0.65
12:AL:126:LYS:HE2	12:AL:127:GLU:HB2	1.79	0.65
13:AM:93:ARG:HD3	36:BA:888:C:H5'	1.79	0.65
32:B6:35:GLU:HB3	32:B6:51:GLU:HG3	1.77	0.65
36:BA:197:A:H5'	36:BA:197:A:C8	2.31	0.65
36:BA:979:G:H3'	36:BA:980:A:H5"	1.79	0.65
36:BA:1286:A:C2'	36:BA:1288:U:OP2	2.45	0.65
37:BB:75:G:H21	57:BZ:85:HIS:CE1	2.15	0.65
38:BC:93:TYR:O	38:BC:94:VAL:HG13	1.96	0.65
42:BG:139:LEU:HD23	42:BG:139:LEU:H	1.62	0.65
45:BN:57:ALA:O	45:BN:58:ASP:O	2.15	0.65
47:BP:96:THR:O	47:BP:100:LEU:HD23	1.96	0.65
1:CA:501:C:H2'	1:CA:502:G:H8	1.61	0.65
1:CA:729:A:H2'	1:CA:730:G:H8	1.61	0.65
2:CB:96:ARG:HD2	2:CB:96:ARG:H	1.61	0.65
8:CH:34:GLU:HB3	8:CH:118:VAL:HG21	1.79	0.65
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.97	0.65
15:CO:54:ARG:HH11	15:CO:54:ARG:HG2	1.61	0.65
25:CY:55:U:C5	25:CY:57:G:H5'	2.30	0.65
36:DA:141:A:C8	36:DA:1408:C:O2'	2.48	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:143(A):C:O2	36:DA:143(A):C:H2'	1.95	0.65
36:DA:296:C:O2'	36:DA:297:C:H5'	1.97	0.65
37:DB:20:C:H2'	37:DB:21:G:C5'	2.15	0.65
38:DC:77:ILE:HD11	38:DC:100:ILE:HD11	1.79	0.65
50:DS:19:LYS:C	50:DS:20:ARG:HH11	2.00	0.65
1:AA:36:C:C2'	1:AA:37:U:H5'	2.27	0.65
1:AA:723:U:H2'	1:AA:723:U:O2	1.96	0.65
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.27	0.65
31:B5:41:PRO:HG2	31:B5:44:THR:HG21	1.79	0.65
32:B6:27:LYS:HE3	36:BA:2285:C:H5	1.60	0.65
36:BA:78:A:H2'	36:BA:79:G:C8	2.31	0.65
36:BA:1625:C:H2'	36:BA:1626:G:O4'	1.96	0.65
48:BQ:12:GLN:HE21	48:BQ:72:LYS:HA	1.60	0.65
49:BR:18:LEU:HD11	49:BR:22:ARG:NH2	2.11	0.65
53:BV:2:PHE:HB2	53:BV:42:GLY:HA2	1.78	0.65
55:BX:12:VAL:HG13	55:BX:27:THR:O	1.96	0.65
1:CA:475:G:H2'	1:CA:476:G:H8	1.61	0.65
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.26	0.65
1:CA:1178:G:OP2	9:CI:97:LYS:HD2	1.97	0.65
12:CL:28:LYS:CE	12:CL:33:ARG:HH22	2.09	0.65
25:CY:6:G:O2'	25:CY:7:A:H5'	1.96	0.65
34:D8:30:ARG:HA	34:D8:30:ARG:NE	2.10	0.65
36:DA:363(E):U:H3'	36:DA:363(F):A:O4'	1.97	0.65
36:DA:1625:C:H2'	36:DA:1626:G:O4'	1.97	0.65
36:DA:2062:A:O2'	36:DA:2063:C:C5'	2.45	0.65
38:DC:49:ILE:HD12	38:DC:49:ILE:N	2.07	0.65
39:DD:186:HIS:CD2	39:DD:188:GLU:H	2.11	0.65
41:DF:113:ALA:HB1	41:DF:186:ILE:HG21	1.79	0.65
42:DG:15:VAL:CG1	42:DG:175:LEU:HG	2.27	0.65
42:DG:60:LEU:HD13	42:DG:68:PRO:HB3	1.77	0.65
42:DG:157:ILE:CG1	42:DG:158:ALA:H	2.06	0.65
43:DH:17:VAL:HB	43:DH:45:VAL:HG22	1.79	0.65
43:DH:98:LEU:HB2	43:DH:125:VAL:HG21	1.78	0.65
52:DU:92:ARG:HH21	52:DU:95:LEU:HG	1.60	0.65
53:DV:19:LYS:HG3	53:DV:20:LEU:O	1.97	0.65
54:DW:50:VAL:HG13	54:DW:51:LEU:N	2.11	0.65
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.12	0.65
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.12	0.65
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.27	0.65
13:AM:3:ARG:CA	13:AM:9:ILE:HG13	2.27	0.65
19:AS:6:LYS:H	19:AS:6:LYS:HE3	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:646:A:H2'	36:BA:647:G:O4'	1.97	0.65
36:BA:2672:G:H2'	36:BA:2673:G:H5"	1.79	0.65
36:BA:2787:C:H1'	40:BE:61:ARG:CG	2.27	0.65
36:BA:2881:C:H2'	36:BA:2882:A:C8	2.32	0.65
47:BP:146:VAL:HG13	47:BP:147:LEU:H	1.62	0.65
49:BR:2:ARG:NH2	49:BR:5:LYS:NZ	2.45	0.65
50:BS:49:VAL:HG12	50:BS:50:SER:N	2.12	0.65
53:BV:2:PHE:CE1	53:BV:13:ARG:HD2	2.32	0.65
56:BY:38:ILE:HG22	56:BY:39:VAL:N	2.11	0.65
57:BZ:24:LEU:HB2	57:BZ:41:LEU:HD23	1.78	0.65
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.06	0.65
15:CO:5:LYS:O	15:CO:9:GLN:HG2	1.96	0.65
36:DA:1796:U:H2'	36:DA:1797:C:C6	2.32	0.65
36:DA:2178:C:H2'	36:DA:2179:C:C6	2.31	0.65
36:DA:2264:C:H2'	36:DA:2265:U:H6	1.62	0.65
36:DA:2303:G:H4'	42:DG:124:SER:HA	1.78	0.65
39:DD:25:THR:O	39:DD:26:LYS:HG2	1.96	0.65
40:DE:76:ARG:O	40:DE:77:ILE:O	2.14	0.65
41:DF:167:ALA:HB1	41:DF:173:VAL:HG11	1.78	0.65
42:DG:37:VAL:HB	42:DG:94:LEU:HD12	1.78	0.65
42:DG:180:PHE:HB2	42:DG:182:LYS:HE3	1.79	0.65
43:DH:64:LEU:C	43:DH:66:GLY:H	1.99	0.65
45:DN:16:ILE:HG23	45:DN:54:VAL:HG22	1.79	0.65
45:DN:66:LYS:O	45:DN:87:LEU:HD12	1.97	0.65
46:DO:47:ILE:HG23	46:DO:48:PRO:HD2	1.78	0.65
46:DO:111:PHE:O	46:DO:115:VAL:HG23	1.96	0.65
53:DV:15:GLU:HB3	53:DV:16:PRO:HD2	1.77	0.65
57:DZ:63:ASP:O	57:DZ:65:GLN:HG2	1.96	0.65
1:AA:57:G:H2'	1:AA:58:C:C6	2.32	0.64
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.15	0.64
1:AA:683:G:H2'	1:AA:684:A:C8	2.32	0.64
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.26	0.64
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.79	0.64
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.29	0.64
20:AT:14:LYS:HB2	20:AT:17:ARG:HH21	1.62	0.64
36:BA:195:A:OP1	47:BP:46:LYS:HE2	1.98	0.64
36:BA:612:C:O2'	36:BA:613:G:H5"	1.96	0.64
36:BA:1794:U:H2'	36:BA:1795:C:H6	1.62	0.64
36:BA:2308:G:H2'	36:BA:2309:A:C8	2.32	0.64
36:BA:2401:U:H2'	36:BA:2402:C:H5"	1.79	0.64
40:BE:132:HIS:CD2	40:BE:135:HIS:NE2	2.65	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:73:GLU:HA	44:BI:138:ILE:HG23	1.77	0.64
57:BZ:24:LEU:HB2	57:BZ:41:LEU:CD2	2.27	0.64
32:D6:35:GLU:HB3	32:D6:51:GLU:HG3	1.79	0.64
34:D8:49:VAL:O	34:D8:53:PRO:HG3	1.96	0.64
36:DA:1021:A:C8	36:DA:1021:A:C3'	2.80	0.64
36:DA:1887:C:H2'	36:DA:1888:G:H5"	1.78	0.64
37:DB:55:U:H2'	37:DB:56:G:C8	2.32	0.64
39:DD:155:LEU:HD23	39:DD:177:LEU:HD21	1.78	0.64
43:DH:30:LYS:HZ2	43:DH:81:GLU:HG2	1.60	0.64
44:DI:11:ASN:O	44:DI:12:LEU:HB3	1.96	0.64
51:DT:82:LEU:O	51:DT:83:ILE:C	2.35	0.64
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.62	0.64
1:AA:1321:C:H5"	1:AA:1322:C:C5'	2.26	0.64
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.27	0.64
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.27	0.64
36:BA:227:A:H5"	47:BP:76:LYS:HE2	1.79	0.64
36:BA:910:A:C5	48:BQ:13:GLN:HG3	2.31	0.64
42:BG:47:LYS:HZ2	42:BG:82:LEU:HD12	1.61	0.64
43:BH:102:ALA:HB1	43:BH:115:VAL:O	1.96	0.64
47:BP:64:LYS:C	47:BP:66:GLY:N	2.51	0.64
47:BP:80:TYR:CZ	47:BP:111:ARG:HD3	2.31	0.64
47:BP:114:ILE:HG22	47:BP:127:ALA:HB2	1.78	0.64
51:BT:82:LEU:O	51:BT:83:ILE:C	2.36	0.64
1:CA:817:C:H1'	1:CA:819:A:H5'	1.79	0.64
4:CD:150:GLU:HA	4:CD:153:ARG:CD	2.19	0.64
8:CH:82:HIS:C	8:CH:82:HIS:CD2	2.69	0.64
20:CT:46:GLU:HG2	20:CT:46:GLU:O	1.96	0.64
36:DA:575:A:O2'	36:DA:576:U:H5'	1.96	0.64
36:DA:646:A:H2'	36:DA:647:G:O4'	1.97	0.64
36:DA:2308:G:H2'	36:DA:2309:A:C8	2.32	0.64
40:DE:43:GLY:O	40:DE:44:TYR:HB3	1.97	0.64
42:DG:133:LEU:HD23	42:DG:158:ALA:HA	1.79	0.64
43:DH:102:ALA:HB1	43:DH:115:VAL:O	1.98	0.64
45:DN:23:LEU:HB3	45:DN:60:ILE:HG21	1.79	0.64
47:DP:115:LEU:HA	47:DP:134:ALA:CB	2.27	0.64
50:DS:46:VAL:HG12	50:DS:47:THR:N	2.06	0.64
53:DV:6:LYS:HG3	53:DV:11:GLN:HG2	1.80	0.64
55:DX:54:VAL:HG22	55:DX:81:VAL:HG12	1.78	0.64
1:AA:1270:C:O2'	1:AA:1271:G:H5'	1.97	0.64
4:AD:76:ARG:O	4:AD:80:GLU:HG2	1.96	0.64
12:AL:41:ARG:HB3	12:AL:41:ARG:NH1	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.27	0.64
36:BA:143(A):C:H2'	36:BA:143(A):C:O2	1.97	0.64
36:BA:649:G:H2'	36:BA:650:C:C6	2.32	0.64
39:BD:267:SER:O	39:BD:269:PHE:N	2.31	0.64
40:BE:23:VAL:HA	40:BE:184:VAL:O	1.98	0.64
42:BG:44:GLY:CA	42:BG:88:ILE:HG21	2.27	0.64
42:BG:129:GLY:O	42:BG:161:THR:HB	1.97	0.64
43:BH:98:LEU:HD22	43:BH:125:VAL:HG23	1.80	0.64
43:BH:135:GLY:HA3	43:BH:141:VAL:HG21	1.78	0.64
48:BQ:60:ARG:HA	57:BZ:178:GLU:C	2.18	0.64
53:BV:18:LEU:HD13	53:BV:19:LYS:H	1.62	0.64
2:CB:63:MET:HG3	2:CB:64:ARG:H	1.61	0.64
16:CP:53:VAL:O	16:CP:57:ARG:HG2	1.98	0.64
22:CV:53:G:O2'	22:CV:54:5MU:H5"	1.96	0.64
30:D4:46:ASN:HD22	30:D4:47:VAL:H	1.42	0.64
36:DA:1286:A:C2'	36:DA:1288:U:OP2	2.44	0.64
36:DA:1652:A:C2'	36:DA:1653:G:H5'	2.26	0.64
36:DA:2580:U:H4'	40:DE:130:GLY:HA2	1.79	0.64
38:DC:51:PRO:HB2	38:DC:203:GLY:O	1.97	0.64
40:DE:4:ILE:CG1	40:DE:28:ALA:HB1	2.27	0.64
43:DH:107:VAL:HG21	43:DH:152:ARG:HG3	1.78	0.64
43:DH:126:PRO:O	43:DH:127:GLU:HB2	1.97	0.64
55:DX:12:VAL:HG13	55:DX:27:THR:O	1.98	0.64
2:AB:96:ARG:HH11	2:AB:148:TYR:HE1	1.45	0.64
2:AB:114:ARG:HA	2:AB:117:GLU:OE1	1.98	0.64
12:AL:27:LEU:HD11	12:AL:64:TYR:CZ	2.32	0.64
13:AM:13:LYS:O	13:AM:45:VAL:HG23	1.98	0.64
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.80	0.64
36:BA:296:C:O2'	36:BA:297:C:H5'	1.97	0.64
36:BA:2123:G:H2'	36:BA:2124:G:C8	2.32	0.64
36:BA:2580:U:H4'	40:BE:130:GLY:HA2	1.79	0.64
37:BB:15:A:H3'	37:BB:16:G:H5'	1.78	0.64
45:BN:39:ARG:HH11	45:BN:39:ARG:HG2	1.61	0.64
50:BS:36:TYR:HA	50:BS:52:SER:HA	1.79	0.64
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.26	0.64
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.12	0.64
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.12	0.64
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	1.98	0.64
11:CK:56:GLY:O	11:CK:89:ALA:HB3	1.98	0.64
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.64
23:CW:14:A:H3'	23:CW:15:G:H8	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:20:U:H2'	24:CX:21:C:H6	1.62	0.64
25:CY:16:U:H3'	25:CY:17:C:H5'	1.79	0.64
28:D2:47:ASN:O	28:D2:49:LYS:N	2.29	0.64
30:D4:51:TYR:CE1	42:DG:5:VAL:HG22	2.32	0.64
31:D5:41:PRO:HG2	31:D5:44:THR:HG21	1.77	0.64
34:D8:50:LEU:HD12	34:D8:54:GLU:OE2	1.97	0.64
36:DA:1300:U:H1'	36:DA:1626:G:C2	2.32	0.64
36:DA:1830:C:H42	36:DA:1975:G:H1	1.43	0.64
36:DA:2312:U:OP1	42:DG:73:ALA:HA	1.97	0.64
36:DA:2881:C:H2'	36:DA:2882:A:C8	2.32	0.64
42:DG:60:LEU:O	42:DG:64:THR:HG22	1.97	0.64
43:DH:17:VAL:HG11	43:DH:50:VAL:CG2	2.28	0.64
44:DI:88:ILE:N	44:DI:88:ILE:HD13	2.13	0.64
45:DN:11:PRO:HB3	45:DN:51:PHE:CE1	2.32	0.64
49:DR:28:LEU:HD13	49:DR:28:LEU:C	2.18	0.64
52:DU:36:ARG:HE	52:DU:40:PHE:HZ	1.45	0.64
54:DW:77:ASP:O	54:DW:102:HIS:HB2	1.96	0.64
57:DZ:6:LYS:H	57:DZ:6:LYS:CD	2.10	0.64
57:DZ:82:ARG:HG3	57:DZ:83:PRO:HD2	1.78	0.64
1:AA:90:U:OP1	1:AA:91:C:H5"	1.98	0.64
3:AC:82:GLU:O	3:AC:86:VAL:HG13	1.96	0.64
7:AG:129:GLU:OE2	7:AG:131:LYS:HE3	1.98	0.64
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.13	0.64
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.32	0.64
29:B3:5:LYS:HG3	29:B3:36:VAL:HG12	1.79	0.64
36:BA:2387:U:H5'	36:BA:2388:A:OP2	1.97	0.64
37:BB:55:U:H2'	37:BB:56:G:C8	2.32	0.64
41:BF:3:GLU:HB2	41:BF:19:GLU:HB2	1.80	0.64
49:BR:5:LYS:HD2	49:BR:5:LYS:H	1.62	0.64
50:BS:38:GLN:OE1	50:BS:47:THR:HG21	1.97	0.64
52:BU:112:ARG:NE	53:BV:46:VAL:HG21	2.13	0.64
54:BW:77:ASP:O	54:BW:102:HIS:HB2	1.96	0.64
57:BZ:56:VAL:HG12	57:BZ:57:ILE:N	2.12	0.64
1:CA:269:C:H2'	1:CA:270:A:C8	2.33	0.64
1:CA:999:C:O2'	1:CA:1000:U:H5'	1.97	0.64
1:CA:1270:C:O2'	1:CA:1271:G:H5'	1.97	0.64
2:CB:114:ARG:HG3	2:CB:114:ARG:HH11	1.63	0.64
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.80	0.64
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.79	0.64
20:CT:26:ASN:HD22	20:CT:26:ASN:N	1.95	0.64
25:CY:1:G:H2'	25:CY:1:G:N3	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D5:25:LEU:HD12	54:DW:19:LEU:O	1.97	0.64
33:D7:19:ARG:HH11	33:D7:19:ARG:HG2	1.62	0.64
36:DA:404:C:C4'	36:DA:405:U:H5'	2.26	0.64
36:DA:1007:C:OP1	45:DN:35:ARG:NH1	2.31	0.64
36:DA:2150:U:H2'	36:DA:2151:G:C8	2.33	0.64
36:DA:2632:A:N3	40:DE:61:ARG:HD3	2.13	0.64
36:DA:2787:C:H1'	40:DE:61:ARG:CG	2.26	0.64
47:DP:93:GLY:O	47:DP:123:LEU:HB2	1.97	0.64
50:DS:30:ARG:HB3	50:DS:89:ARG:NH2	2.13	0.64
53:DV:18:LEU:HD13	53:DV:19:LYS:H	1.61	0.64
53:DV:46:VAL:HG22	53:DV:47:VAL:N	2.11	0.64
53:DV:62:LEU:HD21	53:DV:95:LEU:HB2	1.77	0.64
57:DZ:103:ARG:HG3	57:DZ:138:GLU:HG2	1.78	0.64
2:AB:102:LEU:O	2:AB:105:PHE:HB2	1.97	0.64
3:AC:132:ARG:O	3:AC:136:GLN:HB2	1.97	0.64
20:AT:46:GLU:HG2	20:AT:46:GLU:O	1.97	0.64
23:AW:38:A:C3'	23:AW:39:U:C5'	2.74	0.64
29:B3:17:LYS:HD3	36:BA:969:U:OP1	1.98	0.64
31:B5:4:HIS:O	36:BA:2056:G:N2	2.29	0.64
32:B6:37:ARG:HG3	32:B6:37:ARG:HH11	1.62	0.64
36:BA:1658:C:OP1	40:BE:132:HIS:CE1	2.51	0.64
36:BA:2161:C:H2'	36:BA:2162:G:C8	2.32	0.64
42:BG:107:LEU:HD11	42:BG:178:PHE:HE1	1.63	0.64
42:BG:112:PRO:C	42:BG:113:ARG:HH11	2.00	0.64
43:BH:54:ARG:O	43:BH:54:ARG:HG3	1.97	0.64
53:BV:55:ALA:HA	53:BV:101:GLY:HA2	1.78	0.64
57:BZ:128:VAL:HG22	57:BZ:132:ASN:HB2	1.79	0.64
57:BZ:144:LEU:HG	57:BZ:150:LEU:CD1	2.28	0.64
1:CA:180:U:H2'	1:CA:181:G:C5'	2.28	0.64
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.15	0.64
1:CA:342:C:O2'	1:CA:343:U:H5'	1.96	0.64
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.32	0.64
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.32	0.64
20:CT:72:LEU:HD23	20:CT:73:HIS:H	1.59	0.64
34:D8:33:ASN:ND2	34:D8:33:ASN:H	1.96	0.64
36:DA:197:A:H5'	36:DA:197:A:C8	2.32	0.64
39:DD:43:ARG:HD2	39:DD:44:ASN:OD1	1.97	0.64
47:DP:13:ASN:C	47:DP:13:ASN:ND2	2.50	0.64
47:DP:18:ARG:HH11	47:DP:18:ARG:C	2.00	0.64
56:DY:17:SER:HB3	56:DY:71:LYS:HB3	1.78	0.64
1:AA:180:U:H2'	1:AA:181:G:H5"	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1422:G:H5”	46:BO:48:PRO:HB3	1.79	0.64
1:AA:1490:C:O2’	1:AA:1491:G:H5’	1.98	0.64
2:AB:25:ASN:ND2	2:AB:193:ASP:HB3	2.12	0.64
7:AG:147:ALA:C	7:AG:148:ASN:HD22	2.01	0.64
9:AI:17:VAL:HA	9:AI:63:ILE:HG12	1.80	0.64
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	1.79	0.64
27:B1:35:THR:HG21	36:BA:2080:G:O5’	1.98	0.64
36:BA:363(E):U:H3’	36:BA:363(F):A:O4’	1.97	0.64
36:BA:1300:U:H1’	36:BA:1626:G:C2	2.33	0.64
36:BA:1607:C:H4’	36:BA:1608:A:O5’	1.98	0.64
37:BB:42:C:H4’	42:BG:67:LYS:O	1.98	0.64
41:BF:132:VAL:CG2	41:BF:133:ASN:H	2.03	0.64
45:BN:16:ILE:HG23	45:BN:54:VAL:HG22	1.79	0.64
46:BO:49:ARG:HG2	46:BO:49:ARG:NH1	2.13	0.64
55:BX:28:PHE:CE2	55:BX:92:LEU:HD11	2.33	0.64
6:CF:61:LEU:O	6:CF:62:TRP:HB2	1.97	0.64
7:CG:62:PHE:HA	7:CG:124:LEU:CD2	2.28	0.64
36:DA:813:U:H2’	36:DA:814:C:C6	2.33	0.64
36:DA:871:U:OP1	48:DQ:5:ARG:HG3	1.98	0.64
36:DA:1141:U:C2’	45:DN:63:THR:HG21	2.21	0.64
37:DB:11:C:H3’	37:DB:12:C:H6	1.63	0.64
40:DE:154:LYS:HE3	40:DE:154:LYS:HA	1.77	0.64
45:DN:10:GLU:CD	45:DN:11:PRO:HD2	2.17	0.64
47:DP:146:VAL:HG22	47:DP:147:LEU:H	1.63	0.64
1:AA:180:U:H2’	1:AA:181:G:C5’	2.28	0.64
1:AA:1416:G:C2’	1:AA:1417:G:H5’	2.28	0.64
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.03	0.64
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.28	0.64
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.79	0.64
9:AI:79:LEU:HD21	9:AI:102:LEU:HD22	1.79	0.64
12:AL:43:VAL:HG23	12:AL:44:THR:N	2.12	0.64
18:AR:40:LEU:HD22	18:AR:70:ILE:HD13	1.80	0.64
22:AV:49:G:H2’	22:AV:50:U:O4’	1.98	0.64
22:AV:71:C:H2’	22:AV:72:A:O4’	1.98	0.64
29:B3:11:SER:OG	29:B3:13:ILE:HD13	1.98	0.64
32:B6:39:TYR:CE1	36:BA:2347:C:H4’	2.33	0.64
36:BA:869:G:H2’	36:BA:870:A:H8	1.61	0.64
36:BA:2562:U:H1’	46:BO:23:ARG:HH11	1.59	0.64
40:BE:79:ARG:HH11	40:BE:79:ARG:HG2	1.63	0.64
42:BG:31:VAL:HG22	42:BG:32:PRO:CD	2.28	0.64
45:BN:134:ARG:N	45:BN:135:PRO:HD3	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:452:A:O2'	1:CA:453:A:H8	1.81	0.64
1:CA:942:G:H21	9:CI:124:GLN:NE2	1.92	0.64
1:CA:1248:A:H2'	1:CA:1249:C:H5'	1.79	0.64
2:CB:67:THR:O	2:CB:68:ILE:HD13	1.98	0.64
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.07	0.64
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.27	0.64
11:CK:84:VAL:HG23	11:CK:110:ASP:HA	1.79	0.64
15:CO:37:ASN:N	15:CO:37:ASN:HD22	1.93	0.64
15:CO:43:LEU:HD11	15:CO:53:HIS:HA	1.77	0.64
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.12	0.64
28:D2:35:LEU:HD13	28:D2:50:ILE:HA	1.80	0.64
36:DA:2787:C:O2'	40:DE:61:ARG:HG3	1.98	0.64
39:DD:45:ASN:CG	39:DD:46:GLN:N	2.51	0.64
46:DO:10:VAL:HG21	46:DO:16:ALA:O	1.98	0.64
50:DS:49:VAL:HG12	50:DS:50:SER:N	2.13	0.64
51:DT:88:ILE:HG22	51:DT:89:VAL:CG2	2.25	0.64
1:AA:342:C:O2'	1:AA:343:U:H5'	1.98	0.64
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.61	0.64
19:AS:6:LYS:H	19:AS:6:LYS:CE	2.11	0.64
26:B0:53:MET:CB	26:B0:59:LEU:HD23	2.28	0.64
32:B6:11:LEU:HG	32:B6:26:ASN:ND2	2.11	0.64
36:BA:979:G:H3'	36:BA:980:A:C5'	2.28	0.64
36:BA:2152:G:H2'	36:BA:2153:G:H8	1.61	0.64
39:BD:186:HIS:CD2	39:BD:188:GLU:H	2.15	0.64
43:BH:17:VAL:HG11	43:BH:50:VAL:CG2	2.28	0.64
44:BI:83:ALA:HA	44:BI:89:TYR:CE1	2.33	0.64
47:BP:33:ARG:O	47:BP:35:HIS:O	2.15	0.64
56:BY:45:VAL:HA	56:BY:62:GLU:HG2	1.80	0.64
56:BY:81:LYS:CD	56:BY:97:ARG:HB3	2.27	0.64
9:CI:21:PRO:HA	9:CI:58:ARG:O	1.98	0.64
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.28	0.64
30:D4:36:VAL:HB	30:D4:37:PRO:HD2	1.79	0.64
36:DA:1019:U:HO2'	36:DA:1021:A:H2	1.44	0.64
36:DA:2036:C:H5'	36:DA:2036:C:C6	2.27	0.64
42:DG:32:PRO:HB3	42:DG:163:ALA:HB2	1.79	0.64
42:DG:48:GLU:HG2	42:DG:49:ASP:H	1.63	0.64
45:DN:56:ASN:HA	45:DN:125:GLY:N	2.00	0.64
51:DT:28:VAL:HG13	51:DT:46:GLU:CA	2.25	0.64
52:DU:90:VAL:HG12	52:DU:91:ASP:N	2.10	0.64
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.45	0.64
23:AW:20:U:H2'	23:AW:21:A:H4'	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B4:50:THR:HG22	42:BG:104:GLU:OE2	1.98	0.64
36:BA:2389:G:H5"	36:BA:2390:U:O4'	1.97	0.64
44:BI:4:ILE:HG12	44:BI:18:VAL:HG22	1.79	0.64
45:BN:48:MET:H	45:BN:48:MET:HE3	1.63	0.64
47:BP:81:GLN:HG2	47:BP:106:LEU:HD12	1.80	0.64
49:BR:5:LYS:HD2	49:BR:5:LYS:N	2.13	0.64
57:BZ:98:MET:O	57:BZ:126:VAL:HG22	1.98	0.64
1:CA:10:A:OP2	5:CE:126:ARG:HD3	1.98	0.64
1:CA:775:G:O2'	1:CA:776:G:H5'	1.98	0.64
2:CB:25:ASN:ND2	2:CB:193:ASP:HB3	2.11	0.64
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.80	0.64
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.79	0.64
5:CE:28:PHE:CD1	5:CE:28:PHE:N	2.64	0.64
32:D6:35:GLU:HB3	32:D6:51:GLU:CG	2.27	0.64
47:DP:81:GLN:HG2	47:DP:106:LEU:CD1	2.28	0.64
47:DP:146:VAL:HG22	47:DP:147:LEU:N	2.13	0.64
50:DS:36:TYR:HA	50:DS:52:SER:HA	1.80	0.64
51:DT:65:LYS:NZ	51:DT:66:VAL:N	2.43	0.64
56:DY:87:LYS:O	56:DY:88:LYS:HB2	1.98	0.64
57:DZ:154:ASP:C	57:DZ:155:LEU:HD12	2.18	0.64
1:AA:407:G:O2'	4:AD:116:GLN:HG3	1.98	0.63
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.80	0.63
2:AB:92:TYR:CE1	2:AB:151:GLY:HA3	2.33	0.63
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.80	0.63
10:AJ:16:LEU:HD13	10:AJ:16:LEU:O	1.97	0.63
19:AS:49:ILE:H	19:AS:49:ILE:HD12	1.63	0.63
29:B3:59:VAL:HG12	29:B3:60:GLU:N	2.14	0.63
36:BA:926:A:H5'	36:BA:926:A:H8	1.62	0.63
36:BA:1987:G:H5'	36:BA:1987:G:C8	2.33	0.63
36:BA:2025:C:H2'	36:BA:2026:C:C6	2.33	0.63
40:BE:120:TRP:CE3	40:BE:155:LYS:HD3	2.32	0.63
43:BH:20:ALA:HB1	43:BH:21:PRO:HD2	1.79	0.63
46:BO:4:PRO:O	46:BO:5:GLN:CB	2.46	0.63
47:BP:23:PRO:HD2	47:BP:33:ARG:NE	2.14	0.63
56:BY:11:ASP:OD1	56:BY:12:THR:N	2.32	0.63
1:CA:36:C:C2'	1:CA:37:U:H5'	2.28	0.63
1:CA:1397:C:H42	24:CX:22:A:H3'	1.61	0.63
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.62	0.63
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.63	0.63
7:CG:97:GLN:O	7:CG:100:ALA:HB3	1.98	0.63
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:61:LYS:HG2	18:CR:65:ILE:HD11	1.80	0.63
25:CY:4:C:H2'	25:CY:5:G:C8	2.32	0.63
36:DA:271(A):A:H5'	36:DA:271(B):C:OP2	1.98	0.63
36:DA:285:C:H2'	36:DA:286:C:O4'	1.98	0.63
43:DH:20:ALA:HB1	43:DH:21:PRO:HD2	1.79	0.63
47:DP:92:GLU:HG3	47:DP:93:GLY:H	1.63	0.63
48:DQ:37:LEU:HD21	48:DQ:130:LYS:HB2	1.78	0.63
50:DS:46:VAL:CG1	50:DS:47:THR:H	2.08	0.63
52:DU:31:SER:C	52:DU:33:ARG:H	2.01	0.63
4:AD:195:ALA:O	6:CF:16:GLN:HB2	1.98	0.63
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.80	0.63
14:AN:9:LYS:HA	14:AN:12:ARG:CZ	2.27	0.63
25:AY:65:G:H2'	25:AY:66:U:H5'	1.80	0.63
36:BA:557:U:H2'	36:BA:558:G:H8	1.63	0.63
36:BA:2787:C:O2'	40:BE:61:ARG:HG3	1.98	0.63
39:BD:125:ILE:HG22	39:BD:125:ILE:O	1.97	0.63
43:BH:17:VAL:HB	43:BH:45:VAL:HG22	1.79	0.63
44:BI:71:ILE:HG13	44:BI:72:LEU:N	2.12	0.63
44:BI:140:LEU:HD12	44:BI:141:LYS:N	2.13	0.63
57:BZ:144:LEU:O	57:BZ:174:VAL:HG21	1.98	0.63
1:CA:349:A:O2'	1:CA:350:G:H5'	1.97	0.63
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.12	0.63
4:CD:22:LYS:HB2	4:CD:26:CYS:HB2	1.81	0.63
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.80	0.63
7:CG:129:GLU:OE2	7:CG:131:LYS:HE3	1.98	0.63
28:D2:63:VAL:O	28:D2:66:GLU:HG2	1.98	0.63
30:D4:42:CYS:SG	30:D4:62:CYS:HB3	2.38	0.63
36:DA:612:C:O2'	36:DA:613:G:H5"	1.96	0.63
36:DA:979:G:H3'	36:DA:980:A:H5"	1.79	0.63
36:DA:2401:U:H2'	36:DA:2402:C:H5"	1.80	0.63
44:DI:123:LEU:HD22	44:DI:142:VAL:HG12	1.79	0.63
45:DN:9:VAL:HG12	45:DN:10:GLU:N	2.13	0.63
47:DP:85:LEU:H	47:DP:85:LEU:CD2	2.11	0.63
50:DS:38:GLN:OE1	50:DS:47:THR:HG21	1.99	0.63
51:DT:29:ARG:HG3	51:DT:30:VAL:HG13	1.80	0.63
53:DV:2:PHE:CE1	53:DV:13:ARG:HD2	2.33	0.63
53:DV:41:GLY:HA3	53:DV:45:THR:OG1	1.97	0.63
55:DX:32:PRO:HA	55:DX:77:LYS:CB	2.27	0.63
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.34	0.63
1:AA:1054:C:O2'	1:AA:1055:A:H5"	1.98	0.63
2:AB:79:ASP:O	2:AB:82:ARG:HB3	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.11	0.63
17:AQ:19:VAL:HG23	17:AQ:44:ALA:HB3	1.80	0.63
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CE1	2.33	0.63
22:AV:28:C:H2'	22:AV:29:G:H8	1.64	0.63
28:B2:40:SER:O	28:B2:42:GLY:N	2.31	0.63
33:B7:47:ARG:NE	55:BX:60:ARG:HH22	1.97	0.63
36:BA:2150:U:H2'	36:BA:2151:G:C8	2.33	0.63
38:BC:49:ILE:HD12	38:BC:49:ILE:N	2.07	0.63
40:BE:203:LYS:HE2	40:BE:204:ALA:HB2	1.78	0.63
46:BO:87:ILE:HG21	46:BO:91:LEU:HD13	1.80	0.63
48:BQ:54:MET:HB3	48:BQ:64:ILE:CD1	2.21	0.63
57:BZ:11:GLU:CD	57:BZ:11:GLU:H	2.00	0.63
1:CA:17:U:H2'	1:CA:18:C:H6	1.57	0.63
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.97	0.63
3:CC:132:ARG:O	3:CC:136:GLN:HB2	1.99	0.63
4:CD:22:LYS:HD3	4:CD:26:CYS:SG	2.37	0.63
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.29	0.63
12:CL:126:LYS:HE2	12:CL:127:GLU:HB2	1.79	0.63
25:CY:4:C:H1'	25:CY:70:G:H1	1.62	0.63
34:D8:43:GLN:C	34:D8:44:LYS:HD2	2.19	0.63
36:DA:325:G:H2'	36:DA:326:G:H8	1.64	0.63
36:DA:926:A:H8	36:DA:926:A:H5'	1.63	0.63
36:DA:1666:G:C2'	36:DA:1667:G:H5'	2.28	0.63
36:DA:2264:C:H2'	36:DA:2265:U:C6	2.32	0.63
41:DF:185:ASP:HA	41:DF:188:ARG:HB3	1.79	0.63
42:DG:19:LEU:HD13	42:DG:31:VAL:HG22	1.80	0.63
42:DG:63:ILE:HD12	42:DG:63:ILE:C	2.18	0.63
49:DR:104:ARG:HH11	49:DR:104:ARG:CB	2.11	0.63
50:DS:19:LYS:HB3	50:DS:20:ARG:NH1	2.08	0.63
56:DY:31:LEU:HB2	56:DY:32:PRO:CA	2.28	0.63
1:AA:918:A:H2'	1:AA:919:A:C8	2.33	0.63
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.27	0.63
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.64	0.63
5:AE:28:PHE:N	5:AE:28:PHE:CD1	2.66	0.63
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.79	0.63
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.19	0.63
7:AG:62:PHE:CD1	7:AG:124:LEU:HD21	2.33	0.63
12:AL:41:ARG:CG	12:AL:42:THR:H	1.99	0.63
34:B8:33:ASN:ND2	34:B8:33:ASN:H	1.96	0.63
36:BA:1434:A:H61	36:BA:1558:A:N6	1.96	0.63
36:BA:2206:G:C2	36:BA:2207:G:H5'	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2398:U:H5'	36:BA:2399:G:OP2	1.98	0.63
36:BA:2653:U:O2'	43:BH:110:SER:HB2	1.98	0.63
39:BD:26:LYS:O	39:BD:27:THR:HB	1.98	0.63
43:BH:126:PRO:O	43:BH:127:GLU:HB2	1.97	0.63
44:BI:79:ILE:HG22	44:BI:81:VAL:H	1.63	0.63
44:BI:111:PRO:O	44:BI:112:LYS:HG3	1.98	0.63
45:BN:25:ARG:HG3	45:BN:25:ARG:HH11	1.61	0.63
47:BP:23:PRO:HB2	47:BP:33:ARG:CG	2.28	0.63
50:BS:15:ARG:HB3	50:BS:18:ILE:CG2	2.28	0.63
50:BS:97:ARG:NH2	50:BS:99:LYS:H	1.96	0.63
52:BU:31:SER:C	52:BU:33:ARG:H	2.02	0.63
54:BW:60:ASN:HD22	54:BW:60:ASN:H	1.44	0.63
1:CA:1313:U:P	19:CS:6:LYS:HG3	2.39	0.63
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.28	0.63
5:CE:148:VAL:HG21	8:CH:107:LEU:HD22	1.80	0.63
22:CV:64:G:H2'	22:CV:65:C:C6	2.33	0.63
26:D0:18:ALA:HB1	36:DA:2271:G:OP1	1.97	0.63
36:DA:1986:A:C2'	36:DA:1987:G:H5"	2.28	0.63
36:DA:2737:G:H2'	36:DA:2738:A:H8	1.63	0.63
40:DE:66:HIS:O	40:DE:66:HIS:HD2	1.81	0.63
49:DR:5:LYS:N	49:DR:5:LYS:HD2	2.13	0.63
51:DT:117:ASP:OD2	51:DT:120:ARG:HG3	1.99	0.63
52:DU:31:SER:O	52:DU:33:ARG:N	2.32	0.63
53:DV:19:LYS:CE	53:DV:20:LEU:H	2.12	0.63
54:DW:92:ARG:HH11	54:DW:92:ARG:HG2	1.61	0.63
55:DX:31:HIS:ND1	55:DX:32:PRO:HD2	2.13	0.63
5:AE:31:LEU:HD13	5:AE:43:LEU:HD11	1.81	0.63
5:AE:75:THR:HG23	5:AE:76:ILE:N	2.13	0.63
9:AI:10:ARG:HG2	9:AI:104:ARG:O	1.99	0.63
27:B1:50:ARG:HG2	27:B1:50:ARG:HH11	1.61	0.63
28:B2:2:LYS:O	28:B2:6:VAL:HG23	1.99	0.63
28:B2:43:GLN:O	28:B2:44:LEU:HD23	1.99	0.63
36:BA:271(A):A:H5'	36:BA:271(B):C:OP2	1.97	0.63
36:BA:2178:C:H2'	36:BA:2179:C:C6	2.33	0.63
37:BB:11:C:H3'	37:BB:12:C:H6	1.64	0.63
41:BF:33:LEU:O	41:BF:37:VAL:HG23	1.99	0.63
43:BH:85:LYS:HB3	43:BH:133:VAL:O	1.99	0.63
44:BI:88:ILE:HD11	44:BI:123:LEU:N	2.13	0.63
44:BI:133:HIS:ND1	44:BI:134:PRO:HD2	2.13	0.63
45:BN:63:THR:HG22	45:BN:64:GLY:H	1.63	0.63
47:BP:92:GLU:HG3	47:BP:93:GLY:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:177:PRO:O	57:BZ:178:GLU:HG2	1.99	0.63
5:CE:69:VAL:HG21	5:CE:113:ALA:HB1	1.80	0.63
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.13	0.63
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.64	0.63
34:D8:4:MET:SD	34:D8:61:LEU:HD22	2.38	0.63
36:DA:556:G:H2'	36:DA:557:U:C6	2.33	0.63
36:DA:1590:U:C3'	36:DA:1591:G:H5"	2.28	0.63
36:DA:1594:G:H5'	36:DA:1594:G:H8	1.63	0.63
36:DA:2123:G:H2'	36:DA:2124:G:C8	2.33	0.63
41:DF:32:LEU:O	41:DF:32:LEU:HD23	1.97	0.63
42:DG:135:LEU:HD13	42:DG:157:ILE:H	1.64	0.63
43:DH:85:LYS:HB3	43:DH:133:VAL:O	1.98	0.63
45:DN:46:VAL:O	45:DN:47:ALA:HB3	1.97	0.63
46:DO:24:VAL:CG2	46:DO:33:ALA:HB2	2.28	0.63
48:DQ:27:VAL:HG11	48:DQ:30:GLY:O	1.98	0.63
5:AE:69:VAL:HG21	5:AE:113:ALA:HB1	1.79	0.63
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.13	0.63
9:AI:114:TYR:HD2	9:AI:114:TYR:N	1.93	0.63
16:AP:21:VAL:HG12	16:AP:34:GLU:O	1.99	0.63
19:AS:6:LYS:CD	19:AS:6:LYS:H	2.12	0.63
21:AU:2:GLY:C	21:AU:4:GLY:H	2.01	0.63
34:B8:43:GLN:C	34:B8:44:LYS:HD2	2.18	0.63
36:BA:1686:C:H6	36:BA:1686:C:C5'	2.12	0.63
39:BD:43:ARG:HD2	39:BD:44:ASN:OD1	1.98	0.63
39:BD:48:ARG:HG3	39:BD:48:ARG:NH1	2.11	0.63
41:BF:181:LEU:HD11	41:BF:186:ILE:HD11	1.79	0.63
50:BS:97:ARG:HH21	50:BS:98:VAL:CA	1.93	0.63
1:CA:180:U:H2'	1:CA:181:G:H5"	1.80	0.63
1:CA:346:G:H5"	51:DT:35:LYS:HZ1	1.63	0.63
1:CA:646:U:H2'	1:CA:647:C:C6	2.34	0.63
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.13	0.63
3:CC:55:VAL:HG12	3:CC:55:VAL:O	1.98	0.63
3:CC:109:PRO:HB3	3:CC:115:LEU:HD13	1.81	0.63
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	1.79	0.63
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	1.99	0.63
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.39	0.63
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.81	0.63
36:DA:633:A:H2'	36:DA:634:C:H5'	1.80	0.63
36:DA:649:G:H2'	36:DA:650:C:C6	2.34	0.63
36:DA:1411:C:H2'	36:DA:1412:A:H8	1.62	0.63
36:DA:2024:G:H2'	36:DA:2025:C:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:167:VAL:HG22	40:DE:170:LEU:HD11	1.81	0.63
42:DG:140:ILE:HG13	42:DG:141:PHE:N	2.14	0.63
44:DI:95:LYS:HA	44:DI:98:ALA:HB3	1.81	0.63
47:DP:96:THR:O	47:DP:99:LEU:HB3	1.99	0.63
53:DV:99:ILE:HD13	53:DV:99:ILE:N	2.14	0.63
55:DX:64:LYS:NZ	55:DX:73:ARG:HH21	1.96	0.63
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.28	0.63
36:BA:108:U:H2'	36:BA:109:G:C8	2.34	0.63
36:BA:1221:C:O2'	36:BA:1221(A):C:H5'	1.97	0.63
36:BA:1292:U:H2'	36:BA:1293:C:C6	2.33	0.63
36:BA:2348:U:C3'	36:BA:2349:G:H5"	2.27	0.63
39:BD:58:HIS:HD2	39:BD:59:LYS:O	1.82	0.63
39:BD:121:PRO:HB3	39:BD:135:PHE:CE1	2.34	0.63
43:BH:44:VAL:HG12	43:BH:45:VAL:N	2.10	0.63
44:BI:102:SER:OG	44:BI:109:ILE:HD13	1.98	0.63
51:BT:27:THR:O	51:BT:28:VAL:HB	1.98	0.63
51:BT:89:VAL:HG12	51:BT:91:ARG:HG3	1.80	0.63
52:BU:108:GLU:OE2	53:BV:44:LYS:HD3	1.99	0.63
53:BV:19:LYS:CE	53:BV:20:LEU:H	2.12	0.63
55:BX:29:TRP:CZ3	55:BX:78:LYS:HB3	2.33	0.63
56:BY:31:LEU:HB2	56:BY:32:PRO:CA	2.28	0.63
57:BZ:5:LEU:CD2	57:BZ:43:GLU:HB3	2.26	0.63
57:BZ:28:MET:HG3	57:BZ:33:LEU:HD21	1.81	0.63
1:CA:1030(B):C:H2'	1:CA:1030(C):G:H5'	1.81	0.63
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.29	0.63
1:CA:1442(A):G:H5'	1:CA:1442(B):A:H5"	1.79	0.63
2:CB:23:ARG:HH11	2:CB:23:ARG:HG2	1.64	0.63
5:CE:126:ARG:HG3	5:CE:126:ARG:NH1	2.08	0.63
9:CI:114:TYR:HD2	9:CI:114:TYR:N	1.94	0.63
11:CK:48:ILE:CG2	11:CK:63:LEU:HD22	2.29	0.63
25:CY:40:C:O2'	25:CY:41:C:H5'	1.99	0.63
36:DA:1590:U:H2'	36:DA:1591:G:C5'	2.16	0.63
36:DA:1899:G:H22	36:DA:1902:C:N4	1.95	0.63
36:DA:2348:U:C3'	36:DA:2349:G:H5"	2.27	0.63
36:DA:2892:A:H3'	36:DA:2893:G:C5'	2.25	0.63
39:DD:211:ARG:HA	39:DD:214:TRP:CD2	2.34	0.63
42:DG:70:VAL:HG12	42:DG:88:ILE:HD11	1.80	0.63
50:DS:92:TYR:CD1	50:DS:93:LYS:N	2.64	0.63
51:DT:34:VAL:HA	51:DT:39:ARG:HA	1.81	0.63
52:DU:83:LEU:HG	52:DU:88:ILE:HD11	1.81	0.63
52:DU:106:PHE:HA	52:DU:109:LEU:HD12	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1097:C:O2'	1:AA:1098:C:H5'	1.98	0.63
2:AB:8:LYS:O	2:AB:12:GLU:HG3	1.97	0.63
13:AM:57:ARG:HH22	30:B4:60:GLU:HG3	1.62	0.63
26:B0:18:ALA:HB1	36:BA:2271:G:OP1	1.98	0.63
36:BA:267:C:H2'	36:BA:268:C:H6	1.63	0.63
39:BD:267:SER:C	39:BD:269:PHE:H	2.02	0.63
43:BH:64:LEU:C	43:BH:66:GLY:H	2.01	0.63
44:BI:123:LEU:CD2	44:BI:142:VAL:HG12	2.29	0.63
47:BP:16:ARG:HD3	47:BP:17:LYS:N	2.13	0.63
49:BR:4:LEU:O	49:BR:4:LEU:HD22	1.99	0.63
50:BS:19:LYS:C	50:BS:20:ARG:HH11	2.01	0.63
54:BW:64:MET:O	54:BW:65:LEU:HB3	1.97	0.63
1:CA:90:U:OP1	1:CA:91:C:H5"	1.99	0.63
1:CA:382:A:H2'	1:CA:383:A:H8	1.63	0.63
1:CA:867:G:O2'	1:CA:868:C:H5'	1.99	0.63
2:CB:102:LEU:O	2:CB:105:PHE:HB2	1.99	0.63
7:CG:62:PHE:CD1	7:CG:124:LEU:HD21	2.34	0.63
20:CT:50:GLU:HA	20:CT:100:ILE:HG12	1.79	0.63
32:D6:37:ARG:HH11	32:D6:37:ARG:HG3	1.64	0.63
36:DA:271(F):C:H2'	36:DA:271(G):C:H6	1.64	0.63
36:DA:2161:C:H2'	36:DA:2162:G:C8	2.33	0.63
36:DA:2808:U:O2'	36:DA:2809:A:H5'	1.98	0.63
39:DD:44:ASN:OD1	39:DD:44:ASN:N	2.32	0.63
41:DF:65:TRP:HZ3	41:DF:73:ALA:O	1.80	0.63
43:DH:98:LEU:HD22	43:DH:125:VAL:HG23	1.81	0.63
43:DH:156:ALA:C	43:DH:158:HIS:N	2.47	0.63
49:DR:67:LEU:HD13	49:DR:76:VAL:HG21	1.81	0.63
50:DS:14:VAL:HG12	50:DS:15:ARG:H	1.64	0.63
1:AA:269:C:H2'	1:AA:270:A:C8	2.34	0.63
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.33	0.63
1:AA:1441:G:H5"	1:AA:1442:G:O4'	1.98	0.63
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.44	0.63
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.19	0.63
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.39	0.63
16:AP:53:VAL:O	16:AP:57:ARG:HG2	1.98	0.63
36:BA:364:C:C2'	36:BA:365:C:H5"	2.28	0.63
41:BF:178:PRO:HB2	41:BF:201:VAL:HG11	1.81	0.63
43:BH:151:ILE:O	43:BH:152:ARG:HG2	1.99	0.63
47:BP:115:LEU:HA	47:BP:134:ALA:HB2	1.81	0.63
50:BS:30:ARG:NH2	50:BS:62:LYS:HD2	2.13	0.63
52:BU:106:PHE:HA	52:BU:109:LEU:HD12	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:53:GLU:O	53:BV:55:ALA:N	2.30	0.63
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.33	0.63
7:CG:148:ASN:C	7:CG:150:ALA:N	2.52	0.63
13:CM:3:ARG:CA	13:CM:9:ILE:HG13	2.29	0.63
25:CY:26:A:N6	25:CY:27:G:H21	1.97	0.63
38:DC:86:ALA:HB3	38:DC:94:VAL:HG21	1.81	0.63
39:DD:77:ALA:CB	39:DD:97:TYR:HA	2.29	0.63
40:DE:55:ASN:O	40:DE:57:LYS:N	2.32	0.63
44:DI:76:THR:O	44:DI:77:LEU:O	2.17	0.63
44:DI:92:VAL:HG22	44:DI:92:VAL:O	1.99	0.63
47:DP:48:PRO:HG2	47:DP:49:ARG:H	1.63	0.63
57:DZ:124:ILE:HG23	57:DZ:165:VAL:CG2	2.29	0.63
1:AA:1265:G:H22	1:AA:1271:G:H1'	1.64	0.62
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.64	0.62
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.80	0.62
18:AR:47:THR:HB	18:AR:49:LYS:HG2	1.81	0.62
21:AU:9:ARG:HH12	21:AU:22:ARG:HA	1.62	0.62
22:AV:10:G:N2	22:AV:26:G:H1'	2.13	0.62
28:B2:55:ARG:HG2	36:BA:76:C:H5'	1.81	0.62
31:B5:37:LYS:HG3	31:B5:38:ALA:N	2.12	0.62
36:BA:1348:G:C2'	36:BA:1349:A:H5"	2.29	0.62
36:BA:2709:G:O2'	36:BA:2710:C:H5'	1.99	0.62
38:BC:51:PRO:HB2	38:BC:203:GLY:O	1.98	0.62
38:BC:77:ILE:HD11	38:BC:100:ILE:HD11	1.80	0.62
39:BD:76:PRO:HG2	39:BD:98:VAL:CG2	2.27	0.62
48:BQ:54:MET:CB	48:BQ:64:ILE:HD13	2.21	0.62
48:BQ:134:ARG:HH21	57:BZ:122:ARG:CZ	2.11	0.62
56:BY:88:LYS:HZ1	56:BY:93:GLY:CA	2.11	0.62
1:CA:350:G:O2'	1:CA:351:G:H5'	1.98	0.62
1:CA:815:A:N7	1:CA:1509:C:O2'	2.26	0.62
7:CG:147:ALA:C	7:CG:148:ASN:HD22	2.02	0.62
33:D7:47:ARG:NE	55:DX:60:ARG:HH22	1.97	0.62
34:D8:13:ARG:NH2	36:DA:250:G:OP2	2.32	0.62
36:DA:999:U:H2'	36:DA:1000:A:H5"	1.81	0.62
36:DA:1987:G:H8	36:DA:1987:G:H5'	1.63	0.62
36:DA:2314:C:H1'	42:DG:132:ASN:HD21	1.64	0.62
39:DD:76:PRO:O	39:DD:98:VAL:HG23	1.98	0.62
39:DD:264:LYS:HG2	39:DD:266:SER:HB3	1.81	0.62
42:DG:109:VAL:HG11	42:DG:142:PRO:HB3	1.81	0.62
49:DR:5:LYS:HD2	49:DR:5:LYS:H	1.64	0.62
50:DS:30:ARG:NH2	50:DS:62:LYS:HD2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:112:ARG:NE	53:DV:46:VAL:HG21	2.13	0.62
53:DV:25:LEU:H	53:DV:92:THR:CG2	2.06	0.62
57:DZ:30:ASN:HA	57:DZ:89:PHE:CE2	2.33	0.62
57:DZ:53:ILE:HG23	57:DZ:71:VAL:CG2	2.28	0.62
1:AA:376:G:O3'	16:AP:5:ARG:HD2	1.99	0.62
1:AA:452:A:O2'	1:AA:453:A:H8	1.83	0.62
1:AA:942:G:H21	9:AI:124:GLN:NE2	1.94	0.62
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	1.81	0.62
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.34	0.62
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.81	0.62
6:AF:78:GLU:O	6:AF:81:ILE:HG13	1.99	0.62
7:AG:84:ASN:ND2	23:AW:33:U:H5"	2.14	0.62
11:AK:126:ARG:C	11:AK:128:ALA:H	2.01	0.62
33:B7:19:ARG:HH11	33:B7:19:ARG:HG2	1.64	0.62
36:BA:1022:G:O2'	36:BA:1023:U:OP2	2.16	0.62
36:BA:1762:A:H8	36:BA:1762:A:O5'	1.81	0.62
36:BA:2522:U:O2'	36:BA:2647:U:H5"	1.98	0.62
39:BD:26:LYS:HZ3	39:BD:82:ILE:H	1.46	0.62
48:BQ:35:VAL:CG1	48:BQ:130:LYS:HB3	2.29	0.62
50:BS:56:LEU:O	50:BS:57:LYS:HB2	1.98	0.62
51:BT:34:VAL:HA	51:BT:39:ARG:HA	1.80	0.62
53:BV:28:GLU:HB3	53:BV:29:PRO:HD2	1.81	0.62
57:BZ:114:GLY:HA3	57:BZ:177:PRO:HD3	1.81	0.62
1:CA:36:C:H4'	12:CL:122:THR:O	1.99	0.62
1:CA:237:C:H5"	17:CQ:25:ARG:NH1	2.14	0.62
1:CA:376:G:O2'	1:CA:377:G:H5'	1.99	0.62
1:CA:1054:C:O2'	1:CA:1055:A:H5"	1.99	0.62
1:CA:1237:C:H4'	1:CA:1334:G:N2	2.14	0.62
6:CF:71:ARG:HH11	6:CF:71:ARG:HG3	1.64	0.62
7:CG:50:ILE:O	7:CG:54:THR:HG23	1.99	0.62
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.98	0.62
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.80	0.62
12:CL:87:GLY:HA2	12:CL:98:TYR:HA	1.82	0.62
13:CM:27:LYS:CE	13:CM:31:LYS:HE3	2.25	0.62
20:CT:46:GLU:CD	20:CT:48:LYS:HE2	2.18	0.62
21:CU:2:GLY:C	21:CU:4:GLY:H	2.00	0.62
28:D2:38:GLN:HB3	28:D2:44:LEU:O	1.99	0.62
31:D5:32:PRO:O	31:D5:33:CYS:CB	2.47	0.62
36:DA:598:G:H5'	47:DP:15:ARG:HD2	1.79	0.62
36:DA:1658:C:OP1	40:DE:132:HIS:CE1	2.51	0.62
36:DA:2206:G:C2	36:DA:2207:G:H5'	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DC:78:ALA:CB	38:DC:82:LYS:HB2	2.28	0.62
39:DD:27:THR:HG21	39:DD:83:GLU:HG2	1.80	0.62
41:DF:39:TRP:O	41:DF:43:LYS:HG2	1.99	0.62
44:DI:88:ILE:HD11	44:DI:123:LEU:N	2.13	0.62
50:DS:62:LYS:H	50:DS:65:VAL:HG23	1.64	0.62
2:AB:204:ASN:ND2	2:AB:207:ALA:H	1.96	0.62
7:AG:148:ASN:C	7:AG:150:ALA:H	2.01	0.62
13:AM:90:LEU:O	13:AM:91:ARG:HB2	1.98	0.62
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.47	0.62
23:AW:49:C:H2'	23:AW:50:U:C6	2.34	0.62
28:B2:2:LYS:HA	28:B2:5:GLU:OE1	1.98	0.62
36:BA:271(F):C:H2'	36:BA:271(G):C:H6	1.63	0.62
36:BA:2310:A:O2'	36:BA:2311:A:C5'	2.47	0.62
36:BA:2795:G:N2	36:BA:2799:C:H5'	2.14	0.62
41:BF:83:PHE:O	41:BF:85:GLY:N	2.31	0.62
42:BG:114:ILE:HG12	42:BG:140:ILE:HD13	1.81	0.62
51:BT:70:VAL:HG12	51:BT:71:GLY:H	1.64	0.62
53:BV:47:VAL:HB	53:BV:50:PRO:O	1.99	0.62
56:BY:17:SER:HB3	56:BY:71:LYS:HB3	1.81	0.62
1:CA:80:G:H22	1:CA:90:U:H4'	1.64	0.62
1:CA:353:A:H8	1:CA:353:A:H5'	1.65	0.62
1:CA:637:G:H2'	1:CA:638:G:H8	1.63	0.62
1:CA:1031:G:H2'	1:CA:1032:G:C8	2.35	0.62
2:CB:75:LYS:HA	2:CB:78:GLN:HG3	1.80	0.62
2:CB:114:ARG:HA	2:CB:117:GLU:OE1	1.99	0.62
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.64	0.62
11:CK:126:ARG:C	11:CK:128:ALA:H	2.01	0.62
29:D3:17:LYS:HD3	36:DA:969:U:OP1	2.00	0.62
36:DA:143:G:H2'	36:DA:143(A):C:H6	1.65	0.62
36:DA:195:A:OP1	47:DP:46:LYS:HE2	1.99	0.62
36:DA:2672:G:H2'	36:DA:2673:G:H5"	1.80	0.62
43:DH:17:VAL:HG12	43:DH:17:VAL:O	1.99	0.62
43:DH:85:LYS:HD2	43:DH:141:VAL:CG1	2.28	0.62
45:DN:57:ALA:N	45:DN:124:ALA:HA	2.13	0.62
47:DP:41:ARG:NH1	47:DP:45:LEU:HD12	2.15	0.62
47:DP:115:LEU:HA	47:DP:134:ALA:HB2	1.80	0.62
50:DS:69:VAL:O	50:DS:72:ALA:HB3	2.00	0.62
57:DZ:102:LEU:O	57:DZ:103:ARG:HG2	1.99	0.62
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.35	0.62
1:AA:1278:U:H5"	1:AA:1279:A:O4'	1.98	0.62
26:B0:72:ARG:HB3	26:B0:75:LEU:HB3	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:325:G:H2'	36:BA:326:G:H8	1.63	0.62
36:BA:847:U:C2'	36:BA:848:G:H5"	2.25	0.62
36:BA:999:U:H2'	36:BA:1000:A:H5"	1.81	0.62
36:BA:1242:A:N1	47:BP:8:PRO:HG3	2.15	0.62
36:BA:2881:C:H2'	36:BA:2882:A:H8	1.64	0.62
37:BB:61:G:H2'	37:BB:62:C:C6	2.34	0.62
40:BE:55:ASN:O	40:BE:57:LYS:N	2.33	0.62
41:BF:185:ASP:HA	41:BF:188:ARG:HB3	1.79	0.62
42:BG:2:PRO:O	42:BG:3:LEU:HB3	1.98	0.62
47:BP:18:ARG:HH11	47:BP:18:ARG:C	2.02	0.62
47:BP:85:LEU:H	47:BP:85:LEU:CD2	2.10	0.62
1:CA:918:A:H2'	1:CA:919:A:C8	2.35	0.62
1:CA:1313:U:OP1	19:CS:6:LYS:HG3	2.00	0.62
59:CA:1817:PAR:H34	59:CA:1817:PAR:HN61	1.64	0.62
2:CB:76:GLN:HB3	2:CB:206:ASP:O	1.99	0.62
5:CE:53:LEU:H	5:CE:53:LEU:CD1	2.12	0.62
9:CI:79:LEU:HD21	9:CI:102:LEU:HD22	1.81	0.62
12:CL:41:ARG:HB3	12:CL:41:ARG:NH1	2.13	0.62
18:CR:47:THR:HB	18:CR:49:LYS:HG2	1.80	0.62
35:D9:9:ARG:HB3	35:D9:9:ARG:HH11	1.63	0.62
36:DA:203:C:H3'	36:DA:204:A:H5"	1.79	0.62
36:DA:2148:G:O2'	36:DA:2149:G:H5'	1.99	0.62
36:DA:2779:U:H4'	36:DA:2780:G:H5"	1.80	0.62
36:DA:2881:C:H2'	36:DA:2882:A:H8	1.63	0.62
38:DC:56:GLN:NE2	38:DC:173:ALA:HB1	2.15	0.62
43:DH:44:VAL:HG12	43:DH:45:VAL:N	2.11	0.62
43:DH:84:SER:O	43:DH:85:LYS:HB3	1.99	0.62
1:AA:784:C:H4'	36:BA:1837:C:OP1	1.99	0.62
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.61	0.62
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.81	0.62
36:BA:1652:A:C2'	36:BA:1653:G:H5'	2.29	0.62
36:BA:2402:C:H5	36:BA:2415:G:H22	1.47	0.62
36:BA:2522:U:H2'	36:BA:2523:G:H5"	1.82	0.62
36:BA:2712:U:HO2'	36:BA:2712(A):A:H5"	1.63	0.62
40:BE:116:VAL:O	40:BE:117:MET:CB	2.47	0.62
41:BF:11:VAL:C	41:BF:13:SER:H	2.01	0.62
44:BI:72:LEU:CD2	44:BI:107:VAL:HG21	2.29	0.62
46:BO:35:VAL:HG21	46:BO:69:ILE:CD1	2.29	0.62
49:BR:63:ARG:HA	49:BR:80:PHE:CE2	2.35	0.62
4:CD:30:LYS:C	4:CD:32:ALA:N	2.53	0.62
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D1:45:ASN:ND2	36:DA:2090:G:H21	1.97	0.62
28:D2:53:LEU:O	28:D2:56:GLN:HB2	2.00	0.62
34:D8:13:ARG:CB	47:DP:63:PRO:HB3	2.23	0.62
40:DE:97:LYS:HE2	40:DE:98:PRO:HD2	1.81	0.62
41:DF:3:GLU:HB2	41:DF:19:GLU:HB2	1.81	0.62
41:DF:152:GLU:OE1	41:DF:191:ARG:HD2	1.99	0.62
54:DW:64:MET:O	54:DW:65:LEU:HB3	1.98	0.62
2:AB:96:ARG:HH12	2:AB:147:LYS:HE2	1.64	0.62
4:AD:112:VAL:HG13	4:AD:116:GLN:OE1	2.00	0.62
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.98	0.62
11:AK:32:ILE:HD12	11:AK:72:ALA:CB	2.30	0.62
21:AU:2:GLY:O	21:AU:4:GLY:N	2.32	0.62
34:B8:49:VAL:O	34:B8:53:PRO:HG3	1.99	0.62
36:BA:2863:C:O2'	36:BA:2864:G:H5"	1.98	0.62
42:BG:25:TYR:CD2	42:BG:31:VAL:HG23	2.34	0.62
51:BT:28:VAL:HG11	51:BT:46:GLU:OE1	1.99	0.62
53:BV:18:LEU:CD2	53:BV:19:LYS:H	2.13	0.62
1:CA:1278:U:H5"	1:CA:1279:A:O4'	1.99	0.62
2:CB:96:ARG:HH12	2:CB:147:LYS:HE2	1.64	0.62
2:CB:213:LEU:HD23	2:CB:213:LEU:C	2.20	0.62
3:CC:5:ILE:C	3:CC:5:ILE:HD12	2.20	0.62
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.29	0.62
8:CH:5:PRO:O	8:CH:8:ASP:HB3	1.99	0.62
21:CU:2:GLY:O	21:CU:4:GLY:N	2.31	0.62
26:D0:27:GLU:HB2	26:D0:69:PHE:HD1	1.64	0.62
26:D0:41:ARG:HB3	36:DA:2330:G:H1'	1.80	0.62
36:DA:335:C:H2'	36:DA:336:C:C6	2.31	0.62
36:DA:491:G:H2'	36:DA:492:A:C8	2.33	0.62
36:DA:760:G:C2'	36:DA:761:A:H5'	2.29	0.62
36:DA:2795:G:N2	36:DA:2799:C:H5'	2.13	0.62
42:DG:35:GLU:O	42:DG:36:LYS:HB2	1.99	0.62
42:DG:41:GLN:HB2	42:DG:90:LEU:HB2	1.82	0.62
42:DG:115:ARG:HE	42:DG:116:ASP:HB2	1.65	0.62
51:DT:19:LEU:H	51:DT:19:LEU:HD12	1.65	0.62
56:DY:45:VAL:HA	56:DY:62:GLU:HG2	1.80	0.62
1:AA:1256:A:N6	1:AA:1278:U:H1'	2.14	0.62
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.82	0.62
7:AG:143:ARG:HD2	23:AW:41:C:H4'	1.82	0.62
32:B6:30:THR:HB	32:B6:31:PRO:HD2	1.82	0.62
36:BA:2264:C:H2'	36:BA:2265:U:C6	2.35	0.62
39:BD:165:ILE:HD13	39:BD:175:LEU:HD21	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BD:172:TYR:CE2	39:BD:269:PHE:HE1	2.18	0.62
40:BE:2:LYS:HE2	40:BE:95:ILE:CG2	2.30	0.62
42:BG:13:GLU:O	42:BG:14:GLU:HB2	2.00	0.62
45:BN:18:ALA:HB1	45:BN:21:LYS:HB2	1.80	0.62
51:BT:23:ARG:HA	51:BT:52:ILE:HD11	1.80	0.62
1:CA:179:A:H2'	1:CA:180:U:H6	1.64	0.62
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.82	0.62
1:CA:1319:A:OP2	19:CS:5:LEU:HG	1.99	0.62
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	1.99	0.62
18:CR:82:THR:HG22	18:CR:83:GLU:N	2.15	0.62
19:CS:12:ASP:O	19:CS:16:LEU:HD13	1.99	0.62
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.65	0.62
34:D8:13:ARG:HD2	47:DP:61:ARG:HD3	1.80	0.62
36:DA:1403:C:H5"	36:DA:1471:A:C1'	2.29	0.62
39:DD:25:THR:HG22	39:DD:26:LYS:N	2.14	0.62
39:DD:121:PRO:HB3	39:DD:135:PHE:CE1	2.35	0.62
41:DF:11:VAL:C	41:DF:13:SER:H	2.02	0.62
42:DG:53:LEU:HD13	42:DG:56:ALA:HB3	1.82	0.62
42:DG:60:LEU:HD21	42:DG:92:VAL:CG2	2.27	0.62
42:DG:120:LEU:HD12	42:DG:121:ASN:N	2.15	0.62
45:DN:25:ARG:HH11	45:DN:25:ARG:HG3	1.65	0.62
45:DN:39:ARG:HH11	45:DN:39:ARG:HG2	1.63	0.62
47:DP:126:VAL:CG1	47:DP:148:LEU:HD11	2.30	0.62
51:DT:3:ARG:C	51:DT:5:ALA:N	2.53	0.62
51:DT:27:THR:O	51:DT:28:VAL:HB	1.99	0.62
53:DV:47:VAL:HB	53:DV:50:PRO:O	2.00	0.62
1:AA:376:G:O2'	1:AA:377:G:H5'	2.00	0.62
1:AA:867:G:O2'	1:AA:868:C:H5'	2.00	0.62
1:AA:999:C:O2'	1:AA:1000:U:H5'	1.98	0.62
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.00	0.62
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.13	0.62
11:AK:126:ARG:HB3	11:AK:126:ARG:NH1	2.15	0.62
26:B0:82:ARG:O	26:B0:82:ARG:HG3	2.00	0.62
27:B1:23:LYS:CE	27:B1:28:GLY:HA3	2.29	0.62
31:B5:3:LYS:HB2	36:BA:747:U:C5	2.34	0.62
39:BD:25:THR:HG22	39:BD:26:LYS:N	2.14	0.62
39:BD:109:ASP:HB2	39:BD:197:GLY:HA2	1.82	0.62
41:BF:2:LYS:O	41:BF:25:PRO:HD2	2.00	0.62
41:BF:152:GLU:OE1	41:BF:191:ARG:HD2	2.00	0.62
42:BG:45:GLU:HA	42:BG:45:GLU:OE1	1.97	0.62
47:BP:16:ARG:C	47:BP:16:ARG:HH11	2.03	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:92:GLY:C	51:BT:94:ALA:N	2.52	0.62
52:BU:44:ASN:ND2	53:BV:75:PHE:H	1.97	0.62
53:BV:99:ILE:HD13	53:BV:99:ILE:N	2.14	0.62
1:CA:407:G:O2'	4:CD:116:GLN:HG3	2.00	0.62
1:CA:477:A:O2'	1:CA:479:C:H5'	1.99	0.62
1:CA:950:U:H4'	1:CA:971:G:N2	2.14	0.62
12:CL:7:ILE:HA	12:CL:10:LEU:HD12	1.82	0.62
17:CQ:6:LEU:HD12	17:CQ:6:LEU:N	2.15	0.62
23:CW:47:U:H2'	23:CW:50:U:OP1	1.99	0.62
36:DA:174:C:C3'	36:DA:175:G:H5"	2.29	0.62
36:DA:364:C:C2'	36:DA:365:C:H5"	2.29	0.62
37:DB:42:C:H5'	42:DG:68:PRO:O	1.99	0.62
39:DD:76:PRO:HG2	39:DD:98:VAL:CG2	2.30	0.62
42:DG:48:GLU:O	42:DG:49:ASP:HB2	1.99	0.62
42:DG:102:PHE:HA	42:DG:105:LYS:HD2	1.80	0.62
49:DR:28:LEU:HA	49:DR:34:ILE:CG1	2.30	0.62
50:DS:76:LYS:O	50:DS:80:LEU:HD13	2.00	0.62
51:DT:23:ARG:HA	51:DT:52:ILE:HD11	1.82	0.62
51:DT:27:THR:HG23	51:DT:28:VAL:N	2.14	0.62
53:DV:6:LYS:O	53:DV:37:VAL:HG21	1.99	0.62
53:DV:38:LEU:C	53:DV:39:LEU:HD13	2.19	0.62
56:DY:95:LYS:HG2	56:DY:100:ALA:CA	2.28	0.62
57:DZ:30:ASN:HA	57:DZ:89:PHE:HE2	1.64	0.62
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.64	0.62
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.29	0.62
27:B1:35:THR:CG2	36:BA:2080:G:O5'	2.48	0.62
34:B8:43:GLN:O	34:B8:44:LYS:HD2	2.00	0.62
34:B8:50:LEU:C	34:B8:53:PRO:HD2	2.20	0.62
36:BA:212:G:O2'	36:BA:213:A:H5'	2.00	0.62
36:BA:2790:A:H2'	36:BA:2791:C:H5'	1.82	0.62
39:BD:182:LEU:O	39:BD:271:ILE:HG13	1.98	0.62
40:BE:97:LYS:HE2	40:BE:98:PRO:HD2	1.82	0.62
45:BN:46:VAL:O	45:BN:47:ALA:HB3	1.98	0.62
51:BT:65:LYS:NZ	51:BT:66:VAL:N	2.41	0.62
52:BU:90:VAL:HG12	52:BU:91:ASP:N	2.10	0.62
1:CA:580:U:H2'	1:CA:581:G:O4'	2.00	0.62
9:CI:3:GLN:HG2	9:CI:20:ARG:HH12	1.65	0.62
36:DA:2287:A:N1	36:DA:2346:A:H2	1.97	0.62
36:DA:2315:G:H2'	36:DA:2316:C:C6	2.35	0.62
36:DA:2340:G:O2'	36:DA:2341:G:H5'	2.00	0.62
42:DG:40:ASN:O	42:DG:155:MET:HB2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DN:28:THR:HG23	45:DN:29:LYS:HG3	1.82	0.62
47:DP:78:PRO:HB2	47:DP:111:ARG:HD2	1.81	0.62
48:DQ:54:MET:HG2	48:DQ:64:ILE:CG2	2.30	0.62
53:DV:19:LYS:HE2	53:DV:19:LYS:HA	1.82	0.62
54:DW:73:ALA:HB3	54:DW:106:ILE:HD11	1.81	0.62
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.83	0.62
6:AF:52:ILE:O	6:AF:53:ALA:HB3	2.00	0.62
6:AF:98:LEU:H	6:AF:98:LEU:HD12	1.65	0.62
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	1.98	0.62
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.98	0.62
16:AP:82:GLN:N	16:AP:82:GLN:HE21	1.98	0.62
20:AT:57:ARG:NH1	20:AT:102:GLY:HA2	2.15	0.62
32:B6:20:ASN:ND2	32:B6:21:TYR:H	1.98	0.62
35:B9:9:ARG:HB3	35:B9:9:ARG:HH11	1.64	0.62
37:BB:15:A:H3'	37:BB:16:G:C5'	2.30	0.62
39:BD:148:GLU:HB2	39:BD:151:LYS:HD2	1.82	0.62
40:BE:75:VAL:O	40:BE:77:ILE:N	2.33	0.62
45:BN:4:TYR:HB2	52:BU:64:ARG:NH2	2.15	0.62
47:BP:78:PRO:HB2	47:BP:111:ARG:HD2	1.82	0.62
50:BS:101:LEU:CD2	50:BS:104:GLY:H	2.11	0.62
55:BX:32:PRO:HA	55:BX:77:LYS:CB	2.29	0.62
56:BY:19:LYS:HG2	56:BY:19:LYS:O	2.00	0.62
1:CA:959:A:H3'	1:CA:960:U:H5"	1.80	0.62
1:CA:1310:G:O2'	1:CA:1311:G:H5'	1.99	0.62
4:CD:13:ARG:O	4:CD:15:GLU:N	2.32	0.62
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.33	0.62
36:DA:99:U:H4'	36:DA:102:G:H1'	1.81	0.62
36:DA:870:A:C2	36:DA:871:U:H1'	2.35	0.62
36:DA:999:U:C2'	36:DA:1000:A:H5"	2.30	0.62
36:DA:1292:U:H2'	36:DA:1293:C:C6	2.35	0.62
40:DE:3:GLY:O	40:DE:4:ILE:HB	1.98	0.62
40:DE:49:LEU:H	40:DE:49:LEU:CD1	2.10	0.62
47:DP:101:VAL:C	47:DP:103:ALA:H	2.03	0.62
53:DV:53:GLU:O	53:DV:55:ALA:N	2.31	0.62
57:DZ:17:ALA:O	57:DZ:20:ARG:HB2	1.99	0.62
1:AA:646:U:H2'	1:AA:647:C:C6	2.35	0.61
5:AE:101:ILE:HG12	5:AE:101:ILE:O	2.00	0.61
10:AJ:80:LYS:HE3	10:AJ:80:LYS:O	1.99	0.61
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.98	0.61
36:BA:1316:U:O2'	36:BA:1317:A:H5'	2.00	0.61
36:BA:1494:A:N3	36:BA:1494:A:H5'	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2208:A:H1'	36:BA:2219:G:C2	2.35	0.61
36:BA:2315:G:H2'	36:BA:2316:C:C6	2.35	0.61
36:BA:2745:C:H2'	36:BA:2746:U:C6	2.35	0.61
36:BA:2789:C:H1'	36:BA:2892:A:H2	1.65	0.61
38:BC:56:GLN:NE2	38:BC:173:ALA:HB1	2.15	0.61
39:BD:92:ILE:HD13	39:BD:92:ILE:H	1.63	0.61
46:BO:10:VAL:HG21	46:BO:16:ALA:O	1.99	0.61
48:BQ:27:VAL:HG11	48:BQ:30:GLY:O	2.00	0.61
56:BY:95:LYS:HG2	56:BY:100:ALA:CA	2.29	0.61
57:BZ:28:MET:SD	57:BZ:37:VAL:HG11	2.39	0.61
2:CB:7:VAL:O	2:CB:11:LEU:HD12	2.00	0.61
2:CB:104:ASN:OD1	2:CB:107:THR:HB	2.00	0.61
11:CK:116:HIS:O	11:CK:117:ASN:HB2	1.99	0.61
26:D0:82:ARG:HG3	26:D0:82:ARG:O	2.00	0.61
28:D2:6:VAL:HA	28:D2:9:GLN:OE1	2.00	0.61
36:DA:108:U:H2'	36:DA:109:G:C8	2.34	0.61
36:DA:271(U):G:O2'	36:DA:271(V):G:H5'	2.00	0.61
36:DA:2522:U:H2'	36:DA:2523:G:H5"	1.82	0.61
36:DA:2720:U:H5'	36:DA:2721:A:OP2	2.00	0.61
39:DD:112:GLN:HB2	39:DD:115:GLN:NE2	2.14	0.61
48:DQ:70:PRO:HA	48:DQ:94:VAL:O	1.99	0.61
50:DS:97:ARG:NH2	50:DS:99:LYS:H	1.96	0.61
52:DU:44:ASN:ND2	53:DV:75:PHE:H	1.98	0.61
53:DV:47:VAL:HG23	53:DV:47:VAL:O	2.00	0.61
55:DX:27:THR:CG2	55:DX:80:ILE:HB	2.20	0.61
56:DY:19:LYS:HG2	56:DY:19:LYS:O	1.99	0.61
56:DY:42:VAL:HG23	56:DY:67:LEU:HD23	1.80	0.61
1:AA:237:C:H5"	17:AQ:25:ARG:NH1	2.16	0.61
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.35	0.61
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.00	0.61
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.83	0.61
27:B1:89:GLU:HA	27:B1:92:LYS:HB3	1.82	0.61
30:B4:62:CYS:SG	30:B4:63:SER:N	2.73	0.61
36:BA:271(U):G:O2'	36:BA:271(V):G:H5'	1.99	0.61
36:BA:575:A:O2'	36:BA:576:U:H5'	2.00	0.61
36:BA:633:A:H2'	36:BA:634:C:H5'	1.82	0.61
36:BA:1175:U:H4'	36:BA:1176:G:H2'	1.82	0.61
36:BA:2892:A:H3'	36:BA:2893:G:C5'	2.26	0.61
46:BO:47:ILE:HG23	46:BO:48:PRO:CD	2.29	0.61
47:BP:96:THR:O	47:BP:99:LEU:HB3	2.00	0.61
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:108:ARG:HH11	13:CM:108:ARG:HA	1.66	0.61
16:CP:21:VAL:HG12	16:CP:34:GLU:O	1.99	0.61
16:CP:26:ARG:HB3	16:CP:26:ARG:NH1	2.15	0.61
19:CS:49:ILE:H	19:CS:49:ILE:HD12	1.64	0.61
27:D1:29:GLY:HA3	36:DA:2396:G:O2'	2.00	0.61
36:DA:564:C:O2'	36:DA:565:C:H5'	2.00	0.61
36:DA:1175:U:H4'	36:DA:1176:G:H2'	1.83	0.61
36:DA:1826:G:H4'	39:DD:242:ARG:NH2	2.15	0.61
36:DA:2152:G:H2'	36:DA:2153:G:C8	2.35	0.61
36:DA:2257:U:O2'	36:DA:2258:C:H5'	1.99	0.61
36:DA:2345:G:H5"	36:DA:2347:C:O4'	2.01	0.61
36:DA:2485:G:H5"	48:DQ:46:GLN:HE21	1.64	0.61
36:DA:2790:A:H2'	36:DA:2791:C:H5'	1.82	0.61
43:DH:159:GLU:CG	43:DH:160:LYS:H	2.02	0.61
44:DI:72:LEU:CD2	44:DI:107:VAL:HG21	2.30	0.61
47:DP:58:THR:O	47:DP:61:ARG:CZ	2.48	0.61
51:DT:70:VAL:HG12	51:DT:71:GLY:H	1.65	0.61
3:AC:92:ALA:HB2	3:AC:99:VAL:HG21	1.81	0.61
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.82	0.61
11:AK:116:HIS:O	11:AK:117:ASN:HB2	2.00	0.61
16:AP:26:ARG:HB3	16:AP:26:ARG:NH1	2.15	0.61
20:AT:57:ARG:HH11	20:AT:57:ARG:HB2	1.65	0.61
27:B1:51:VAL:HG21	27:B1:74:VAL:HG21	1.81	0.61
36:BA:141:A:C8	36:BA:1408:C:O2'	2.52	0.61
36:BA:598:G:H5'	47:BP:15:ARG:HD2	1.82	0.61
36:BA:933:A:H2'	36:BA:934:G:O4'	2.00	0.61
36:BA:2469:A:H3'	36:BA:2470:G:O4'	2.00	0.61
37:BB:7:G:H3'	37:BB:8:U:C5'	2.22	0.61
37:BB:44:G:H1'	37:BB:47:C:N4	2.14	0.61
39:BD:8:PRO:HB3	39:BD:14:ARG:HB2	1.81	0.61
39:BD:36:PRO:HA	39:BD:62:TYR:O	2.00	0.61
44:BI:95:LYS:HA	44:BI:98:ALA:HB3	1.82	0.61
45:BN:9:VAL:HG12	45:BN:10:GLU:N	2.12	0.61
45:BN:11:PRO:HB3	45:BN:51:PHE:CE1	2.35	0.61
46:BO:14:THR:HG22	46:BO:14:THR:O	1.99	0.61
46:BO:22:ILE:HG12	46:BO:41:ALA:HA	1.81	0.61
47:BP:107:LYS:C	47:BP:109:GLY:H	2.03	0.61
51:BT:27:THR:HG23	51:BT:28:VAL:N	2.15	0.61
53:BV:6:LYS:HG3	53:BV:11:GLN:HG2	1.81	0.61
57:BZ:18:LEU:HD23	57:BZ:25:PRO:HG3	1.81	0.61
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.15	0.61
12:CL:25:PRO:C	12:CL:27:LEU:H	2.03	0.61
15:CO:23:GLY:O	15:CO:24:SER:HB3	2.01	0.61
21:CU:9:ARG:HH12	21:CU:22:ARG:HA	1.64	0.61
28:D2:35:LEU:HD21	28:D2:49:LYS:HB3	1.81	0.61
32:D6:10:LEU:H	32:D6:10:LEU:HD22	1.65	0.61
32:D6:46:HIS:HB3	32:D6:47:THR:N	2.16	0.61
36:DA:847:U:C2'	36:DA:848:G:H5"	2.25	0.61
36:DA:979:G:H3'	36:DA:980:A:C5'	2.28	0.61
36:DA:2364:C:H2'	36:DA:2365:G:O4'	2.01	0.61
40:DE:116:VAL:HG21	40:DE:122:PHE:CD2	2.35	0.61
41:DF:83:PHE:O	41:DF:85:GLY:N	2.33	0.61
42:DG:107:LEU:O	42:DG:112:PRO:HG2	2.00	0.61
43:DH:151:ILE:O	43:DH:152:ARG:HG2	2.01	0.61
43:DH:158:HIS:O	43:DH:159:GLU:HB2	2.00	0.61
45:DN:63:THR:HG22	45:DN:64:GLY:H	1.65	0.61
48:DQ:10:ARG:HG3	48:DQ:10:ARG:HH11	1.65	0.61
48:DQ:27:VAL:HG23	48:DQ:137:TYR:HE1	1.66	0.61
49:DR:2:ARG:NH1	49:DR:5:LYS:HE2	2.14	0.61
49:DR:78:LYS:O	49:DR:83:ILE:HG12	2.00	0.61
57:DZ:150:LEU:CD2	57:DZ:171:ILE:HD12	2.30	0.61
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.35	0.61
3:AC:69:HIS:HA	3:AC:104:GLN:O	2.00	0.61
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.15	0.61
10:AJ:45:ARG:HG3	10:AJ:45:ARG:NH1	2.13	0.61
11:AK:114:VAL:O	11:AK:114:VAL:HG13	2.00	0.61
23:AW:55:U:C5	23:AW:57:G:H5'	2.36	0.61
27:B1:18:ILE:HG13	27:B1:37:ILE:HG12	1.81	0.61
31:B5:52:TYR:OH	36:BA:2884:U:H1'	1.99	0.61
36:BA:360:G:H2'	36:BA:361:G:H8	1.65	0.61
36:BA:914:C:H2'	36:BA:915:C:C5'	2.24	0.61
36:BA:1396:U:H2'	36:BA:1396:U:O2	2.00	0.61
43:BH:158:HIS:O	43:BH:159:GLU:HB2	2.01	0.61
47:BP:146:VAL:HG22	47:BP:147:LEU:H	1.64	0.61
51:BT:29:ARG:HG3	51:BT:30:VAL:CG1	2.29	0.61
1:CA:806:C:O2'	1:CA:807:A:H5'	2.00	0.61
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.34	0.61
3:CC:94:LEU:HD12	3:CC:95:THR:N	2.15	0.61
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.82	0.61
5:CE:75:THR:HG23	5:CE:76:ILE:N	2.15	0.61
14:CN:37:PHE:CZ	14:CN:56:VAL:HG21	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CY:53:G:H2'	25:CY:54:U:C6	2.35	0.61
26:D0:53:MET:CB	26:D0:59:LEU:HD23	2.29	0.61
30:D4:37:PRO:O	30:D4:55:PRO:HG3	1.99	0.61
36:DA:1607:C:H4'	36:DA:1608:A:O5'	2.00	0.61
36:DA:2662:A:H2'	36:DA:2663:G:O4'	2.00	0.61
36:DA:2712:U:O2'	36:DA:2713:A:H5'	2.00	0.61
36:DA:2863:C:O2'	36:DA:2864:G:H5"	1.99	0.61
42:DG:132:ASN:OD1	42:DG:158:ALA:HB2	2.00	0.61
45:DN:26:LEU:HD21	45:DN:30:ILE:HD11	1.82	0.61
57:DZ:23:LYS:HD2	57:DZ:39:VAL:O	2.00	0.61
1:AA:1313:U:OP1	19:AS:6:LYS:HG3	2.01	0.61
4:AD:150:GLU:HA	4:AD:153:ARG:CD	2.21	0.61
9:AI:3:GLN:HG2	9:AI:20:ARG:HH12	1.65	0.61
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.00	0.61
14:AN:15:LYS:HD2	14:AN:16:PHE:CE2	2.35	0.61
16:AP:20:VAL:HG21	16:AP:32:TYR:HB2	1.83	0.61
36:BA:142:A:H5'	36:BA:142(A):C:OP2	2.01	0.61
36:BA:320:A:H4'	36:BA:322:A:C8	2.36	0.61
36:BA:528:A:H3'	36:BA:528:A:H8	1.65	0.61
36:BA:845:G:HO2'	36:BA:846:C:H5	1.47	0.61
36:BA:1403:C:H5"	36:BA:1471:A:C1'	2.31	0.61
36:BA:2728:U:O2'	36:BA:2729:G:H5'	2.00	0.61
46:BO:17:ARG:HD3	46:BO:47:ILE:HD13	1.82	0.61
47:BP:115:LEU:HA	47:BP:134:ALA:CB	2.29	0.61
49:BR:10:LEU:HD22	49:BR:17:ARG:CD	2.29	0.61
52:BU:66:ASN:CB	52:BU:76:TYR:HB2	2.30	0.61
53:BV:6:LYS:O	53:BV:37:VAL:HG21	2.01	0.61
1:CA:683:G:H2'	1:CA:684:A:C8	2.35	0.61
1:CA:1056:U:H5'	3:CC:163:ALA:HB2	1.82	0.61
2:CB:75:LYS:HG2	2:CB:78:GLN:HE21	1.64	0.61
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.20	0.61
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.81	0.61
15:CO:17:ARG:NH1	15:CO:77:ARG:NH1	2.48	0.61
32:D6:30:THR:HB	32:D6:31:PRO:HD2	1.81	0.61
36:DA:1348:G:C2'	36:DA:1349:A:H5"	2.29	0.61
38:DC:40:THR:HG21	38:DC:215:THR:CB	2.31	0.61
45:DN:78:TYR:N	45:DN:78:TYR:CD1	2.68	0.61
47:DP:85:LEU:HB3	47:DP:114:ILE:HD11	1.82	0.61
48:DQ:48:GLU:O	48:DQ:52:VAL:HG23	2.01	0.61
51:DT:92:GLY:C	51:DT:94:ALA:N	2.52	0.61
57:DZ:57:ILE:CG2	57:DZ:58:VAL:N	2.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	1.83	0.61
4:AD:13:ARG:O	4:AD:15:GLU:N	2.34	0.61
9:AI:21:PRO:HA	9:AI:58:ARG:O	2.00	0.61
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HG13	1.82	0.61
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.16	0.61
19:AS:12:ASP:O	19:AS:16:LEU:HD13	2.00	0.61
25:AY:18:G:H21	25:AY:60:U:H5	1.48	0.61
26:B0:41:ARG:HB3	36:BA:2330:G:H1'	1.82	0.61
36:BA:833:U:H1'	47:BP:55:ARG:HH11	1.64	0.61
36:BA:2345:G:H5"	36:BA:2347:C:O4'	2.00	0.61
40:BE:66:HIS:O	40:BE:66:HIS:HD2	1.83	0.61
45:BN:133:GLN:C	45:BN:134:ARG:HG3	2.21	0.61
47:BP:146:VAL:HG22	47:BP:147:LEU:N	2.15	0.61
51:BT:56:GLY:O	51:BT:59:THR:HG23	1.99	0.61
52:BU:69:CYS:CB	52:BU:79:PHE:HD1	2.14	0.61
53:BV:47:VAL:O	53:BV:47:VAL:HG23	2.00	0.61
56:BY:87:LYS:O	56:BY:88:LYS:HB2	1.99	0.61
57:BZ:57:ILE:HG22	57:BZ:58:VAL:N	2.14	0.61
1:CA:192:U:H4'	20:CT:57:ARG:HD2	1.83	0.61
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	1.83	0.61
1:CA:1305:G:C5'	21:CU:4:GLY:HA3	2.30	0.61
1:CA:1343:G:H1'	9:CI:121:ARG:HH12	1.66	0.61
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.15	0.61
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.15	0.61
20:CT:57:ARG:NH1	20:CT:102:GLY:HA2	2.15	0.61
27:D1:64:ALA:HA	27:D1:67:ILE:CG1	2.30	0.61
36:DA:2033:A:H4'	36:DA:2034:U:OP1	2.01	0.61
43:DH:159:GLU:CG	43:DH:160:LYS:N	2.63	0.61
46:DO:49:ARG:HG2	46:DO:49:ARG:NH1	2.12	0.61
46:DO:77:ILE:HD11	51:DT:72:VAL:CG1	2.31	0.61
47:DP:89:ALA:HA	47:DP:121:LYS:HD3	1.81	0.61
53:DV:82:ARG:HG2	53:DV:82:ARG:HH11	1.66	0.61
2:AB:76:GLN:HB3	2:AB:206:ASP:O	2.01	0.61
4:AD:30:LYS:C	4:AD:32:ALA:N	2.53	0.61
4:AD:158:ILE:HG22	4:AD:181:MET:HE2	1.80	0.61
7:AG:50:ILE:O	7:AG:54:THR:HG23	2.00	0.61
8:AH:9:MET:HB2	8:AH:26:VAL:HG21	1.83	0.61
9:AI:4:TYR:H	9:AI:4:TYR:HD1	1.49	0.61
9:AI:4:TYR:N	9:AI:4:TYR:CD1	2.69	0.61
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.81	0.61
18:AR:61:LYS:HG2	18:AR:65:ILE:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B8:28:GLY:O	34:B8:32:LEU:HG	2.00	0.61
36:BA:271(Q):G:HO2'	36:BA:271(R):G:H8	1.49	0.61
36:BA:2481:G:HO2'	36:BA:2482:G:P	2.22	0.61
36:BA:2880:C:O2'	49:BR:90:ARG:HD3	2.01	0.61
37:BB:20:C:H2'	37:BB:21:G:C5'	2.16	0.61
42:BG:46:ALA:HB3	42:BG:82:LEU:CD1	2.30	0.61
43:BH:89:ILE:HD12	43:BH:90:LYS:N	2.15	0.61
44:BI:76:THR:O	44:BI:77:LEU:O	2.18	0.61
45:BN:66:LYS:O	45:BN:87:LEU:HD12	2.00	0.61
48:BQ:10:ARG:HH11	48:BQ:10:ARG:HG3	1.66	0.61
48:BQ:39:PRO:HD3	48:BQ:99:PRO:HG3	1.83	0.61
49:BR:67:LEU:HD13	49:BR:76:VAL:HG21	1.83	0.61
51:BT:117:ASP:OD2	51:BT:120:ARG:HG3	2.01	0.61
1:CA:956:U:O2'	1:CA:957:U:H5'	2.00	0.61
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.01	0.61
1:CA:1265:G:H22	1:CA:1271:G:H1'	1.65	0.61
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.04	0.61
6:CF:75:LEU:HD23	6:CF:79:LEU:HG	1.83	0.61
6:CF:78:GLU:O	6:CF:81:ILE:HG13	2.00	0.61
8:CH:51:VAL:HG11	8:CH:60:ARG:HG3	1.82	0.61
9:CI:95:LYS:O	9:CI:99:LEU:HB3	2.01	0.61
20:CT:57:ARG:HB2	20:CT:57:ARG:HH11	1.64	0.61
22:CV:43:A:H3'	22:CV:44:A:H8	1.66	0.61
27:D1:80:LEU:O	27:D1:82:LEU:HD22	2.00	0.61
36:DA:212:G:O2'	36:DA:213:A:H5'	2.01	0.61
36:DA:1170:G:H1	36:DA:1179:C:N4	1.96	0.61
36:DA:1221(A):C:H2'	36:DA:1222:C:H6	1.66	0.61
36:DA:1697:G:C3'	36:DA:1698:A:H5"	2.29	0.61
36:DA:1879:C:H2'	36:DA:1880:C:C5'	2.16	0.61
36:DA:2087:G:O2'	36:DA:2088:G:H5'	2.00	0.61
36:DA:2310:A:O2'	36:DA:2311:A:H5'	2.00	0.61
36:DA:2650:U:O2'	36:DA:2651:C:H5'	2.01	0.61
41:DF:67:GLN:O	41:DF:68:LYS:HB2	1.99	0.61
44:DI:114:LEU:O	44:DI:115:ALA:HB3	1.99	0.61
46:DO:104:ARG:NH2	51:DT:33:LYS:HE2	2.13	0.61
53:DV:45:THR:O	53:DV:46:VAL:HG12	2.01	0.61
56:DY:13:VAL:HA	56:DY:75:ILE:HG22	1.82	0.61
57:DZ:117:LEU:CA	57:DZ:174:VAL:HG22	2.30	0.61
1:AA:959:A:H3'	1:AA:960:U:H5"	1.82	0.61
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.36	0.61
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:108:ARG:HA	13:AM:108:ARG:HH11	1.66	0.61
14:AN:37:PHE:CZ	14:AN:56:VAL:HG21	2.30	0.61
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.01	0.61
20:AT:14:LYS:HB2	20:AT:17:ARG:NH2	2.16	0.61
32:B6:46:HIS:HB3	32:B6:47:THR:N	2.15	0.61
36:BA:444:C:O2'	36:BA:445:C:H5'	2.01	0.61
36:BA:1658:C:OP1	40:BE:132:HIS:O	2.19	0.61
36:BA:1697:G:C3'	36:BA:1698:A:H5"	2.27	0.61
36:BA:1926:U:H2'	36:BA:1928:A:OP2	2.01	0.61
36:BA:1961:C:O2'	36:BA:1962:C:H5'	2.01	0.61
36:BA:2227:A:H5'	39:BD:263:ARG:HH11	1.66	0.61
36:BA:2287:A:N1	36:BA:2346:A:H2	1.98	0.61
36:BA:2502:G:H5"	36:BA:2503:A:C5'	2.28	0.61
36:BA:2779:U:H4'	36:BA:2780:G:H5"	1.83	0.61
39:BD:211:ARG:HA	39:BD:214:TRP:CD2	2.35	0.61
40:BE:43:GLY:O	40:BE:44:TYR:HB3	1.99	0.61
42:BG:56:ALA:HB2	42:BG:153:ARG:NE	2.16	0.61
47:BP:101:VAL:C	47:BP:103:ALA:H	2.03	0.61
51:BT:88:ILE:HG22	51:BT:89:VAL:CG2	2.26	0.61
1:CA:939:G:H5"	7:CG:102:ARG:HH22	1.66	0.61
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.00	0.61
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.35	0.61
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.36	0.61
2:CB:96:ARG:HH11	2:CB:148:TYR:HE1	1.47	0.61
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.01	0.61
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.01	0.61
10:CJ:46:ARG:HG2	10:CJ:64:GLU:HB3	1.83	0.61
25:CY:55:U:H2'	25:CY:55:U:O2	2.01	0.61
26:D0:41:ARG:CB	36:DA:2330:G:H1'	2.31	0.61
36:DA:1198:U:H2'	36:DA:1199:U:C6	2.35	0.61
36:DA:1495:A:N3	36:DA:1496:A:C2	2.69	0.61
36:DA:2789:C:H1'	36:DA:2892:A:H2	1.66	0.61
36:DA:2807:G:H3'	36:DA:2808:U:H5"	1.82	0.61
41:DF:2:LYS:H	41:DF:2:LYS:CD	2.08	0.61
41:DF:8:GLN:CB	41:DF:126:VAL:HA	2.29	0.61
42:DG:37:VAL:HB	42:DG:94:LEU:HB2	1.82	0.61
43:DH:125:VAL:HG12	43:DH:127:GLU:O	2.01	0.61
44:DI:65:ALA:HB1	44:DI:131:LYS:HG2	1.83	0.61
48:DQ:12:GLN:NE2	48:DQ:72:LYS:HA	2.16	0.61
49:DR:63:ARG:HA	49:DR:80:PHE:CE2	2.34	0.61
51:DT:35:LYS:HZ1	51:DT:41:ARG:HH21	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:128:VAL:HG23	57:DZ:160:GLY:O	2.01	0.61
1:AA:956:U:O2'	1:AA:957:U:H5'	2.01	0.61
2:AB:7:VAL:O	2:AB:11:LEU:HD12	2.01	0.61
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.06	0.61
3:AC:94:LEU:HD12	3:AC:95:THR:N	2.16	0.61
4:AD:197:PRO:CD	6:CF:16:GLN:HE21	2.12	0.61
18:AR:44:LEU:HD11	18:AR:79:LEU:HD22	1.83	0.61
23:AW:56:C:H2'	23:AW:57:G:H8	1.64	0.61
27:B1:41:ARG:NH1	36:BA:1365:A:OP1	2.34	0.61
36:BA:528:A:C2	36:BA:2043:C:C5'	2.84	0.61
36:BA:614(C):A:O2'	36:BA:615:G:O4'	2.13	0.61
36:BA:1495:A:N3	36:BA:1496:A:C2	2.69	0.61
36:BA:1686:C:H5'	36:BA:1686:C:C6	2.33	0.61
36:BA:1810:A:H2'	36:BA:1811:G:O4'	2.00	0.61
36:BA:2033:A:H4'	36:BA:2034:U:OP1	2.00	0.61
36:BA:2555:U:H2'	36:BA:2556:C:H5'	1.83	0.61
36:BA:2571:C:C5'	36:BA:2572:A:H5"	2.31	0.61
36:BA:2740:A:H2'	36:BA:2741:A:C8	2.35	0.61
38:BC:58:VAL:HG21	38:BC:166:ASP:N	2.01	0.61
39:BD:44:ASN:OD1	39:BD:44:ASN:N	2.33	0.61
39:BD:154:LYS:C	39:BD:155:LEU:HD12	2.22	0.61
39:BD:155:LEU:HD23	39:BD:177:LEU:HD21	1.81	0.61
46:BO:111:PHE:O	46:BO:115:VAL:HG23	2.00	0.61
47:BP:85:LEU:HB3	47:BP:114:ILE:HD11	1.83	0.61
50:BS:14:VAL:HG12	50:BS:15:ARG:H	1.64	0.61
51:BT:19:LEU:H	51:BT:19:LEU:HD12	1.66	0.61
53:BV:19:LYS:HE2	53:BV:19:LYS:HA	1.82	0.61
54:BW:76:VAL:HG23	54:BW:103:ILE:HA	1.81	0.61
57:BZ:30:ASN:OD1	57:BZ:33:LEU:HB3	2.01	0.61
1:CA:838:G:H2'	1:CA:839:U:H5"	1.83	0.61
2:CB:112:VAL:HG11	2:CB:153:ARG:HA	1.83	0.61
3:CC:150:LYS:HA	3:CC:169:ALA:HB2	1.83	0.61
25:CY:23:A:H2'	25:CY:24:G:H8	1.66	0.61
32:D6:20:ASN:HD22	32:D6:21:TYR:H	1.49	0.61
36:DA:2406:U:O4	47:DP:70:GLN:HB3	2.00	0.61
36:DA:2555:U:H2'	36:DA:2556:C:H5'	1.81	0.61
39:DD:43:ARG:NH1	39:DD:44:ASN:ND2	2.48	0.61
42:DG:13:GLU:O	42:DG:14:GLU:CB	2.49	0.61
42:DG:52:ILE:O	42:DG:54:GLU:N	2.34	0.61
45:DN:133:GLN:C	45:DN:134:ARG:HG3	2.21	0.61
50:DS:53:SER:OG	50:DS:54:LEU:HD22	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1003:G:H2'	1:AA:1004:A:O4'	2.01	0.61
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.36	0.61
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.36	0.61
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.15	0.61
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.36	0.61
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.65	0.61
28:B2:65:ASN:HD22	28:B2:69:ARG:NH2	1.99	0.61
36:BA:1666:G:C2'	36:BA:1667:G:H5'	2.30	0.61
36:BA:1880:C:H6	36:BA:1880:C:C5'	2.11	0.61
36:BA:2023:G:H5'	36:BA:2617:C:H4'	1.82	0.61
36:BA:2024:G:H2'	36:BA:2025:C:H6	1.66	0.61
36:BA:2359:C:H2'	36:BA:2360:A:O4'	2.01	0.61
36:BA:2720:U:H5'	36:BA:2721:A:OP2	2.01	0.61
38:BC:38:ASP:HB2	38:BC:181:PRO:CB	2.31	0.61
41:BF:9:ILE:HG12	41:BF:14:PRO:HA	1.83	0.61
43:BH:17:VAL:O	43:BH:17:VAL:HG12	2.01	0.61
44:BI:104:GLN:O	44:BI:105:HIS:HD2	1.84	0.61
44:BI:145:VAL:HG12	44:BI:146:ALA:N	2.15	0.61
49:BR:78:LYS:O	49:BR:83:ILE:HG12	2.01	0.61
50:BS:76:LYS:O	50:BS:80:LEU:HD13	2.01	0.61
51:BT:35:LYS:CE	51:BT:41:ARG:HE	2.13	0.61
1:CA:1281:U:H5'	1:CA:1282:C:OP2	2.00	0.61
1:CA:1302:U:H5	13:CM:17:VAL:HG21	1.66	0.61
3:CC:36:ASP:OD2	3:CC:57:ILE:HG21	2.00	0.61
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.01	0.61
14:CN:26:ARG:HH22	14:CN:47:LEU:CD2	2.11	0.61
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.01	0.61
25:CY:64:A:H2'	25:CY:65:G:H8	1.64	0.61
36:DA:1490:A:H5'	36:DA:1491:G:OP2	2.01	0.61
36:DA:1666:G:O3'	46:DO:6:THR:HG23	2.01	0.61
36:DA:2025:C:H2'	36:DA:2026:C:H6	1.65	0.61
40:DE:78:LEU:O	40:DE:79:ARG:HD2	2.00	0.61
42:DG:59:GLU:HA	42:DG:62:LEU:HB2	1.83	0.61
46:DO:17:ARG:HD3	46:DO:47:ILE:HD13	1.82	0.61
47:DP:35:HIS:O	47:DP:36:LYS:HB2	2.01	0.61
48:DQ:39:PRO:HD3	48:DQ:99:PRO:HG3	1.83	0.61
48:DQ:66:ILE:HG22	48:DQ:104:PHE:HE2	1.66	0.61
53:DV:28:GLU:HB3	53:DV:29:PRO:HD2	1.82	0.61
53:DV:68:LYS:HB2	53:DV:68:LYS:NZ	2.15	0.61
57:DZ:19:ARG:HH12	57:DZ:84:GLU:HA	1.65	0.61
1:AA:17:U:H2'	1:AA:18:C:H6	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:838:G:H2'	1:AA:839:U:H5"	1.83	0.60
1:AA:1319:A:OP2	19:AS:5:LEU:HG	2.00	0.60
3:AC:79:ARG:NH1	11:CK:99:GLN:HB3	2.16	0.60
10:AJ:13:HIS:HD1	10:AJ:14:LYS:HG3	1.67	0.60
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.14	0.60
22:AV:52:G:O2'	22:AV:53:G:H8	1.80	0.60
36:BA:141:A:H8	36:BA:1408:C:O2'	1.83	0.60
36:BA:1198:U:H2'	36:BA:1199:U:C6	2.36	0.60
36:BA:1378:A:H4'	36:BA:1379:A:OP1	2.01	0.60
36:BA:1980:G:O2'	36:BA:1982:C:OP2	2.19	0.60
36:BA:2152:G:H2'	36:BA:2153:G:C8	2.35	0.60
36:BA:2689:U:H4'	36:BA:2690:C:H6	1.66	0.60
36:BA:2737:G:H2'	36:BA:2738:A:H8	1.65	0.60
38:BC:76:ALA:C	38:BC:78:ALA:H	2.02	0.60
41:BF:39:TRP:O	41:BF:43:LYS:HG2	2.01	0.60
41:BF:67:GLN:O	41:BF:68:LYS:HB2	2.00	0.60
42:BG:120:LEU:N	42:BG:179:PRO:O	2.33	0.60
51:BT:92:GLY:HA2	51:BT:114:LEU:HA	1.83	0.60
52:BU:92:ARG:O	52:BU:94:ASN:N	2.30	0.60
1:CA:303:A:OP1	12:CL:17:LYS:HE3	2.01	0.60
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.83	0.60
9:CI:4:TYR:N	9:CI:4:TYR:CD1	2.69	0.60
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.48	0.60
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.26	0.60
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.66	0.60
36:DA:221:A:H4'	36:DA:222:A:O5'	2.01	0.60
36:DA:2498:C:O2'	36:DA:2499:C:H5'	2.02	0.60
38:DC:76:ALA:C	38:DC:78:ALA:H	2.03	0.60
44:DI:145:VAL:HG12	44:DI:146:ALA:N	2.15	0.60
45:DN:4:TYR:HB2	52:DU:64:ARG:NH2	2.15	0.60
46:DO:53:LYS:N	46:DO:53:LYS:HD2	2.16	0.60
47:DP:16:ARG:HH11	47:DP:16:ARG:C	2.04	0.60
48:DQ:54:MET:CB	48:DQ:64:ILE:HD13	2.18	0.60
50:DS:15:ARG:HB3	50:DS:18:ILE:CG2	2.31	0.60
50:DS:101:LEU:CD2	50:DS:104:GLY:H	2.13	0.60
53:DV:2:PHE:O	53:DV:3:ALA:HB3	2.01	0.60
1:AA:477:A:O2'	1:AA:479:C:H5'	2.01	0.60
1:AA:532:A:H2	1:AA:1207:G:C4'	2.12	0.60
10:AJ:40:LEU:HB2	10:AJ:41:PRO:CD	2.23	0.60
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.01	0.60
25:AY:26:A:H2'	25:AY:27:G:H5'	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:19:GLN:HB2	27:B1:35:THR:HG22	1.83	0.60
35:B9:8:LYS:HE3	36:BA:1032:A:OP1	2.01	0.60
36:BA:228:A:H5'	36:BA:229:A:OP2	2.01	0.60
36:BA:541:C:H2'	36:BA:542:C:C5	2.35	0.60
36:BA:1490:A:H5'	36:BA:1491:G:OP2	2.02	0.60
38:BC:77:ILE:HB	38:BC:122:ALA:HA	1.82	0.60
40:BE:28:ALA:HB3	40:BE:93:VAL:HG22	1.83	0.60
40:BE:59:VAL:O	40:BE:60:ASN:CB	2.49	0.60
47:BP:93:GLY:O	47:BP:123:LEU:HB2	2.00	0.60
48:BQ:133:ARG:HG3	48:BQ:133:ARG:NH1	2.17	0.60
48:BQ:140:ALA:C	57:BZ:53:ILE:HD13	2.20	0.60
51:BT:106:SER:HA	51:BT:110:ILE:CG1	2.26	0.60
3:CC:11:ARG:HG2	3:CC:11:ARG:HH11	1.65	0.60
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.83	0.60
6:CF:98:LEU:H	6:CF:98:LEU:HD12	1.64	0.60
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.83	0.60
19:CS:9:VAL:O	19:CS:9:VAL:HG12	2.01	0.60
23:CW:69:G:C3'	23:CW:70:G:H5"	2.31	0.60
36:DA:792:G:H5"	36:DA:793:A:H5'	1.82	0.60
36:DA:1001:A:H2'	36:DA:1002:G:O4'	2.01	0.60
36:DA:1430:C:H2'	36:DA:1431:U:H6	1.63	0.60
36:DA:2208:A:H1'	36:DA:2219:G:C2	2.36	0.60
36:DA:2310:A:O2'	36:DA:2311:A:C5'	2.49	0.60
36:DA:2533:A:H3'	36:DA:2534:A:H5"	1.83	0.60
39:DD:109:ASP:HB2	39:DD:197:GLY:HA2	1.82	0.60
41:DF:9:ILE:HG12	41:DF:14:PRO:HA	1.83	0.60
42:DG:61:ALA:HA	42:DG:66:GLN:O	2.01	0.60
43:DH:30:LYS:HB2	43:DH:79:VAL:HA	1.82	0.60
46:DO:4:PRO:O	46:DO:5:GLN:CB	2.49	0.60
50:DS:28:VAL:HB	50:DS:89:ARG:CG	2.30	0.60
51:DT:28:VAL:HG11	51:DT:46:GLU:OE1	2.00	0.60
1:AA:1279:A:H61	3:AC:26:LYS:NZ	1.99	0.60
36:BA:99:U:H4'	36:BA:102:G:H1'	1.83	0.60
36:BA:1339:G:N2	36:BA:1603:A:H1'	2.16	0.60
36:BA:1528:A:H2'	36:BA:1528:A:N3	2.16	0.60
40:BE:199:ARG:HH11	40:BE:199:ARG:CB	2.14	0.60
45:BN:28:THR:HG23	45:BN:29:LYS:HG3	1.83	0.60
57:BZ:10:ARG:HH21	57:BZ:26:GLY:H	1.49	0.60
36:DA:583:G:OP2	52:DU:10:ARG:NH1	2.32	0.60
36:DA:1827:C:C2'	36:DA:1828:G:H5'	2.31	0.60
36:DA:1858:G:H2'	36:DA:1883:G:H22	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2522:U:O2'	36:DA:2647:U:H5"	2.02	0.60
40:DE:59:VAL:O	40:DE:60:ASN:CB	2.48	0.60
44:DI:110:ASP:O	44:DI:112:LYS:N	2.32	0.60
57:DZ:5:LEU:HB3	57:DZ:59:LEU:HD22	1.83	0.60
1:AA:353:A:H5'	1:AA:353:A:H8	1.65	0.60
1:AA:624:C:H2'	1:AA:625:G:H8	1.64	0.60
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.36	0.60
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.16	0.60
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.66	0.60
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.02	0.60
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.00	0.60
18:AR:70:ILE:HG22	18:AR:74:ARG:HD2	1.84	0.60
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.81	0.60
20:AT:46:GLU:CD	20:AT:48:LYS:HE2	2.20	0.60
28:B2:29:LYS:HD3	28:B2:57:ILE:HG21	1.83	0.60
31:B5:25:LEU:HD12	54:BW:19:LEU:O	2.02	0.60
36:BA:285:C:H2'	36:BA:286:C:O4'	2.02	0.60
36:BA:2147:G:H2'	36:BA:2148:G:O4'	2.01	0.60
36:BA:2148:G:O2'	36:BA:2149:G:H5'	2.00	0.60
39:BD:43:ARG:NH1	39:BD:44:ASN:ND2	2.49	0.60
39:BD:77:ALA:CB	39:BD:97:TYR:HA	2.31	0.60
39:BD:267:SER:HA	39:BD:270:ILE:HG13	1.82	0.60
44:BI:6:LEU:O	44:BI:7:GLU:C	2.39	0.60
55:BX:57:LEU:HD22	55:BX:57:LEU:O	2.01	0.60
57:BZ:40:ASP:OD1	57:BZ:42:VAL:HG12	2.02	0.60
4:CD:63:LYS:HD2	4:CD:198:VAL:CG2	2.32	0.60
6:CF:30:LEU:HB3	6:CF:35:ALA:HB3	1.83	0.60
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.30	0.60
13:CM:8:GLU:C	13:CM:9:ILE:HD12	2.22	0.60
36:DA:887:A:H1'	36:DA:889:C:N4	2.16	0.60
36:DA:933:A:H2'	36:DA:934:G:O4'	2.01	0.60
36:DA:1658:C:OP1	40:DE:132:HIS:O	2.19	0.60
36:DA:1779:U:C5	36:DA:1784:A:N7	2.63	0.60
36:DA:1961:C:O2'	36:DA:1962:C:H5'	2.00	0.60
36:DA:1987:G:H5'	36:DA:1987:G:C8	2.36	0.60
36:DA:2728:U:O2'	36:DA:2729:G:H5'	2.01	0.60
38:DC:38:ASP:HB2	38:DC:181:PRO:CB	2.31	0.60
39:DD:92:ILE:H	39:DD:92:ILE:HD13	1.65	0.60
42:DG:37:VAL:CG2	42:DG:99:MET:HG3	2.32	0.60
43:DH:47:GLU:HG2	43:DH:48:GLY:N	2.15	0.60
45:DN:18:ALA:HB1	45:DN:21:LYS:CB	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:96:THR:O	47:DP:100:LEU:HD23	2.01	0.60
52:DU:69:CYS:CB	52:DU:79:PHE:HD1	2.13	0.60
52:DU:96:ALA:C	52:DU:98:LEU:H	2.05	0.60
53:DV:19:LYS:HZ3	53:DV:20:LEU:H	1.49	0.60
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.32	0.60
2:AB:164:VAL:HB	2:AB:186:ALA:CB	2.32	0.60
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.84	0.60
11:AK:125:PHE:N	11:AK:125:PHE:HD1	1.99	0.60
31:B5:3:LYS:HE2	36:BA:2611:U:O2'	2.01	0.60
34:B8:13:ARG:NH2	36:BA:250:G:OP2	2.34	0.60
36:BA:1827:C:C2'	36:BA:1828:G:H5'	2.31	0.60
36:BA:2807:G:H3'	36:BA:2808:U:H5"	1.82	0.60
39:BD:35:LYS:HZ2	39:BD:103:ARG:HA	1.67	0.60
42:BG:61:ALA:HA	42:BG:64:THR:CG2	2.30	0.60
43:BH:84:SER:O	43:BH:85:LYS:HB3	2.01	0.60
45:BN:57:ALA:N	45:BN:124:ALA:HA	2.15	0.60
49:BR:12:ARG:HD3	49:BR:16:HIS:ND1	2.17	0.60
54:BW:24:ILE:CG2	54:BW:36:LEU:HD21	2.32	0.60
12:CL:43:VAL:HG23	12:CL:44:THR:N	2.15	0.60
13:CM:34:LEU:HD13	13:CM:41:PRO:HA	1.83	0.60
19:CS:6:LYS:CD	19:CS:6:LYS:H	2.13	0.60
25:CY:26:A:H2'	25:CY:27:G:O4'	2.02	0.60
26:D0:3:HIS:N	26:D0:3:HIS:CD2	2.69	0.60
31:D5:16:ARG:NH2	36:DA:517:C:OP1	2.35	0.60
32:D6:20:ASN:ND2	32:D6:21:TYR:H	1.98	0.60
36:DA:94(A):G:H2'	36:DA:95:G:O4'	2.02	0.60
36:DA:896:A:H1'	57:DZ:146:ILE:HD12	1.82	0.60
36:DA:1270:C:H5"	36:DA:1271:G:O5'	2.01	0.60
36:DA:2147:G:H2'	36:DA:2148:G:O4'	2.02	0.60
36:DA:2571:C:H5"	36:DA:2572:A:H5"	1.84	0.60
39:DD:158:ALA:HB3	39:DD:161:THR:HG21	1.83	0.60
40:DE:116:VAL:O	40:DE:117:MET:CB	2.48	0.60
42:DG:99:MET:O	42:DG:103:LEU:HD21	2.01	0.60
45:DN:24:GLY:O	45:DN:28:THR:HB	2.01	0.60
55:DX:57:LEU:HD22	55:DX:57:LEU:O	2.02	0.60
57:DZ:61:LEU:HB3	57:DZ:62:PRO:HD2	1.84	0.60
57:DZ:104:PHE:O	57:DZ:106:GLY:N	2.35	0.60
1:AA:348:G:O2'	1:AA:349:A:H5'	2.01	0.60
1:AA:350:G:O2'	1:AA:351:G:H5'	2.01	0.60
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.82	0.60
1:AA:580:U:H2'	1:AA:581:G:O4'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:806:C:O2'	1:AA:807:A:H5'	2.01	0.60
1:AA:1117:G:O3'	9:AI:104:ARG:HG3	2.02	0.60
1:AA:1442(A):G:H3'	1:AA:1442(B):A:H5'	1.83	0.60
3:AC:5:ILE:C	3:AC:5:ILE:HD12	2.21	0.60
4:AD:63:LYS:HD2	4:AD:198:VAL:CG2	2.30	0.60
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.65	0.60
9:AI:99:LEU:HD13	9:AI:99:LEU:O	2.02	0.60
25:AY:59:U:C3'	25:AY:60:U:H5"	2.31	0.60
26:B0:3:HIS:CD2	26:B0:3:HIS:N	2.69	0.60
27:B1:45:ASN:ND2	27:B1:47:GLN:HE21	1.99	0.60
28:B2:18:PRO:HG2	28:B2:19:VAL:H	1.66	0.60
36:BA:174:C:C3'	36:BA:175:G:H5"	2.31	0.60
36:BA:528:A:H2	36:BA:2043:C:H5'	1.65	0.60
36:BA:674:G:O2'	41:BF:74:ARG:HD3	2.02	0.60
41:BF:167:ALA:O	41:BF:170:LEU:HB2	2.01	0.60
47:BP:56:SER:O	47:BP:58:THR:N	2.34	0.60
56:BY:13:VAL:HA	56:BY:75:ILE:HG22	1.81	0.60
56:BY:17:SER:OG	56:BY:18:GLY:N	2.33	0.60
56:BY:42:VAL:HG23	56:BY:67:LEU:HD23	1.82	0.60
1:CA:107:G:H2'	1:CA:108:G:H5'	1.83	0.60
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.83	0.60
1:CA:1194:U:H4'	5:CE:22:GLY:CA	2.31	0.60
2:CB:80:ILE:HD13	2:CB:211:ILE:HG22	1.82	0.60
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.17	0.60
5:CE:31:LEU:HD13	5:CE:43:LEU:HD11	1.81	0.60
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.34	0.60
9:CI:56:LEU:O	9:CI:56:LEU:HD23	2.00	0.60
34:D8:43:GLN:O	34:D8:44:LYS:HD2	2.01	0.60
36:DA:363(E):U:H2'	36:DA:363(F):A:C1'	2.31	0.60
36:DA:614(C):A:O2'	36:DA:615:G:O4'	2.14	0.60
36:DA:1926:U:H2'	36:DA:1928:A:OP2	2.00	0.60
36:DA:2023:G:H5'	36:DA:2617:C:H4'	1.82	0.60
36:DA:2389:G:H5"	36:DA:2390:U:O4'	2.01	0.60
42:DG:114:ILE:CB	42:DG:117:PHE:HB2	2.31	0.60
42:DG:161:THR:OG1	42:DG:163:ALA:HB3	2.02	0.60
44:DI:81:VAL:HG13	44:DI:88:ILE:HG21	1.83	0.60
47:DP:97:PRO:HD3	47:DP:126:VAL:O	2.01	0.60
49:DR:4:LEU:O	49:DR:4:LEU:HD22	2.01	0.60
1:AA:222:U:H2'	1:AA:223:U:C6	2.37	0.60
1:AA:277:C:O2'	1:AA:278:G:H5'	2.01	0.60
1:AA:627:G:O2'	1:AA:628:G:H5'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:637:G:H2'	1:AA:638:G:C8	2.36	0.60
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.01	0.60
9:AI:95:LYS:O	9:AI:99:LEU:HB3	2.02	0.60
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.21	0.60
25:AY:19:G:N1	36:BA:881:G:H4'	2.17	0.60
31:B5:32:PRO:O	31:B5:33:CYS:CB	2.48	0.60
36:BA:221:A:H4'	36:BA:222:A:O5'	2.01	0.60
36:BA:994:C:H2'	52:BU:54:LYS:HE3	1.82	0.60
36:BA:1165:U:H2'	36:BA:1166:C:H6	1.65	0.60
36:BA:1202:C:H2'	36:BA:1203:G:H5'	1.82	0.60
36:BA:1482:G:N2	36:BA:1507:A:H1'	2.17	0.60
36:BA:1639:U:O2'	36:BA:1640:C:H5"	2.01	0.60
36:BA:1887:C:C3'	36:BA:1888:G:H5"	2.32	0.60
39:BD:45:ASN:CG	39:BD:46:GLN:N	2.54	0.60
43:BH:116:GLU:HG2	43:BH:117:PRO:HD2	1.83	0.60
50:BS:69:VAL:O	50:BS:72:ALA:HB3	2.01	0.60
57:BZ:5:LEU:HD12	57:BZ:6:LYS:H	1.67	0.60
1:CA:57:G:H2'	1:CA:58:C:H6	1.65	0.60
1:CA:624:C:H2'	1:CA:625:G:H8	1.65	0.60
2:CB:126:GLU:C	2:CB:128:GLU:H	2.03	0.60
3:CC:34:LEU:HD21	3:CC:38:ARG:NH2	2.16	0.60
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.60	0.60
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	2.02	0.60
11:CK:12:ARG:CG	11:CK:13:GLN:N	2.64	0.60
13:CM:90:LEU:O	13:CM:91:ARG:HB2	2.01	0.60
34:D8:50:LEU:C	34:D8:53:PRO:HD2	2.21	0.60
36:DA:267:C:H2'	36:DA:268:C:H6	1.65	0.60
36:DA:1991:U:H2'	36:DA:1992:G:H5"	1.83	0.60
36:DA:2653:U:O2'	43:DH:110:SER:HB2	2.01	0.60
40:DE:3:GLY:HA3	40:DE:81:ILE:CG2	2.28	0.60
40:DE:75:VAL:O	40:DE:77:ILE:N	2.35	0.60
40:DE:101:ARG:HD3	40:DE:169:ASN:HD21	1.67	0.60
41:DF:181:LEU:HD11	41:DF:186:ILE:HD11	1.84	0.60
44:DI:79:ILE:HG22	44:DI:81:VAL:HG23	1.83	0.60
46:DO:22:ILE:HG12	46:DO:41:ALA:HA	1.83	0.60
56:DY:76:CYS:HG	56:DY:77:PRO:HD2	1.65	0.60
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.82	0.60
3:AC:34:LEU:HD21	3:AC:38:ARG:NH2	2.17	0.60
5:AE:126:ARG:HG3	5:AE:126:ARG:NH1	2.06	0.60
11:AK:12:ARG:CG	11:AK:13:GLN:N	2.65	0.60
13:AM:123:ALA:HB2	25:AY:39:U:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:46:LEU:HB3	27:B1:63:ALA:HA	1.84	0.60
36:BA:887:A:H1'	36:BA:889:C:N4	2.16	0.60
36:BA:1246:A:OP2	47:BP:18:ARG:HG3	2.01	0.60
36:BA:2730:C:O2'	36:BA:2731:G:H5'	2.01	0.60
38:BC:40:THR:HG21	38:BC:215:THR:CB	2.32	0.60
39:BD:26:LYS:NZ	39:BD:82:ILE:O	2.35	0.60
39:BD:83:GLU:HB2	39:BD:92:ILE:HD11	1.84	0.60
45:BN:48:MET:H	45:BN:48:MET:CE	2.15	0.60
47:BP:35:HIS:O	47:BP:36:LYS:HB2	2.02	0.60
47:BP:89:ALA:HA	47:BP:121:LYS:HD3	1.83	0.60
53:BV:4:ILE:HG22	53:BV:4:ILE:O	2.02	0.60
53:BV:68:LYS:HB2	53:BV:68:LYS:NZ	2.17	0.60
54:BW:73:ALA:HB3	54:BW:106:ILE:HD11	1.84	0.60
56:BY:43:ASN:O	56:BY:44:ILE:O	2.20	0.60
10:CJ:13:HIS:HD1	10:CJ:14:LYS:HG3	1.67	0.60
16:CP:82:GLN:N	16:CP:82:GLN:HE21	2.00	0.60
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	2.14	0.60
36:DA:874:G:H2'	36:DA:875:G:H8	1.65	0.60
36:DA:2100:G:H1	36:DA:2189:U:H3	1.50	0.60
38:DC:47:LEU:H	38:DC:47:LEU:HD23	1.67	0.60
40:DE:2:LYS:HE2	40:DE:95:ILE:CG2	2.31	0.60
40:DE:28:ALA:HB3	40:DE:93:VAL:HG22	1.84	0.60
42:DG:115:ARG:NE	42:DG:116:ASP:HB2	2.17	0.60
43:DH:89:ILE:HD12	43:DH:90:LYS:N	2.17	0.60
48:DQ:133:ARG:HG3	48:DQ:133:ARG:NH1	2.16	0.60
51:DT:91:ARG:HA	51:DT:117:ASP:N	2.15	0.60
52:DU:69:CYS:SG	52:DU:79:PHE:HD1	2.25	0.60
1:AA:179:A:H2'	1:AA:180:U:H6	1.64	0.60
1:AA:729:A:H2'	1:AA:730:G:H8	1.66	0.60
1:AA:1014:A:H2	1:AA:1219:U:H1'	1.67	0.60
2:AB:23:ARG:HG2	2:AB:23:ARG:HH11	1.67	0.60
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.37	0.60
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.02	0.60
6:AF:71:ARG:HG3	6:AF:71:ARG:HH11	1.66	0.60
7:AG:148:ASN:C	7:AG:150:ALA:N	2.55	0.60
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.83	0.60
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.17	0.60
23:AW:27:G:H2'	23:AW:28:G:C8	2.36	0.60
32:B6:25:LYS:HD3	34:B8:34:TRP:HZ2	1.67	0.60
36:BA:559:G:H22	52:BU:49:HIS:CD2	2.20	0.60
36:BA:888:C:C2'	36:BA:889:C:H5'	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2593:U:H2'	36:BA:2594:C:C6	2.37	0.60
36:BA:2711:A:H5"	36:BA:2712:U:H5'	1.83	0.60
39:BD:27:THR:CG2	39:BD:83:GLU:HG2	2.31	0.60
44:BI:140:LEU:HD12	44:BI:141:LYS:H	1.65	0.60
46:BO:53:LYS:HD2	46:BO:53:LYS:N	2.17	0.60
48:BQ:54:MET:HG2	48:BQ:64:ILE:CG2	2.32	0.60
50:BS:12:PHE:HD1	50:BS:12:PHE:O	1.85	0.60
50:BS:30:ARG:HB3	50:BS:89:ARG:NH2	2.17	0.60
53:BV:19:LYS:CG	53:BV:94:LEU:HB2	2.22	0.60
1:CA:376:G:O3'	16:CP:5:ARG:HD2	2.01	0.60
1:CA:401:C:O2'	1:CA:402:G:H5'	2.02	0.60
1:CA:1116:C:H2'	1:CA:1117:G:C5'	2.21	0.60
2:CB:71:VAL:HA	2:CB:93:VAL:HG23	1.81	0.60
2:CB:164:VAL:HB	2:CB:186:ALA:CB	2.31	0.60
3:CC:189:ALA:O	3:CC:191:THR:HG23	2.02	0.60
11:CK:48:ILE:HG23	11:CK:63:LEU:HD22	1.84	0.60
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.02	0.60
15:CO:74:ASP:C	15:CO:76:GLU:H	2.05	0.60
28:D2:14:ARG:NH2	36:DA:77:C:O3'	2.34	0.60
29:D3:4:LEU:HD23	29:D3:5:LYS:N	2.17	0.60
31:D5:3:LYS:HB2	36:DA:747:U:C5	2.36	0.60
36:DA:1165:U:H2'	36:DA:1166:C:H6	1.66	0.60
36:DA:1528:A:N3	36:DA:1528:A:H2'	2.17	0.60
36:DA:2759:G:O2'	36:DA:2760:C:H5'	2.02	0.60
37:DB:25:A:H2'	37:DB:26:A:O4'	2.02	0.60
56:DY:43:ASN:O	56:DY:44:ILE:O	2.20	0.60
57:DZ:11:GLU:OE2	57:DZ:13:GLU:HG2	2.02	0.60
1:AA:36:C:H4'	12:AL:122:THR:O	2.02	0.60
1:AA:539:A:H2'	1:AA:540:G:C8	2.37	0.60
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.83	0.60
1:AA:1308:U:H5"	13:AM:98:VAL:N	2.17	0.60
1:AA:1343:G:H1'	9:AI:121:ARG:HH12	1.66	0.60
1:AA:1442(B):A:N1	51:BT:118:ARG:NH2	2.50	0.60
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.01	0.60
2:AB:104:ASN:OD1	2:AB:107:THR:HB	2.02	0.60
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.58	0.60
30:B4:52:SER:HB3	42:BG:105:LYS:HE2	1.83	0.60
36:BA:814:C:O2'	36:BA:815:C:H5'	2.02	0.60
36:BA:1899:G:H22	36:BA:1902:C:N4	1.99	0.60
37:BB:78:A:C2	37:BB:100:A:C4	2.90	0.60
39:BD:161:THR:O	39:BD:196:VAL:HG23	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:104:ARG:NH2	51:BT:33:LYS:HE2	2.16	0.60
47:BP:23:PRO:HD2	47:BP:33:ARG:CZ	2.32	0.60
47:BP:107:LYS:O	47:BP:109:GLY:N	2.35	0.60
48:BQ:34:LEU:HD11	48:BQ:129:THR:CB	2.31	0.60
51:BT:3:ARG:C	51:BT:5:ALA:N	2.53	0.60
52:BU:36:ARG:HE	52:BU:40:PHE:HZ	1.47	0.60
55:BX:35:THR:HG22	55:BX:37:THR:H	1.67	0.60
1:CA:818:G:C3'	1:CA:819:A:H5"	2.32	0.60
10:CJ:32:ALA:HB3	10:CJ:75:ILE:HG13	1.83	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:CB	2.32	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.83	0.60
36:DA:814:C:O2'	36:DA:815:C:H5'	2.02	0.60
36:DA:1202:C:H2'	36:DA:1203:G:H5'	1.82	0.60
36:DA:1339:G:N2	36:DA:1603:A:H1'	2.16	0.60
36:DA:2398:U:H5'	36:DA:2399:G:OP2	2.02	0.60
36:DA:2469:A:H3'	36:DA:2470:G:O4'	2.01	0.60
36:DA:2502:G:H5"	36:DA:2503:A:C5'	2.29	0.60
37:DB:15:A:H3'	37:DB:16:G:C5'	2.31	0.60
37:DB:78:A:C2	37:DB:100:A:C4	2.89	0.60
46:DO:87:ILE:HG21	46:DO:91:LEU:HD13	1.84	0.60
47:DP:23:PRO:HB2	47:DP:33:ARG:HG3	1.84	0.60
51:DT:35:LYS:CE	51:DT:41:ARG:HE	2.14	0.60
51:DT:92:GLY:HA2	51:DT:114:LEU:HA	1.84	0.60
1:AA:878:G:H5'	8:AH:89:PRO:CG	2.32	0.59
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.16	0.59
13:AM:117:VAL:HG12	13:AM:118:ALA:N	2.17	0.59
17:AQ:14:LYS:HB2	17:AQ:14:LYS:NZ	2.16	0.59
23:AW:6:G:H1	23:AW:67:C:H42	1.49	0.59
23:AW:19:G:C5'	23:AW:20:U:H5	2.08	0.59
36:BA:404:C:C4'	36:BA:405:U:H5'	2.25	0.59
36:BA:556:G:H2'	36:BA:557:U:C6	2.37	0.59
36:BA:870:A:C2	36:BA:871:U:H1'	2.37	0.59
36:BA:1528(A):A:C3'	36:BA:1529:G:H5"	2.31	0.59
43:BH:12:PRO:O	43:BH:13:LYS:HB2	2.02	0.59
48:BQ:66:ILE:HG22	48:BQ:104:PHE:HE2	1.65	0.59
56:BY:29:GLU:N	56:BY:29:GLU:OE1	2.35	0.59
57:BZ:41:LEU:HD11	57:BZ:82:ARG:NH1	2.17	0.59
57:BZ:166:SER:H	57:BZ:167:PRO:HA	1.67	0.59
1:CA:731:G:O2'	1:CA:732:C:H5'	2.02	0.59
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.01	0.59
7:CG:15:ASP:HB3	7:CG:20:ASP:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:4:TYR:HD1	9:CI:4:TYR:H	1.48	0.59
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.84	0.59
22:CV:29:G:O2'	22:CV:30:G:H5'	2.01	0.59
29:D3:5:LYS:HG3	29:D3:36:VAL:HG12	1.83	0.59
30:D4:59:VAL:HG21	42:DG:109:VAL:HG13	1.83	0.59
36:DA:1405:U:H2'	36:DA:1406:U:C6	2.37	0.59
36:DA:1577:C:H2'	36:DA:1578:U:C6	2.37	0.59
36:DA:1786:A:C2	36:DA:2606:C:H1'	2.37	0.59
36:DA:2262:U:C2'	36:DA:2263:C:H5"	2.32	0.59
36:DA:2402:C:H5	36:DA:2415:G:H22	1.49	0.59
39:DD:242:ARG:N	39:DD:242:ARG:HD2	2.17	0.59
49:DR:77:ARG:O	49:DR:79:LEU:N	2.35	0.59
49:DR:103:ARG:HH11	54:DW:40:ASN:ND2	2.00	0.59
51:DT:27:THR:O	51:DT:28:VAL:CB	2.50	0.59
54:DW:24:ILE:CG2	54:DW:36:LEU:HD21	2.32	0.59
1:AA:80:G:H22	1:AA:90:U:H4'	1.66	0.59
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.38	0.59
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.18	0.59
2:AB:126:GLU:C	2:AB:128:GLU:H	2.03	0.59
5:AE:147:ASP:N	5:AE:147:ASP:OD2	2.34	0.59
9:AI:118:LYS:HZ2	9:AI:118:LYS:HB2	1.67	0.59
30:B4:42:CYS:SG	30:B4:62:CYS:HB3	2.42	0.59
36:BA:709:U:H2'	36:BA:710:G:C8	2.37	0.59
36:BA:999:U:C2'	36:BA:1000:A:H5"	2.32	0.59
36:BA:1221(A):C:H2'	36:BA:1222:C:H6	1.67	0.59
36:BA:1786:A:H2	36:BA:2606:C:H1'	1.67	0.59
36:BA:2257:U:O2'	36:BA:2258:C:H5'	2.03	0.59
36:BA:2672:G:C3'	36:BA:2673:G:H5"	2.32	0.59
45:BN:3:THR:O	45:BN:5:VAL:HG12	2.03	0.59
51:BT:62:THR:HG22	51:BT:75:ILE:HG12	1.84	0.59
52:BU:95:LEU:C	52:BU:97:ASP:H	2.03	0.59
1:CA:1246:C:O2'	1:CA:1247:U:H5'	2.02	0.59
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.32	0.59
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.01	0.59
2:CB:144:ARG:HA	2:CB:147:LYS:CB	2.31	0.59
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.02	0.59
7:CG:113:GLU:HG3	7:CG:119:ARG:HA	1.83	0.59
8:CH:9:MET:HB2	8:CH:26:VAL:HG21	1.82	0.59
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.84	0.59
13:CM:65:LYS:HA	13:CM:66:LEU:CG	2.32	0.59
23:CW:31:A:H2'	23:CW:32:U:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D1:80:LEU:HB3	27:D1:82:LEU:CD2	2.32	0.59
28:D2:65:ASN:HD22	28:D2:69:ARG:HH22	1.51	0.59
36:DA:1221:C:O2'	36:DA:1221(A):C:H5'	2.02	0.59
36:DA:1810:A:H2'	36:DA:1811:G:O4'	2.02	0.59
36:DA:2745:C:H2'	36:DA:2746:U:C6	2.37	0.59
37:DB:75:G:H22	57:DZ:73:GLN:NE2	2.01	0.59
41:DF:40:GLN:NE2	41:DF:182:ASN:HB2	2.17	0.59
41:DF:157:VAL:HB	41:DF:194:MET:CB	2.31	0.59
42:DG:106:LEU:CD1	42:DG:111:LEU:HB2	2.31	0.59
42:DG:138:GLN:HB3	42:DG:152:LEU:HD13	1.85	0.59
43:DH:14:GLY:O	43:DH:29:PRO:HD3	2.02	0.59
44:DI:6:LEU:O	44:DI:7:GLU:C	2.40	0.59
47:DP:97:PRO:C	47:DP:99:LEU:H	2.05	0.59
51:DT:89:VAL:CG1	51:DT:91:ARG:NE	2.64	0.59
52:DU:108:GLU:OE2	53:DV:44:LYS:HD3	2.02	0.59
57:DZ:56:VAL:HG13	57:DZ:69:THR:O	2.03	0.59
1:AA:401:C:O2'	1:AA:402:G:H5'	2.02	0.59
1:AA:926:G:H22	24:AX:15:A:H3'	1.67	0.59
1:AA:1316:G:H2'	1:AA:1317:C:H5"	1.85	0.59
2:AB:75:LYS:HG2	2:AB:78:GLN:HE21	1.66	0.59
4:AD:17:VAL:HG11	4:AD:197:PRO:CB	2.33	0.59
8:AH:23:SER:HB3	8:AH:62:TYR:HA	1.85	0.59
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.85	0.59
13:AM:76:ALA:O	13:AM:79:LYS:HB2	2.02	0.59
28:B2:63:VAL:HA	28:B2:66:GLU:HG2	1.85	0.59
31:B5:11:THR:OG1	36:BA:1264:G:H5'	2.03	0.59
34:B8:50:LEU:HD12	34:B8:51:ALA:N	2.17	0.59
36:BA:1411:C:H2'	36:BA:1412:A:H8	1.66	0.59
36:BA:2491:U:H4'	36:BA:2570:G:OP1	2.02	0.59
39:BD:270:ILE:O	39:BD:271:ILE:HG12	2.03	0.59
42:BG:46:ALA:HB3	42:BG:82:LEU:HD13	1.84	0.59
42:BG:52:ILE:CG2	42:BG:54:GLU:HG2	2.21	0.59
43:BH:159:GLU:CG	43:BH:160:LYS:H	2.00	0.59
44:BI:88:ILE:HD11	44:BI:123:LEU:CG	2.30	0.59
44:BI:88:ILE:HG22	44:BI:89:TYR:N	2.17	0.59
45:BN:78:TYR:N	45:BN:78:TYR:CD1	2.70	0.59
53:BV:45:THR:O	53:BV:46:VAL:HG12	2.01	0.59
54:BW:10:VAL:O	54:BW:11:ARG:HB2	2.01	0.59
1:CA:818:G:C2'	1:CA:819:A:H5"	2.33	0.59
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.67	0.59
6:CF:33:TYR:CE1	6:CF:75:LEU:HA	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:41:ARG:O	8:CH:41:ARG:HG2	2.02	0.59
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.01	0.59
25:CY:53:G:H2'	25:CY:54:U:H6	1.67	0.59
27:D1:35:THR:HG21	36:DA:2080:G:OP1	2.01	0.59
36:DA:1494:A:H5'	36:DA:1494:A:N3	2.16	0.59
36:DA:1745(A):C:H5'	36:DA:1746:G:OP2	2.02	0.59
36:DA:2571:C:C5'	36:DA:2572:A:H5"	2.33	0.59
36:DA:2822:G:H2'	36:DA:2823:A:H5"	1.84	0.59
39:DD:267:SER:O	39:DD:269:PHE:N	2.35	0.59
43:DH:116:GLU:HG2	43:DH:117:PRO:HD2	1.83	0.59
44:DI:73:GLU:OE2	44:DI:137:PRO:HD2	2.02	0.59
48:DQ:141:GLN:HA	57:DZ:53:ILE:HG22	1.84	0.59
49:DR:45:ARG:HG3	49:DR:46:GLY:H	1.67	0.59
50:DS:30:ARG:HH22	50:DS:62:LYS:CD	2.14	0.59
50:DS:85:VAL:HG22	50:DS:106:ARG:HB2	1.85	0.59
52:DU:95:LEU:C	52:DU:97:ASP:H	2.04	0.59
1:AA:33:A:H2'	1:AA:34:C:C6	2.38	0.59
1:AA:521:G:O2'	1:AA:522:C:H5'	2.01	0.59
1:AA:818:G:C2'	1:AA:819:A:H5"	2.33	0.59
1:AA:1128:C:H5'	9:AI:16:ARG:HH12	1.67	0.59
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.36	0.59
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.01	0.59
9:AI:56:LEU:O	9:AI:56:LEU:HD23	2.02	0.59
17:AQ:6:LEU:HD12	17:AQ:6:LEU:N	2.16	0.59
22:AV:59:A:C2'	22:AV:60:U:H5'	2.32	0.59
32:B6:25:LYS:HD3	34:B8:34:TRP:CZ2	2.38	0.59
32:B6:36:LEU:HD13	32:B6:50:ARG:HH12	1.67	0.59
36:BA:271(T):C:H5'	36:BA:271(T):C:C6	2.28	0.59
36:BA:588:U:H2'	36:BA:589:C:C6	2.37	0.59
36:BA:1594:G:H8	36:BA:1594:G:H5'	1.67	0.59
39:BD:161:THR:OG1	39:BD:196:VAL:HG21	2.02	0.59
43:BH:38:SER:C	43:BH:40:GLU:H	2.06	0.59
45:BN:54:VAL:HB	45:BN:122:VAL:HG22	1.83	0.59
48:BQ:134:ARG:HE	57:BZ:122:ARG:HH11	1.47	0.59
50:BS:58:LEU:HD23	50:BS:65:VAL:HG13	1.84	0.59
56:BY:99:CYS:O	56:BY:100:ALA:HB2	2.03	0.59
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.50	0.59
1:CA:936:C:O2'	1:CA:937:A:H5'	2.02	0.59
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.32	0.59
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.03	0.59
19:CS:11:VAL:CG2	19:CS:16:LEU:HD11	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D6:25:LYS:HD3	34:D8:34:TRP:CZ2	2.37	0.59
32:D6:25:LYS:HD3	34:D8:34:TRP:HZ2	1.66	0.59
36:DA:1019:U:O2'	36:DA:1021:A:H2	1.85	0.59
36:DA:1396:U:O2	36:DA:1396:U:H2'	2.01	0.59
36:DA:2197:U:O2'	36:DA:2198:A:H2'	2.01	0.59
39:DD:70:TRP:CH2	39:DD:150:LYS:HA	2.38	0.59
45:DN:4:TYR:N	45:DN:4:TYR:CD1	2.70	0.59
52:DU:33:ARG:O	52:DU:37:GLU:HG3	2.02	0.59
55:DX:28:PHE:CE2	55:DX:92:LEU:HD11	2.38	0.59
56:DY:38:ILE:HG22	56:DY:39:VAL:N	2.17	0.59
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.38	0.59
1:AA:1281:U:H5'	1:AA:1282:C:OP2	2.02	0.59
13:AM:8:GLU:C	13:AM:9:ILE:HD12	2.22	0.59
25:AY:58:A:C2	25:AY:60:U:H2'	2.37	0.59
30:B4:60:GLU:O	30:B4:61:VAL:HB	2.02	0.59
36:BA:363(E):U:H2'	36:BA:363(F):A:C1'	2.31	0.59
36:BA:491:G:H2'	36:BA:492:A:C8	2.35	0.59
36:BA:1786:A:C2	36:BA:2606:C:H1'	2.37	0.59
36:BA:1986:A:H2'	36:BA:1987:G:H5"	1.83	0.59
36:BA:2406:U:O4	47:BP:70:GLN:HB3	2.02	0.59
39:BD:13:ARG:NH1	39:BD:16:MET:SD	2.75	0.59
39:BD:27:THR:O	39:BD:27:THR:HG23	2.02	0.59
40:BE:49:LEU:H	40:BE:49:LEU:CD1	2.13	0.59
44:BI:65:ALA:HA	44:BI:131:LYS:HE2	1.84	0.59
51:BT:27:THR:O	51:BT:28:VAL:CB	2.50	0.59
57:BZ:53:ILE:HG23	57:BZ:71:VAL:HB	1.82	0.59
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.03	0.59
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.18	0.59
8:CH:80:ILE:HG22	8:CH:80:ILE:O	2.02	0.59
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.00	0.59
33:D7:48:LYS:HD2	36:DA:125:G:H21	1.68	0.59
38:DC:196:LEU:C	38:DC:198:ALA:H	2.06	0.59
39:DD:36:PRO:HA	39:DD:62:TYR:O	2.01	0.59
40:DE:203:LYS:O	40:DE:203:LYS:HE3	2.02	0.59
42:DG:48:GLU:HG2	42:DG:49:ASP:N	2.17	0.59
43:DH:38:SER:C	43:DH:40:GLU:H	2.06	0.59
46:DO:104:ARG:HE	51:DT:33:LYS:HE3	1.68	0.59
47:DP:23:PRO:HD2	47:DP:33:ARG:NE	2.16	0.59
47:DP:64:LYS:C	47:DP:66:GLY:N	2.51	0.59
47:DP:107:LYS:C	47:DP:109:GLY:H	2.06	0.59
50:DS:58:LEU:HD23	50:DS:65:VAL:HG13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:18:LEU:CD2	53:DV:19:LYS:H	2.15	0.59
55:DX:32:PRO:HA	55:DX:77:LYS:HB3	1.84	0.59
1:AA:192:U:H4'	20:AT:57:ARG:HD2	1.83	0.59
1:AA:532:A:H2	1:AA:1207:G:H4'	1.67	0.59
1:AA:555:C:H2'	1:AA:556:C:C6	2.38	0.59
6:AF:33:TYR:CE1	6:AF:75:LEU:HA	2.38	0.59
9:AI:53:VAL:HG11	9:AI:85:LEU:HD22	1.84	0.59
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	2.02	0.59
16:AP:20:VAL:CG2	16:AP:32:TYR:HB2	2.33	0.59
26:B0:27:GLU:HB2	26:B0:69:PHE:HD1	1.66	0.59
28:B2:47:ASN:HD22	36:BA:95:G:H1'	1.68	0.59
32:B6:20:ASN:HD22	32:B6:21:TYR:H	1.48	0.59
32:B6:27:LYS:HD2	36:BA:2285:C:OP2	2.02	0.59
36:BA:1858:G:H2'	36:BA:1883:G:H22	1.66	0.59
36:BA:2712:U:O2'	36:BA:2713:A:H5'	2.02	0.59
40:BE:173:VAL:HG12	40:BE:174:ASP:H	1.67	0.59
41:BF:47:GLY:HA3	41:BF:95:ARG:O	2.02	0.59
47:BP:127:ALA:O	47:BP:148:LEU:HD12	2.02	0.59
48:BQ:141:GLN:NE2	57:BZ:72:ARG:HA	2.17	0.59
50:BS:49:VAL:HG21	50:BS:77:ALA:HA	1.84	0.59
1:CA:627:G:O2'	1:CA:628:G:H5'	2.02	0.59
9:CI:18:PHE:HB2	9:CI:62:TYR:O	2.01	0.59
25:CY:55:U:O2'	25:CY:56:C:H5'	2.02	0.59
37:DB:6:C:HO2'	50:DS:29:PHE:HE1	1.49	0.59
38:DC:77:ILE:HB	38:DC:122:ALA:HA	1.83	0.59
39:DD:27:THR:O	39:DD:27:THR:HG23	2.03	0.59
40:DE:176:ILE:HG23	40:DE:178:GLU:HB3	1.84	0.59
41:DF:160:ASN:HD21	41:DF:162:LEU:HB2	1.66	0.59
42:DG:21:ARG:HH21	42:DG:22:ARG:HD3	1.67	0.59
42:DG:43:LEU:HD23	42:DG:88:ILE:HG23	1.84	0.59
43:DH:12:PRO:O	43:DH:13:LYS:HB2	2.02	0.59
52:DU:66:ASN:CB	52:DU:76:TYR:HB2	2.32	0.59
57:DZ:99:TYR:CD2	57:DZ:125:LEU:HD13	2.38	0.59
1:AA:1029:C:C4'	1:AA:1033:G:H22	2.15	0.59
1:AA:1216:G:H5"	14:AN:5:ALA:HB2	1.84	0.59
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.02	0.59
8:AH:60:ARG:HG3	8:AH:60:ARG:NH1	2.14	0.59
12:AL:92:ASP:O	12:AL:93:LEU:HD23	2.02	0.59
13:AM:65:LYS:HA	13:AM:66:LEU:CG	2.29	0.59
14:AN:26:ARG:NH2	14:AN:47:LEU:HD11	2.17	0.59
36:BA:94(A):G:H2'	36:BA:95:G:O4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2223:G:C2'	36:BA:2224:G:H5'	2.33	0.59
36:BA:2334:G:H21	50:BS:18:ILE:CG1	2.15	0.59
40:BE:176:ILE:HG23	40:BE:178:GLU:HB3	1.83	0.59
41:BF:57:VAL:HG13	41:BF:59:TYR:CD1	2.38	0.59
43:BH:14:GLY:O	43:BH:29:PRO:HD3	2.03	0.59
47:BP:91:PHE:N	47:BP:91:PHE:CD1	2.70	0.59
49:BR:45:ARG:HG3	49:BR:46:GLY:H	1.66	0.59
54:BW:9:TYR:CD2	54:BW:9:TYR:N	2.69	0.59
56:BY:95:LYS:HG2	56:BY:100:ALA:CB	2.32	0.59
1:CA:1308:U:H5"	13:CM:98:VAL:N	2.17	0.59
1:CA:1514:C:H2'	1:CA:1515:C:C6	2.37	0.59
16:CP:25:ARG:HH11	16:CP:25:ARG:HG3	1.68	0.59
26:D0:27:GLU:HB2	26:D0:69:PHE:CD1	2.38	0.59
31:D5:52:TYR:OH	36:DA:2884:U:H1'	2.02	0.59
36:DA:104:U:H2'	36:DA:105:C:O4'	2.03	0.59
36:DA:271(E):U:H2'	36:DA:271(F):C:C6	2.37	0.59
36:DA:271(T):C:H5'	36:DA:271(T):C:C6	2.27	0.59
36:DA:322:A:OP2	41:DF:169:ASN:HB2	2.03	0.59
36:DA:1652:A:O2'	36:DA:1653:G:H5'	2.01	0.59
36:DA:1675:C:C2	40:DE:129:HIS:CD2	2.90	0.59
36:DA:2292:C:O2'	36:DA:2293:C:H5'	2.03	0.59
36:DA:2884:U:H2'	36:DA:2885:C:H5'	1.85	0.59
42:DG:15:VAL:HG22	42:DG:175:LEU:CD1	2.33	0.59
42:DG:21:ARG:HH21	42:DG:22:ARG:HD2	1.67	0.59
44:DI:77:LEU:HD21	44:DI:104:GLN:OE1	2.03	0.59
46:DO:35:VAL:HG21	46:DO:69:ILE:CD1	2.32	0.59
57:DZ:29:TYR:HA	57:DZ:33:LEU:O	2.03	0.59
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.06	0.59
13:AM:90:LEU:HA	13:AM:93:ARG:CB	2.33	0.59
19:AS:9:VAL:O	19:AS:9:VAL:HG12	2.02	0.59
23:AW:6:G:C2'	23:AW:7:A:H5'	2.33	0.59
36:BA:1019:U:O2'	36:BA:1021:A:H2	1.84	0.59
36:BA:1666:G:O2'	36:BA:1667:G:H5'	2.02	0.59
36:BA:2262:U:C2'	36:BA:2263:C:H5"	2.33	0.59
36:BA:2759:G:O2'	36:BA:2760:C:H5'	2.02	0.59
37:BB:106:G:H5'	57:BZ:31:ARG:HB2	1.83	0.59
47:BP:16:ARG:HB2	47:BP:16:ARG:CZ	2.32	0.59
53:BV:18:LEU:HD13	53:BV:19:LYS:N	2.17	0.59
55:BX:32:PRO:HA	55:BX:77:LYS:HB3	1.85	0.59
1:CA:1316:G:H2'	1:CA:1317:C:H5"	1.84	0.59
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:158:ILE:HG22	4:CD:181:MET:HE2	1.85	0.59
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.22	0.59
36:DA:2201:C:O2'	36:DA:2202:C:H5'	2.03	0.59
36:DA:2298:A:H2'	36:DA:2299:G:O4'	2.03	0.59
36:DA:2485:G:O2'	36:DA:2486:G:H5'	2.03	0.59
36:DA:2817:G:H21	36:DA:2836:U:C1'	2.15	0.59
39:DD:182:LEU:O	39:DD:271:ILE:HG13	2.03	0.59
39:DD:267:SER:HA	39:DD:270:ILE:HG13	1.83	0.59
46:DO:107:ARG:NH1	51:DT:35:LYS:HB2	2.18	0.59
47:DP:16:ARG:HB2	47:DP:16:ARG:CZ	2.32	0.59
54:DW:60:ASN:ND2	54:DW:60:ASN:H	2.00	0.59
54:DW:76:VAL:HG23	54:DW:103:ILE:HA	1.85	0.59
56:DY:7:VAL:HB	56:DY:8:LYS:NZ	2.18	0.59
57:DZ:99:TYR:HA	57:DZ:125:LEU:HA	1.84	0.59
57:DZ:151:HIS:CB	57:DZ:170:THR:HA	2.33	0.59
1:AA:57:G:H2'	1:AA:58:C:H6	1.67	0.59
1:AA:975:A:C4'	1:AA:976:G:H5"	2.28	0.59
1:AA:1445:C:O2'	1:AA:1446:U:H5'	2.02	0.59
2:AB:112:VAL:HG11	2:AB:153:ARG:HA	1.83	0.59
3:AC:182:ILE:HG23	3:AC:202:ILE:O	2.03	0.59
13:AM:47:ASP:O	13:AM:48:LEU:HB3	2.03	0.59
23:AW:59:U:C2'	23:AW:60:U:H5'	2.33	0.59
36:BA:483:A:O2'	56:BY:60:PHE:HZ	1.85	0.59
36:BA:1854:A:H62	36:BA:1888:G:H8	1.50	0.59
40:BE:203:LYS:HE3	40:BE:203:LYS:O	2.03	0.59
41:BF:155:LEU:HD23	41:BF:186:ILE:HD13	1.84	0.59
43:BH:92:ILE:HG22	43:BH:93:GLY:N	2.18	0.59
44:BI:88:ILE:CD1	44:BI:123:LEU:HG	2.31	0.59
47:BP:126:VAL:CG1	47:BP:148:LEU:HD11	2.33	0.59
50:BS:106:ARG:NH1	50:BS:107:GLU:O	2.35	0.59
51:BT:29:ARG:HG3	51:BT:30:VAL:HG13	1.84	0.59
1:CA:878:G:H5'	8:CH:89:PRO:CG	2.30	0.59
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.84	0.59
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	1.84	0.59
22:CV:4:G:O2'	22:CV:5:G:H8	1.85	0.59
27:D1:45:ASN:ND2	27:D1:47:GLN:HE21	2.00	0.59
30:D4:62:CYS:SG	30:D4:63:SER:N	2.76	0.59
36:DA:364:C:H2'	36:DA:365:C:C5'	2.33	0.59
36:DA:588:U:H2'	36:DA:589:C:C6	2.38	0.59
36:DA:1301:A:HO2'	36:DA:1302:A:P	2.26	0.59
37:DB:11:C:H3'	37:DB:12:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:3:GLY:CA	40:DE:81:ILE:HG21	2.31	0.59
42:DG:63:ILE:HG22	42:DG:144:ILE:HG12	1.84	0.59
50:DS:48:LEU:CD2	50:DS:82:ILE:HD11	2.32	0.59
50:DS:101:LEU:CD1	50:DS:101:LEU:H	2.16	0.59
53:DV:18:LEU:HD13	53:DV:19:LYS:N	2.17	0.59
54:DW:60:ASN:N	54:DW:60:ASN:ND2	2.50	0.59
56:DY:88:LYS:HZ1	56:DY:93:GLY:HA3	1.67	0.59
1:AA:475:G:H2'	1:AA:476:G:C8	2.37	0.59
1:AA:1081:G:O2'	1:AA:1082:G:H5'	2.03	0.59
1:AA:1320:C:C2	19:AS:72:GLY:HA3	2.38	0.59
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.37	0.59
2:AB:67:THR:CB	2:AB:155:LEU:HD21	2.32	0.59
3:AC:126:ARG:HH11	3:AC:126:ARG:HG2	1.67	0.59
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.36	0.59
18:AR:82:THR:CG2	18:AR:83:GLU:N	2.65	0.59
30:B4:37:PRO:O	30:B4:55:PRO:HG3	2.03	0.59
34:B8:4:MET:O	34:B8:62:LEU:CD1	2.51	0.59
36:BA:271(P):C:H5'	44:BI:46:ALA:HB2	1.85	0.59
36:BA:1709:U:H2'	36:BA:1710:C:C6	2.38	0.59
36:BA:2485:G:H5"	48:BQ:46:GLN:HE21	1.68	0.59
36:BA:2662:A:H2'	36:BA:2663:G:O4'	2.01	0.59
44:BI:4:ILE:HG12	44:BI:18:VAL:CG2	2.33	0.59
47:BP:97:PRO:C	47:BP:99:LEU:H	2.06	0.59
55:BX:24:GLY:O	55:BX:82:GLN:HA	2.03	0.59
1:CA:284:G:H2'	1:CA:285:G:H8	1.67	0.59
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.37	0.59
1:CA:1321:C:C5'	1:CA:1322:C:H5"	2.32	0.59
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	1.84	0.59
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.03	0.59
14:CN:26:ARG:NH2	14:CN:47:LEU:HD11	2.18	0.59
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.83	0.59
20:CT:100:ILE:N	20:CT:100:ILE:CD1	2.66	0.59
27:D1:45:ASN:HD21	27:D1:47:GLN:HE22	1.50	0.59
36:DA:888:C:C2'	36:DA:889:C:H5'	2.32	0.59
36:DA:2195:C:O2'	36:DA:2196:C:H5'	2.02	0.59
39:DD:267:SER:HA	39:DD:270:ILE:CG1	2.33	0.59
40:DE:101:ARG:HH22	40:DE:171:GLU:HB2	1.64	0.59
44:DI:5:LEU:H	44:DI:5:LEU:HD12	1.67	0.59
44:DI:133:HIS:CB	44:DI:134:PRO:CD	2.81	0.59
46:DO:14:THR:HG22	46:DO:14:THR:O	2.03	0.59
48:DQ:141:GLN:HE22	57:DZ:72:ARG:CA	2.12	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DX:24:GLY:O	55:DX:82:GLN:HA	2.03	0.59
1:AA:748:C:H1'	1:AA:749:C:OP2	2.03	0.58
1:AA:818:G:C3'	1:AA:819:A:H5"	2.33	0.58
1:AA:1029:C:H4'	1:AA:1033:G:N2	2.17	0.58
1:AA:1054:C:N3	25:AY:34:G:H1'	2.18	0.58
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.32	0.58
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.68	0.58
1:AA:1416:G:O2'	1:AA:1417:G:H5'	2.02	0.58
3:AC:62:ASP:O	3:AC:98:ASN:HB3	2.03	0.58
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.85	0.58
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.84	0.58
26:B0:41:ARG:CB	36:BA:2330:G:H1'	2.33	0.58
36:BA:144:C:H2'	36:BA:145:G:C8	2.38	0.58
36:BA:2469:A:N6	36:BA:2481:G:H1'	2.17	0.58
36:BA:2533:A:H3'	36:BA:2534:A:H5"	1.83	0.58
36:BA:2571:C:H5"	36:BA:2572:A:H5"	1.85	0.58
37:BB:25:A:H2'	37:BB:26:A:O4'	2.03	0.58
39:BD:131:LEU:HD12	39:BD:131:LEU:N	2.18	0.58
39:BD:142:VAL:HG23	39:BD:192:THR:O	2.02	0.58
40:BE:78:LEU:O	40:BE:79:ARG:HD2	2.03	0.58
47:BP:41:ARG:NH1	47:BP:45:LEU:HD12	2.18	0.58
1:CA:222:U:H2'	1:CA:223:U:C6	2.38	0.58
1:CA:1439:C:H5'	20:CT:38:LYS:NZ	2.18	0.58
2:CB:67:THR:CB	2:CB:155:LEU:HD21	2.32	0.58
2:CB:80:ILE:CD1	2:CB:211:ILE:HG22	2.33	0.58
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.03	0.58
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.03	0.58
8:CH:23:SER:HB3	8:CH:62:TYR:HA	1.84	0.58
15:CO:4:THR:HB	15:CO:6:GLU:OE2	2.03	0.58
36:DA:855:G:H2'	36:DA:856:C:C6	2.38	0.58
36:DA:1246:A:OP2	47:DP:18:ARG:HG3	2.03	0.58
36:DA:1482:G:N2	36:DA:1507:A:H1'	2.18	0.58
36:DA:1578:U:H2'	36:DA:1579:A:H5"	1.82	0.58
36:DA:1692:U:O2'	36:DA:1693:U:H2'	2.03	0.58
36:DA:2199:A:H3'	36:DA:2200:C:H6	1.67	0.58
36:DA:2672:G:C3'	36:DA:2673:G:H5"	2.32	0.58
37:DB:93:G:O2'	37:DB:94:C:H5'	2.03	0.58
41:DF:1:MET:HE1	41:DF:26:ALA:HB1	1.84	0.58
41:DF:167:ALA:O	41:DF:170:LEU:HB2	2.03	0.58
47:DP:114:ILE:HG22	47:DP:127:ALA:HB2	1.84	0.58
51:DT:56:GLY:O	51:DT:59:THR:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:17:SER:OG	56:DY:18:GLY:N	2.36	0.58
1:AA:100:C:H2'	1:AA:101:A:C8	2.37	0.58
1:AA:585:G:OP1	17:AQ:37:LYS:HE2	2.03	0.58
1:AA:707:C:O2'	1:AA:708:C:H5'	2.03	0.58
10:AJ:15:THR:O	10:AJ:94:VAL:HG21	2.03	0.58
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.03	0.58
20:AT:26:ASN:HD22	20:AT:26:ASN:N	1.96	0.58
36:BA:874:G:H2'	36:BA:875:G:H8	1.68	0.58
43:BH:125:VAL:HG12	43:BH:127:GLU:O	2.03	0.58
55:BX:31:HIS:ND1	55:BX:32:PRO:HD2	2.18	0.58
1:CA:36:C:O2'	1:CA:37:U:H5'	2.02	0.58
1:CA:373:A:O2'	1:CA:374:A:H5'	2.03	0.58
1:CA:748:C:H1'	1:CA:749:C:OP2	2.03	0.58
1:CA:1152:A:H5"	10:CJ:13:HIS:CD2	2.38	0.58
5:CE:101:ILE:HG12	5:CE:101:ILE:O	2.03	0.58
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.03	0.58
18:CR:40:LEU:HD22	18:CR:70:ILE:HD13	1.83	0.58
23:CW:55:U:C5	23:CW:57:G:H5'	2.38	0.58
27:D1:71:TYR:CE1	44:DI:27:ARG:HD2	2.38	0.58
36:DA:142:A:H5'	36:DA:142(A):C:OP2	2.02	0.58
36:DA:2523:G:H5'	36:DA:2523:G:C8	2.38	0.58
36:DA:2880:C:O2'	49:DR:90:ARG:HD3	2.03	0.58
46:DO:47:ILE:HG23	46:DO:48:PRO:CD	2.32	0.58
47:DP:146:VAL:HG13	47:DP:147:LEU:N	2.17	0.58
50:DS:106:ARG:NH1	50:DS:107:GLU:O	2.36	0.58
52:DU:92:ARG:O	52:DU:94:ASN:N	2.28	0.58
55:DX:54:VAL:C	55:DX:55:ASN:HD22	2.07	0.58
56:DY:99:CYS:O	56:DY:100:ALA:HB2	2.03	0.58
1:AA:936:C:O2'	1:AA:937:A:H5'	2.03	0.58
1:AA:1152:A:H5"	10:AJ:13:HIS:CD2	2.38	0.58
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.69	0.58
5:AE:150:ARG:CZ	5:AE:150:ARG:HB2	2.32	0.58
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.33	0.58
7:AG:62:PHE:HD1	7:AG:124:LEU:HD21	1.68	0.58
20:AT:72:LEU:HD21	20:AT:77:ALA:N	2.18	0.58
25:AY:15:G:N2	25:AY:48:C:H42	2.01	0.58
25:AY:28:G:H1	25:AY:42:C:H42	1.49	0.58
28:B2:38:GLN:HB3	28:B2:44:LEU:O	2.03	0.58
36:BA:581:C:OP1	52:BU:33:ARG:HG2	2.01	0.58
36:BA:1021:A:C8	36:BA:1021:A:C3'	2.84	0.58
36:BA:1405:U:H2'	36:BA:1406:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2498:C:O2'	36:BA:2499:C:H5'	2.02	0.58
37:BB:3:C:N3	37:BB:118:G:N2	2.51	0.58
41:BF:4:VAL:HA	41:BF:19:GLU:HB3	1.84	0.58
41:BF:127:GLU:HB2	41:BF:196:LEU:CG	2.33	0.58
42:BG:111:LEU:HB2	42:BG:112:PRO:CD	2.29	0.58
44:BI:92:VAL:HG22	44:BI:92:VAL:O	2.04	0.58
56:BY:31:LEU:HD22	56:BY:31:LEU:H	1.69	0.58
1:CA:437:U:O2'	1:CA:438:G:H5'	2.03	0.58
1:CA:674:G:H2'	1:CA:675:A:H8	1.68	0.58
1:CA:940:C:OP1	7:CG:102:ARG:HD3	2.02	0.58
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.31	0.58
16:CP:20:VAL:HG21	16:CP:32:TYR:HB2	1.84	0.58
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.67	0.58
19:CS:36:ARG:NH1	19:CS:75:ALA:HB3	2.18	0.58
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.18	0.58
22:CV:36:U:H2'	22:CV:37:A:C8	2.36	0.58
34:D8:8:LYS:O	34:D8:12:LYS:HG3	2.03	0.58
36:DA:528:A:C2	36:DA:2043:C:C5'	2.86	0.58
36:DA:528:A:H2	36:DA:2043:C:H5'	1.66	0.58
36:DA:1242:A:N1	47:DP:8:PRO:HG3	2.18	0.58
36:DA:2689:U:H4'	36:DA:2690:C:H6	1.66	0.58
37:DB:3:C:N3	37:DB:118:G:N2	2.51	0.58
37:DB:7:G:C3'	37:DB:8:U:H5"	2.22	0.58
55:DX:36:LYS:HD3	55:DX:56:THR:HG23	1.86	0.58
57:DZ:20:ARG:HH11	57:DZ:20:ARG:HG2	1.68	0.58
1:AA:650:G:O2'	1:AA:651:C:H5'	2.03	0.58
1:AA:1222:G:O2'	1:AA:1223:C:H5'	2.04	0.58
3:AC:58:GLU:O	3:AC:64:VAL:HA	2.03	0.58
8:AH:6:ILE:HG22	8:AH:10:LEU:CD1	2.32	0.58
23:AW:30:G:H2'	23:AW:31:A:C8	2.38	0.58
27:B1:68:PRO:HG2	27:B1:69:LYS:H	1.66	0.58
28:B2:47:ASN:ND2	36:BA:95:G:H1'	2.18	0.58
31:B5:43:HIS:HD2	36:BA:2815:C:O2'	1.86	0.58
36:BA:143:G:H2'	36:BA:143(A):C:H6	1.67	0.58
36:BA:1675:C:C2	40:BE:129:HIS:CD2	2.91	0.58
36:BA:2206:G:H21	36:BA:2207:G:C5'	2.15	0.58
41:BF:113:ALA:HB1	41:BF:186:ILE:HG21	1.84	0.58
42:BG:9:ARG:HG2	42:BG:9:ARG:NH1	2.17	0.58
42:BG:51:ARG:HA	42:BG:51:ARG:HE	1.67	0.58
43:BH:30:LYS:HB2	43:BH:79:VAL:HA	1.85	0.58
45:BN:87:LEU:O	45:BN:90:MET:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:104:ARG:HE	51:BT:33:LYS:HE3	1.67	0.58
47:BP:58:THR:O	47:BP:61:ARG:CZ	2.51	0.58
50:BS:101:LEU:H	50:BS:101:LEU:CD1	2.15	0.58
51:BT:31:SER:C	51:BT:32:TYR:CD2	2.75	0.58
57:BZ:11:GLU:HB2	57:BZ:13:GLU:OE2	2.02	0.58
1:CA:678:U:H2'	1:CA:679:C:C6	2.38	0.58
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.37	0.58
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.85	0.58
2:CB:67:THR:CG2	2:CB:155:LEU:HD21	2.33	0.58
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.85	0.58
3:CC:58:GLU:O	3:CC:64:VAL:HA	2.04	0.58
3:CC:134:ILE:HD11	3:CC:153:VAL:CG2	2.33	0.58
7:CG:74:GLU:HG2	7:CG:91:VAL:HG22	1.85	0.58
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.04	0.58
31:D5:16:ARG:HD2	31:D5:20:ARG:NH2	2.18	0.58
36:DA:271(Q):G:O2'	36:DA:271(R):G:H8	1.87	0.58
36:DA:320:A:H4'	36:DA:322:A:C8	2.38	0.58
36:DA:914:C:H2'	36:DA:915:C:C5'	2.23	0.58
36:DA:1880:C:H6	36:DA:1880:C:C5'	2.10	0.58
36:DA:2306:C:C5	36:DA:2307:G:H1'	2.38	0.58
36:DA:2414:G:H21	47:DP:67:MET:CE	2.16	0.58
37:DB:17:C:H2'	37:DB:18:G:O4'	2.03	0.58
39:DD:161:THR:OG1	39:DD:196:VAL:HG21	2.03	0.58
41:DF:2:LYS:O	41:DF:25:PRO:HD2	2.02	0.58
42:DG:173:LEU:HB3	42:DG:178:PHE:CG	2.38	0.58
43:DH:92:ILE:HG22	43:DH:93:GLY:N	2.18	0.58
51:DT:125:ARG:O	51:DT:128:GLU:HG3	2.03	0.58
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.03	0.58
3:AC:189:ALA:O	3:AC:191:THR:HG23	2.03	0.58
6:AF:12:PRO:HD2	6:AF:86:ARG:NH1	2.19	0.58
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.03	0.58
10:AJ:22:LYS:HD2	10:AJ:22:LYS:C	2.23	0.58
14:AN:26:ARG:HH22	14:AN:47:LEU:CD2	2.08	0.58
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.04	0.58
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.17	0.58
19:AS:6:LYS:CG	19:AS:7:LYS:HE3	2.33	0.58
30:B4:37:PRO:HA	30:B4:51:TYR:CD2	2.39	0.58
36:BA:543:C:N3	36:BA:551:G:C2	2.72	0.58
36:BA:2392:A:H2	36:BA:2424:C:H42	1.52	0.58
36:BA:2748:A:O2'	43:BH:66:GLY:HA3	2.04	0.58
36:BA:2795:G:N7	36:BA:2801(A):A:C2	2.72	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BC:47:LEU:HD23	38:BC:47:LEU:H	1.69	0.58
40:BE:101:ARG:NH2	40:BE:171:GLU:CB	2.64	0.58
40:BE:116:VAL:HG21	40:BE:122:PHE:CD2	2.38	0.58
41:BF:8:GLN:CB	41:BF:126:VAL:HA	2.30	0.58
44:BI:73:GLU:HB2	44:BI:136:VAL:HG23	1.85	0.58
47:BP:99:LEU:HA	47:BP:102:ARG:NH2	2.18	0.58
48:BQ:12:GLN:NE2	48:BQ:72:LYS:HA	2.18	0.58
50:BS:34:HIS:CD2	50:BS:54:LEU:HB2	2.38	0.58
1:CA:1305:G:H22	1:CA:1331:G:H1'	1.68	0.58
2:CB:96:ARG:HD2	2:CB:96:ARG:N	2.19	0.58
4:CD:79:PHE:CE1	4:CD:204:ILE:HD13	2.38	0.58
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.03	0.58
36:DA:524:U:H4'	36:DA:555:U:H4'	1.84	0.58
36:DA:769:G:H2'	36:DA:770:G:H8	1.68	0.58
36:DA:1301:A:H4'	36:DA:1302:A:OP1	2.04	0.58
36:DA:2334:G:H21	50:DS:18:ILE:CG1	2.17	0.58
49:DR:81:ASP:O	49:DR:82:GLU:HB2	2.04	0.58
55:DX:30:VAL:HG11	55:DX:39:ILE:HD12	1.84	0.58
56:DY:88:LYS:NZ	56:DY:93:GLY:CA	2.66	0.58
1:AA:36:C:O2'	1:AA:37:U:H5'	2.03	0.58
1:AA:139:G:O2'	1:AA:140:A:H5'	2.02	0.58
1:AA:601:C:H2'	1:AA:602:A:H8	1.69	0.58
1:AA:735:C:O2'	1:AA:736:C:H5'	2.03	0.58
1:AA:1010:G:H2'	1:AA:1011:G:H8	1.68	0.58
1:AA:1305:G:C5'	21:AU:4:GLY:HA3	2.34	0.58
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.43	0.58
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.85	0.58
7:AG:97:GLN:O	7:AG:100:ALA:HB3	2.03	0.58
8:AH:65:TYR:N	8:AH:65:TYR:CD1	2.72	0.58
19:AS:29:ARG:HD2	19:AS:29:ARG:H	1.69	0.58
22:AV:5:G:H2'	22:AV:6:G:C8	2.38	0.58
36:BA:2261:C:H1'	36:BA:2388:A:N3	2.19	0.58
38:BC:77:ILE:HG21	38:BC:123:VAL:N	2.19	0.58
39:BD:134:ARG:HG3	39:BD:135:PHE:CD2	2.38	0.58
39:BD:257:LEU:HD22	39:BD:258:LYS:O	2.04	0.58
41:BF:6:VAL:HG12	41:BF:7:TYR:O	2.03	0.58
42:BG:39:ILE:HD12	42:BG:40:ASN:H	1.68	0.58
43:BH:159:GLU:CG	43:BH:160:LYS:N	2.61	0.58
47:BP:59:LEU:HA	47:BP:61:ARG:NE	2.19	0.58
47:BP:146:VAL:HG13	47:BP:147:LEU:N	2.18	0.58
1:CA:107:G:C2'	1:CA:108:G:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:254:G:O2'	1:CA:255:G:H5'	2.03	0.58
1:CA:1174:G:H2'	1:CA:1175:G:C8	2.38	0.58
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.35	0.58
4:CD:17:VAL:HG11	4:CD:197:PRO:CB	2.32	0.58
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.18	0.58
11:CK:32:ILE:HD12	11:CK:72:ALA:CB	2.32	0.58
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	2.04	0.58
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.85	0.58
34:D8:28:GLY:O	34:D8:32:LEU:HG	2.03	0.58
36:DA:321:G:OP2	41:DF:136:THR:HG22	2.03	0.58
36:DA:784:A:C5	39:DD:229:VAL:HG21	2.39	0.58
36:DA:2491:U:H4'	36:DA:2570:G:OP1	2.04	0.58
36:DA:2854:G:H2'	36:DA:2855:C:C6	2.38	0.58
38:DC:77:ILE:HG21	38:DC:123:VAL:N	2.19	0.58
39:DD:26:LYS:HE2	39:DD:82:ILE:H	1.69	0.58
43:DH:37:VAL:HG21	43:DH:72:ILE:HD11	1.85	0.58
44:DI:4:ILE:HG12	44:DI:18:VAL:CG2	2.33	0.58
45:DN:58:ASP:C	45:DN:60:ILE:N	2.57	0.58
51:DT:93:ARG:NH1	51:DT:93:ARG:HG3	2.18	0.58
18:AR:36:ASN:HD22	18:AR:39:VAL:CG2	2.16	0.58
25:AY:72:C:O2	25:AY:72:C:H2'	2.03	0.58
29:B3:4:LEU:HD23	29:B3:5:LYS:N	2.19	0.58
36:BA:310:A:OP1	56:BY:17:SER:O	2.21	0.58
36:BA:1745(A):C:H5'	36:BA:1746:G:OP2	2.02	0.58
39:BD:16:MET:CE	39:BD:208:LYS:HD2	2.32	0.58
39:BD:30:GLU:CD	39:BD:63:ARG:HE	2.06	0.58
39:BD:112:GLN:HB2	39:BD:115:GLN:NE2	2.18	0.58
42:BG:44:GLY:H	42:BG:88:ILE:HG12	1.68	0.58
49:BR:28:LEU:HA	49:BR:34:ILE:CG1	2.34	0.58
57:BZ:151:HIS:CB	57:BZ:170:THR:HA	2.34	0.58
1:CA:90:U:H5"	1:CA:91:C:C5'	2.34	0.58
1:CA:783:C:O2'	1:CA:784:C:H5'	2.04	0.58
1:CA:939:G:H5"	7:CG:102:ARG:CZ	2.32	0.58
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.38	0.58
1:CA:1249:C:H5'	1:CA:1249:C:H6	1.68	0.58
1:CA:1279:A:H61	3:CC:26:LYS:NZ	2.01	0.58
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.04	0.58
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.17	0.58
13:CM:76:ALA:O	13:CM:79:LYS:HB2	2.04	0.58
36:DA:709:U:H2'	36:DA:710:G:C8	2.38	0.58
36:DA:896:A:C1'	57:DZ:146:ILE:HD12	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1479:G:H5'	36:DA:1558:A:H2	1.69	0.58
36:DA:1887:C:C3'	36:DA:1888:G:H5"	2.34	0.58
36:DA:1986:A:H2'	36:DA:1987:G:H5"	1.84	0.58
36:DA:2392:A:H2	36:DA:2424:C:H42	1.50	0.58
36:DA:2854:G:H2'	36:DA:2855:C:H6	1.68	0.58
39:DD:16:MET:CE	39:DD:208:LYS:HD2	2.32	0.58
39:DD:26:LYS:NZ	39:DD:82:ILE:O	2.34	0.58
39:DD:31:LYS:NZ	39:DD:102:LYS:NZ	2.51	0.58
39:DD:134:ARG:HG3	39:DD:135:PHE:CD2	2.39	0.58
39:DD:142:VAL:HG23	39:DD:192:THR:O	2.03	0.58
41:DF:89:VAL:HG12	41:DF:90:PHE:H	1.68	0.58
42:DG:102:PHE:HA	42:DG:105:LYS:CD	2.34	0.58
42:DG:115:ARG:HD2	42:DG:116:ASP:N	2.19	0.58
43:DH:138:LYS:HG3	43:DH:139:GLN:N	2.18	0.58
50:DS:24:LEU:CB	50:DS:85:VAL:HG12	2.33	0.58
52:DU:92:ARG:NH2	52:DU:94:ASN:ND2	2.51	0.58
57:DZ:14:LYS:HB2	57:DZ:17:ALA:HB3	1.84	0.58
57:DZ:58:VAL:HG13	57:DZ:67:LEU:H	1.69	0.58
1:AA:303:A:OP1	12:AL:17:LYS:HE3	2.03	0.58
1:AA:1477:C:H2'	1:AA:1478:C:H6	1.69	0.58
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.16	0.58
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.66	0.58
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.03	0.58
5:AE:136:MET:O	5:AE:138:ALA:N	2.37	0.58
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.51	0.58
23:AW:59:U:H2'	23:AW:60:U:H5'	1.86	0.58
27:B1:18:ILE:HD12	27:B1:18:ILE:N	2.19	0.58
36:BA:2162:G:H2'	36:BA:2163:C:C6	2.39	0.58
36:BA:2264:C:H2'	36:BA:2265:U:H6	1.67	0.58
36:BA:2787:C:H1'	40:BE:61:ARG:HG2	1.85	0.58
45:BN:73:THR:CG2	45:BN:82:LEU:HD11	2.32	0.58
46:BO:77:ILE:CD1	51:BT:74:ARG:HG2	2.33	0.58
47:BP:50:ARG:HG2	47:BP:50:ARG:NH2	2.19	0.58
55:BX:36:LYS:HD3	55:BX:56:THR:HG23	1.85	0.58
1:CA:735:C:O2'	1:CA:736:C:H5'	2.03	0.58
4:CD:19:LEU:HD12	4:CD:19:LEU:N	2.19	0.58
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.86	0.58
9:CI:99:LEU:HD13	9:CI:99:LEU:O	2.03	0.58
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.04	0.58
25:CY:64:A:H4'	36:DA:2483:C:OP1	2.04	0.58
36:DA:1528(A):A:C3'	36:DA:1529:G:H5"	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1854:A:H62	36:DA:1888:G:H8	1.50	0.58
36:DA:2261:C:H1'	36:DA:2388:A:N3	2.19	0.58
36:DA:2721:A:H2'	36:DA:2722:G:H8	1.69	0.58
40:DE:111:ARG:HD2	40:DE:160:TYR:HE1	1.67	0.58
42:DG:8:LYS:HE2	42:DG:100:TRP:NE1	2.18	0.58
42:DG:165:THR:OG1	42:DG:168:GLU:HG2	2.04	0.58
45:DN:62:VAL:HG22	45:DN:66:LYS:CD	2.33	0.58
47:DP:23:PRO:HD2	47:DP:33:ARG:CZ	2.34	0.58
49:DR:84:ALA:HB3	49:DR:85:PRO:HD3	1.85	0.58
51:DT:106:SER:HA	51:DT:110:ILE:CG1	2.24	0.58
52:DU:101:ARG:C	52:DU:102:GLU:HG2	2.22	0.58
2:AB:80:ILE:HD13	2:AB:211:ILE:HG22	1.86	0.58
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.85	0.58
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.02	0.58
16:AP:25:ARG:HG3	16:AP:25:ARG:HH11	1.69	0.58
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.85	0.58
26:B0:20:ARG:HD3	36:BA:2356:C:O3'	2.03	0.58
27:B1:67:ILE:N	27:B1:68:PRO:CD	2.66	0.58
30:B4:64:LYS:O	30:B4:65:CYS:SG	2.62	0.58
31:B5:16:ARG:HD2	31:B5:20:ARG:NH2	2.19	0.58
31:B5:36:CYS:SG	31:B5:37:LYS:N	2.77	0.58
33:B7:48:LYS:HD2	36:BA:125:G:H21	1.67	0.58
36:BA:90:U:H1'	36:BA:92:A:H8	1.68	0.58
36:BA:171:G:H2'	36:BA:172:C:C6	2.38	0.58
36:BA:564:C:O2'	36:BA:565:C:H5'	2.03	0.58
36:BA:806:C:OP2	47:BP:39:LYS:CD	2.52	0.58
36:BA:1407:C:O2	36:BA:1407:C:H2'	2.02	0.58
36:BA:2199:A:H3'	36:BA:2200:C:H6	1.68	0.58
36:BA:2468:G:O2'	36:BA:2476:A:H8	1.86	0.58
41:BF:124:LEU:HG	41:BF:126:VAL:HG13	1.86	0.58
45:BN:24:GLY:O	45:BN:28:THR:HB	2.03	0.58
47:BP:71:VAL:HG12	47:BP:72:PRO:HD3	1.85	0.58
48:BQ:18:LYS:HE2	48:BQ:18:LYS:HA	1.85	0.58
49:BR:104:ARG:HH11	49:BR:104:ARG:CB	2.17	0.58
50:BS:30:ARG:HH22	50:BS:62:LYS:CD	2.13	0.58
51:BT:40:THR:O	51:BT:41:ARG:HB2	2.03	0.58
54:BW:14:PRO:O	54:BW:15:ARG:C	2.41	0.58
56:BY:88:LYS:NZ	56:BY:93:GLY:CA	2.67	0.58
1:CA:139:G:O2'	1:CA:140:A:H5'	2.03	0.58
1:CA:176:C:H2'	1:CA:177:C:C6	2.39	0.58
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1222:G:O2'	1:CA:1223:C:H5'	2.04	0.58
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.67	0.58
3:CC:150:LYS:HA	3:CC:169:ALA:CB	2.33	0.58
7:CG:60:LYS:HA	7:CG:60:LYS:HZ3	1.67	0.58
11:CK:97:ALA:O	11:CK:101:SER:HB3	2.04	0.58
16:CP:20:VAL:HG23	16:CP:34:GLU:O	2.04	0.58
25:CY:28:G:H1	25:CY:42:C:N4	2.01	0.58
32:D6:32:ASN:ND2	32:D6:33:LYS:H	2.02	0.58
36:DA:2469:A:N6	36:DA:2481:G:H1'	2.19	0.58
40:DE:111:ARG:HD2	40:DE:160:TYR:CE1	2.39	0.58
44:DI:83:ALA:HA	44:DI:89:TYR:CE1	2.39	0.58
47:DP:59:LEU:HA	47:DP:61:ARG:NE	2.16	0.58
53:DV:21:ARG:HD3	53:DV:21:ARG:H	1.68	0.58
54:DW:40:ASN:O	54:DW:41:LYS:HG2	2.04	0.58
1:AA:1056:U:H5'	3:AC:163:ALA:CB	2.33	0.58
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.39	0.58
2:AB:67:THR:CG2	2:AB:155:LEU:HD21	2.34	0.58
2:AB:121:LEU:HA	2:AB:126:GLU:OE1	2.04	0.58
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.04	0.58
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.86	0.58
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.85	0.58
12:AL:25:PRO:C	12:AL:27:LEU:H	2.06	0.58
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.24	0.58
36:BA:83:G:N2	36:BA:102:G:H2'	2.19	0.58
36:BA:649:G:H2'	36:BA:650:C:H6	1.68	0.58
36:BA:819:A:OP2	36:BA:1187:G:N2	2.27	0.58
36:BA:1430:C:H2'	36:BA:1431:U:H6	1.69	0.58
36:BA:2009:G:H1'	49:BR:107:ASP:C	2.24	0.58
36:BA:2790:A:H2'	36:BA:2790:A:N3	2.19	0.58
37:BB:15:A:H1'	37:BB:110:G:C5	2.39	0.58
39:BD:26:LYS:HE2	39:BD:82:ILE:H	1.68	0.58
41:BF:36:VAL:CG1	41:BF:183:VAL:HG21	2.34	0.58
42:BG:101:ILE:HD13	42:BG:102:PHE:N	2.18	0.58
42:BG:110:ALA:HA	42:BG:140:ILE:O	2.03	0.58
54:BW:40:ASN:O	54:BW:41:LYS:HG2	2.04	0.58
1:CA:662:G:H2'	1:CA:663:A:C8	2.39	0.58
1:CA:774:G:OP1	39:DD:202:LYS:NZ	2.37	0.58
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.39	0.58
1:CA:1320:C:C2	19:CS:72:GLY:HA3	2.39	0.58
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.39	0.58
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:92:TYR:N	9:CI:92:TYR:CD1	2.72	0.58
22:CV:3:C:H2'	22:CV:3:C:O2	2.03	0.58
31:D5:11:THR:OG1	36:DA:1264:G:H5'	2.03	0.58
34:D8:39:LYS:HE3	36:DA:2365:G:O6	2.04	0.58
36:DA:154(A):C:H41	36:DA:172:C:H42	1.51	0.58
36:DA:528:A:H8	36:DA:528:A:H3'	1.68	0.58
36:DA:559:G:H22	52:DU:49:HIS:CD2	2.22	0.58
36:DA:1784:A:H4'	36:DA:1785:A:O5'	2.04	0.58
36:DA:2233:U:H2'	36:DA:2234:G:C8	2.39	0.58
39:DD:8:PRO:HB3	39:DD:14:ARG:HB2	1.85	0.58
39:DD:125:ILE:HG22	39:DD:125:ILE:O	2.03	0.58
39:DD:131:LEU:HD12	39:DD:131:LEU:N	2.18	0.58
43:DH:86:GLU:N	43:DH:86:GLU:OE1	2.37	0.58
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.03	0.57
1:AA:1302:U:H5	13:AM:17:VAL:HG21	1.69	0.57
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	2.04	0.57
4:AD:80:GLU:O	4:AD:84:LYS:HE2	2.03	0.57
4:AD:196:LEU:HD12	4:AD:196:LEU:N	2.18	0.57
8:AH:23:SER:HA	8:AH:63:LEU:CD2	2.34	0.57
8:AH:127:LEU:O	8:AH:127:LEU:HD13	2.04	0.57
11:AK:111:ASP:CA	18:AR:84:LYS:HG3	2.26	0.57
12:AL:83:VAL:CG1	12:AL:100:ILE:HG23	2.33	0.57
13:AM:69:GLU:OE1	13:AM:72:ALA:HB3	2.04	0.57
15:AO:4:THR:HB	15:AO:6:GLU:OE2	2.03	0.57
18:AR:36:ASN:HD22	18:AR:39:VAL:HB	1.67	0.57
19:AS:6:LYS:HE3	19:AS:6:LYS:N	2.18	0.57
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.23	0.57
27:B1:11:ARG:HB2	27:B1:12:PRO:HD2	1.86	0.57
33:B7:47:ARG:NH2	55:BX:60:ARG:NH1	2.52	0.57
36:BA:364:C:H2'	36:BA:365:C:C5'	2.33	0.57
36:BA:528:A:H3'	36:BA:528:A:C8	2.39	0.57
36:BA:1711:C:O2'	36:BA:1712:C:H5'	2.05	0.57
36:BA:2645:G:C3'	36:BA:2646:C:H5'	2.30	0.57
37:BB:11:C:H3'	37:BB:12:C:C6	2.39	0.57
41:BF:1:MET:HE1	41:BF:26:ALA:HB1	1.86	0.57
41:BF:176:LEU:HD21	41:BF:180:GLY:O	2.04	0.57
42:BG:76:SER:HB2	42:BG:83:ARG:HD3	1.85	0.57
48:BQ:48:GLU:O	48:BQ:52:VAL:HG23	2.05	0.57
49:BR:103:ARG:HH11	54:BW:40:ASN:ND2	2.02	0.57
51:BT:42:ILE:HD12	51:BT:42:ILE:N	2.19	0.57
51:BT:62:THR:HG22	51:BT:75:ILE:HG23	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BX:30:VAL:HG11	55:BX:39:ILE:HD12	1.86	0.57
1:CA:552:U:O2'	1:CA:553:A:H5'	2.04	0.57
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.85	0.57
12:CL:83:VAL:CG1	12:CL:100:ILE:HG23	2.34	0.57
13:CM:40:ASN:ND2	13:CM:43:THR:HG23	2.10	0.57
22:CV:21:A:N6	22:CV:46:G:H2'	2.18	0.57
28:D2:2:LYS:HB3	36:DA:97:C:H5"	1.85	0.57
28:D2:16:LEU:HB2	28:D2:21:LEU:HD21	1.86	0.57
31:D5:42:PRO:O	31:D5:43:HIS:HB2	2.04	0.57
36:DA:171:G:H2'	36:DA:172:C:C6	2.38	0.57
36:DA:271(P):C:H5'	44:DI:46:ALA:HB2	1.84	0.57
36:DA:290:G:O2'	36:DA:291:C:H5'	2.04	0.57
36:DA:556:G:H2'	36:DA:557:U:H6	1.68	0.57
36:DA:806:C:OP2	47:DP:39:LYS:CD	2.52	0.57
36:DA:2740:A:H2'	36:DA:2741:A:C8	2.39	0.57
39:DD:248:SER:HB2	39:DD:249:PRO:HD2	1.85	0.57
42:DG:40:ASN:C	42:DG:155:MET:HG2	2.25	0.57
44:DI:94:ALA:HB1	44:DI:111:PRO:CA	2.34	0.57
44:DI:120:ILE:O	44:DI:121:LYS:CB	2.52	0.57
46:DO:7:TYR:HE1	46:DO:20:MET:HE3	1.69	0.57
52:DU:68:ALA:O	52:DU:71:GLN:HB2	2.04	0.57
1:AA:32:A:H2'	1:AA:33:A:C8	2.39	0.57
1:AA:355:C:H5'	1:AA:389:A:OP2	2.04	0.57
1:AA:382:A:H2'	1:AA:383:A:H8	1.66	0.57
1:AA:688:G:H2'	1:AA:689:C:H6	1.69	0.57
1:AA:775:G:O2'	1:AA:776:G:H5'	2.04	0.57
2:AB:80:ILE:C	2:AB:82:ARG:H	2.06	0.57
2:AB:144:ARG:HA	2:AB:147:LYS:CB	2.34	0.57
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.86	0.57
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.86	0.57
25:AY:28:G:H2'	25:AY:29:G:C8	2.34	0.57
32:B6:32:ASN:ND2	32:B6:33:LYS:H	2.01	0.57
36:BA:444:C:OP2	52:BU:2:PRO:HD3	2.03	0.57
36:BA:524:U:H4'	36:BA:555:U:H4'	1.86	0.57
36:BA:1309:G:O2'	36:BA:1310:G:H5'	2.03	0.57
36:BA:2100:G:H1	36:BA:2189:U:H3	1.52	0.57
36:BA:2110:G:O2'	36:BA:2120:G:H5'	2.04	0.57
36:BA:2306:C:C5	36:BA:2307:G:H1'	2.39	0.57
36:BA:2393:A:H5'	47:BP:62:LEU:HB3	1.86	0.57
36:BA:2729:G:H1'	40:BE:187:ALA:CB	2.34	0.57
36:BA:2784:C:H4'	40:BE:41:LYS:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2822:G:H2'	36:BA:2823:A:H5"	1.85	0.57
41:BF:24:LEU:HB3	41:BF:25:PRO:HD2	1.84	0.57
41:BF:89:VAL:HG12	41:BF:90:PHE:H	1.68	0.57
44:BI:133:HIS:CB	44:BI:134:PRO:CD	2.80	0.57
45:BN:4:TYR:CD1	45:BN:4:TYR:N	2.71	0.57
45:BN:18:ALA:HB1	45:BN:21:LYS:CB	2.34	0.57
46:BO:107:ARG:NH1	51:BT:35:LYS:HB2	2.20	0.57
49:BR:27:SER:HB3	49:BR:34:ILE:CD1	2.34	0.57
52:BU:62:ILE:HD12	52:BU:76:TYR:CZ	2.38	0.57
1:CA:650:G:O2'	1:CA:651:C:H5'	2.04	0.57
1:CA:1128:C:H5'	9:CI:16:ARG:HH12	1.69	0.57
1:CA:1316:G:O6	19:CS:5:LEU:HD23	2.04	0.57
2:CB:204:ASN:ND2	2:CB:207:ALA:H	1.95	0.57
8:CH:6:ILE:HG22	8:CH:10:LEU:CD1	2.34	0.57
13:CM:47:ASP:O	13:CM:48:LEU:HB3	2.04	0.57
18:CR:74:ARG:HH21	18:CR:81:PHE:HA	1.69	0.57
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.03	0.57
22:CV:30:G:C6	22:CV:31:G:N7	2.71	0.57
25:CY:55:U:C6	25:CY:57:G:H5'	2.39	0.57
28:D2:2:LYS:HE2	28:D2:6:VAL:HG23	1.85	0.57
34:D8:15:LYS:HB2	47:DP:65:ARG:NH1	2.19	0.57
36:DA:1504:C:O2'	36:DA:1505:C:H5'	2.04	0.57
36:DA:1686:C:H5'	36:DA:1686:C:C6	2.38	0.57
36:DA:1786:A:H2	36:DA:2606:C:H1'	1.67	0.57
36:DA:2787:C:H1'	40:DE:61:ARG:HG2	1.86	0.57
38:DC:83:ILE:HD11	38:DC:95:GLY:O	2.03	0.57
41:DF:32:LEU:HD22	41:DF:112:MET:HE2	1.86	0.57
47:DP:107:LYS:O	47:DP:109:GLY:N	2.38	0.57
49:DR:10:LEU:HD13	49:DR:17:ARG:NH1	2.20	0.57
49:DR:27:SER:HB3	49:DR:34:ILE:CD1	2.33	0.57
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.38	0.57
1:AA:1246:C:O2'	1:AA:1247:U:H5'	2.04	0.57
1:AA:1321:C:C5'	1:AA:1322:C:H5"	2.34	0.57
2:AB:48:MET:CA	2:AB:51:LEU:HD12	2.28	0.57
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.19	0.57
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.19	0.57
4:AD:4:TYR:HE2	4:AD:6:GLY:O	1.87	0.57
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.20	0.57
11:AK:127:LYS:HE2	11:AK:127:LYS:CA	2.20	0.57
15:AO:74:ASP:C	15:AO:76:GLU:H	2.07	0.57
19:AS:36:ARG:NH1	19:AS:75:ALA:HB3	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:585:G:H2'	36:BA:1251:C:H42	1.69	0.57
36:BA:2758:A:C3'	36:BA:2759:G:H5"	2.34	0.57
48:BQ:42:ILE:HA	48:BQ:46:GLN:OE1	2.04	0.57
51:BT:89:VAL:CG1	51:BT:91:ARG:NE	2.65	0.57
51:BT:125:ARG:O	51:BT:128:GLU:HG3	2.04	0.57
52:BU:92:ARG:NH2	52:BU:94:ASN:ND2	2.51	0.57
55:BX:35:THR:O	55:BX:39:ILE:HG12	2.04	0.57
56:BY:95:LYS:HA	56:BY:100:ALA:HA	1.86	0.57
57:BZ:5:LEU:HD21	57:BZ:43:GLU:CB	2.26	0.57
1:CA:33:A:H2'	1:CA:34:C:C6	2.39	0.57
1:CA:1029:C:C4'	1:CA:1033:G:H22	2.16	0.57
4:CD:57:ARG:HH11	4:CD:57:ARG:HG3	1.70	0.57
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.39	0.57
17:CQ:52:LYS:HG2	17:CQ:55:ASP:OD1	2.05	0.57
18:CR:82:THR:CG2	18:CR:83:GLU:N	2.66	0.57
23:CW:50:U:H2'	23:CW:51:U:C6	2.39	0.57
36:DA:228:A:H5'	36:DA:229:A:OP2	2.03	0.57
36:DA:674:G:O2'	41:DF:74:ARG:HD3	2.03	0.57
36:DA:1112:G:O2'	36:DA:1113:U:O4'	2.21	0.57
36:DA:1441:G:O2'	36:DA:1442:G:H5'	2.04	0.57
36:DA:1799:G:H5'	36:DA:1819:A:H61	1.69	0.57
36:DA:2124:G:O2'	38:DC:40:THR:HA	2.04	0.57
36:DA:2737:G:H2'	36:DA:2738:A:C8	2.40	0.57
37:DB:43:C:H1'	42:DG:93:THR:O	2.05	0.57
39:DD:267:SER:C	39:DD:269:PHE:H	2.06	0.57
40:DE:53:PRO:O	40:DE:54:GLN:O	2.22	0.57
40:DE:110:GLY:HA2	40:DE:162:ALA:H	1.69	0.57
42:DG:2:PRO:HD2	42:DG:4:ASP:O	2.04	0.57
47:DP:91:PHE:N	47:DP:91:PHE:CD1	2.71	0.57
47:DP:99:LEU:HA	47:DP:102:ARG:NH2	2.17	0.57
48:DQ:110:THR:OG1	48:DQ:112:GLU:HG2	2.04	0.57
52:DU:34:LYS:HA	52:DU:34:LYS:CE	2.31	0.57
52:DU:62:ILE:HD12	52:DU:76:TYR:CZ	2.38	0.57
56:DY:11:ASP:OD1	56:DY:12:THR:N	2.37	0.57
57:DZ:3:TYR:N	57:DZ:3:TYR:CD1	2.71	0.57
57:DZ:73:GLN:O	57:DZ:86:VAL:HG13	2.04	0.57
57:DZ:114:GLY:HA3	57:DZ:177:PRO:HB3	1.86	0.57
57:DZ:116:VAL:H	57:DZ:174:VAL:HG13	1.69	0.57
57:DZ:124:ILE:HG23	57:DZ:165:VAL:HG23	1.86	0.57
1:AA:386:C:O2'	1:AA:387:U:H5'	2.04	0.57
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.06	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.86	0.57
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.28	0.57
20:AT:97:ALA:O	20:AT:99:LEU:N	2.36	0.57
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.19	0.57
26:B0:27:GLU:HB2	26:B0:69:PHE:CD1	2.39	0.57
34:B8:32:LEU:HD13	36:BA:2392:A:OP1	2.04	0.57
34:B8:39:LYS:HE3	36:BA:2365:G:O6	2.05	0.57
35:B9:9:ARG:HH11	35:B9:9:ARG:CB	2.17	0.57
36:BA:154(A):C:H41	36:BA:172:C:H42	1.53	0.57
36:BA:583:G:OP2	52:BU:10:ARG:NH1	2.36	0.57
36:BA:943:U:OP2	47:BP:38:GLN:CD	2.42	0.57
36:BA:1001:A:H2'	36:BA:1002:G:O4'	2.04	0.57
36:BA:1035:U:H5'	43:BH:59:ARG:HD3	1.87	0.57
36:BA:1504:C:O2'	36:BA:1505:C:C5'	2.52	0.57
38:BC:83:ILE:HD11	38:BC:95:GLY:O	2.04	0.57
40:BE:53:PRO:O	40:BE:54:GLN:O	2.23	0.57
42:BG:175:LEU:CD1	42:BG:175:LEU:H	2.17	0.57
42:BG:175:LEU:HD12	42:BG:175:LEU:N	2.20	0.57
44:BI:114:LEU:O	44:BI:115:ALA:HB3	2.03	0.57
46:BO:3:GLN:HB2	46:BO:4:PRO:HD2	1.86	0.57
47:BP:38:GLN:CG	47:BP:39:LYS:H	2.04	0.57
47:BP:84:ASN:ND2	47:BP:116:GLY:HA3	2.19	0.57
51:BT:89:VAL:HG21	51:BT:91:ARG:NH2	2.20	0.57
52:BU:38:THR:O	52:BU:41:ALA:HB3	2.04	0.57
55:BX:54:VAL:C	55:BX:55:ASN:HD22	2.07	0.57
56:BY:76:CYS:HB3	56:BY:96:ILE:CD1	2.27	0.57
57:BZ:143:GLY:C	57:BZ:144:LEU:HD22	2.25	0.57
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.05	0.57
1:CA:663:A:O2'	1:CA:664:G:H5'	2.04	0.57
1:CA:708:C:H2'	1:CA:709:G:H8	1.69	0.57
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.39	0.57
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.39	0.57
1:CA:1432:G:OP1	51:DT:107:ASP:HB2	2.03	0.57
2:CB:172:ILE:H	2:CB:172:ILE:CD1	2.16	0.57
4:CD:8:VAL:C	4:CD:10:ARG:N	2.57	0.57
11:CK:125:PHE:N	11:CK:125:PHE:CD1	2.71	0.57
13:CM:117:VAL:HG12	13:CM:118:ALA:N	2.18	0.57
34:D8:23:VAL:CG1	34:D8:46:ARG:HB3	2.35	0.57
36:DA:483:A:O2'	56:DY:60:PHE:HZ	1.87	0.57
36:DA:598:G:H5'	47:DP:15:ARG:HB2	1.87	0.57
36:DA:845:G:HO2'	36:DA:846:C:H5	1.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2162:G:H2'	36:DA:2163:C:C6	2.39	0.57
36:DA:2729:G:H1'	40:DE:187:ALA:CB	2.35	0.57
36:DA:2730:C:O2'	36:DA:2731:G:H5'	2.04	0.57
36:DA:2863:C:C2'	36:DA:2864:G:C5'	2.81	0.57
41:DF:6:VAL:HG12	41:DF:7:TYR:O	2.03	0.57
57:DZ:96:VAL:O	57:DZ:127:LYS:HA	2.03	0.57
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.03	0.57
3:AC:109:PRO:HB3	3:AC:115:LEU:HD13	1.86	0.57
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.25	0.57
9:AI:18:PHE:HB2	9:AI:62:TYR:O	2.04	0.57
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.84	0.57
10:AJ:83:GLU:C	10:AJ:85:LEU:H	2.07	0.57
13:AM:27:LYS:CE	13:AM:31:LYS:HE3	2.24	0.57
22:AV:61:C:O2'	22:AV:62:C:H5'	2.03	0.57
25:AY:5:G:H2'	25:AY:6:G:C8	2.39	0.57
36:BA:214:G:O2'	36:BA:215:G:O4'	2.22	0.57
36:BA:271(Q):G:O2'	36:BA:271(R):G:H8	1.87	0.57
36:BA:1112:G:O2'	36:BA:1113:U:O4'	2.21	0.57
36:BA:1473:G:O2'	36:BA:1474:C:H5'	2.04	0.57
36:BA:1784:A:H4'	36:BA:1785:A:O5'	2.05	0.57
36:BA:1907:G:O2'	36:BA:1908:C:H5'	2.04	0.57
36:BA:2298:A:H2'	36:BA:2299:G:O4'	2.04	0.57
36:BA:2317:C:C2'	36:BA:2318:G:H5'	2.34	0.57
36:BA:2763:G:C8	36:BA:2763:G:H5'	2.39	0.57
41:BF:161:GLU:HA	41:BF:164:ARG:HB2	1.86	0.57
43:BH:86:GLU:N	43:BH:86:GLU:OE1	2.36	0.57
46:BO:77:ILE:HD11	51:BT:72:VAL:CG1	2.34	0.57
50:BS:96:GLY:O	50:BS:98:VAL:N	2.37	0.57
51:BT:27:THR:HG23	51:BT:28:VAL:H	1.69	0.57
53:BV:82:ARG:HH11	53:BV:82:ARG:HG2	1.68	0.57
57:BZ:9:TYR:OH	57:BZ:35:ARG:HG3	2.03	0.57
1:CA:591:U:H2'	1:CA:592:G:H8	1.70	0.57
1:CA:601:C:H2'	1:CA:602:A:H8	1.69	0.57
1:CA:1029:C:H4'	1:CA:1033:G:N2	2.19	0.57
1:CA:1191:A:H5"	3:CC:4:LYS:NZ	2.18	0.57
1:CA:1490:C:O2'	1:CA:1491:G:H5'	2.03	0.57
2:CB:19:HIS:CE1	2:CB:191:ASP:HB2	2.40	0.57
3:CC:109:PRO:HA	3:CC:115:LEU:HD12	1.85	0.57
3:CC:126:ARG:HH11	3:CC:126:ARG:HG2	1.69	0.57
4:CD:65:ARG:HD3	4:CD:75:PHE:CD2	2.39	0.57
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:53:G:O2'	23:CW:54:U:H5'	2.04	0.57
28:D2:3:LEU:HD23	28:D2:3:LEU:C	2.25	0.57
36:DA:271(O):C:HO2'	36:DA:271(P):C:H6	1.50	0.57
36:DA:444:C:OP2	52:DU:2:PRO:HD3	2.03	0.57
36:DA:1906:G:O2'	36:DA:1907:G:H5'	2.04	0.57
36:DA:2110:G:O2'	36:DA:2120:G:H5'	2.04	0.57
36:DA:2543:G:H8	36:DA:2543:G:H5'	1.69	0.57
39:DD:33:LEU:HD12	39:DD:33:LEU:N	2.16	0.57
41:DF:155:LEU:HD23	41:DF:186:ILE:HD13	1.85	0.57
42:DG:37:VAL:HG12	42:DG:37:VAL:O	2.04	0.57
42:DG:103:LEU:O	42:DG:106:LEU:HB3	2.04	0.57
44:DI:57:ARG:O	44:DI:61:ARG:NE	2.37	0.57
47:DP:127:ALA:O	47:DP:148:LEU:HD12	2.03	0.57
49:DR:45:ARG:CG	49:DR:46:GLY:N	2.68	0.57
50:DS:71:ARG:O	50:DS:74:ALA:HB3	2.04	0.57
52:DU:98:LEU:HD21	53:DV:2:PHE:CZ	2.40	0.57
54:DW:14:PRO:O	54:DW:15:ARG:C	2.42	0.57
1:AA:591:U:H2'	1:AA:592:G:H8	1.69	0.57
1:AA:708:C:H2'	1:AA:709:G:H8	1.70	0.57
1:AA:1030:C:C3'	1:AA:1030(A):G:H5'	2.35	0.57
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.39	0.57
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.86	0.57
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.05	0.57
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.04	0.57
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.40	0.57
23:AW:58:A:H1'	23:AW:60:U:C5	2.39	0.57
25:AY:48:C:H2'	25:AY:59:U:O2'	2.05	0.57
36:BA:1879:C:C3'	36:BA:1880:C:H5"	2.34	0.57
36:BA:2720:U:H3'	36:BA:2721:A:H8	1.70	0.57
38:BC:75:LEU:HD13	38:BC:119:VAL:O	2.04	0.57
38:BC:82:LYS:HE3	38:BC:151:GLU:O	2.05	0.57
42:BG:54:GLU:O	42:BG:57:ALA:HB3	2.04	0.57
42:BG:174:GLU:HB3	42:BG:175:LEU:HD12	1.85	0.57
47:BP:63:PRO:C	47:BP:65:ARG:N	2.57	0.57
48:BQ:32:TYR:OH	48:BQ:111:GLU:HB2	2.05	0.57
52:BU:44:ASN:HD21	53:BV:75:PHE:H	1.52	0.57
52:BU:104:GLN:HB2	53:BV:44:LYS:HZ3	1.68	0.57
57:BZ:15:PRO:O	57:BZ:19:ARG:HG3	2.05	0.57
57:BZ:42:VAL:HG13	57:BZ:43:GLU:N	2.18	0.57
1:CA:637:G:H2'	1:CA:638:G:C8	2.39	0.57
1:CA:994:A:N7	1:CA:1216:G:H4'	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1030:C:C3'	1:CA:1030(A):G:H5'	2.34	0.57
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.04	0.57
1:CA:1320:C:H5'	19:CS:70:LYS:HG3	1.86	0.57
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.86	0.57
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.71	0.57
16:CP:20:VAL:CG2	16:CP:32:TYR:HB2	2.35	0.57
18:CR:44:LEU:HD11	18:CR:79:LEU:HD22	1.86	0.57
19:CS:29:ARG:H	19:CS:29:ARG:HD2	1.70	0.57
36:DA:90:U:H1'	36:DA:92:A:H8	1.69	0.57
36:DA:589:C:O2'	36:DA:590:A:H5'	2.04	0.57
36:DA:943:U:OP2	47:DP:38:GLN:CD	2.42	0.57
36:DA:2720:U:H3'	36:DA:2721:A:H8	1.69	0.57
36:DA:2758:A:C3'	36:DA:2759:G:H5"	2.35	0.57
37:DB:7:G:H3'	37:DB:8:U:C5'	2.23	0.57
41:DF:3:GLU:CB	41:DF:24:LEU:HG	2.33	0.57
42:DG:6:ALA:HB3	42:DG:104:GLU:OE1	2.05	0.57
42:DG:38:VAL:C	42:DG:157:ILE:HG13	2.24	0.57
42:DG:46:ALA:CB	42:DG:87:PRO:HA	2.35	0.57
45:DN:26:LEU:CD2	45:DN:30:ILE:HD11	2.34	0.57
45:DN:48:MET:H	45:DN:48:MET:CE	2.18	0.57
46:DO:104:ARG:NE	51:DT:33:LYS:HD2	2.19	0.57
49:DR:17:ARG:HH11	49:DR:17:ARG:HG2	1.70	0.57
51:DT:93:ARG:HG3	51:DT:93:ARG:HH11	1.68	0.57
51:DT:102:ILE:HB	51:DT:110:ILE:CD1	2.34	0.57
56:DY:96:ILE:HD12	56:DY:99:CYS:CB	2.34	0.57
57:DZ:23:LYS:O	57:DZ:25:PRO:HD3	2.05	0.57
1:AA:939:G:H5"	7:AG:102:ARG:CZ	2.33	0.57
1:AA:1123:A:C4'	10:AJ:36:GLY:HA3	2.31	0.57
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.35	0.57
6:AF:49:ALA:HB2	18:AR:78:LEU:O	2.05	0.57
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	1.86	0.57
8:AH:80:ILE:HG22	8:AH:80:ILE:O	2.04	0.57
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.85	0.57
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.04	0.57
36:BA:760:G:C2'	36:BA:761:A:H5'	2.34	0.57
36:BA:878:A:H61	36:BA:899:A:H2'	1.70	0.57
36:BA:1441:G:O2'	36:BA:1442:G:H5'	2.04	0.57
36:BA:2036:C:H5'	36:BA:2036:C:C6	2.27	0.57
39:BD:242:ARG:HD2	39:BD:242:ARG:N	2.20	0.57
42:BG:170:ARG:NH2	42:BG:182:LYS:HG3	2.20	0.57
43:BH:94:TYR:CE2	43:BH:160:LYS:HB3	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:62:VAL:HG22	45:BN:66:LYS:CD	2.33	0.57
45:BN:89:LYS:O	45:BN:93:THR:HG22	2.04	0.57
50:BS:28:VAL:HB	50:BS:89:ARG:CG	2.34	0.57
50:BS:48:LEU:CD2	50:BS:82:ILE:HD11	2.34	0.57
52:BU:101:ARG:C	52:BU:102:GLU:HG2	2.24	0.57
57:BZ:74:VAL:HG22	57:BZ:86:VAL:HG12	1.85	0.57
1:CA:1056:U:H5'	3:CC:163:ALA:CB	2.34	0.57
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.69	0.57
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.03	0.57
1:CA:1317:C:OP1	14:CN:17:LYS:HG2	2.04	0.57
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.40	0.57
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.05	0.57
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.04	0.57
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.19	0.57
20:CT:14:LYS:HB2	20:CT:17:ARG:NH2	2.19	0.57
22:CV:1:C:H2'	22:CV:2:G:H8	1.69	0.57
24:CX:20:U:H2'	24:CX:21:C:C6	2.39	0.57
32:D6:11:LEU:HG	32:D6:26:ASN:HD21	1.69	0.57
34:D8:34:TRP:HA	36:DA:2420:C:OP1	2.04	0.57
36:DA:80:G:O2'	36:DA:81:G:H5'	2.05	0.57
36:DA:896:A:C2	57:DZ:113:ALA:HB3	2.39	0.57
36:DA:1980:G:O2'	36:DA:1982:C:OP2	2.21	0.57
36:DA:2464:C:O2'	36:DA:2465:C:P	2.63	0.57
36:DA:2711:A:H5"	36:DA:2712:U:H5'	1.86	0.57
42:DG:8:LYS:NZ	42:DG:96:ARG:NH1	2.52	0.57
42:DG:86:MET:HB2	42:DG:87:PRO:HD3	1.87	0.57
43:DH:25:LYS:H	43:DH:25:LYS:CD	2.12	0.57
44:DI:58:LEU:HA	44:DI:61:ARG:CD	2.32	0.57
55:DX:35:THR:HG22	55:DX:37:THR:H	1.70	0.57
56:DY:16:ALA:HA	56:DY:21:LYS:HD2	1.87	0.57
1:AA:227:G:H2'	1:AA:228:A:C8	2.40	0.57
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.69	0.57
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.39	0.57
4:AD:8:VAL:C	4:AD:10:ARG:N	2.57	0.57
8:AH:6:ILE:HG22	8:AH:10:LEU:HD11	1.87	0.57
13:AM:65:LYS:HB3	13:AM:65:LYS:HZ2	1.70	0.57
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.05	0.57
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.69	0.57
34:B8:15:LYS:HB2	47:BP:65:ARG:NH1	2.20	0.57
36:BA:1223:G:H5'	36:BA:1224:C:OP2	2.05	0.57
36:BA:1692:U:O2'	36:BA:1693:U:H2'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1981:A:H5”	36:BA:1982:C:OP2	2.05	0.57
36:BA:1991:U:H2’	36:BA:1992:G:H5”	1.86	0.57
36:BA:2292:C:O2’	36:BA:2293:C:H5’	2.05	0.57
36:BA:2340:G:O2’	36:BA:2341:G:H5’	2.04	0.57
37:BB:41:U:C4	42:BG:69:ALA:HB1	2.40	0.57
38:BC:196:LEU:C	38:BC:198:ALA:H	2.07	0.57
39:BD:31:LYS:NZ	39:BD:102:LYS:NZ	2.52	0.57
39:BD:158:ALA:HB3	39:BD:161:THR:HG21	1.85	0.57
39:BD:271:ILE:O	39:BD:272:ALA:HB2	2.05	0.57
47:BP:47:ASP:HB3	47:BP:48:PRO:HA	1.86	0.57
51:BT:91:ARG:HA	51:BT:117:ASP:N	2.16	0.57
52:BU:101:ARG:O	52:BU:102:GLU:HG2	2.05	0.57
57:BZ:153:SER:CB	57:BZ:167:PRO:HB3	2.29	0.57
1:CA:392:G:H2’	1:CA:393:A:H8	1.70	0.57
1:CA:1112:C:O2	3:CC:179:ARG:HG2	2.04	0.57
2:CB:121:LEU:HA	2:CB:126:GLU:OE1	2.04	0.57
8:CH:127:LEU:HD13	8:CH:127:LEU:O	2.04	0.57
31:D5:3:LYS:HE2	36:DA:2611:U:O2’	2.04	0.57
31:D5:37:LYS:HG3	31:D5:38:ALA:H	1.69	0.57
31:D5:56:LYS:HD2	31:D5:56:LYS:H	1.70	0.57
34:D8:6:THR:HB	34:D8:63:PRO:HG3	1.87	0.57
36:DA:915:C:O2’	36:DA:916:G:H5’	2.04	0.57
36:DA:1494:A:C2’	36:DA:1495:A:H5”	2.35	0.57
37:DB:15:A:H1’	37:DB:110:G:C5	2.40	0.57
37:DB:106:G:H5’	57:DZ:31:ARG:HA	1.87	0.57
39:DD:97:TYR:CE1	39:DD:103:ARG:HG3	2.40	0.57
39:DD:190:TYR:O	39:DD:191:ALA:HB2	2.05	0.57
44:DI:102:SER:HA	44:DI:107:VAL:O	2.04	0.57
45:DN:19:GLU:HG3	45:DN:20:GLY:N	2.19	0.57
47:DP:63:PRO:C	47:DP:65:ARG:N	2.58	0.57
48:DQ:52:VAL:O	48:DQ:56:ARG:HB2	2.05	0.57
1:AA:862:C:O2’	1:AA:863:U:H5’	2.05	0.57
1:AA:1317:C:OP1	14:AN:17:LYS:HG2	2.05	0.57
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.87	0.57
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.25	0.57
11:AK:97:ALA:O	11:AK:101:SER:HB3	2.05	0.57
29:B3:52:HIS:CD2	37:BB:83:G:H4’	2.40	0.57
36:BA:176:G:O2’	36:BA:177:G:H5’	2.05	0.57
36:BA:986:C:O2’	36:BA:987:G:H5’	2.05	0.57
36:BA:1170:G:H1	36:BA:1179:C:N4	1.96	0.57
36:BA:1388:G:O2’	36:BA:1389:G:H5’	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2715:C:O2'	36:BA:2716:U:H5'	2.05	0.57
40:BE:116:VAL:HG22	40:BE:122:PHE:HB2	1.86	0.57
42:BG:53:LEU:N	42:BG:53:LEU:HD22	2.19	0.57
46:BO:26:LYS:O	46:BO:27:GLY:O	2.23	0.57
46:BO:77:ILE:HD13	51:BT:74:ARG:HG2	1.85	0.57
49:BR:18:LEU:HD13	49:BR:18:LEU:C	2.25	0.57
51:BT:92:GLY:O	51:BT:94:ALA:N	2.37	0.57
52:BU:34:LYS:HA	52:BU:34:LYS:CE	2.30	0.57
53:BV:2:PHE:O	53:BV:3:ALA:HB3	2.05	0.57
56:BY:96:ILE:HD12	56:BY:99:CYS:CB	2.35	0.57
1:CA:693:G:H2'	1:CA:694:A:C8	2.40	0.57
1:CA:737:A:H2'	1:CA:738:C:C6	2.40	0.57
7:CG:62:PHE:HD1	7:CG:124:LEU:HD21	1.70	0.57
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	1.87	0.57
13:CM:65:LYS:HB3	13:CM:65:LYS:HZ3	1.69	0.57
30:D4:60:GLU:O	30:D4:61:VAL:HB	2.04	0.57
35:D9:9:ARG:HH11	35:D9:9:ARG:CB	2.17	0.57
36:DA:543:C:N3	36:DA:551:G:C2	2.73	0.57
36:DA:1388:G:O2'	36:DA:1389:G:H5'	2.04	0.57
36:DA:1573:G:H2'	36:DA:1574:C:H5'	1.86	0.57
36:DA:2748:A:O2'	43:DH:66:GLY:HA3	2.05	0.57
36:DA:2795:G:N7	36:DA:2801(A):A:C2	2.72	0.57
39:DD:270:ILE:O	39:DD:271:ILE:HG12	2.04	0.57
40:DE:199:ARG:HH11	40:DE:199:ARG:CB	2.17	0.57
42:DG:45:GLU:CG	42:DG:46:ALA:H	2.18	0.57
45:DN:89:LYS:O	45:DN:93:THR:HG22	2.04	0.57
48:DQ:18:LYS:HE2	48:DQ:18:LYS:HA	1.87	0.57
51:DT:62:THR:HG22	51:DT:75:ILE:HG23	1.86	0.57
51:DT:80:SER:O	51:DT:82:LEU:N	2.37	0.57
51:DT:92:GLY:O	51:DT:94:ALA:N	2.37	0.57
52:DU:38:THR:O	52:DU:41:ALA:HB3	2.05	0.57
52:DU:79:PHE:O	52:DU:79:PHE:HD2	1.88	0.57
54:DW:9:TYR:N	54:DW:9:TYR:CD2	2.70	0.57
1:AA:36:C:H2'	1:AA:37:U:H5'	1.87	0.57
1:AA:90:U:H5"	1:AA:91:C:C5'	2.35	0.57
1:AA:328:C:O2	1:AA:328:C:H2'	2.04	0.57
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.87	0.57
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.68	0.57
20:AT:56:MET:HG3	20:AT:84:LEU:HD12	1.87	0.57
34:B8:34:TRP:HA	36:BA:2420:C:OP1	2.04	0.57
36:BA:1514:U:H2'	36:BA:1515:G:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:24:VAL:HG23	46:BO:33:ALA:HB2	1.86	0.57
50:BS:71:ARG:O	50:BS:74:ALA:HB3	2.03	0.57
52:BU:31:SER:O	52:BU:33:ARG:N	2.38	0.57
52:BU:68:ALA:O	52:BU:71:GLN:HB2	2.04	0.57
1:CA:100:C:H2'	1:CA:101:A:C8	2.40	0.57
1:CA:191:G:C4	20:CT:105:SER:HB3	2.40	0.57
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.18	0.57
1:CA:976:G:P	14:CN:32:SER:H	2.28	0.57
2:CB:169:LYS:HD2	2:CB:170:GLU:OE2	2.05	0.57
2:CB:185:ILE:HG12	2:CB:199:TYR:HB2	1.87	0.57
5:CE:14:ARG:NH1	5:CE:129:ILE:HD11	2.20	0.57
9:CI:14:VAL:HG12	9:CI:15:ALA:N	2.20	0.57
14:CN:40:CYS:SG	14:CN:43:CYS:N	2.77	0.57
20:CT:72:LEU:HD21	20:CT:77:ALA:N	2.20	0.57
23:CW:76:A:H62	36:DA:2421:G:H2'	1.70	0.57
36:DA:61:G:H1	36:DA:94:C:H42	1.53	0.57
36:DA:1378:A:H4'	36:DA:1379:A:OP1	2.05	0.57
36:DA:1602:U:H3'	36:DA:1603:A:C5'	2.34	0.57
36:DA:2111:C:H42	36:DA:2147:G:H22	1.53	0.57
36:DA:2632:A:O2'	40:DE:61:ARG:NH2	2.38	0.57
36:DA:2695:C:H2'	36:DA:2696:U:C6	2.40	0.57
37:DB:35:U:O2'	37:DB:36:C:H5'	2.05	0.57
40:DE:8:LYS:HE2	40:DE:192:ASN:ND2	2.19	0.57
40:DE:16:ARG:NH1	40:DE:171:GLU:OE2	2.38	0.57
43:DH:41:MET:HE2	43:DH:54:ARG:HA	1.87	0.57
47:DP:38:GLN:HG3	47:DP:39:LYS:N	2.13	0.57
47:DP:83:VAL:HG11	47:DP:112:LEU:HD21	1.87	0.57
48:DQ:35:VAL:CG1	48:DQ:130:LYS:HB3	2.35	0.57
49:DR:10:LEU:HD22	49:DR:17:ARG:CD	2.30	0.57
50:DS:88:ASP:OD2	50:DS:89:ARG:N	2.38	0.57
53:DV:18:LEU:HD22	53:DV:19:LYS:N	2.20	0.57
1:AA:191:G:C4	20:AT:105:SER:HB3	2.40	0.56
1:AA:509:A:H5'	4:AD:54:TYR:HD2	1.69	0.56
1:AA:552:U:O2'	1:AA:553:A:H5'	2.04	0.56
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.18	0.56
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.69	0.56
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CD1	2.35	0.56
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.70	0.56
36:BA:271(E):U:H2'	36:BA:271(F):C:C6	2.40	0.56
36:BA:686:G:N2	36:BA:788:A:H61	2.02	0.56
36:BA:1887:C:C2'	36:BA:1888:G:H5"	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1906:G:O2'	36:BA:1907:G:H5'	2.05	0.56
36:BA:2025:C:H2'	36:BA:2026:C:H6	1.70	0.56
36:BA:2087:G:O2'	36:BA:2088:G:H5'	2.05	0.56
36:BA:2124:G:O2'	38:BC:40:THR:HA	2.05	0.56
36:BA:2358:G:H22	47:BP:55:ARG:HH22	1.53	0.56
36:BA:2884:U:H2'	36:BA:2885:C:H5'	1.86	0.56
37:BB:17:C:H2'	37:BB:18:G:O4'	2.05	0.56
39:BD:13:ARG:HG2	39:BD:13:ARG:O	2.05	0.56
40:BE:101:ARG:HH22	40:BE:171:GLU:HB2	1.64	0.56
41:BF:40:GLN:NE2	41:BF:182:ASN:HB2	2.20	0.56
43:BH:37:VAL:HG21	43:BH:72:ILE:HD11	1.87	0.56
44:BI:120:ILE:HG22	44:BI:121:LYS:N	2.20	0.56
45:BN:58:ASP:C	45:BN:60:ILE:N	2.57	0.56
49:BR:45:ARG:CG	49:BR:46:GLY:N	2.68	0.56
50:BS:88:ASP:OD2	50:BS:89:ARG:N	2.38	0.56
51:BT:13:ARG:NE	51:BT:13:ARG:CA	2.64	0.56
1:CA:272:C:O2'	1:CA:273:A:H5'	2.05	0.56
1:CA:328:C:H2'	1:CA:328:C:O2	2.03	0.56
1:CA:974:A:P	14:CN:41:ARG:HH12	2.28	0.56
4:CD:4:TYR:HE2	4:CD:6:GLY:O	1.88	0.56
4:CD:80:GLU:O	4:CD:84:LYS:HE2	2.04	0.56
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	2.19	0.56
13:CM:69:GLU:OE1	13:CM:72:ALA:HB3	2.04	0.56
16:CP:42:ARG:O	16:CP:43:LYS:C	2.43	0.56
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.40	0.56
22:CV:31:G:C5	22:CV:32:C:C5	2.93	0.56
35:D9:24:TYR:O	35:D9:25:VAL:HG23	2.04	0.56
36:DA:878:A:H61	36:DA:899:A:H2'	1.69	0.56
36:DA:1686:C:H6	36:DA:1686:C:C5'	2.17	0.56
36:DA:2301:C:H2'	36:DA:2302:G:O4'	2.05	0.56
36:DA:2377:A:H2'	36:DA:2378:A:C8	2.40	0.56
42:DG:33:ARG:O	42:DG:161:THR:HG22	2.05	0.56
43:DH:18:GLU:HB3	43:DH:25:LYS:HZ2	1.69	0.56
43:DH:20:ALA:HB2	43:DH:25:LYS:HE3	1.87	0.56
52:DU:58:ARG:O	52:DU:62:ILE:HG12	2.05	0.56
52:DU:98:LEU:O	52:DU:101:ARG:O	2.23	0.56
1:AA:662:G:H2'	1:AA:663:A:C8	2.40	0.56
1:AA:940:C:OP1	7:AG:102:ARG:HD3	2.05	0.56
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.40	0.56
1:AA:1160:G:H2'	1:AA:1161:C:H5'	1.87	0.56
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:195:VAL:C	3:AC:196:LEU:HD22	2.25	0.56
5:AE:53:LEU:O	5:AE:57:LYS:HB2	2.05	0.56
5:AE:76:ILE:HG13	5:AE:142:LEU:HD13	1.87	0.56
10:AJ:30:SER:HA	10:AJ:80:LYS:HD3	1.86	0.56
12:AL:24:VAL:O	12:AL:24:VAL:CG1	2.53	0.56
22:AV:47:U:H3'	22:AV:48:C:C5'	2.35	0.56
29:B3:8:LEU:HD11	29:B3:31:LEU:HD23	1.87	0.56
36:BA:845:G:H8	36:BA:845:G:OP2	1.86	0.56
36:BA:1107:G:C2	36:BA:1108:U:H1'	2.40	0.56
36:BA:2321:G:H2'	36:BA:2321:G:N3	2.19	0.56
36:BA:2468:G:O2'	36:BA:2476:A:C8	2.59	0.56
36:BA:2672:G:C2'	36:BA:2673:G:H5"	2.35	0.56
42:BG:39:ILE:HD12	42:BG:40:ASN:N	2.20	0.56
43:BH:70:THR:O	43:BH:72:ILE:N	2.37	0.56
45:BN:51:PHE:CE2	45:BN:119:ARG:HD2	2.40	0.56
48:BQ:110:THR:OG1	48:BQ:112:GLU:HG2	2.05	0.56
54:BW:72:LYS:HB3	54:BW:106:ILE:O	2.05	0.56
56:BY:7:VAL:HB	56:BY:8:LYS:NZ	2.20	0.56
56:BY:27:VAL:HG12	56:BY:29:GLU:OE1	2.05	0.56
1:CA:617:G:H4'	16:CP:44:THR:O	2.05	0.56
27:D1:5:CYS:SG	27:D1:62:VAL:HG23	2.44	0.56
36:DA:83:G:N2	36:DA:102:G:H2'	2.19	0.56
36:DA:271(M):G:C2'	36:DA:271(N):U:H5"	2.34	0.56
36:DA:451:C:H41	36:DA:453:C:H3'	1.69	0.56
36:DA:541:C:H2'	36:DA:542:C:C5	2.40	0.56
36:DA:1504:C:O2'	36:DA:1505:C:C5'	2.53	0.56
36:DA:1666:G:O2'	36:DA:1667:G:H5'	2.05	0.56
36:DA:2126:A:H1'	36:DA:2127:G:O4'	2.05	0.56
36:DA:2300:G:H22	36:DA:2317:C:H1'	1.70	0.56
40:DE:15:PHE:CE2	51:DT:80:SER:HB2	2.40	0.56
41:DF:4:VAL:HA	41:DF:19:GLU:HB3	1.86	0.56
41:DF:127:GLU:HB2	41:DF:196:LEU:CG	2.35	0.56
41:DF:161:GLU:HA	41:DF:164:ARG:HB2	1.86	0.56
42:DG:106:LEU:CG	42:DG:111:LEU:HD12	2.35	0.56
42:DG:171:ALA:O	42:DG:173:LEU:N	2.38	0.56
43:DH:126:PRO:O	43:DH:127:GLU:CB	2.53	0.56
44:DI:133:HIS:HB2	44:DI:134:PRO:HD2	1.87	0.56
50:DS:49:VAL:HG21	50:DS:77:ALA:HA	1.85	0.56
52:DU:101:ARG:O	52:DU:102:GLU:HG2	2.05	0.56
57:DZ:66:SER:C	57:DZ:67:LEU:HD12	2.25	0.56
57:DZ:114:GLY:HA3	57:DZ:177:PRO:CB	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:127:LYS:HB3	57:DZ:162:GLU:HG2	1.87	0.56
1:AA:194:C:O2'	20:AT:68:LYS:HD3	2.05	0.56
1:AA:878:G:H5"	8:AH:89:PRO:HG2	1.86	0.56
1:AA:881:G:P	12:AL:12:ARG:HH22	2.27	0.56
1:AA:939:G:H5"	7:AG:102:ARG:HH22	1.68	0.56
1:AA:963:G:H21	10:AJ:55:LYS:NZ	2.03	0.56
1:AA:1029:C:H4'	1:AA:1033:G:H22	1.69	0.56
1:AA:1305:G:H8	1:AA:1305:G:OP2	1.88	0.56
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.05	0.56
2:AB:19:HIS:CE1	2:AB:191:ASP:HB2	2.40	0.56
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.87	0.56
4:AD:162:LEU:O	4:AD:165:MET:HB2	2.05	0.56
5:AE:90:VAL:CG2	5:AE:121:LYS:HB3	2.35	0.56
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.19	0.56
8:AH:10:LEU:HD23	8:AH:83:ILE:CD1	2.22	0.56
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.27	0.56
12:AL:83:VAL:HG12	12:AL:84:LEU:N	2.19	0.56
15:AO:78:TYR:C	15:AO:80:ALA:H	2.08	0.56
19:AS:11:VAL:CG2	19:AS:16:LEU:HD11	2.35	0.56
19:AS:28:LYS:HD2	19:AS:29:ARG:CZ	2.36	0.56
28:B2:30:ARG:HB2	55:BX:5:TYR:CE1	2.41	0.56
29:B3:44:ARG:O	29:B3:48:GLU:HG2	2.06	0.56
32:B6:10:LEU:HD22	32:B6:10:LEU:H	1.71	0.56
36:BA:587:C:O2'	36:BA:588:U:OP2	2.21	0.56
36:BA:589:C:O2'	36:BA:590:A:H5'	2.04	0.56
36:BA:613:G:H8	36:BA:613:G:C5'	2.15	0.56
36:BA:957:A:H5'	48:BQ:76:LYS:HE3	1.87	0.56
36:BA:1301:A:HO2'	36:BA:1302:A:P	2.28	0.56
36:BA:1794:U:H2'	36:BA:1795:C:C6	2.39	0.56
36:BA:1882:C:H5'	36:BA:1883:G:OP2	2.05	0.56
36:BA:2126:A:H1'	36:BA:2127:G:O4'	2.05	0.56
36:BA:2543:G:H8	36:BA:2543:G:H5'	1.70	0.56
36:BA:2650:U:O2'	36:BA:2651:C:H5'	2.03	0.56
36:BA:2854:G:H2'	36:BA:2855:C:C6	2.41	0.56
37:BB:55:U:O2'	37:BB:56:G:H5'	2.04	0.56
39:BD:267:SER:HA	39:BD:270:ILE:CG1	2.34	0.56
40:BE:111:ARG:HD2	40:BE:160:TYR:HE1	1.70	0.56
42:BG:47:LYS:CE	42:BG:81:LYS:HD2	2.35	0.56
42:BG:69:ALA:O	42:BG:90:LEU:HD22	2.06	0.56
42:BG:95:ARG:O	42:BG:96:ARG:O	2.23	0.56
43:BH:20:ALA:HB2	43:BH:25:LYS:HE3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:47:GLU:HG2	43:BH:48:GLY:N	2.18	0.56
43:BH:97:ARG:O	43:BH:98:LEU:HB2	2.06	0.56
45:BN:32:THR:CG2	45:BN:37:LYS:HB3	2.35	0.56
45:BN:42:TRP:CD1	52:BU:63:VAL:HG11	2.41	0.56
49:BR:77:ARG:O	49:BR:79:LEU:N	2.37	0.56
51:BT:15:VAL:HA	51:BT:79:HIS:HD2	1.70	0.56
52:BU:96:ALA:C	52:BU:98:LEU:H	2.05	0.56
57:BZ:17:ALA:HA	57:BZ:20:ARG:HB2	1.88	0.56
1:CA:348:G:O2'	1:CA:349:A:H5'	2.05	0.56
1:CA:628:G:O2'	1:CA:629:G:H5'	2.05	0.56
1:CA:878:G:H5"	8:CH:89:PRO:HG2	1.85	0.56
1:CA:1051:C:O2'	1:CA:1052:U:H5'	2.06	0.56
2:CB:181:PHE:CD1	8:CH:70:GLN:HB3	2.37	0.56
4:CD:112:VAL:HG13	4:CD:116:GLN:OE1	2.05	0.56
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.20	0.56
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.24	0.56
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.25	0.56
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.04	0.56
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.20	0.56
19:CS:6:LYS:H	19:CS:6:LYS:CE	2.18	0.56
20:CT:14:LYS:HA	20:CT:17:ARG:NE	2.19	0.56
35:D9:8:LYS:HE3	36:DA:1032:A:OP1	2.04	0.56
36:DA:481:G:H2'	36:DA:507:A:N1	2.21	0.56
36:DA:845:G:OP2	36:DA:845:G:H8	1.89	0.56
36:DA:1107:G:C2	36:DA:1108:U:H1'	2.40	0.56
36:DA:1407:C:H2'	36:DA:1407:C:O2	2.05	0.56
36:DA:1473:G:O2'	36:DA:1474:C:H5'	2.05	0.56
36:DA:1882:C:H5'	36:DA:1883:G:OP2	2.04	0.56
36:DA:2074:U:H2'	36:DA:2075:U:C6	2.41	0.56
36:DA:2468:G:O2'	36:DA:2476:A:H8	1.88	0.56
36:DA:2781:A:H5"	36:DA:2782:G:H5'	1.86	0.56
36:DA:2887:U:H2'	36:DA:2888:C:H6	1.71	0.56
37:DB:55:U:O2'	37:DB:56:G:H5'	2.05	0.56
38:DC:68:LEU:HD22	38:DC:180:PHE:CB	2.35	0.56
41:DF:37:VAL:HG13	41:DF:184:TYR:HD1	1.71	0.56
41:DF:53:THR:HG23	41:DF:55:GLY:N	2.18	0.56
42:DG:66:GLN:HG3	42:DG:94:LEU:CD2	2.35	0.56
44:DI:123:LEU:HD23	44:DI:142:VAL:HG12	1.88	0.56
48:DQ:57:HIS:CE1	48:DQ:116:GLU:HB3	2.40	0.56
48:DQ:120:ILE:O	48:DQ:123:HIS:HB2	2.05	0.56
49:DR:10:LEU:HB3	49:DR:17:ARG:CD	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:3:ARG:C	51:DT:5:ALA:H	2.07	0.56
51:DT:35:LYS:NZ	51:DT:41:ARG:HH21	2.03	0.56
51:DT:92:GLY:HA2	51:DT:114:LEU:CA	2.36	0.56
53:DV:21:ARG:HD3	53:DV:21:ARG:N	2.21	0.56
56:DY:17:SER:CB	56:DY:71:LYS:HD2	2.35	0.56
57:DZ:26:GLY:O	57:DZ:37:VAL:O	2.22	0.56
57:DZ:79:ARG:O	57:DZ:80:ARG:HG2	2.04	0.56
57:DZ:170:THR:HG22	57:DZ:171:ILE:H	1.70	0.56
1:AA:107:G:H2'	1:AA:108:G:H5'	1.87	0.56
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.05	0.56
1:AA:448:A:O2'	1:AA:449:C:H5'	2.05	0.56
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.05	0.56
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.20	0.56
23:AW:5:G:H2'	23:AW:6:G:O4'	2.04	0.56
25:AY:55:U:O2'	25:AY:56:C:C5'	2.53	0.56
36:BA:481:G:H2'	36:BA:507:A:N1	2.21	0.56
36:BA:1973:G:H2'	36:BA:1974:C:C6	2.41	0.56
36:BA:2074:U:H2'	36:BA:2075:U:C6	2.40	0.56
42:BG:85:GLY:O	42:BG:87:PRO:HD2	2.05	0.56
48:BQ:70:PRO:HA	48:BQ:94:VAL:O	2.05	0.56
49:BR:84:ALA:HB3	49:BR:85:PRO:HD3	1.88	0.56
53:BV:18:LEU:CG	53:BV:19:LYS:H	2.18	0.56
54:BW:1:MET:HA	54:BW:1:MET:HE3	1.88	0.56
56:BY:28:LYS:HA	56:BY:39:VAL:N	2.18	0.56
1:CA:194:C:O2'	20:CT:68:LYS:HD3	2.06	0.56
1:CA:475:G:H2'	1:CA:476:G:C8	2.39	0.56
1:CA:620:C:H2'	1:CA:621:A:O4'	2.06	0.56
2:CB:43:ASP:OD2	2:CB:46:LYS:HB2	2.06	0.56
8:CH:84:ARG:HH11	8:CH:84:ARG:HG2	1.70	0.56
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.69	0.56
15:CO:75:PRO:O	15:CO:79:ARG:HG3	2.05	0.56
22:CV:52:G:HO2'	22:CV:53:G:H8	1.51	0.56
27:D1:26:ARG:HH22	36:DA:389:G:H5"	1.69	0.56
28:D2:21:LEU:CB	28:D2:64:LEU:HD12	2.36	0.56
31:D5:20:ARG:HA	31:D5:23:HIS:ND1	2.20	0.56
36:DA:93:G:H2'	36:DA:94:C:C6	2.41	0.56
36:DA:1514:U:H2'	36:DA:1515:G:H8	1.70	0.56
36:DA:2024:G:H2'	36:DA:2025:C:C6	2.41	0.56
36:DA:2721:A:H2'	36:DA:2722:G:C8	2.41	0.56
36:DA:2777:G:C4'	36:DA:2778:A:H5'	2.36	0.56
37:DB:57:A:H1'	42:DG:29:TRP:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DD:77:ALA:HB1	39:DD:96:HIS:O	2.05	0.56
42:DG:51:ARG:HA	42:DG:51:ARG:HE	1.71	0.56
44:DI:88:ILE:HG22	44:DI:89:TYR:N	2.20	0.56
45:DN:3:THR:O	45:DN:5:VAL:HG12	2.05	0.56
45:DN:54:VAL:HB	45:DN:122:VAL:HG22	1.87	0.56
48:DQ:31:ASP:O	48:DQ:133:ARG:O	2.23	0.56
49:DR:12:ARG:HD3	49:DR:16:HIS:ND1	2.19	0.56
57:DZ:108:PRO:O	57:DZ:143:GLY:HA2	2.05	0.56
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.54	0.56
1:AA:738:C:H2'	1:AA:739:C:H6	1.70	0.56
1:AA:1174:G:H2'	1:AA:1175:G:C8	2.41	0.56
3:AC:109:PRO:HA	3:AC:115:LEU:HD12	1.87	0.56
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.05	0.56
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.23	0.56
10:AJ:61:GLU:OE1	14:AN:58:LYS:HE2	2.05	0.56
26:B0:23:VAL:HG22	26:B0:38:VAL:HG22	1.87	0.56
29:B3:49:LYS:NZ	36:BA:850:C:O3'	2.37	0.56
36:BA:321:G:OP2	41:BF:136:THR:HG22	2.06	0.56
36:BA:1504:C:O2'	36:BA:1505:C:H5'	2.05	0.56
36:BA:1573:G:H2'	36:BA:1574:C:H5'	1.86	0.56
36:BA:2197:U:O2'	36:BA:2198:A:H2'	2.04	0.56
39:BD:248:SER:HB2	39:BD:249:PRO:HD2	1.88	0.56
41:BF:32:LEU:HD22	41:BF:112:MET:HE2	1.87	0.56
47:BP:83:VAL:CG1	47:BP:112:LEU:HD21	2.34	0.56
47:BP:101:VAL:HG13	47:BP:106:LEU:HD23	1.88	0.56
49:BR:26:LYS:HE2	49:BR:71:GLN:H	1.70	0.56
50:BS:89:ARG:HD2	50:BS:92:TYR:CA	2.33	0.56
51:BT:6:LEU:O	51:BT:6:LEU:HD23	2.05	0.56
56:BY:2:ARG:N	56:BY:4:LYS:HG2	2.21	0.56
57:BZ:10:ARG:HH21	57:BZ:26:GLY:N	2.03	0.56
1:CA:227:G:H2'	1:CA:228:A:C8	2.40	0.56
1:CA:433:C:H2'	1:CA:434:U:C6	2.40	0.56
1:CA:512:U:H2'	1:CA:513:C:H6	1.71	0.56
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.05	0.56
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.87	0.56
9:CI:64:THR:HG23	9:CI:64:THR:O	2.06	0.56
10:CJ:50:ILE:HG23	10:CJ:60:ARG:HD3	1.88	0.56
13:CM:100:GLY:C	13:CM:101:GLN:HG3	2.25	0.56
18:CR:36:ASN:HD22	18:CR:39:VAL:HB	1.69	0.56
20:CT:99:LEU:C	20:CT:100:ILE:HD12	2.26	0.56
27:D1:87:PRO:HG2	27:D1:88:LYS:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D4:46:ASN:ND2	30:D4:47:VAL:N	2.52	0.56
33:D7:47:ARG:NH2	55:DX:60:ARG:NH1	2.51	0.56
36:DA:176:G:O2'	36:DA:177:G:H5'	2.05	0.56
36:DA:1140:C:H5"	45:DN:66:LYS:HZ1	1.71	0.56
36:DA:2009:G:H1'	49:DR:107:ASP:C	2.25	0.56
36:DA:2475:C:H5'	36:DA:2476:A:OP2	2.04	0.56
36:DA:2715:C:O2'	36:DA:2716:U:H5'	2.06	0.56
37:DB:38:C:O2	37:DB:48:A:H1'	2.06	0.56
39:DD:34:VAL:HG22	39:DD:34:VAL:O	2.04	0.56
41:DF:127:GLU:O	41:DF:129:PHE:N	2.34	0.56
43:DH:24:VAL:HG21	43:DH:72:ILE:HD13	1.88	0.56
49:DR:8:ARG:HA	49:DR:8:ARG:NE	2.18	0.56
50:DS:34:HIS:CD2	50:DS:54:LEU:HB2	2.41	0.56
51:DT:6:LEU:O	51:DT:6:LEU:HD23	2.05	0.56
52:DU:106:PHE:O	52:DU:110:VAL:HG23	2.05	0.56
53:DV:4:ILE:HG22	53:DV:4:ILE:O	2.05	0.56
4:AD:65:ARG:HD3	4:AD:75:PHE:CD2	2.40	0.56
4:AD:166:LYS:HG3	4:AD:178:VAL:HG11	1.88	0.56
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.46	0.56
11:AK:126:ARG:HB3	11:AK:126:ARG:HH11	1.70	0.56
27:B1:45:ASN:C	27:B1:45:ASN:ND2	2.59	0.56
34:B8:4:MET:O	34:B8:62:LEU:HD11	2.05	0.56
36:BA:1007:C:OP1	45:BN:35:ARG:NH1	2.37	0.56
36:BA:1108:U:H2'	36:BA:1109:C:H5'	1.88	0.56
38:BC:68:LEU:HD22	38:BC:180:PHE:CB	2.36	0.56
41:BF:7:TYR:HB3	41:BF:16:GLY:N	2.21	0.56
41:BF:67:GLN:O	41:BF:67:GLN:CG	2.41	0.56
42:BG:40:ASN:HB2	42:BG:91:ARG:CB	2.36	0.56
42:BG:115:ARG:HH12	42:BG:136:ARG:HD3	1.70	0.56
45:BN:19:GLU:HG3	45:BN:20:GLY:N	2.20	0.56
46:BO:1:MET:CE	46:BO:67:LYS:HG2	2.35	0.56
49:BR:10:LEU:HB3	49:BR:17:ARG:CD	2.36	0.56
51:BT:93:ARG:HH11	51:BT:93:ARG:HG3	1.69	0.56
53:BV:18:LEU:HD22	53:BV:19:LYS:N	2.18	0.56
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.06	0.56
1:CA:277:C:O2'	1:CA:278:G:H5'	2.04	0.56
1:CA:404:U:H2'	1:CA:405:U:H6	1.71	0.56
1:CA:1425:U:H2'	1:CA:1426:C:C6	2.41	0.56
3:CC:22:TRP:CZ3	3:CC:32:LEU:HB3	2.41	0.56
3:CC:34:LEU:HD23	3:CC:35:GLU:N	2.20	0.56
3:CC:62:ASP:O	3:CC:98:ASN:HB3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.86	0.56
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.70	0.56
29:D3:8:LEU:HD11	29:D3:31:LEU:HD23	1.88	0.56
32:D6:36:LEU:HD13	32:D6:50:ARG:HH12	1.68	0.56
36:DA:648:G:O2'	36:DA:649:G:H5'	2.05	0.56
36:DA:1879:C:C3'	36:DA:1880:C:H5"	2.36	0.56
36:DA:2352:A:C2'	36:DA:2353:G:H5'	2.36	0.56
36:DA:2838:G:H2'	36:DA:2839:G:H8	1.70	0.56
42:DG:110:ALA:O	42:DG:113:ARG:HA	2.05	0.56
43:DH:94:TYR:CE2	43:DH:160:LYS:HB3	2.40	0.56
46:DO:26:LYS:O	46:DO:27:GLY:O	2.23	0.56
50:DS:62:LYS:O	50:DS:65:VAL:HB	2.05	0.56
1:AA:628:G:O2'	1:AA:629:G:H5'	2.05	0.56
1:AA:674:G:H2'	1:AA:675:A:H8	1.71	0.56
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.41	0.56
8:AH:86:ILE:HG13	8:AH:133:LEU:CD2	2.36	0.56
11:AK:127:LYS:HA	11:AK:127:LYS:CE	2.17	0.56
12:AL:46:LYS:O	12:AL:47:LYS:O	2.24	0.56
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.52	0.56
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.86	0.56
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.21	0.56
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.20	0.56
20:AT:72:LEU:HD21	20:AT:77:ALA:CA	2.36	0.56
27:B1:3:LYS:O	27:B1:12:PRO:HD3	2.05	0.56
36:BA:855:G:H2'	36:BA:856:C:C6	2.39	0.56
36:BA:1158:C:HO2'	36:BA:1159:U:H6	1.54	0.56
36:BA:1750:G:O2'	36:BA:1751:C:H5'	2.06	0.56
36:BA:1799:G:H5'	36:BA:1819:A:H61	1.71	0.56
36:BA:1987:G:H8	36:BA:1987:G:C5'	2.19	0.56
36:BA:2301:C:H2'	36:BA:2302:G:O4'	2.06	0.56
36:BA:2377:A:H2'	36:BA:2378:A:C8	2.41	0.56
36:BA:2737:G:H2'	36:BA:2738:A:C8	2.41	0.56
42:BG:124:SER:HB2	42:BG:131:TYR:CE1	2.41	0.56
45:BN:2:LYS:HE2	52:BU:95:LEU:HD21	1.88	0.56
47:BP:85:LEU:HD23	47:BP:85:LEU:N	2.19	0.56
51:BT:3:ARG:C	51:BT:5:ALA:H	2.08	0.56
51:BT:92:GLY:HA2	51:BT:114:LEU:CA	2.36	0.56
51:BT:93:ARG:HG3	51:BT:93:ARG:NH1	2.18	0.56
51:BT:102:ILE:HB	51:BT:110:ILE:CD1	2.36	0.56
52:BU:58:ARG:O	52:BU:62:ILE:HG12	2.06	0.56
53:BV:21:ARG:HD3	53:BV:21:ARG:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:48:MET:CA	2:CB:51:LEU:HD12	2.29	0.56
3:CC:195:VAL:C	3:CC:196:LEU:HD22	2.26	0.56
5:CE:150:ARG:CZ	5:CE:150:ARG:HB2	2.35	0.56
8:CH:12:ARG:HG2	8:CH:24:THR:HG21	1.88	0.56
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.54	0.56
23:CW:26:A:H61	23:CW:44:G:N2	2.04	0.56
36:DA:225:A:H2'	36:DA:226:G:H5'	1.87	0.56
36:DA:999:U:H2'	36:DA:1000:A:C5'	2.36	0.56
36:DA:2580:U:H5'	40:DE:131:ALA:HB2	1.87	0.56
36:DA:2729:G:H1'	40:DE:187:ALA:HB2	1.88	0.56
39:DD:80:ALA:HB2	39:DD:96:HIS:CD2	2.40	0.56
39:DD:271:ILE:O	39:DD:272:ALA:HB2	2.05	0.56
42:DG:43:LEU:H	42:DG:43:LEU:CD2	2.10	0.56
42:DG:171:ALA:C	42:DG:173:LEU:N	2.59	0.56
44:DI:65:ALA:CA	44:DI:131:LYS:HE2	2.35	0.56
45:DN:120:LEU:HD11	45:DN:122:VAL:CG2	2.36	0.56
51:DT:13:ARG:NE	51:DT:13:ARG:CA	2.65	0.56
1:AA:678:U:H2'	1:AA:679:C:C6	2.41	0.56
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.41	0.56
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.05	0.56
2:AB:81:VAL:HG12	2:AB:81:VAL:O	2.05	0.56
8:AH:41:ARG:HG2	8:AH:41:ARG:O	2.05	0.56
11:AK:48:ILE:HG23	11:AK:63:LEU:HD22	1.87	0.56
28:B2:7:ARG:HH11	28:B2:7:ARG:CG	2.18	0.56
30:B4:46:ASN:ND2	30:B4:47:VAL:N	2.53	0.56
31:B5:37:LYS:HG3	31:B5:38:ALA:H	1.71	0.56
32:B6:15:GLU:OE1	32:B6:18:ARG:HG3	2.06	0.56
34:B8:23:VAL:CG1	34:B8:46:ARG:HB3	2.35	0.56
36:BA:500:G:N2	36:BA:502:A:H3'	2.21	0.56
36:BA:536:A:H2'	36:BA:537:C:C6	2.40	0.56
36:BA:1570:A:H2'	36:BA:1571:A:C8	2.41	0.56
36:BA:1602:U:H3'	36:BA:1603:A:C5'	2.36	0.56
36:BA:2094:G:OP1	44:BI:22:LYS:HD2	2.05	0.56
36:BA:2352:A:C2'	36:BA:2353:G:H5'	2.36	0.56
36:BA:2763:G:H5'	36:BA:2763:G:H8	1.70	0.56
36:BA:2836:U:H2'	36:BA:2837:G:C8	2.41	0.56
36:BA:2894:G:N3	36:BA:2894:G:H2'	2.21	0.56
40:BE:101:ARG:HD3	40:BE:169:ASN:HD21	1.70	0.56
41:BF:164:ARG:HH11	41:BF:164:ARG:HG2	1.69	0.56
42:BG:111:LEU:O	42:BG:112:PRO:O	2.23	0.56
43:BH:17:VAL:HG11	43:BH:50:VAL:HG21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:82:ARG:HH11	44:BI:82:ARG:HG3	1.70	0.56
44:BI:111:PRO:HA	44:BI:114:LEU:HD11	1.87	0.56
46:BO:71:ARG:HH12	51:BT:74:ARG:HH22	1.54	0.56
47:BP:81:GLN:HG2	47:BP:106:LEU:CD1	2.35	0.56
47:BP:140:ALA:O	47:BP:141:ALA:HB3	2.06	0.56
49:BR:12:ARG:HD3	49:BR:16:HIS:CE1	2.41	0.56
52:BU:33:ARG:O	52:BU:37:GLU:HG3	2.06	0.56
1:CA:880:C:O2'	1:CA:881:G:H5'	2.06	0.56
1:CA:1117:G:O3'	9:CI:104:ARG:HG3	2.05	0.56
1:CA:1299:A:C8	1:CA:1301:U:H1'	2.40	0.56
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.06	0.56
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.88	0.56
10:CJ:42:THR:HG23	10:CJ:68:HIS:HA	1.88	0.56
10:CJ:61:GLU:OE1	14:CN:58:LYS:HE2	2.06	0.56
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.21	0.56
36:DA:542:C:H2'	36:DA:543:C:OP1	2.06	0.56
36:DA:686:G:N2	36:DA:788:A:H61	2.04	0.56
36:DA:911:A:C5	48:DQ:9:TYR:CD1	2.94	0.56
36:DA:2169:A:C2'	36:DA:2170:A:H5'	2.36	0.56
39:DD:165:ILE:HD13	39:DD:175:LEU:HD21	1.87	0.56
40:DE:168:MET:O	40:DE:170:LEU:HD12	2.06	0.56
42:DG:139:LEU:HD22	42:DG:146:TYR:CE1	2.41	0.56
45:DN:134:ARG:H	45:DN:135:PRO:HD3	1.69	0.56
47:DP:56:SER:O	47:DP:58:THR:N	2.39	0.56
47:DP:85:LEU:HA	47:DP:88:LEU:HD22	1.87	0.56
49:DR:54:LEU:HD23	49:DR:66:VAL:HG23	1.88	0.56
53:DV:18:LEU:CG	53:DV:19:LYS:H	2.18	0.56
1:AA:433:C:H2'	1:AA:434:U:C6	2.41	0.56
1:AA:985:C:H2'	1:AA:986:A:C8	2.40	0.56
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.70	0.56
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.06	0.56
4:AD:92:VAL:O	4:AD:96:LEU:HD13	2.06	0.56
10:AJ:78:ASN:ND2	10:AJ:80:LYS:HB2	2.20	0.56
10:AJ:90:LEU:HD12	10:AJ:90:LEU:N	2.21	0.56
14:AN:12:ARG:HB3	14:AN:14:PRO:HG2	1.88	0.56
16:AP:82:GLN:N	16:AP:82:GLN:NE2	2.53	0.56
17:AQ:52:LYS:HG2	17:AQ:55:ASP:OD1	2.06	0.56
25:AY:37:A:H5'	25:AY:38:A:OP2	2.05	0.56
25:AY:65:G:C2'	25:AY:66:U:H5'	2.35	0.56
34:B8:62:LEU:N	34:B8:63:PRO:CD	2.69	0.56
36:BA:752:A:O2'	36:BA:753:C:OP2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1686:C:H2'	36:BA:1687:G:H5'	1.87	0.56
36:BA:1830:C:H42	36:BA:1975:G:H1	1.54	0.56
41:BF:37:VAL:HG13	41:BF:184:TYR:HD1	1.71	0.56
42:BG:7:LEU:HD22	42:BG:176:LEU:HD22	1.88	0.56
42:BG:43:LEU:HB2	42:BG:88:ILE:CD1	2.35	0.56
54:BW:92:ARG:O	54:BW:93:ALA:HB3	2.05	0.56
56:BY:81:LYS:HB3	56:BY:96:ILE:HG22	1.87	0.56
57:BZ:44:PHE:HE2	57:BZ:86:VAL:HG21	1.69	0.56
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.36	0.56
1:CA:1029:C:H4'	1:CA:1033:G:H22	1.70	0.56
1:CA:1054:C:H42	25:CY:34:G:H1'	1.71	0.56
2:CB:57:PHE:HD2	2:CB:185:ILE:HD11	1.71	0.56
3:CC:131:ARG:HH12	3:CC:135:LYS:HE3	1.71	0.56
8:CH:68:ARG:O	8:CH:69:ARG:HG3	2.05	0.56
12:CL:41:ARG:NH1	12:CL:41:ARG:CB	2.69	0.56
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.21	0.56
22:CV:49:G:H2'	22:CV:50:U:O4'	2.06	0.56
28:D2:42:GLY:O	28:D2:44:LEU:N	2.39	0.56
36:DA:310:A:OP1	56:DY:17:SER:O	2.24	0.56
36:DA:324:A:N6	36:DA:338:G:O2'	2.39	0.56
36:DA:1216:G:P	52:DU:12:ARG:HH21	2.28	0.56
36:DA:1495:A:N3	36:DA:1495:A:H2'	2.21	0.56
37:DB:40:U:N3	37:DB:43:C:H5"	2.20	0.56
39:DD:161:THR:O	39:DD:196:VAL:HG23	2.05	0.56
40:DE:36:ARG:HH12	40:DE:86:PRO:HD2	1.70	0.56
40:DE:137:HIS:HB3	40:DE:138:PRO:HD2	1.88	0.56
47:DP:83:VAL:CG1	47:DP:112:LEU:HD21	2.35	0.56
52:DU:44:ASN:HD21	53:DV:75:PHE:H	1.54	0.56
53:DV:34:GLU:O	53:DV:36:PRO:HD3	2.06	0.56
1:AA:176:C:H2'	1:AA:177:C:C6	2.41	0.56
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.06	0.56
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.36	0.56
9:AI:64:THR:O	9:AI:64:THR:HG23	2.06	0.56
9:AI:92:TYR:N	9:AI:92:TYR:CD1	2.73	0.56
12:AL:87:GLY:HA2	12:AL:98:TYR:HA	1.87	0.56
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.13	0.56
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.21	0.56
17:AQ:77:VAL:O	17:AQ:78:GLU:HB3	2.05	0.56
18:AR:44:LEU:CD1	18:AR:79:LEU:HD22	2.36	0.56
18:AR:53:ARG:HG2	18:AR:53:ARG:NH1	2.20	0.56
27:B1:57:GLU:O	27:B1:58:ILE:O	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:88:LYS:HD3	27:B1:88:LYS:C	2.26	0.56
34:B8:33:ASN:ND2	34:B8:33:ASN:N	2.53	0.56
36:BA:598:G:H5'	47:BP:15:ARG:HB2	1.88	0.56
36:BA:1495:A:N3	36:BA:1495:A:H2'	2.21	0.56
36:BA:2233:U:H2'	36:BA:2234:G:C8	2.41	0.56
36:BA:2481:G:O2'	36:BA:2482:G:P	2.64	0.56
36:BA:2774:C:H2'	36:BA:2775:A:O4'	2.05	0.56
40:BE:110:GLY:HA2	40:BE:162:ALA:H	1.70	0.56
41:BF:157:VAL:HB	41:BF:194:MET:CB	2.35	0.56
42:BG:18:GLU:O	42:BG:22:ARG:HG3	2.06	0.56
48:BQ:112:GLU:HG3	48:BQ:113:GLN:N	2.20	0.56
51:BT:56:GLY:N	51:BT:59:THR:HG22	2.21	0.56
51:BT:80:SER:O	51:BT:82:LEU:N	2.39	0.56
52:BU:96:ALA:C	52:BU:98:LEU:N	2.58	0.56
52:BU:99:ALA:HB2	52:BU:106:PHE:CE1	2.41	0.56
53:BV:21:ARG:HD3	53:BV:21:ARG:N	2.21	0.56
53:BV:34:GLU:O	53:BV:36:PRO:HD3	2.05	0.56
56:BY:42:VAL:CB	56:BY:65:ALA:HB3	2.35	0.56
1:CA:712:A:O2'	1:CA:713:G:H5'	2.06	0.56
1:CA:1223:C:P	19:CS:78:ARG:HH21	2.29	0.56
1:CA:1228:C:H4'	13:CM:116:THR:O	2.06	0.56
2:CB:80:ILE:C	2:CB:82:ARG:H	2.08	0.56
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.88	0.56
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.05	0.56
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.06	0.56
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.53	0.56
18:CR:44:LEU:CD1	18:CR:79:LEU:HD22	2.36	0.56
30:D4:37:PRO:HA	30:D4:51:TYR:CD2	2.40	0.56
30:D4:64:LYS:O	30:D4:65:CYS:SG	2.60	0.56
31:D5:36:CYS:SG	31:D5:37:LYS:N	2.79	0.56
36:DA:863:A:H2'	36:DA:864:G:C8	2.38	0.56
36:DA:1709:U:H2'	36:DA:1710:C:C6	2.41	0.56
36:DA:2894:G:H2'	36:DA:2894:G:N3	2.20	0.56
38:DC:75:LEU:HD13	38:DC:119:VAL:O	2.05	0.56
38:DC:82:LYS:HE3	38:DC:151:GLU:O	2.06	0.56
39:DD:102:LYS:C	39:DD:103:ARG:HG2	2.26	0.56
40:DE:101:ARG:NH2	40:DE:171:GLU:CB	2.64	0.56
41:DF:124:LEU:HG	41:DF:126:VAL:HG13	1.88	0.56
42:DG:67:LYS:HD2	42:DG:67:LYS:H	1.70	0.56
45:DN:73:THR:CG2	45:DN:82:LEU:HD11	2.34	0.56
49:DR:26:LYS:HE2	49:DR:71:GLN:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:62:THR:HG22	51:DT:75:ILE:HG12	1.87	0.56
51:DT:118:ARG:O	51:DT:121:ILE:N	2.39	0.56
56:DY:2:ARG:N	56:DY:4:LYS:HG2	2.20	0.56
56:DY:87:LYS:HG3	56:DY:88:LYS:H	1.71	0.56
57:DZ:99:TYR:HD2	57:DZ:99:TYR:N	2.02	0.56
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.41	0.55
1:AA:1191:A:H5"	3:AC:4:LYS:NZ	2.22	0.55
1:AA:1320:C:H5'	19:AS:70:LYS:HG3	1.87	0.55
2:AB:96:ARG:HD2	2:AB:96:ARG:N	2.20	0.55
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.88	0.55
36:BA:2126:A:C5'	38:BC:36:LYS:HG2	2.36	0.55
36:BA:2201:C:O2'	36:BA:2202:C:H5'	2.05	0.55
36:BA:2223:G:H2'	36:BA:2224:G:H5'	1.88	0.55
36:BA:2320:A:H2'	36:BA:2320:A:N3	2.21	0.55
36:BA:2364:C:H2'	36:BA:2365:G:O4'	2.05	0.55
36:BA:2762:G:C3'	36:BA:2763:G:H5"	2.35	0.55
39:BD:79:VAL:HG12	39:BD:79:VAL:O	2.06	0.55
39:BD:97:TYR:CE1	39:BD:103:ARG:HG3	2.40	0.55
39:BD:165:ILE:HD13	39:BD:175:LEU:CD2	2.35	0.55
40:BE:1:MET:HA	40:BE:200:GLU:OE1	2.06	0.55
40:BE:111:ARG:HD2	40:BE:160:TYR:CE1	2.41	0.55
41:BF:51:THR:HB	41:BF:88:VAL:HG11	1.87	0.55
42:BG:17:PRO:HA	42:BG:20:ILE:HG13	1.89	0.55
44:BI:73:GLU:OE2	44:BI:137:PRO:HD2	2.06	0.55
45:BN:43:THR:HB	45:BN:46:VAL:HG12	1.88	0.55
52:BU:98:LEU:O	52:BU:101:ARG:O	2.25	0.55
1:CA:715:A:O2'	1:CA:716:A:H5'	2.05	0.55
1:CA:862:C:O2'	1:CA:863:U:H5'	2.05	0.55
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.70	0.55
4:CD:8:VAL:O	4:CD:10:ARG:N	2.31	0.55
4:CD:31:CYS:C	4:CD:33:MET:N	2.59	0.55
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.88	0.55
8:CH:6:ILE:HG22	8:CH:10:LEU:HD11	1.87	0.55
12:CL:27:LEU:HD22	12:CL:27:LEU:N	2.21	0.55
22:CV:40:C:H2'	22:CV:41:C:C6	2.41	0.55
32:D6:15:GLU:OE1	32:D6:18:ARG:HG3	2.05	0.55
36:DA:139:G:H1	36:DA:142(A):C:H42	1.54	0.55
36:DA:389:G:H1	47:DP:71:VAL:CG1	2.11	0.55
36:DA:589:C:O3'	41:DF:95:ARG:NH1	2.38	0.55
36:DA:1711:C:O2'	36:DA:1712:C:H5'	2.06	0.55
36:DA:2082:A:H2'	36:DA:2083:G:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:91:VAL:HG13	40:DE:95:ILE:HG12	1.89	0.55
40:DE:116:VAL:HG22	40:DE:122:PHE:HB2	1.87	0.55
50:DS:96:GLY:O	50:DS:98:VAL:N	2.39	0.55
51:DT:40:THR:O	51:DT:41:ARG:HB2	2.05	0.55
54:DW:10:VAL:O	54:DW:11:ARG:HB2	2.06	0.55
1:AA:254:G:O2'	1:AA:255:G:H5'	2.06	0.55
1:AA:554:C:O2'	1:AA:555:C:H5'	2.07	0.55
1:AA:731:G:O2'	1:AA:732:C:H5'	2.04	0.55
1:AA:1316:G:O6	19:AS:5:LEU:HD23	2.06	0.55
3:AC:173:VAL:O	3:AC:173:VAL:HG12	2.07	0.55
8:AH:68:ARG:O	8:AH:69:ARG:HG3	2.06	0.55
13:AM:84:ILE:HG12	19:AS:66:MET:HE1	1.88	0.55
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.39	0.55
22:AV:71:C:C6	22:AV:71:C:H3'	2.42	0.55
35:B9:24:TYR:CE2	35:B9:35:ARG:HG3	2.42	0.55
36:BA:271(J):C:C3'	36:BA:271(K):U:H5"	2.35	0.55
36:BA:451:C:H41	36:BA:453:C:H3'	1.70	0.55
36:BA:601:C:O2'	36:BA:605:C:H5"	2.06	0.55
37:BB:30:C:H2'	37:BB:31:C:O4'	2.07	0.55
40:BE:15:PHE:CE2	51:BT:80:SER:HB2	2.41	0.55
42:BG:88:ILE:CD1	42:BG:89:GLY:N	2.68	0.55
46:BO:104:ARG:NE	51:BT:33:LYS:HD2	2.21	0.55
47:BP:34:GLY:O	47:BP:35:HIS:HB2	2.06	0.55
47:BP:83:VAL:HG11	47:BP:112:LEU:HD21	1.88	0.55
51:BT:35:LYS:NZ	51:BT:41:ARG:HH21	2.04	0.55
52:BU:92:ARG:C	52:BU:94:ASN:H	2.08	0.55
55:BX:57:LEU:HD13	55:BX:78:LYS:O	2.06	0.55
1:CA:555:C:H2'	1:CA:556:C:C6	2.41	0.55
1:CA:1509:C:H2'	1:CA:1510:U:O4'	2.07	0.55
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	1.88	0.55
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.22	0.55
15:CO:82:ILE:HD11	15:CO:88:ARG:HB2	1.88	0.55
26:D0:20:ARG:HD3	36:DA:2356:C:O3'	2.05	0.55
32:D6:9:LEU:HD23	32:D6:10:LEU:O	2.07	0.55
36:DA:2745:C:H4'	43:DH:142:GLY:O	2.05	0.55
36:DA:2763:G:H5'	36:DA:2763:G:C8	2.42	0.55
36:DA:2864:G:H2'	36:DA:2865:U:O4'	2.07	0.55
37:DB:104:U:O2'	37:DB:105:A:H5'	2.06	0.55
40:DE:1:MET:HA	40:DE:200:GLU:OE1	2.07	0.55
42:DG:73:ALA:HB3	42:DG:82:LEU:HD11	1.84	0.55
42:DG:107:LEU:HA	42:DG:111:LEU:HD13	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:41:MET:CE	43:DH:54:ARG:HA	2.36	0.55
44:DI:129:THR:HA	44:DI:137:PRO:CA	2.36	0.55
48:DQ:112:GLU:HG3	48:DQ:113:GLN:N	2.20	0.55
52:DU:62:ILE:HD12	52:DU:76:TYR:CE1	2.42	0.55
52:DU:91:ASP:OD2	52:DU:96:ALA:N	2.38	0.55
1:AA:107:G:C2'	1:AA:108:G:H5'	2.36	0.55
1:AA:119:A:O2'	1:AA:120:A:OP2	2.21	0.55
1:AA:1475:G:OP1	36:BA:1689:A:H1'	2.06	0.55
3:AC:178:LEU:C	3:AC:180:ALA:H	2.10	0.55
4:AD:30:LYS:HA	4:AD:35:ARG:CG	2.36	0.55
5:AE:71:LEU:HD11	5:AE:113:ALA:O	2.06	0.55
11:AK:48:ILE:CG2	11:AK:63:LEU:HD22	2.35	0.55
12:AL:27:LEU:HD22	12:AL:27:LEU:N	2.22	0.55
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.06	0.55
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.26	0.55
32:B6:11:LEU:HG	32:B6:26:ASN:HD21	1.71	0.55
34:B8:6:THR:HB	34:B8:63:PRO:HG3	1.87	0.55
34:B8:23:VAL:HG12	34:B8:46:ARG:HH11	1.71	0.55
35:B9:24:TYR:O	35:B9:25:VAL:HG23	2.06	0.55
36:BA:142:A:C8	36:BA:1408:C:H1'	2.41	0.55
36:BA:322:A:OP2	41:BF:169:ASN:HB2	2.06	0.55
36:BA:542:C:H2'	36:BA:543:C:OP1	2.07	0.55
36:BA:588:U:O5'	36:BA:588:U:H6	1.89	0.55
36:BA:1259:G:O2'	36:BA:1260:G:H5'	2.06	0.55
36:BA:1436:G:C3'	36:BA:1437:C:H5"	2.36	0.55
36:BA:1486:A:N6	36:BA:1504:C:H42	2.04	0.55
36:BA:2352:A:H2'	36:BA:2353:G:H5'	1.88	0.55
36:BA:2729:G:H1'	40:BE:187:ALA:HB2	1.88	0.55
37:BB:35:U:O2'	37:BB:36:C:H5'	2.06	0.55
43:BH:19:VAL:HG11	43:BH:43:VAL:O	2.07	0.55
45:BN:26:LEU:HD21	45:BN:30:ILE:HD11	1.89	0.55
54:BW:73:ALA:O	54:BW:106:ILE:HG12	2.07	0.55
1:CA:32:A:H2'	1:CA:33:A:C8	2.41	0.55
1:CA:67:C:H2'	1:CA:68:G:H8	1.71	0.55
1:CA:745:C:H2'	1:CA:746:A:C8	2.42	0.55
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.70	0.55
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.06	0.55
1:CA:1457:G:O2'	1:CA:1458:G:H5'	2.06	0.55
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.10	0.55
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.87	0.55
3:CC:99:VAL:O	3:CC:99:VAL:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:178:LEU:C	3:CC:180:ALA:H	2.10	0.55
10:CJ:83:GLU:C	10:CJ:85:LEU:H	2.09	0.55
17:CQ:62:SER:CB	17:CQ:72:ARG:HG3	2.37	0.55
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.55	0.55
29:D3:49:LYS:NZ	36:DA:850:C:O3'	2.36	0.55
30:D4:51:TYR:OH	42:DG:2:PRO:HD3	2.06	0.55
33:D7:8:ASN:HD22	33:D7:9:ARG:N	2.04	0.55
34:D8:62:LEU:N	34:D8:63:PRO:CD	2.69	0.55
36:DA:34:C:H2'	36:DA:35:G:H5'	1.88	0.55
36:DA:852:G:O2'	36:DA:853:G:H5'	2.06	0.55
36:DA:1108:U:H2'	36:DA:1109:C:H5'	1.89	0.55
36:DA:2206:G:H21	36:DA:2207:G:C5'	2.14	0.55
36:DA:2227:A:H5'	39:DD:263:ARG:HH11	1.71	0.55
40:DE:69:LYS:HD3	40:DE:89:ASP:HA	1.89	0.55
41:DF:141:ALA:O	41:DF:144:LYS:HB3	2.07	0.55
42:DG:8:LYS:HD3	42:DG:12:TYR:CZ	2.41	0.55
42:DG:35:GLU:O	42:DG:35:GLU:HG2	2.05	0.55
45:DN:104:LYS:HB2	45:DN:117:PHE:CE1	2.42	0.55
47:DP:48:PRO:O	47:DP:49:ARG:C	2.44	0.55
47:DP:101:VAL:HG13	47:DP:106:LEU:HD23	1.88	0.55
51:DT:78:LEU:C	51:DT:79:HIS:ND1	2.60	0.55
54:DW:72:LYS:HB3	54:DW:106:ILE:O	2.05	0.55
56:DY:29:GLU:N	56:DY:29:GLU:OE1	2.40	0.55
56:DY:81:LYS:HB3	56:DY:96:ILE:HG22	1.88	0.55
57:DZ:18:LEU:HB3	57:DZ:23:LYS:HB2	1.87	0.55
57:DZ:53:ILE:CG2	57:DZ:71:VAL:HG23	2.36	0.55
57:DZ:99:TYR:CD2	57:DZ:99:TYR:N	2.74	0.55
57:DZ:128:VAL:HG22	57:DZ:129:SER:N	2.21	0.55
1:AA:192:U:O4'	20:AT:103:GLY:HA2	2.07	0.55
1:AA:1274:G:N2	1:AA:1275:A:H62	2.04	0.55
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.21	0.55
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.07	0.55
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.88	0.55
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.71	0.55
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.88	0.55
19:AS:53:ASN:O	19:AS:77:THR:HG22	2.06	0.55
22:AV:74:C:H2'	22:AV:75:C:H5'	1.89	0.55
25:AY:26:A:H2'	25:AY:27:G:C5'	2.36	0.55
32:B6:16:CYS:O	32:B6:17:LYS:HB2	2.07	0.55
36:BA:93:G:H2'	36:BA:94:C:C6	2.42	0.55
36:BA:2036:C:H6	36:BA:2036:C:C5'	2.14	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2580:U:H5'	40:BE:131:ALA:HB2	1.87	0.55
40:BE:3:GLY:HA3	40:BE:81:ILE:CG2	2.32	0.55
42:BG:85:GLY:O	42:BG:87:PRO:CD	2.54	0.55
43:BH:18:GLU:HB3	43:BH:25:LYS:HZ3	1.71	0.55
44:BI:114:LEU:HD23	44:BI:130:TYR:CE1	2.42	0.55
46:BO:7:TYR:CE1	46:BO:20:MET:HB2	2.41	0.55
47:BP:85:LEU:HA	47:BP:88:LEU:HD22	1.89	0.55
48:BQ:141:GLN:HE22	57:BZ:72:ARG:CA	2.19	0.55
49:BR:81:ASP:O	49:BR:82:GLU:HB2	2.05	0.55
51:BT:80:SER:CB	51:BT:81:PRO:HD3	2.37	0.55
1:CA:738:C:H2'	1:CA:739:C:H6	1.71	0.55
1:CA:750:G:H1'	15:CO:23:GLY:H	1.71	0.55
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.40	0.55
1:CA:1274:G:N2	1:CA:1275:A:H62	2.04	0.55
2:CB:113:HIS:O	2:CB:117:GLU:HG3	2.07	0.55
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.22	0.55
3:CC:173:VAL:HG12	3:CC:175:LEU:CD1	2.35	0.55
4:CD:53:ASP:HB3	4:CD:57:ARG:NH1	2.13	0.55
5:CE:71:LEU:HD11	5:CE:113:ALA:O	2.06	0.55
7:CG:47:CYS:C	7:CG:49:ILE:H	2.08	0.55
10:CJ:4:ILE:HB	10:CJ:74:ILE:CD1	2.35	0.55
16:CP:82:GLN:N	16:CP:82:GLN:NE2	2.55	0.55
32:D6:19:ARG:CG	32:D6:20:ASN:N	2.68	0.55
34:D8:62:LEU:N	34:D8:63:PRO:HD2	2.21	0.55
36:DA:528:A:H3'	36:DA:528:A:C8	2.41	0.55
36:DA:613:G:H8	36:DA:613:G:C5'	2.15	0.55
36:DA:649:G:H2'	36:DA:650:C:H6	1.69	0.55
36:DA:957:A:H5'	48:DQ:76:LYS:HE3	1.87	0.55
36:DA:1269:A:H2'	36:DA:1270:C:C6	2.41	0.55
36:DA:1495:A:H3'	36:DA:1496:A:C2	2.41	0.55
36:DA:2317:C:C2'	36:DA:2318:G:H5'	2.36	0.55
44:DI:87:LYS:HA	44:DI:122:GLU:CG	2.26	0.55
49:DR:54:LEU:HD23	49:DR:66:VAL:CG2	2.37	0.55
50:DS:15:ARG:O	50:DS:18:ILE:HG22	2.06	0.55
51:DT:27:THR:O	51:DT:28:VAL:HG23	2.07	0.55
52:DU:99:ALA:HB2	52:DU:106:PHE:CE1	2.41	0.55
54:DW:8:ARG:HA	54:DW:102:HIS:HD2	1.72	0.55
1:AA:509:A:H2'	1:AA:510:A:C8	2.41	0.55
4:AD:57:ARG:HG3	4:AD:57:ARG:HH11	1.71	0.55
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.07	0.55
13:AM:57:ARG:HH12	30:B4:60:GLU:HA	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B3:35:ARG:HG3	29:B3:35:ARG:HH11	1.71	0.55
36:BA:774:A:H2	36:BA:787:U:O2'	1.85	0.55
36:BA:796:C:H2'	36:BA:797:C:C6	2.41	0.55
36:BA:1269:A:H2'	36:BA:1270:C:C6	2.41	0.55
36:BA:1747(A):G:H2'	36:BA:1748:G:C5'	2.30	0.55
36:BA:1953:A:H2	36:BA:2549:G:N3	2.03	0.55
38:BC:49:ILE:O	38:BC:51:PRO:HD3	2.06	0.55
40:BE:3:GLY:CA	40:BE:81:ILE:HG21	2.34	0.55
42:BG:14:GLU:C	42:BG:17:PRO:HD2	2.27	0.55
43:BH:41:MET:HE2	43:BH:54:ARG:HA	1.89	0.55
44:BI:94:ALA:HB1	44:BI:111:PRO:CA	2.36	0.55
46:BO:71:ARG:NH1	51:BT:74:ARG:HH22	2.04	0.55
46:BO:101:PRO:HG3	51:BT:67:SER:OG	2.06	0.55
47:BP:17:LYS:O	47:BP:19:VAL:N	2.38	0.55
48:BQ:57:HIS:CE1	48:BQ:116:GLU:HB3	2.41	0.55
49:BR:17:ARG:HH11	49:BR:17:ARG:HG2	1.70	0.55
57:BZ:171:ILE:O	57:BZ:172:ALA:HB2	2.06	0.55
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.41	0.55
4:CD:166:LYS:HG3	4:CD:178:VAL:HG11	1.88	0.55
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.26	0.55
10:CJ:15:THR:O	10:CJ:94:VAL:HG21	2.05	0.55
12:CL:83:VAL:HG12	12:CL:84:LEU:N	2.22	0.55
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.88	0.55
28:D2:67:LYS:O	28:D2:69:ARG:N	2.39	0.55
32:D6:40:CYS:SG	32:D6:45:LYS:HE3	2.47	0.55
36:DA:271(H):G:HO2'	36:DA:271(I):G:H8	1.54	0.55
36:DA:573:G:O2'	36:DA:574:C:H3'	2.07	0.55
36:DA:1141:U:OP2	45:DN:63:THR:OG1	2.25	0.55
36:DA:1238:G:H2'	36:DA:1239:G:H8	1.71	0.55
36:DA:1350:C:O2'	36:DA:1351:C:H5'	2.06	0.55
36:DA:1429:G:H2'	36:DA:1430:C:C6	2.41	0.55
36:DA:1563:G:O2'	36:DA:1564:C:H5'	2.05	0.55
36:DA:2321:G:H2'	36:DA:2321:G:N3	2.21	0.55
36:DA:2790:A:H2'	36:DA:2790:A:N3	2.19	0.55
36:DA:2836:U:H2'	36:DA:2837:G:C8	2.42	0.55
39:DD:27:THR:CG2	39:DD:83:GLU:HG2	2.37	0.55
48:DQ:32:TYR:OH	48:DQ:111:GLU:HB2	2.05	0.55
50:DS:97:ARG:C	50:DS:97:ARG:HE	2.09	0.55
52:DU:49:HIS:HA	52:DU:52:ARG:HB2	1.89	0.55
54:DW:75:TYR:N	54:DW:75:TYR:CD1	2.74	0.55
55:DX:63:LYS:HA	55:DX:72:LYS:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:P	14:AN:32:SER:H	2.30	0.55
1:AA:1423:G:H5'	46:BO:49:ARG:HH22	1.71	0.55
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.65	0.55
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.05	0.55
15:AO:78:TYR:C	15:AO:80:ALA:N	2.60	0.55
18:AR:36:ASN:HD22	18:AR:39:VAL:CB	2.20	0.55
27:B1:52:ARG:HG3	27:B1:52:ARG:HH21	1.71	0.55
27:B1:81:LYS:HG2	27:B1:83:GLU:OE1	2.06	0.55
36:BA:1210:A:H4'	36:BA:1211:U:O5'	2.06	0.55
36:BA:1324:G:H3'	36:BA:1325:G:C5'	2.37	0.55
36:BA:1335:U:O2'	36:BA:1336:A:H5'	2.07	0.55
36:BA:2022:U:O2'	36:BA:2617:C:H5'	2.06	0.55
36:BA:2781:A:H5"	36:BA:2782:G:H5'	1.89	0.55
37:BB:40:U:N3	37:BB:43:C:H5"	2.21	0.55
39:BD:77:ALA:HB1	39:BD:96:HIS:O	2.06	0.55
39:BD:238:GLY:O	39:BD:239:ARG:O	2.25	0.55
44:BI:77:LEU:HD21	44:BI:104:GLN:OE1	2.06	0.55
47:BP:128:HIS:N	47:BP:128:HIS:CD2	2.74	0.55
50:BS:19:LYS:HB3	50:BS:20:ARG:NH1	2.12	0.55
50:BS:54:LEU:C	50:BS:56:LEU:H	2.10	0.55
52:BU:29:SER:OG	52:BU:30:LYS:HE2	2.06	0.55
52:BU:69:CYS:SG	52:BU:79:PHE:HD1	2.29	0.55
52:BU:98:LEU:HD21	53:BV:2:PHE:CZ	2.42	0.55
54:BW:8:ARG:HA	54:BW:102:HIS:HD2	1.71	0.55
56:BY:28:LYS:CB	56:BY:38:ILE:H	2.16	0.55
1:CA:403:C:O2'	1:CA:404:U:H5'	2.05	0.55
1:CA:542:G:H2'	1:CA:543:C:H6	1.72	0.55
1:CA:1088:G:H2'	1:CA:1089:G:H8	1.72	0.55
1:CA:1321:C:C5'	1:CA:1322:C:C5'	2.84	0.55
1:CA:1397:C:N4	24:CX:22:A:H3'	2.22	0.55
1:CA:1442(A):G:H5"	51:DT:118:ARG:NH1	2.22	0.55
2:CB:81:VAL:HG12	2:CB:81:VAL:O	2.07	0.55
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.87	0.55
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.88	0.55
5:CE:90:VAL:CG2	5:CE:121:LYS:HB3	2.36	0.55
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.06	0.55
29:D3:13:ILE:HG22	29:D3:13:ILE:O	2.05	0.55
32:D6:13:CYS:O	32:D6:21:TYR:HA	2.07	0.55
34:D8:33:ASN:ND2	34:D8:33:ASN:N	2.54	0.55
36:DA:444:C:O2'	36:DA:445:C:H5'	2.07	0.55
36:DA:547:A:H2'	36:DA:547:A:N3	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1035:U:H5'	43:DH:59:ARG:HD3	1.89	0.55
36:DA:1223:G:H5'	36:DA:1224:C:OP2	2.06	0.55
36:DA:1641:A:H2'	36:DA:1642:G:O4'	2.06	0.55
36:DA:1789:A:H2'	36:DA:1790:C:O4'	2.06	0.55
36:DA:2297:C:O2'	36:DA:2298:A:H5'	2.07	0.55
36:DA:2491:U:C5'	36:DA:2570:G:H5"	2.16	0.55
36:DA:2564:A:C2	36:DA:2647:U:H4'	2.41	0.55
36:DA:2762:G:C3'	36:DA:2763:G:H5"	2.37	0.55
36:DA:2784:C:H4'	40:DE:41:LYS:O	2.07	0.55
41:DF:24:LEU:HB3	41:DF:25:PRO:HD2	1.87	0.55
41:DF:132:VAL:HG13	41:DF:133:ASN:N	2.20	0.55
42:DG:120:LEU:HD11	42:DG:180:PHE:CE2	2.42	0.55
44:DI:1:MET:C	44:DI:20:ASP:HB2	2.27	0.55
44:DI:94:ALA:C	44:DI:96:ASP:H	2.10	0.55
45:DN:30:ILE:HG23	45:DN:52:VAL:HG11	1.87	0.55
46:DO:7:TYR:CE1	46:DO:20:MET:HB2	2.42	0.55
47:DP:71:VAL:HG12	47:DP:72:PRO:HD3	1.88	0.55
47:DP:75:ILE:N	47:DP:75:ILE:HD12	2.22	0.55
48:DQ:4:PRO:O	48:DQ:6:ARG:N	2.39	0.55
56:DY:31:LEU:HD22	56:DY:31:LEU:H	1.70	0.55
1:AA:125:U:H2'	1:AA:126:G:C8	2.42	0.55
1:AA:284:G:H2'	1:AA:285:G:H8	1.72	0.55
1:AA:926:G:N2	24:AX:15:A:H3'	2.21	0.55
2:AB:9:GLU:O	2:AB:12:GLU:HB2	2.07	0.55
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	1.89	0.55
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.89	0.55
7:AG:60:LYS:HA	7:AG:60:LYS:HZ3	1.65	0.55
9:AI:104:ARG:C	9:AI:105:ASP:N	2.60	0.55
12:AL:41:ARG:HH11	12:AL:41:ARG:CB	2.17	0.55
16:AP:65:GLN:N	16:AP:65:GLN:OE1	2.39	0.55
23:AW:26:A:O2'	23:AW:27:G:H5'	2.06	0.55
23:AW:33:U:H2'	23:AW:35:A:OP2	2.06	0.55
23:AW:57:G:H2'	23:AW:57:G:N3	2.22	0.55
34:B8:8:LYS:O	34:B8:12:LYS:HG3	2.06	0.55
36:BA:2314:C:O2'	36:BA:2315:G:H5'	2.07	0.55
36:BA:2692:C:H2'	36:BA:2693:A:H8	1.70	0.55
39:BD:34:VAL:HG22	39:BD:34:VAL:O	2.07	0.55
39:BD:241:PRO:O	39:BD:243:GLY:N	2.39	0.55
41:BF:20:LEU:HB3	41:BF:23:ASP:OD2	2.07	0.55
42:BG:41:GLN:HE22	42:BG:153:ARG:CG	2.20	0.55
45:BN:131:GLN:NE2	45:BN:134:ARG:HD2	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:94:TYR:N	49:BR:94:TYR:CD1	2.75	0.55
1:CA:433:C:H2'	1:CA:434:U:H6	1.71	0.55
1:CA:501:C:H2'	1:CA:502:G:C8	2.40	0.55
1:CA:745:C:H2'	1:CA:746:A:H8	1.72	0.55
1:CA:818:G:H3'	1:CA:819:A:C5'	2.36	0.55
2:CB:9:GLU:O	2:CB:12:GLU:HB2	2.07	0.55
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.70	0.55
3:CC:79:ARG:HG3	3:CC:82:GLU:OE2	2.07	0.55
3:CC:129:ALA:HB3	3:CC:132:ARG:HD2	1.88	0.55
4:CD:92:VAL:O	4:CD:96:LEU:HD13	2.07	0.55
4:CD:108:LEU:HB3	4:CD:110:PHE:HE1	1.72	0.55
8:CH:53:VAL:HG12	8:CH:54:ASP:OD2	2.07	0.55
26:D0:25:ARG:HA	26:D0:29:GLN:NE2	2.19	0.55
34:D8:50:LEU:HD12	34:D8:51:ALA:N	2.21	0.55
36:DA:271(J):C:C3'	36:DA:271(K):U:H5"	2.36	0.55
36:DA:941:A:H4'	47:DP:35:HIS:CE1	2.42	0.55
36:DA:2468:G:O2'	36:DA:2476:A:C8	2.60	0.55
37:DB:43:C:H4'	42:DG:66:GLN:CD	2.26	0.55
39:DD:69:ARG:NH2	39:DD:192:THR:HB	2.21	0.55
40:DE:66:HIS:O	40:DE:66:HIS:CD2	2.59	0.55
40:DE:92:THR:H	40:DE:95:ILE:HD13	1.71	0.55
41:DF:202:PHE:C	41:DF:202:PHE:CD1	2.79	0.55
51:DT:29:ARG:HG2	51:DT:86:ILE:CG2	2.37	0.55
51:DT:42:ILE:N	51:DT:42:ILE:HD12	2.22	0.55
52:DU:92:ARG:HH11	52:DU:92:ARG:CG	2.20	0.55
54:DW:68:ARG:HH22	54:DW:112:GLY:HA2	1.72	0.55
55:DX:3:THR:O	55:DX:4:ALA:HB3	2.06	0.55
56:DY:95:LYS:HA	56:DY:100:ALA:HA	1.88	0.55
1:AA:773:G:O3'	39:BD:202:LYS:NZ	2.37	0.55
1:AA:935:A:H2'	1:AA:936:C:H6	1.72	0.55
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.52	0.55
4:AD:58:LEU:HD22	4:AD:62:GLN:HG2	1.89	0.55
7:AG:116:ALA:HA	7:AG:119:ARG:HG3	1.89	0.55
11:AK:80:VAL:O	11:AK:80:VAL:HG23	2.07	0.55
13:AM:82:MET:HG2	13:AM:82:MET:O	2.07	0.55
15:AO:75:PRO:O	15:AO:79:ARG:HG3	2.06	0.55
17:AQ:21:VAL:O	17:AQ:41:LYS:HA	2.07	0.55
32:B6:42:TRP:CZ2	36:BA:2349:G:H4'	2.42	0.55
34:B8:62:LEU:N	34:B8:63:PRO:HD2	2.21	0.55
36:BA:208:C:H2'	36:BA:209:C:C6	2.42	0.55
36:BA:676:A:H2	36:BA:802:A:H61	1.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:848:G:H5'	36:BA:848:G:H8	1.72	0.55
36:BA:910:A:H62	48:BQ:12:GLN:HA	1.72	0.55
36:BA:2172:U:H1'	36:BA:2173:A:P	2.47	0.55
36:BA:2485:G:O2'	36:BA:2486:G:H5'	2.07	0.55
36:BA:2523:G:H5'	36:BA:2523:G:C8	2.41	0.55
37:BB:71:C:C2	37:BB:72:G:C8	2.95	0.55
41:BF:65:TRP:CZ3	41:BF:73:ALA:O	2.59	0.55
41:BF:202:PHE:C	41:BF:202:PHE:CD1	2.79	0.55
43:BH:68:THR:C	43:BH:70:THR:N	2.60	0.55
43:BH:126:PRO:O	43:BH:127:GLU:CB	2.54	0.55
45:BN:17:ASP:C	45:BN:19:GLU:H	2.11	0.55
47:BP:63:PRO:C	47:BP:65:ARG:H	2.09	0.55
52:BU:89:GLU:HG2	53:BV:50:PRO:CG	2.36	0.55
1:CA:1221:G:H4'	19:CS:77:THR:HG22	1.89	0.55
2:CB:54:THR:O	2:CB:58:ILE:HG12	2.06	0.55
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.11	0.55
8:CH:86:ILE:HG13	8:CH:133:LEU:CD2	2.36	0.55
26:D0:23:VAL:HG22	26:D0:38:VAL:HG22	1.88	0.55
36:DA:271(Q):G:HO2'	36:DA:271(R):G:H8	1.53	0.55
36:DA:993:G:N3	53:DV:89:GLN:NE2	2.55	0.55
36:DA:999:U:H5"	36:DA:1154:G:O6	2.07	0.55
39:DD:13:ARG:HG2	39:DD:13:ARG:O	2.06	0.55
39:DD:26:LYS:HZ3	39:DD:82:ILE:H	1.52	0.55
39:DD:129:ASN:O	39:DD:193:VAL:HG12	2.07	0.55
40:DE:173:VAL:HG12	40:DE:174:ASP:H	1.72	0.55
45:DN:17:ASP:C	45:DN:19:GLU:H	2.10	0.55
46:DO:9:GLU:O	46:DO:83:ALA:HA	2.07	0.55
47:DP:63:PRO:C	47:DP:65:ARG:H	2.10	0.55
52:DU:96:ALA:C	52:DU:98:LEU:N	2.58	0.55
57:DZ:28:MET:CE	57:DZ:37:VAL:HG11	2.26	0.55
1:AA:67:C:H2'	1:AA:68:G:H8	1.67	0.55
1:AA:392:G:H2'	1:AA:393:A:H8	1.72	0.55
1:AA:453:A:H4'	16:AP:72:ARG:HG3	1.89	0.55
1:AA:591:U:H2'	1:AA:592:G:C8	2.42	0.55
1:AA:939:G:H2'	1:AA:940:C:C6	2.42	0.55
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	2.07	0.55
2:AB:74:LYS:C	2:AB:76:GLN:H	2.10	0.55
2:AB:80:ILE:CD1	2:AB:211:ILE:HG22	2.36	0.55
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.72	0.55
10:AJ:87:THR:OG1	10:AJ:88:LEU:N	2.40	0.55
13:AM:3:ARG:HH21	13:AM:7:VAL:HG13	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:18:THR:HG22	17:AQ:19:VAL:H	1.71	0.55
22:AV:20:U:H5'	22:AV:21:A:OP2	2.07	0.55
22:AV:59:A:H2'	22:AV:60:U:H5'	1.87	0.55
27:B1:45:ASN:ND2	27:B1:47:GLN:NE2	2.54	0.55
28:B2:48:HIS:CD2	36:BA:96:G:H4'	2.42	0.55
36:BA:572:A:H5"	36:BA:573:G:OP2	2.06	0.55
36:BA:607:U:OP1	41:BF:102:PRO:HA	2.07	0.55
36:BA:1242:A:H5'	36:BA:1243:G:OP2	2.07	0.55
36:BA:1494:A:C2'	36:BA:1495:A:H5"	2.37	0.55
36:BA:2732:G:C2'	36:BA:2733:A:H5'	2.36	0.55
41:BF:34:TRP:HB2	47:BP:10:PRO:O	2.06	0.55
42:BG:41:GLN:N	42:BG:90:LEU:O	2.37	0.55
44:BI:81:VAL:HG13	44:BI:88:ILE:HG21	1.89	0.55
44:BI:82:ARG:HG3	44:BI:82:ARG:NH1	2.21	0.55
1:CA:591:U:H2'	1:CA:592:G:C8	2.42	0.55
1:CA:935:A:H2'	1:CA:936:C:H6	1.72	0.55
1:CA:1160:G:H2'	1:CA:1161:C:H5'	1.88	0.55
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.06	0.55
4:CD:30:LYS:HA	4:CD:35:ARG:CG	2.37	0.55
5:CE:33:VAL:HG22	5:CE:43:LEU:HD13	1.89	0.55
6:CF:12:PRO:HD2	6:CF:86:ARG:NH1	2.22	0.55
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.22	0.55
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.22	0.55
23:CW:5:G:O2'	23:CW:6:G:H5'	2.06	0.55
25:CY:26:A:C2'	25:CY:27:G:H5'	2.36	0.55
27:D1:3:LYS:HD2	36:DA:1364:G:OP2	2.06	0.55
27:D1:62:VAL:HG22	27:D1:63:ALA:H	1.72	0.55
28:D2:14:ARG:HH11	28:D2:14:ARG:HG3	1.71	0.55
30:D4:51:TYR:O	42:DG:105:LYS:NZ	2.37	0.55
31:D5:35:GLU:O	31:D5:36:CYS:HB2	2.07	0.55
36:DA:18:C:O3'	52:DU:23:GLY:HA2	2.07	0.55
36:DA:1434:A:O2'	36:DA:1435:G:H5'	2.07	0.55
36:DA:1486:A:N6	36:DA:1504:C:H42	2.05	0.55
36:DA:2059:A:H5'	36:DA:2060:A:OP2	2.07	0.55
36:DA:2352:A:H2'	36:DA:2353:G:H5'	1.89	0.55
42:DG:19:LEU:HD11	42:DG:32:PRO:HD2	1.89	0.55
42:DG:64:THR:O	42:DG:66:GLN:N	2.34	0.55
42:DG:92:VAL:O	42:DG:92:VAL:HG23	2.06	0.55
42:DG:110:ALA:CB	42:DG:140:ILE:HB	2.36	0.55
44:DI:111:PRO:HA	44:DI:114:LEU:HD11	1.89	0.55
47:DP:33:ARG:O	47:DP:34:GLY:C	2.43	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:98:GLU:HA	47:DP:101:VAL:HG22	1.87	0.55
47:DP:140:ALA:O	47:DP:141:ALA:HB3	2.07	0.55
48:DQ:34:LEU:CD1	48:DQ:129:THR:HB	2.36	0.55
49:DR:94:TYR:N	49:DR:94:TYR:CD1	2.75	0.55
51:DT:55:ASN:H	51:DT:59:THR:HG22	1.72	0.55
52:DU:92:ARG:C	52:DU:94:ASN:H	2.08	0.55
57:DZ:105:VAL:O	57:DZ:140:ASP:HB3	2.07	0.55
1:AA:880:C:O2'	1:AA:881:G:H5'	2.07	0.55
1:AA:972:C:O3'	10:AJ:57:LYS:CG	2.55	0.55
1:AA:1051:C:O2'	1:AA:1052:U:H5'	2.06	0.55
1:AA:1443:G:N2	1:AA:1460:A:H1'	2.22	0.55
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.17	0.55
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.87	0.55
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.88	0.55
15:AO:54:ARG:HG2	15:AO:54:ARG:NH1	2.22	0.55
22:AV:47:U:H3'	22:AV:48:C:H5'	1.88	0.55
31:B5:20:ARG:HA	31:B5:23:HIS:ND1	2.22	0.55
36:BA:39:C:O2	41:BF:46:ARG:NH2	2.38	0.55
36:BA:1141:U:OP2	45:BN:63:THR:OG1	2.22	0.55
36:BA:1409:C:H2'	36:BA:1410:G:C8	2.42	0.55
36:BA:1495:A:H3'	36:BA:1496:A:C2	2.42	0.55
36:BA:2464:C:O2'	36:BA:2465:C:P	2.64	0.55
36:BA:2491:U:C5'	36:BA:2570:G:H5"	2.19	0.55
38:BC:74:VAL:CG2	38:BC:91:ALA:HB2	2.37	0.55
39:BD:142:VAL:HG23	39:BD:192:THR:C	2.28	0.55
40:BE:179:GLU:O	40:BE:180:ASN:HB2	2.06	0.55
41:BF:53:THR:HG23	41:BF:55:GLY:N	2.20	0.55
41:BF:160:ASN:HD21	41:BF:162:LEU:HB2	1.71	0.55
44:BI:94:ALA:C	44:BI:96:ASP:H	2.10	0.55
45:BN:39:ARG:HG2	45:BN:39:ARG:NH1	2.22	0.55
45:BN:56:ASN:HA	45:BN:125:GLY:N	2.03	0.55
47:BP:23:PRO:HB2	47:BP:33:ARG:HG3	1.88	0.55
47:BP:41:ARG:HA	47:BP:41:ARG:HE	1.72	0.55
52:BU:25:TRP:HB3	52:BU:28:ARG:HD2	1.89	0.55
52:BU:92:ARG:HH11	52:BU:92:ARG:CG	2.19	0.55
56:BY:8:LYS:H	56:BY:8:LYS:CD	2.05	0.55
57:BZ:158:PRO:HG2	57:BZ:161:VAL:HG21	1.88	0.55
1:CA:355:C:H5'	1:CA:389:A:OP2	2.06	0.55
1:CA:521:G:O2'	1:CA:522:C:H5'	2.07	0.55
1:CA:985:C:H2'	1:CA:986:A:C8	2.42	0.55
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:10:LEU:HD23	8:CH:83:ILE:CD1	2.22	0.55
8:CH:77:GLU:HG2	8:CH:78:GLN:H	1.73	0.55
9:CI:105:ASP:C	9:CI:107:ARG:H	2.10	0.55
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.59	0.55
11:CK:127:LYS:HE2	11:CK:127:LYS:CA	2.22	0.55
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.07	0.55
32:D6:16:CYS:O	32:D6:17:LYS:HB2	2.07	0.55
34:D8:23:VAL:HG12	34:D8:46:ARG:HH11	1.72	0.55
36:DA:476:G:H4'	36:DA:502:A:N1	2.22	0.55
36:DA:774:A:H2	36:DA:787:U:O2'	1.88	0.55
36:DA:1019:U:O2'	36:DA:1021:A:C2	2.58	0.55
36:DA:1242:A:H5'	36:DA:1243:G:OP2	2.07	0.55
36:DA:2223:G:C2'	36:DA:2224:G:H5'	2.36	0.55
36:DA:2683:C:OP1	51:DT:53:ARG:NH2	2.38	0.55
36:DA:2692:C:H2'	36:DA:2693:A:H8	1.72	0.55
36:DA:2732:G:C2'	36:DA:2733:A:H5'	2.36	0.55
37:DB:73:A:H2'	37:DB:74:U:H5'	1.88	0.55
38:DC:68:LEU:CD1	38:DC:179:SER:HA	2.33	0.55
41:DF:57:VAL:HG13	41:DF:59:TYR:CD1	2.42	0.55
43:DH:67:LEU:O	43:DH:71:LEU:HB2	2.07	0.55
44:DI:52:ARG:O	44:DI:56:LYS:HG2	2.07	0.55
45:DN:87:LEU:O	45:DN:90:MET:HB2	2.06	0.55
49:DR:2:ARG:CZ	49:DR:5:LYS:CE	2.85	0.55
49:DR:12:ARG:HD3	49:DR:16:HIS:CE1	2.41	0.55
50:DS:89:ARG:HD2	50:DS:92:TYR:CA	2.33	0.55
51:DT:27:THR:CG2	51:DT:28:VAL:H	2.20	0.55
51:DT:89:VAL:HG21	51:DT:91:ARG:NH2	2.22	0.55
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.06	0.54
1:AA:1442(A):G:H5"	51:BT:118:ARG:NH1	2.22	0.54
7:AG:84:ASN:HD22	23:AW:33:U:H5"	1.72	0.54
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.24	0.54
11:AK:21:ILE:HD12	11:AK:21:ILE:N	2.23	0.54
11:AK:91:ARG:HD2	11:AK:91:ARG:C	2.27	0.54
23:AW:39:U:H2'	23:AW:40:C:C6	2.42	0.54
23:AW:61:C:H2'	23:AW:62:C:C6	2.42	0.54
31:B5:40:LYS:HB2	31:B5:41:PRO:HD2	1.89	0.54
36:BA:1532:C:O2'	36:BA:1533:G:N2	2.41	0.54
36:BA:2082:A:H2'	36:BA:2083:G:O4'	2.07	0.54
36:BA:2169:A:C2'	36:BA:2170:A:H5'	2.37	0.54
36:BA:2475:C:H5'	36:BA:2476:A:OP2	2.07	0.54
39:BD:80:ALA:HB2	39:BD:96:HIS:CD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BF:164:ARG:HG3	41:BF:175:THR:OG1	2.08	0.54
43:BH:24:VAL:HG21	43:BH:72:ILE:HD13	1.89	0.54
43:BH:138:LYS:HG3	43:BH:139:GLN:N	2.22	0.54
49:BR:2:ARG:NH2	49:BR:5:LYS:HZ1	2.06	0.54
51:BT:23:ARG:HA	51:BT:52:ILE:CD1	2.38	0.54
52:BU:79:PHE:O	52:BU:79:PHE:HD2	1.89	0.54
54:BW:60:ASN:N	54:BW:60:ASN:ND2	2.54	0.54
57:BZ:72:ARG:O	57:BZ:73:GLN:HB3	2.08	0.54
57:BZ:151:HIS:HA	57:BZ:170:THR:HA	1.88	0.54
1:CA:554:C:H2'	1:CA:555:C:C6	2.43	0.54
1:CA:953:G:H5'	1:CA:965:A:H61	1.72	0.54
3:CC:110:ASN:O	3:CC:141:VAL:HG22	2.07	0.54
13:CM:72:ALA:O	13:CM:75:ALA:HB3	2.07	0.54
20:CT:33:ILE:HD13	20:CT:62:LEU:HB3	1.88	0.54
25:CY:71:G:H2'	25:CY:71:G:N3	2.22	0.54
27:D1:3:LYS:HG2	27:D1:4:VAL:N	2.22	0.54
27:D1:53:VAL:HG22	27:D1:74:VAL:HG13	1.88	0.54
36:DA:214:G:O2'	36:DA:215:G:O4'	2.24	0.54
36:DA:500:G:N2	36:DA:502:A:H3'	2.21	0.54
36:DA:1335:U:O2'	36:DA:1336:A:H5'	2.07	0.54
36:DA:1532:C:O2'	36:DA:1533:G:N2	2.40	0.54
36:DA:1887:C:C2'	36:DA:1888:G:H5"	2.37	0.54
36:DA:2263:C:H5'	36:DA:2263:C:C6	2.33	0.54
37:DB:31:C:H2'	37:DB:53:A:H61	1.71	0.54
39:DD:147:LEU:HD13	39:DD:155:LEU:CD1	2.35	0.54
42:DG:98:ARG:O	42:DG:101:ILE:HD11	2.07	0.54
47:DP:23:PRO:HD2	47:DP:33:ARG:NH2	2.22	0.54
47:DP:128:HIS:CD2	47:DP:128:HIS:N	2.74	0.54
50:DS:12:PHE:HD1	50:DS:12:PHE:O	1.88	0.54
57:DZ:14:LYS:C	57:DZ:16:SER:H	2.10	0.54
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.43	0.54
1:AA:750:G:H1'	15:AO:23:GLY:H	1.71	0.54
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.22	0.54
2:AB:223:ILE:HA	2:AB:226:ARG:HD2	1.89	0.54
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.08	0.54
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.72	0.54
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.07	0.54
30:B4:39:ARG:HH11	30:B4:39:ARG:HG2	1.71	0.54
30:B4:40:ILE:HD12	30:B4:40:ILE:N	2.23	0.54
36:BA:61:G:H1	36:BA:94:C:H42	1.54	0.54
36:BA:2297:C:O2'	36:BA:2298:A:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BE:168:MET:O	40:BE:170:LEU:HD12	2.07	0.54
48:BQ:30:GLY:CA	48:BQ:107:ALA:HB2	2.37	0.54
49:BR:10:LEU:HD13	49:BR:17:ARG:NH1	2.23	0.54
57:BZ:4:ARG:HD2	57:BZ:58:VAL:HB	1.88	0.54
57:BZ:30:ASN:O	57:BZ:31:ARG:CB	2.55	0.54
1:CA:392:G:H2'	1:CA:393:A:C8	2.42	0.54
1:CA:853:G:H2'	1:CA:854:G:H8	1.73	0.54
1:CA:972:C:H4'	10:CJ:57:LYS:CG	2.37	0.54
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.42	0.54
5:CE:136:MET:O	5:CE:138:ALA:N	2.40	0.54
10:CJ:90:LEU:HD12	10:CJ:90:LEU:N	2.21	0.54
13:CM:3:ARG:HH21	13:CM:7:VAL:HG13	1.72	0.54
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	2.07	0.54
18:CR:36:ASN:HD22	18:CR:39:VAL:CB	2.20	0.54
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.88	0.54
28:D2:13:ALA:C	28:D2:15:LYS:H	2.10	0.54
32:D6:27:LYS:HD2	36:DA:2285:C:OP2	2.07	0.54
34:D8:36:LYS:HB3	34:D8:40:GLU:HG3	1.89	0.54
36:DA:470:A:H2'	36:DA:471:A:O4'	2.07	0.54
36:DA:1150:C:O2'	36:DA:1151:G:H5'	2.07	0.54
36:DA:1378:A:O2'	36:DA:1379:A:C5'	2.55	0.54
36:DA:1436:G:C3'	36:DA:1437:C:H5"	2.36	0.54
36:DA:1448:G:H5'	36:DA:1449:A:OP1	2.07	0.54
36:DA:1981:A:H5"	36:DA:1982:C:OP2	2.07	0.54
36:DA:2126:A:N1	36:DA:2162:G:O2'	2.32	0.54
36:DA:2709:G:O2'	36:DA:2710:C:H5'	2.06	0.54
37:DB:42:C:O3'	42:DG:67:LYS:HB2	2.08	0.54
40:DE:179:GLU:O	40:DE:180:ASN:HB2	2.06	0.54
45:DN:51:PHE:CE2	45:DN:119:ARG:HD2	2.42	0.54
46:DO:77:ILE:CD1	51:DT:74:ARG:HG2	2.37	0.54
49:DR:18:LEU:C	49:DR:18:LEU:HD13	2.27	0.54
53:DV:19:LYS:CG	53:DV:94:LEU:HB2	2.25	0.54
54:DW:48:ALA:O	54:DW:50:VAL:N	2.40	0.54
56:DY:26:LYS:HG2	56:DY:27:VAL:HG23	1.88	0.54
1:AA:554:C:H2'	1:AA:555:C:C6	2.42	0.54
1:AA:1014:A:H4'	19:AS:14:HIS:CD2	2.43	0.54
1:AA:1442(B):A:C6	51:BT:118:ARG:NH2	2.76	0.54
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.07	0.54
19:AS:44:MET:O	19:AS:47:HIS:HB2	2.07	0.54
23:AW:42:C:H2'	23:AW:43:C:C1'	2.37	0.54
36:BA:102:G:H4'	36:BA:102:G:OP1	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:104:U:H2'	36:BA:105:C:O4'	2.07	0.54
36:BA:1106:A:C2'	36:BA:1107:G:H8	2.21	0.54
36:BA:1109:C:H5	36:BA:1110:G:C5	2.25	0.54
36:BA:1748:G:H5'	36:BA:1748:G:C8	2.40	0.54
36:BA:2135:A:H2'	36:BA:2136:C:H6	1.72	0.54
36:BA:2577:A:H5"	36:BA:2578:G:H5'	1.90	0.54
36:BA:2885:C:N3	36:BA:2886:G:H1'	2.22	0.54
39:BD:71:ASP:CB	39:BD:103:ARG:HH22	2.21	0.54
41:BF:141:ALA:O	41:BF:144:LYS:HB3	2.07	0.54
45:BN:120:LEU:HD13	45:BN:122:VAL:HG23	1.89	0.54
46:BO:7:TYR:C	46:BO:8:LEU:HD22	2.27	0.54
47:BP:126:VAL:HG22	47:BP:145:PRO:CB	2.37	0.54
50:BS:85:VAL:HG22	50:BS:106:ARG:HB2	1.88	0.54
50:BS:87:PHE:CG	50:BS:88:ASP:N	2.75	0.54
50:BS:97:ARG:C	50:BS:97:ARG:HE	2.10	0.54
51:BT:64:ARG:HD2	51:BT:73:GLU:CG	2.37	0.54
52:BU:91:ASP:OD2	52:BU:96:ALA:N	2.41	0.54
54:BW:48:ALA:O	54:BW:49:LYS:C	2.45	0.54
55:BX:63:LYS:HA	55:BX:72:LYS:HA	1.88	0.54
57:BZ:6:LYS:HA	57:BZ:60:GLU:HB2	1.88	0.54
1:CA:287:U:O2'	1:CA:288:A:H5'	2.07	0.54
1:CA:390:C:H2'	1:CA:391:G:H8	1.72	0.54
12:CL:41:ARG:CG	12:CL:42:THR:H	1.99	0.54
20:CT:49:ALA:O	20:CT:52:ALA:HB3	2.08	0.54
20:CT:97:ALA:O	20:CT:99:LEU:N	2.37	0.54
22:CV:43:A:H2'	22:CV:44:A:C8	2.42	0.54
31:D5:20:ARG:O	31:D5:23:HIS:HB2	2.07	0.54
36:DA:536:A:H2'	36:DA:537:C:C6	2.42	0.54
36:DA:1106:A:C2'	36:DA:1107:G:H8	2.20	0.54
39:DD:257:LEU:HD22	39:DD:258:LYS:O	2.07	0.54
42:DG:142:PRO:C	42:DG:144:ILE:H	2.11	0.54
46:DO:1:MET:HE3	46:DO:67:LYS:HG2	1.88	0.54
50:DS:24:LEU:HB3	50:DS:85:VAL:CG1	2.36	0.54
50:DS:90:GLY:O	50:DS:92:TYR:N	2.33	0.54
51:DT:27:THR:HG23	51:DT:28:VAL:H	1.71	0.54
56:DY:76:CYS:HB3	56:DY:96:ILE:CD1	2.30	0.54
57:DZ:48:PHE:CE2	57:DZ:71:VAL:HG11	2.43	0.54
1:AA:155:C:H2'	1:AA:156:G:C8	2.43	0.54
1:AA:716:A:N3	11:AK:117:ASN:O	2.40	0.54
1:AA:1228:C:H4'	13:AM:116:THR:O	2.08	0.54
1:AA:1401:G:H2'	1:AA:1402:C:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.90	0.54
7:AG:73:MET:CG	7:AG:90:GLU:HA	2.33	0.54
12:AL:62:SER:O	12:AL:64:TYR:HD1	1.90	0.54
13:AM:25:ILE:HD12	13:AM:25:ILE:N	2.22	0.54
16:AP:14:ASN:O	16:AP:16:HIS:ND1	2.40	0.54
27:B1:5:CYS:O	27:B1:9:GLY:HA2	2.07	0.54
32:B6:36:LEU:O	32:B6:37:ARG:HG3	2.07	0.54
36:BA:80:G:O2'	36:BA:81:G:H5'	2.08	0.54
36:BA:290:G:O2'	36:BA:291:C:H5'	2.07	0.54
36:BA:539:G:H2'	36:BA:540:C:H6	1.73	0.54
36:BA:915:C:O2'	36:BA:916:G:H5'	2.06	0.54
36:BA:999:U:H5"	36:BA:1154:G:O6	2.08	0.54
36:BA:1175:U:H4'	36:BA:1176:G:H3'	1.89	0.54
36:BA:1300:U:H5	36:BA:1634:A:N3	2.06	0.54
36:BA:1329:U:H5"	36:BA:1330:C:H5	1.72	0.54
36:BA:1577:C:H2'	36:BA:1578:U:C6	2.43	0.54
36:BA:2024:G:H2'	36:BA:2025:C:C6	2.43	0.54
36:BA:2161:C:H2'	36:BA:2162:G:H8	1.71	0.54
36:BA:2414:G:H21	47:BP:67:MET:CE	2.20	0.54
40:BE:16:ARG:NH1	40:BE:171:GLU:OE2	2.39	0.54
41:BF:177:ALA:HB1	41:BF:178:PRO:CD	2.37	0.54
43:BH:103:LEU:HD22	43:BH:123:PHE:CD2	2.43	0.54
45:BN:42:TRP:CZ3	45:BN:48:MET:HE1	2.43	0.54
50:BS:59:LYS:HE3	50:BS:68:GLN:HE22	1.73	0.54
51:BT:106:SER:CA	51:BT:110:ILE:HG13	2.29	0.54
51:BT:118:ARG:O	51:BT:121:ILE:N	2.41	0.54
54:BW:3:ALA:HB2	54:BW:58:ALA:HA	1.90	0.54
55:BX:64:LYS:HZ2	55:BX:73:ARG:HH21	1.54	0.54
1:CA:125:U:H2'	1:CA:126:G:C8	2.42	0.54
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.42	0.54
1:CA:963:G:H21	10:CJ:55:LYS:NZ	2.04	0.54
6:CF:42:GLU:C	6:CF:44:GLY:H	2.10	0.54
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.07	0.54
18:CR:25:THR:HG22	18:CR:42:ARG:NH1	2.22	0.54
19:CS:29:ARG:O	19:CS:31:ILE:N	2.41	0.54
20:CT:56:MET:HG3	20:CT:84:LEU:HD12	1.89	0.54
22:CV:58:A:H4'	22:CV:59:A:OP1	2.08	0.54
28:D2:24:LEU:HG	28:D2:60:LEU:HD11	1.89	0.54
36:DA:327:G:H2'	36:DA:328:U:C6	2.43	0.54
36:DA:585:G:H2'	36:DA:1251:C:H42	1.71	0.54
36:DA:601:C:O2'	36:DA:605:C:H5"	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1331:A:O2'	36:DA:1332:G:H5"	2.07	0.54
39:DD:75:ILE:HD13	39:DD:99:ASP:OD1	2.08	0.54
42:DG:69:ALA:O	42:DG:90:LEU:HA	2.07	0.54
42:DG:174:GLU:N	42:DG:178:PHE:HB2	2.22	0.54
49:DR:9:LYS:O	49:DR:10:LEU:CG	2.55	0.54
49:DR:33:ARG:HG3	49:DR:115:GLU:HB2	1.89	0.54
51:DT:15:VAL:HA	51:DT:79:HIS:HD2	1.73	0.54
53:DV:18:LEU:CD1	53:DV:19:LYS:H	2.21	0.54
54:DW:1:MET:HE2	54:DW:2:GLU:H	1.71	0.54
1:AA:149:A:HO2'	1:AA:150:C:H6	1.51	0.54
1:AA:373:A:O2'	1:AA:374:A:H5'	2.07	0.54
1:AA:436:C:O2'	1:AA:437:U:P	2.65	0.54
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.08	0.54
1:AA:877:C:H5"	8:AH:88:LYS:CD	2.33	0.54
1:AA:1112:C:O2	3:AC:179:ARG:HG2	2.07	0.54
2:AB:132:LYS:HA	2:AB:135:GLN:HG3	1.90	0.54
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.08	0.54
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.70	0.54
10:AJ:50:ILE:N	10:AJ:50:ILE:CD1	2.66	0.54
13:AM:65:LYS:C	13:AM:66:LEU:N	2.61	0.54
17:AQ:77:VAL:O	17:AQ:78:GLU:CB	2.55	0.54
36:BA:70:G:H2'	36:BA:113:G:O2'	2.08	0.54
36:BA:547:A:H2'	36:BA:547:A:N3	2.22	0.54
36:BA:648:G:O2'	36:BA:649:G:H5'	2.08	0.54
36:BA:1431:U:O2'	36:BA:1432:C:H5'	2.08	0.54
36:BA:1563:G:O2'	36:BA:1564:C:H5'	2.07	0.54
37:BB:93:G:O2'	37:BB:94:C:H5'	2.08	0.54
39:BD:32:SER:O	39:BD:36:PRO:HD2	2.07	0.54
40:BE:143:ASN:HB2	40:BE:147:PRO:HD2	1.88	0.54
44:BI:58:LEU:HA	44:BI:61:ARG:CD	2.37	0.54
44:BI:83:ALA:HA	44:BI:89:TYR:CD1	2.43	0.54
47:BP:23:PRO:HD2	47:BP:33:ARG:NH2	2.23	0.54
47:BP:98:GLU:HA	47:BP:101:VAL:HG22	1.88	0.54
49:BR:28:LEU:HD11	49:BR:116:LEU:CD2	2.35	0.54
52:BU:62:ILE:HD12	52:BU:76:TYR:CE1	2.42	0.54
52:BU:83:LEU:HG	52:BU:88:ILE:HD11	1.89	0.54
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.71	0.54
4:CD:58:LEU:HD22	4:CD:62:GLN:HG2	1.89	0.54
5:CE:76:ILE:HG13	5:CE:142:LEU:HD13	1.89	0.54
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.88	0.54
13:CM:18:ALA:HB2	13:CM:45:VAL:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:65:GLN:N	16:CP:65:GLN:OE1	2.41	0.54
19:CS:6:LYS:H	19:CS:6:LYS:HE3	1.72	0.54
34:D8:61:LEU:CD1	34:D8:61:LEU:H	2.12	0.54
36:DA:141:A:H8	36:DA:1408:C:HO2'	1.42	0.54
36:DA:144:C:H2'	36:DA:145:G:C8	2.40	0.54
36:DA:910:A:H62	48:DQ:12:GLN:HA	1.72	0.54
36:DA:1747(A):G:H2'	36:DA:1748:G:C5'	2.30	0.54
39:DD:31:LYS:HZ1	39:DD:102:LYS:NZ	2.05	0.54
41:DF:132:VAL:CG2	41:DF:133:ASN:H	2.06	0.54
45:DN:42:TRP:CD1	52:DU:63:VAL:HG11	2.43	0.54
47:DP:17:LYS:O	47:DP:19:VAL:N	2.41	0.54
48:DQ:66:ILE:HG22	48:DQ:104:PHE:CD2	2.43	0.54
50:DS:14:VAL:CG1	50:DS:15:ARG:H	2.19	0.54
50:DS:83:LYS:HG2	50:DS:105:ALA:HB3	1.90	0.54
51:DT:3:ARG:O	51:DT:5:ALA:N	2.40	0.54
54:DW:1:MET:HA	54:DW:1:MET:HE3	1.88	0.54
55:DX:57:LEU:HD13	55:DX:78:LYS:O	2.07	0.54
56:DY:95:LYS:HG2	56:DY:100:ALA:CB	2.38	0.54
1:AA:403:C:O2'	1:AA:404:U:H5'	2.07	0.54
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.71	0.54
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.88	0.54
5:AE:90:VAL:HG22	5:AE:121:LYS:O	2.08	0.54
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	1.89	0.54
9:AI:126:SER:O	9:AI:128:ARG:HG2	2.08	0.54
13:AM:7:VAL:HG21	42:BG:115:ARG:HG2	1.89	0.54
27:B1:82:LEU:HB3	27:B1:90:ILE:HD12	1.87	0.54
28:B2:32:LEU:O	28:B2:36:ARG:HG3	2.08	0.54
36:BA:886:C:C2'	36:BA:887:A:H4'	2.38	0.54
36:BA:1175:U:H4'	36:BA:1176:G:C3'	2.37	0.54
39:BD:10:THR:HG23	39:BD:13:ARG:CB	2.28	0.54
39:BD:32:SER:O	39:BD:34:VAL:N	2.41	0.54
39:BD:77:ALA:HB2	39:BD:97:TYR:HA	1.90	0.54
42:BG:130:ASN:HB3	42:BG:159:VAL:O	2.08	0.54
43:BH:20:ALA:HB1	43:BH:21:PRO:CD	2.37	0.54
47:BP:33:ARG:O	47:BP:34:GLY:C	2.44	0.54
50:BS:62:LYS:O	50:BS:65:VAL:HB	2.08	0.54
52:BU:49:HIS:HA	52:BU:52:ARG:HB2	1.90	0.54
53:BV:38:LEU:O	53:BV:52:VAL:HG12	2.08	0.54
1:CA:36:C:H2'	1:CA:37:U:H5'	1.88	0.54
1:CA:861:G:H2'	1:CA:862:C:H6	1.73	0.54
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.22	0.54
7:CG:69:VAL:HG21	7:CG:104:LEU:HD21	1.89	0.54
8:CH:91:ARG:HH11	8:CH:91:ARG:HG2	1.72	0.54
13:CM:82:MET:HB2	13:CM:93:ARG:NH1	2.22	0.54
19:CS:11:VAL:HG22	19:CS:16:LEU:HD11	1.89	0.54
20:CT:82:SER:O	20:CT:86:ARG:HB2	2.07	0.54
36:DA:1259:G:O2'	36:DA:1260:G:H5'	2.07	0.54
36:DA:1336:A:OP1	55:DX:64:LYS:HE3	2.08	0.54
39:DD:35:LYS:O	39:DD:64:ILE:HG22	2.07	0.54
41:DF:152:GLU:O	41:DF:154:VAL:HG23	2.07	0.54
42:DG:51:ARG:NH2	42:DG:53:LEU:HD23	2.22	0.54
45:DN:43:THR:HB	45:DN:46:VAL:HG12	1.90	0.54
47:DP:83:VAL:CG2	47:DP:105:LEU:HD12	2.38	0.54
47:DP:92:GLU:HG3	47:DP:93:GLY:N	2.22	0.54
47:DP:114:ILE:HD12	47:DP:115:LEU:N	2.23	0.54
49:DR:2:ARG:NH2	49:DR:5:LYS:HZ3	2.06	0.54
50:DS:97:ARG:C	50:DS:97:ARG:NE	2.60	0.54
51:DT:16:ARG:HH12	51:DT:19:LEU:HG	1.72	0.54
51:DT:65:LYS:HZ2	51:DT:66:VAL:N	2.01	0.54
53:DV:64:HIS:CE1	53:DV:92:THR:HG22	2.42	0.54
1:AA:437:U:O2'	1:AA:438:G:H5'	2.08	0.54
1:AA:1399:C:C2	1:AA:1502:A:N6	2.76	0.54
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.71	0.54
2:AB:92:TYR:O	2:AB:93:VAL:HG13	2.08	0.54
7:AG:12:LEU:HD13	7:AG:25:ALA:HB2	1.90	0.54
8:AH:85:ARG:HD3	8:AH:85:ARG:C	2.28	0.54
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.21	0.54
12:AL:6:THR:HG23	12:AL:9:GLN:HG3	1.90	0.54
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.07	0.54
14:AN:40:CYS:SG	14:AN:43:CYS:N	2.80	0.54
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.22	0.54
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.06	0.54
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.08	0.54
17:AQ:45:HIS:HB2	17:AQ:69:LYS:HE2	1.90	0.54
23:AW:69:G:H3'	23:AW:70:G:H5"	1.89	0.54
24:AX:14:A:O2'	24:AX:15:A:H5'	2.08	0.54
27:B1:45:ASN:HD21	27:B1:47:GLN:NE2	2.05	0.54
36:BA:34:C:H2'	36:BA:35:G:H5'	1.89	0.54
36:BA:225:A:H2'	36:BA:226:G:H5'	1.89	0.54
36:BA:327:G:H2'	36:BA:328:U:C6	2.42	0.54
36:BA:451:C:N4	36:BA:453:C:H3'	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:558:G:P	45:BN:111:PRO:HD2	2.48	0.54
36:BA:1019:U:O2'	36:BA:1021:A:C2	2.57	0.54
36:BA:2111:C:H42	36:BA:2147:G:H22	1.56	0.54
50:BS:48:LEU:HD12	50:BS:48:LEU:N	2.22	0.54
51:BT:29:ARG:HG2	51:BT:86:ILE:CG2	2.37	0.54
53:BV:2:PHE:CD1	53:BV:13:ARG:NH1	2.76	0.54
1:CA:15:G:H2'	1:CA:16:A:H8	1.73	0.54
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.89	0.54
3:CC:195:VAL:HG12	3:CC:196:LEU:H	1.72	0.54
3:CC:195:VAL:O	3:CC:196:LEU:HD22	2.08	0.54
4:CD:57:ARG:HG2	4:CD:202:LEU:HD22	1.90	0.54
9:CI:28:VAL:HG13	9:CI:63:ILE:O	2.07	0.54
12:CL:46:LYS:O	12:CL:47:LYS:O	2.26	0.54
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.40	0.54
32:D6:36:LEU:O	32:D6:37:ARG:HG3	2.08	0.54
36:DA:2882:A:OP1	49:DR:96:ARG:HD3	2.08	0.54
38:DC:100:ILE:HG22	38:DC:101:GLN:HG3	1.90	0.54
39:DD:62:TYR:HA	39:DD:87:ASN:HD21	1.73	0.54
39:DD:83:GLU:OE1	39:DD:104:TYR:OH	2.21	0.54
40:DE:16:ARG:O	40:DE:17:ASP:HB3	2.08	0.54
41:DF:164:ARG:HH11	41:DF:164:ARG:HG2	1.72	0.54
51:DT:14:TYR:N	51:DT:14:TYR:CD1	2.75	0.54
51:DT:64:ARG:HD2	51:DT:73:GLU:CG	2.38	0.54
57:DZ:23:LYS:CE	57:DZ:38:TYR:HE1	2.21	0.54
57:DZ:128:VAL:HG21	57:DZ:132:ASN:HD22	1.73	0.54
1:AA:33:A:H2'	1:AA:34:C:H6	1.72	0.54
1:AA:336:C:H2'	1:AA:337:C:H6	1.73	0.54
1:AA:426:G:H4'	4:AD:41:GLY:O	2.07	0.54
1:AA:501:C:H2'	1:AA:502:G:C8	2.40	0.54
1:AA:811:C:O2'	1:AA:901:A:N1	2.40	0.54
1:AA:853:G:H2'	1:AA:854:G:H8	1.72	0.54
1:AA:952:U:H2'	1:AA:953:G:H8	1.73	0.54
1:AA:1174:G:H2'	1:AA:1175:G:H8	1.72	0.54
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.42	0.54
1:AA:1416:G:H2'	1:AA:1417:G:H5'	1.90	0.54
1:AA:1466:C:C2'	1:AA:1467:G:H5'	2.38	0.54
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.21	0.54
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.89	0.54
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.22	0.54
7:AG:43:PHE:C	7:AG:43:PHE:CD1	2.80	0.54
7:AG:47:CYS:C	7:AG:49:ILE:H	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:96:ILE:N	10:AJ:96:ILE:HD13	2.23	0.54
12:AL:27:LEU:O	12:AL:29:GLY:N	2.41	0.54
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.58	0.54
14:AN:13:THR:O	14:AN:15:LYS:N	2.40	0.54
16:AP:42:ARG:O	16:AP:43:LYS:C	2.45	0.54
20:AT:14:LYS:HA	20:AT:17:ARG:NE	2.20	0.54
28:B2:42:GLY:O	28:B2:43:GLN:C	2.46	0.54
32:B6:13:CYS:O	32:B6:21:TYR:HA	2.07	0.54
36:BA:271(M):G:C2'	36:BA:271(N):U:H5"	2.34	0.54
36:BA:2564:A:C2	36:BA:2647:U:H4'	2.43	0.54
36:BA:2783:G:H2'	36:BA:2784:C:C6	2.42	0.54
36:BA:2854:G:H2'	36:BA:2855:C:H6	1.70	0.54
37:BB:73:A:H2'	37:BB:74:U:H5'	1.89	0.54
40:BE:8:LYS:HE2	40:BE:192:ASN:ND2	2.23	0.54
41:BF:22:ALA:HA	41:BF:26:ALA:HB2	1.89	0.54
41:BF:132:VAL:HG13	41:BF:133:ASN:N	2.23	0.54
44:BI:125:GLU:HA	44:BI:125:GLU:OE1	2.07	0.54
45:BN:134:ARG:H	45:BN:135:PRO:HD3	1.73	0.54
47:BP:92:GLU:HG3	47:BP:93:GLY:N	2.23	0.54
48:BQ:141:GLN:HG3	57:BZ:72:ARG:CZ	2.36	0.54
49:BR:33:ARG:HG3	49:BR:115:GLU:HB2	1.90	0.54
50:BS:14:VAL:CG1	50:BS:15:ARG:H	2.19	0.54
1:CA:232:G:H1'	1:CA:262:A:N1	2.22	0.54
1:CA:386:C:O2'	1:CA:387:U:H5'	2.07	0.54
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.43	0.54
4:CD:84:LYS:HD3	4:CD:84:LYS:N	2.22	0.54
10:CJ:8:LEU:CD1	10:CJ:20:ALA:HA	2.38	0.54
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.23	0.54
12:CL:41:ARG:HH11	12:CL:41:ARG:CB	2.17	0.54
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.07	0.54
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.22	0.54
25:CY:62:C:H2'	25:CY:63:G:H8	1.72	0.54
31:D5:40:LYS:HB2	31:D5:41:PRO:HD2	1.89	0.54
34:D8:33:ASN:N	34:D8:33:ASN:HD22	2.06	0.54
36:DA:142:A:C8	36:DA:1408:C:H1'	2.43	0.54
36:DA:1109:C:H5	36:DA:1110:G:C5	2.25	0.54
36:DA:1309:G:O2'	36:DA:1310:G:H5'	2.07	0.54
38:DC:49:ILE:O	38:DC:51:PRO:HD3	2.07	0.54
41:DF:164:ARG:HG3	41:DF:175:THR:OG1	2.08	0.54
42:DG:173:LEU:N	42:DG:173:LEU:HD22	2.22	0.54
47:DP:84:ASN:ND2	47:DP:116:GLY:HA3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:63:ARG:HA	49:DR:80:PHE:HE2	1.72	0.54
49:DR:88:ARG:HD2	49:DR:89:ASP:OD1	2.08	0.54
50:DS:87:PHE:CG	50:DS:88:ASP:N	2.76	0.54
52:DU:89:GLU:HG2	53:DV:50:PRO:CG	2.38	0.54
1:AA:693:G:H2'	1:AA:694:A:C8	2.43	0.54
4:AD:62:GLN:O	4:AD:66:ARG:HD2	2.07	0.54
7:AG:52:GLU:O	7:AG:54:THR:N	2.41	0.54
8:AH:91:ARG:HH11	8:AH:91:ARG:HG2	1.72	0.54
10:AJ:50:ILE:HG23	10:AJ:60:ARG:HD3	1.90	0.54
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.90	0.54
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.23	0.54
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.89	0.54
27:B1:35:THR:HG22	27:B1:36:GLY:N	2.21	0.54
36:BA:470:A:H2'	36:BA:471:A:O4'	2.08	0.54
36:BA:852:G:O2'	36:BA:853:G:H5'	2.07	0.54
36:BA:2864:G:H2'	36:BA:2865:U:O4'	2.08	0.54
38:BC:86:ALA:CB	38:BC:94:VAL:HG11	2.38	0.54
41:BF:24:LEU:HB3	41:BF:25:PRO:CD	2.37	0.54
41:BF:127:GLU:OE2	41:BF:127:GLU:O	2.26	0.54
42:BG:125:PHE:O	42:BG:128:ARG:HG2	2.08	0.54
42:BG:175:LEU:H	42:BG:175:LEU:HD12	1.72	0.54
44:BI:118:LYS:HD2	44:BI:119:PRO:HD2	1.90	0.54
45:BN:78:TYR:HB3	45:BN:79:PRO:CD	2.38	0.54
49:BR:8:ARG:HA	49:BR:8:ARG:NE	2.18	0.54
49:BR:82:GLU:O	49:BR:86:ARG:HG3	2.08	0.54
51:BT:28:VAL:O	51:BT:29:ARG:CB	2.55	0.54
54:BW:68:ARG:HH22	54:BW:112:GLY:HA2	1.72	0.54
57:BZ:99:TYR:CD2	57:BZ:99:TYR:N	2.76	0.54
57:BZ:128:VAL:CG2	57:BZ:132:ASN:HB2	2.38	0.54
1:CA:353:A:H5'	1:CA:353:A:C8	2.43	0.54
1:CA:1104:G:O5'	2:CB:111:ARG:HD2	2.08	0.54
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.05	0.54
3:CC:73:PRO:HD2	3:CC:105:GLU:OE2	2.08	0.54
4:CD:162:LEU:O	4:CD:165:MET:HB2	2.07	0.54
20:CT:98:PRO:C	20:CT:100:ILE:H	2.12	0.54
27:D1:72:GLU:O	27:D1:76:ARG:HG2	2.07	0.54
27:D1:93:GLU:C	27:D1:95:LEU:H	2.09	0.54
36:DA:1336:A:H2'	36:DA:1337:G:C8	2.42	0.54
36:DA:1973:G:H2'	36:DA:1974:C:C6	2.42	0.54
36:DA:2203:U:H2'	36:DA:2203:U:O2	2.07	0.54
39:DD:32:SER:O	39:DD:36:PRO:HD2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:132:HIS:CD2	40:DE:135:HIS:CE1	2.96	0.54
41:DF:184:TYR:CE2	41:DF:188:ARG:HD2	2.43	0.54
48:DQ:42:ILE:HA	48:DQ:46:GLN:OE1	2.08	0.54
51:DT:56:GLY:N	51:DT:59:THR:HG22	2.22	0.54
52:DU:15:LYS:O	52:DU:19:LYS:HG3	2.08	0.54
54:DW:10:VAL:HG23	54:DW:101:SER:O	2.07	0.54
55:DX:12:VAL:CG2	55:DX:13:LEU:H	1.93	0.54
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.43	0.54
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.54
1:AA:715:A:O2'	1:AA:716:A:H5'	2.07	0.54
1:AA:1321:C:C5'	1:AA:1322:C:C5'	2.86	0.54
1:AA:1488:G:O2'	1:AA:1489:G:H5'	2.08	0.54
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.07	0.54
4:AD:11:LEU:C	4:AD:13:ARG:N	2.60	0.54
10:AJ:88:LEU:CD1	10:AJ:90:LEU:HD11	2.38	0.54
11:AK:99:GLN:NE2	11:AK:105:VAL:HG21	2.23	0.54
18:AR:25:THR:HG22	18:AR:42:ARG:HH11	1.72	0.54
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.08	0.54
29:B3:40:THR:HA	29:B3:44:ARG:NH2	2.23	0.54
31:B5:42:PRO:O	31:B5:43:HIS:HB2	2.08	0.54
34:B8:29:LYS:HD3	34:B8:44:LYS:HG2	1.90	0.54
34:B8:36:LYS:HB3	34:B8:40:GLU:HG3	1.90	0.54
36:BA:7:G:H2'	36:BA:8:A:C8	2.43	0.54
36:BA:896:A:H1'	57:BZ:146:ILE:HD11	1.89	0.54
36:BA:2389:G:H5"	36:BA:2390:U:H5'	1.90	0.54
41:BF:127:GLU:O	41:BF:129:PHE:N	2.34	0.54
44:BI:79:ILE:HG22	44:BI:81:VAL:HG23	1.89	0.54
48:BQ:59:ARG:NH1	48:BQ:59:ARG:HG3	2.23	0.54
49:BR:2:ARG:NH1	49:BR:5:LYS:HE2	2.23	0.54
49:BR:9:LYS:O	49:BR:10:LEU:CG	2.55	0.54
56:BY:30:VAL:HG12	56:BY:31:LEU:N	2.23	0.54
1:CA:539:A:H2'	1:CA:540:G:C8	2.41	0.54
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.08	0.54
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.22	0.54
3:CC:22:TRP:CH2	3:CC:32:LEU:HB3	2.43	0.54
4:CD:15:GLU:HG2	4:CD:63:LYS:CG	2.35	0.54
5:CE:40:ARG:HG2	5:CE:40:ARG:HH11	1.73	0.54
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.90	0.54
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.08	0.54
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.88	0.54
19:CS:44:MET:O	19:CS:47:HIS:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D0:14:ARG:O	26:D0:15:ASP:HB2	2.08	0.54
32:D6:42:TRP:CZ2	36:DA:2349:G:H4'	2.43	0.54
36:DA:614(C):A:HO2'	36:DA:615:G:C4'	2.21	0.54
36:DA:886:C:C2'	36:DA:887:A:H4'	2.38	0.54
36:DA:986:C:O2'	36:DA:987:G:H5'	2.08	0.54
36:DA:2206:G:N2	36:DA:2207:G:C5'	2.69	0.54
36:DA:2314:C:O2'	36:DA:2315:G:H5'	2.07	0.54
36:DA:2358:G:H22	47:DP:55:ARG:HH22	1.56	0.54
38:DC:58:VAL:HG21	38:DC:166:ASP:N	2.03	0.54
39:DD:77:ALA:HB2	39:DD:97:TYR:HA	1.89	0.54
40:DE:10:GLY:HA3	51:DT:8:LYS:HD2	1.89	0.54
42:DG:81:LYS:O	42:DG:82:LEU:HB3	2.08	0.54
42:DG:137:GLU:C	42:DG:152:LEU:HD12	2.29	0.54
45:DN:32:THR:CG2	45:DN:37:LYS:HB3	2.38	0.54
47:DP:34:GLY:O	47:DP:35:HIS:HB2	2.08	0.54
47:DP:77:ARG:HB2	47:DP:78:PRO:HD2	1.89	0.54
50:DS:59:LYS:HE3	50:DS:68:GLN:HE22	1.73	0.54
51:DT:80:SER:CB	51:DT:81:PRO:HD3	2.38	0.54
1:AA:433:C:H2'	1:AA:434:U:H6	1.72	0.53
1:AA:818:G:H3'	1:AA:819:A:C5'	2.37	0.53
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.08	0.53
9:AI:28:VAL:HG13	9:AI:63:ILE:O	2.09	0.53
29:B3:6:VAL:HG12	29:B3:56:VAL:HG22	1.90	0.53
29:B3:10:LYS:HB3	29:B3:53:LEU:HA	1.90	0.53
36:BA:863:A:H2'	36:BA:864:G:C8	2.41	0.53
36:BA:926:A:H5'	36:BA:926:A:C8	2.42	0.53
36:BA:1336:A:OP1	55:BX:64:LYS:HE3	2.08	0.53
36:BA:1434:A:O2'	36:BA:1435:G:H5'	2.08	0.53
36:BA:2469:A:H2'	36:BA:2469:A:N3	2.23	0.53
38:BC:23:ASP:C	38:BC:25:ALA:H	2.12	0.53
39:BD:32:SER:O	39:BD:33:LEU:C	2.46	0.53
40:BE:91:VAL:HG13	40:BE:95:ILE:HG12	1.89	0.53
42:BG:113:ARG:HG2	42:BG:113:ARG:NH1	2.22	0.53
44:BI:53:ALA:O	44:BI:57:ARG:HG3	2.08	0.53
45:BN:17:ASP:HB2	45:BN:55:VAL:HG12	1.90	0.53
56:BY:17:SER:CB	56:BY:71:LYS:HD2	2.39	0.53
56:BY:76:CYS:SG	56:BY:77:PRO:CD	2.86	0.53
57:BZ:57:ILE:HG22	57:BZ:58:VAL:H	1.73	0.53
1:CA:1123:A:C4'	10:CJ:36:GLY:HA3	2.33	0.53
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.74	0.53
5:CE:126:ARG:HH11	5:CE:126:ARG:CG	2.14	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:43:VAL:HG21	12:CL:93:LEU:HD22	1.90	0.53
16:CP:15:PRO:O	16:CP:41:PRO:HD2	2.09	0.53
27:D1:64:ALA:HA	27:D1:67:ILE:HG13	1.90	0.53
29:D3:35:ARG:HH11	29:D3:35:ARG:HG3	1.73	0.53
34:D8:29:LYS:HD3	34:D8:44:LYS:HG2	1.89	0.53
36:DA:102:G:OP1	36:DA:102:G:H4'	2.09	0.53
36:DA:675:A:OP1	41:DF:63:LYS:HE2	2.08	0.53
36:DA:2172:U:H1'	36:DA:2173:A:P	2.47	0.53
36:DA:2469:A:N3	36:DA:2469:A:H2'	2.23	0.53
36:DA:2672:G:C2'	36:DA:2673:G:H5"	2.36	0.53
36:DA:2716:U:O2'	36:DA:2717:G:H5'	2.08	0.53
36:DA:2774:C:H2'	36:DA:2775:A:O4'	2.07	0.53
38:DC:23:ASP:C	38:DC:25:ALA:H	2.11	0.53
41:DF:20:LEU:HB3	41:DF:23:ASP:OD2	2.08	0.53
41:DF:36:VAL:CG1	41:DF:183:VAL:HG21	2.38	0.53
41:DF:51:THR:HB	41:DF:88:VAL:HG11	1.89	0.53
41:DF:160:ASN:HB3	41:DF:163:VAL:HG23	1.88	0.53
42:DG:27:ASN:ND2	42:DG:29:TRP:HB2	2.22	0.53
42:DG:58:GLN:C	42:DG:60:LEU:H	2.12	0.53
42:DG:115:ARG:HD2	42:DG:115:ARG:C	2.27	0.53
42:DG:155:MET:SD	42:DG:156:ASP:N	2.81	0.53
43:DH:40:GLU:O	43:DH:42:ARG:N	2.42	0.53
43:DH:68:THR:C	43:DH:70:THR:N	2.60	0.53
43:DH:70:THR:O	43:DH:72:ILE:N	2.37	0.53
48:DQ:115:MET:O	48:DQ:119:ARG:HB2	2.07	0.53
50:DS:35:ILE:O	50:DS:35:ILE:HG23	2.09	0.53
51:DT:81:PRO:C	51:DT:82:LEU:HD12	2.29	0.53
51:DT:106:SER:C	51:DT:107:ASP:OD1	2.46	0.53
1:AA:918:A:H2'	1:AA:919:A:H8	1.73	0.53
1:AA:1007:C:H2'	1:AA:1008:C:H6	1.73	0.53
1:AA:1255:G:C5'	3:AC:26:LYS:HZ2	2.21	0.53
3:AC:99:VAL:O	3:AC:99:VAL:HG23	2.08	0.53
4:AD:31:CYS:C	4:AD:33:MET:N	2.61	0.53
5:AE:14:ARG:NH1	5:AE:129:ILE:HD11	2.23	0.53
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.07	0.53
13:AM:82:MET:HB2	13:AM:93:ARG:NH1	2.24	0.53
27:B1:41:ARG:HD3	27:B1:43:TYR:CZ	2.43	0.53
27:B1:44:PRO:HB2	27:B1:46:LEU:CD1	2.39	0.53
36:BA:1429:G:H2'	36:BA:1430:C:C6	2.43	0.53
36:BA:1497:U:H5'	36:BA:1498:C:C5	2.43	0.53
36:BA:1887:C:H3'	36:BA:1888:G:H5"	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:87:G:H2'	37:BB:88:C:H5"	1.90	0.53
40:BE:61:ARG:CB	40:BE:62:PRO:CD	2.86	0.53
41:BF:7:TYR:HB2	41:BF:17:ARG:N	2.23	0.53
42:BG:76:SER:HA	42:BG:83:ARG:HB2	1.90	0.53
43:BH:40:GLU:O	43:BH:42:ARG:N	2.42	0.53
43:BH:89:ILE:HG12	43:BH:129:THR:HA	1.90	0.53
44:BI:133:HIS:HB2	44:BI:134:PRO:HD2	1.85	0.53
46:BO:71:ARG:HH12	51:BT:74:ARG:NH2	2.05	0.53
49:BR:88:ARG:HD2	49:BR:89:ASP:OD1	2.08	0.53
52:BU:88:ILE:O	52:BU:88:ILE:CG1	2.55	0.53
1:CA:509:A:H2'	1:CA:510:A:C8	2.43	0.53
1:CA:665:A:N3	1:CA:732:C:H2'	2.24	0.53
1:CA:977:A:H2'	1:CA:978:A:H5'	1.90	0.53
7:CG:12:LEU:HD13	7:CG:25:ALA:HB2	1.89	0.53
8:CH:35:ILE:O	8:CH:39:LEU:HD23	2.08	0.53
9:CI:118:LYS:HB2	9:CI:118:LYS:HZ2	1.72	0.53
12:CL:117:ARG:O	12:CL:119:LYS:O	2.27	0.53
13:CM:82:MET:HG2	13:CM:82:MET:O	2.06	0.53
17:CQ:76:LEU:HD12	17:CQ:77:VAL:N	2.23	0.53
23:CW:25:C:O2'	23:CW:26:A:H5'	2.08	0.53
29:D3:44:ARG:O	29:D3:48:GLU:HG2	2.08	0.53
31:D5:57:VAL:C	31:D5:58:LEU:HD23	2.29	0.53
34:D8:4:MET:O	34:D8:62:LEU:CD1	2.56	0.53
34:D8:6:THR:HG21	36:DA:243:U:OP1	2.08	0.53
36:DA:445:C:OP1	52:DU:2:PRO:HA	2.08	0.53
36:DA:548:A:H3'	36:DA:549:G:H5'	1.91	0.53
36:DA:558:G:P	45:DN:111:PRO:HD2	2.49	0.53
36:DA:1907:G:O2'	36:DA:1908:C:H5'	2.08	0.53
36:DA:2481:G:O2'	36:DA:2482:G:P	2.64	0.53
36:DA:2657:A:O2'	43:DH:160:LYS:HE3	2.09	0.53
37:DB:15:A:H5'	37:DB:16:G:C8	2.43	0.53
37:DB:77:U:C5	37:DB:99:G:N2	2.77	0.53
46:DO:7:TYR:C	46:DO:8:LEU:HD22	2.28	0.53
52:DU:85:LYS:HD3	52:DU:117:GLN:NE2	2.22	0.53
57:DZ:45:ASP:OD2	57:DZ:49:ARG:NH2	2.40	0.53
3:AC:73:PRO:HD2	3:AC:105:GLU:OE2	2.08	0.53
4:AD:84:LYS:HD3	4:AD:84:LYS:N	2.23	0.53
8:AH:12:ARG:HG2	8:AH:24:THR:HG21	1.89	0.53
29:B3:26:LEU:O	29:B3:28:LEU:HG	2.08	0.53
32:B6:40:CYS:SG	32:B6:45:LYS:HE3	2.49	0.53
33:B7:8:ASN:HD22	33:B7:9:ARG:N	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B8:33:ASN:N	34:B8:33:ASN:HD22	2.06	0.53
36:BA:321:G:O4'	41:BF:165:ARG:HD2	2.08	0.53
36:BA:438:G:O2'	36:BA:440:G:H5'	2.08	0.53
36:BA:460:A:H2'	36:BA:461:C:O4'	2.09	0.53
36:BA:790:C:O2'	36:BA:791:C:OP1	2.23	0.53
36:BA:1012:U:O4	45:BN:28:THR:HG21	2.09	0.53
36:BA:1336:A:H2'	36:BA:1337:G:H8	1.74	0.53
36:BA:1384:A:N3	36:BA:1405:U:H1'	2.23	0.53
36:BA:2422:A:H4'	36:BA:2423:U:OP1	2.08	0.53
41:BF:3:GLU:CB	41:BF:24:LEU:HG	2.35	0.53
42:BG:149:VAL:HG23	42:BG:149:VAL:O	2.08	0.53
43:BH:67:LEU:O	43:BH:71:LEU:HB2	2.08	0.53
47:BP:115:LEU:N	47:BP:115:LEU:HD23	2.23	0.53
49:BR:54:LEU:HD23	49:BR:66:VAL:HG23	1.90	0.53
52:BU:89:GLU:HG2	53:BV:50:PRO:HG2	1.90	0.53
1:CA:33:A:H2'	1:CA:34:C:H6	1.73	0.53
1:CA:473:G:H2'	1:CA:474:G:H8	1.73	0.53
1:CA:509:A:H5'	4:CD:54:TYR:HD2	1.73	0.53
1:CA:542:G:P	4:CD:10:ARG:HH21	2.31	0.53
1:CA:551:U:O2'	12:CL:86:ARG:HD2	2.08	0.53
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.09	0.53
4:CD:107:ARG:HB3	4:CD:174:LEU:CD1	2.38	0.53
4:CD:176:LEU:HD12	4:CD:182:LYS:O	2.09	0.53
11:CK:91:ARG:HD2	11:CK:91:ARG:C	2.28	0.53
15:CO:78:TYR:C	15:CO:80:ALA:H	2.09	0.53
28:D2:67:LYS:C	28:D2:69:ARG:H	2.11	0.53
29:D3:7:LYS:O	29:D3:54:VAL:HG13	2.09	0.53
29:D3:10:LYS:HB3	29:D3:53:LEU:HA	1.91	0.53
32:D6:17:LYS:C	32:D6:18:ARG:HD3	2.29	0.53
36:DA:588:U:H6	36:DA:588:U:O5'	1.90	0.53
36:DA:848:G:H2'	36:DA:849:A:C8	2.43	0.53
36:DA:1140:C:P	45:DN:66:LYS:HZ3	2.31	0.53
36:DA:1409:C:H2'	36:DA:1410:G:C8	2.43	0.53
36:DA:1750:G:O2'	36:DA:1751:C:H5'	2.08	0.53
36:DA:2114:A:H2'	36:DA:2115:G:O4'	2.09	0.53
36:DA:2135:A:H2'	36:DA:2136:C:H6	1.73	0.53
42:DG:15:VAL:HG13	42:DG:175:LEU:HD21	1.89	0.53
43:DH:19:VAL:HG11	43:DH:43:VAL:O	2.09	0.53
45:DN:131:GLN:HE22	45:DN:134:ARG:CD	2.17	0.53
48:DQ:59:ARG:O	48:DQ:60:ARG:CB	2.56	0.53
50:DS:61:ASN:O	50:DS:62:LYS:HG2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:61:TRP:O	52:DU:63:VAL:N	2.41	0.53
55:DX:64:LYS:HD3	55:DX:73:ARG:CZ	2.39	0.53
56:DY:28:LYS:O	56:DY:29:GLU:C	2.46	0.53
57:DZ:23:LYS:N	57:DZ:41:LEU:HG	2.23	0.53
57:DZ:97:GLU:HA	57:DZ:126:VAL:O	2.07	0.53
1:AA:763:G:O2'	1:AA:764:C:H5'	2.07	0.53
1:AA:1088:G:H2'	1:AA:1089:G:H8	1.73	0.53
1:AA:1194:U:H4'	5:AE:22:GLY:CA	2.37	0.53
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.74	0.53
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.07	0.53
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	1.90	0.53
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.91	0.53
8:AH:84:ARG:HH11	8:AH:84:ARG:HG2	1.74	0.53
12:AL:59:ARG:HG3	12:AL:64:TYR:O	2.07	0.53
17:AQ:62:SER:CB	17:AQ:72:ARG:HG3	2.38	0.53
22:AV:64:G:H2'	22:AV:65:C:H6	1.74	0.53
31:B5:16:ARG:NH2	36:BA:517:C:OP1	2.41	0.53
36:BA:271(K):U:H3'	36:BA:271(L):U:H5'	1.91	0.53
36:BA:888:C:H2'	36:BA:889:C:H5'	1.90	0.53
36:BA:1331:A:O2'	36:BA:1332:G:H5"	2.09	0.53
36:BA:1336:A:H2'	36:BA:1337:G:C8	2.43	0.53
36:BA:2039:C:H2'	36:BA:2040:C:H6	1.72	0.53
38:BC:100:ILE:HG22	38:BC:101:GLN:HG3	1.90	0.53
42:BG:39:ILE:HG23	42:BG:92:VAL:HG13	1.89	0.53
43:BH:44:VAL:CG1	43:BH:45:VAL:H	2.14	0.53
45:BN:131:GLN:HE22	45:BN:134:ARG:CD	2.17	0.53
47:BP:50:ARG:HG2	47:BP:50:ARG:HH21	1.72	0.53
51:BT:78:LEU:C	51:BT:79:HIS:ND1	2.61	0.53
57:BZ:104:PHE:HD1	57:BZ:139:VAL:HB	1.73	0.53
57:BZ:150:LEU:HD23	57:BZ:171:ILE:CG1	2.32	0.53
57:BZ:165:VAL:HG12	57:BZ:166:SER:N	2.24	0.53
1:CA:448:A:O2'	1:CA:449:C:H5'	2.09	0.53
1:CA:512:U:H2'	1:CA:513:C:C6	2.43	0.53
1:CA:600:C:OP1	8:CH:97:VAL:HG12	2.09	0.53
1:CA:783:C:H2'	1:CA:784:C:H6	1.73	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.43	0.53
1:CA:1056:U:C5'	3:CC:163:ALA:HB2	2.38	0.53
1:CA:1206:G:O4'	3:CC:194:GLY:HA2	2.09	0.53
1:CA:1305:G:H8	1:CA:1305:G:OP2	1.91	0.53
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.43	0.53
2:CB:74:LYS:C	2:CB:76:GLN:H	2.11	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.26	0.53
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.07	0.53
7:CG:72:ARG:O	7:CG:73:MET:HG3	2.08	0.53
11:CK:78:GLN:O	11:CK:103:LEU:HD13	2.07	0.53
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.91	0.53
18:CR:25:THR:HG22	18:CR:42:ARG:HH11	1.73	0.53
27:D1:5:CYS:HB3	27:D1:10:LYS:H	1.73	0.53
36:DA:607:U:OP1	41:DF:102:PRO:HA	2.08	0.53
36:DA:662:G:OP1	47:DP:18:ARG:HD2	2.08	0.53
36:DA:796:C:H2'	36:DA:797:C:C6	2.43	0.53
36:DA:869:G:H2'	36:DA:870:A:C8	2.41	0.53
36:DA:2022:U:O2'	36:DA:2617:C:H5'	2.09	0.53
36:DA:2176:A:O5'	38:DC:217:THR:HA	2.08	0.53
37:DB:42:C:O4'	42:DG:69:ALA:HB2	2.07	0.53
39:DD:166:GLN:CA	39:DD:166:GLN:NE2	2.71	0.53
40:DE:178:GLU:HG3	40:DE:179:GLU:OE1	2.08	0.53
42:DG:37:VAL:CG1	42:DG:157:ILE:HD11	2.38	0.53
44:DI:68:LEU:HD21	44:DI:130:TYR:CD2	2.43	0.53
45:DN:30:ILE:O	45:DN:34:LEU:HB2	2.09	0.53
45:DN:38:HIS:NE2	45:DN:50:ASP:OD2	2.41	0.53
46:DO:24:VAL:HG23	46:DO:33:ALA:HB2	1.90	0.53
54:DW:24:ILE:HD13	54:DW:36:LEU:HD11	1.90	0.53
56:DY:30:VAL:HG12	56:DY:31:LEU:N	2.23	0.53
1:AA:493:G:HO2'	1:AA:494:U:H6	1.56	0.53
1:AA:737:A:H2'	1:AA:738:C:C6	2.43	0.53
1:AA:783:C:O2'	1:AA:784:C:H5'	2.09	0.53
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.44	0.53
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.74	0.53
7:AG:43:PHE:C	7:AG:43:PHE:HD1	2.12	0.53
23:AW:62:C:H2'	23:AW:63:G:C8	2.44	0.53
26:B0:25:ARG:HA	26:B0:29:GLN:NE2	2.20	0.53
32:B6:17:LYS:C	32:B6:18:ARG:HD3	2.29	0.53
36:BA:49:A:H5"	36:BA:51:G:O4'	2.08	0.53
36:BA:1999:C:H4'	36:BA:2723:C:O2	2.09	0.53
36:BA:2809:A:C2	36:BA:2892:A:N3	2.77	0.53
39:BD:109:ASP:HB2	39:BD:197:GLY:CA	2.38	0.53
46:BO:2:ILE:CD1	46:BO:82:ASN:ND2	2.63	0.53
47:BP:101:VAL:HG12	47:BP:107:LYS:N	2.24	0.53
48:BQ:34:LEU:HD12	48:BQ:130:LYS:O	2.09	0.53
48:BQ:59:ARG:O	48:BQ:60:ARG:CB	2.56	0.53
48:BQ:120:ILE:O	48:BQ:123:HIS:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:4:LEU:C	49:BR:6:SER:H	2.11	0.53
50:BS:15:ARG:O	50:BS:18:ILE:HG22	2.08	0.53
52:BU:57:PHE:C	52:BU:59:ARG:N	2.60	0.53
52:BU:85:LYS:HD3	52:BU:117:GLN:NE2	2.23	0.53
52:BU:90:VAL:O	52:BU:92:ARG:N	2.37	0.53
55:BX:3:THR:O	55:BX:4:ALA:HB3	2.08	0.53
57:BZ:151:HIS:HB3	57:BZ:170:THR:HA	1.91	0.53
1:CA:436:C:O2'	1:CA:437:U:P	2.67	0.53
1:CA:955:U:H1'	1:CA:1227:A:H61	1.72	0.53
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.21	0.53
7:CG:68:ASN:HD22	7:CG:128:ALA:HA	1.73	0.53
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.39	0.53
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.29	0.53
11:CK:126:ARG:HB3	11:CK:126:ARG:HH11	1.73	0.53
28:D2:5:GLU:O	28:D2:8:LYS:N	2.42	0.53
30:D4:51:TYR:HE1	42:DG:5:VAL:HG22	1.73	0.53
36:DA:154(A):C:O2	36:DA:154(A):C:O4'	2.25	0.53
36:DA:271(H):G:O2'	36:DA:271(I):G:H8	1.91	0.53
36:DA:1722:A:C2	36:DA:1740:G:C8	2.96	0.53
36:DA:1999:C:H4'	36:DA:2723:C:O2	2.08	0.53
36:DA:2472:G:H5'	36:DA:2473:U:H5"	1.90	0.53
36:DA:2645:G:C3'	36:DA:2646:C:H5'	2.29	0.53
39:DD:142:VAL:HG23	39:DD:192:THR:C	2.28	0.53
40:DE:100:GLU:O	40:DE:172:VAL:HG23	2.09	0.53
42:DG:16:ARG:NH1	42:DG:28:VAL:HB	2.23	0.53
42:DG:112:PRO:C	42:DG:113:ARG:CZ	2.76	0.53
45:DN:43:THR:O	45:DN:45:ASN:N	2.42	0.53
47:DP:7:ARG:O	47:DP:10:PRO:CD	2.50	0.53
47:DP:41:ARG:HA	47:DP:41:ARG:HE	1.72	0.53
52:DU:99:ALA:HB2	52:DU:106:PHE:CD1	2.44	0.53
54:DW:48:ALA:O	54:DW:49:LYS:C	2.47	0.53
54:DW:92:ARG:O	54:DW:93:ALA:HB3	2.07	0.53
54:DW:110:LYS:HG3	54:DW:111:HIS:ND1	2.22	0.53
57:DZ:24:LEU:O	57:DZ:24:LEU:CD2	2.51	0.53
1:AA:838:G:C2'	1:AA:839:U:H5"	2.38	0.53
1:AA:861:G:H2'	1:AA:862:C:H6	1.72	0.53
59:AA:1814:PAR:H34	59:AA:1814:PAR:HN61	1.73	0.53
14:AN:57:ARG:HG2	14:AN:58:LYS:N	2.23	0.53
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	1.90	0.53
23:AW:4:C:H1'	23:AW:70:G:N2	2.24	0.53
29:B3:8:LEU:HD13	29:B3:31:LEU:HD23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B8:63:PRO:HB2	34:B8:64:TYR:CD1	2.44	0.53
36:BA:287:C:H2'	36:BA:288:C:O4'	2.09	0.53
36:BA:523:C:H5"	36:BA:540:C:O2'	2.09	0.53
36:BA:637:A:H2'	47:BP:117:GLU:OE2	2.08	0.53
36:BA:717:G:H2'	36:BA:718:A:O4'	2.09	0.53
36:BA:1789:A:H2'	36:BA:1790:C:O4'	2.08	0.53
36:BA:2300:G:H22	36:BA:2317:C:H1'	1.71	0.53
36:BA:2695:C:H2'	36:BA:2696:U:C6	2.42	0.53
39:BD:70:TRP:CH2	39:BD:150:LYS:HA	2.43	0.53
39:BD:182:LEU:H	39:BD:272:ALA:HB3	1.74	0.53
42:BG:21:ARG:HD3	42:BG:21:ARG:C	2.29	0.53
44:BI:102:SER:HA	44:BI:107:VAL:O	2.08	0.53
45:BN:3:THR:C	45:BN:5:VAL:H	2.12	0.53
47:BP:83:VAL:CG2	47:BP:105:LEU:HD12	2.38	0.53
50:BS:57:LYS:O	50:BS:58:LEU:O	2.27	0.53
54:BW:110:LYS:HG3	54:BW:111:HIS:ND1	2.24	0.53
57:BZ:19:ARG:HH11	57:BZ:82:ARG:NH2	2.06	0.53
57:BZ:68:PRO:O	57:BZ:91:LEU:HD13	2.08	0.53
1:CA:716:A:N3	11:CK:117:ASN:O	2.42	0.53
1:CA:971:G:H3'	1:CA:971:G:OP1	2.09	0.53
2:CB:92:TYR:C	2:CB:92:TYR:HD1	2.12	0.53
2:CB:107:THR:HA	2:CB:110:GLN:OE1	2.08	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HD2	1.90	0.53
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.38	0.53
5:CE:90:VAL:HG22	5:CE:121:LYS:O	2.08	0.53
7:CG:27:ILE:HG12	7:CG:43:PHE:HD2	1.73	0.53
7:CG:46:ALA:O	7:CG:49:ILE:HB	2.08	0.53
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CD1	2.38	0.53
14:CN:13:THR:O	14:CN:15:LYS:N	2.42	0.53
17:CQ:31:LEU:O	17:CQ:31:LEU:HG	2.07	0.53
18:CR:35:ARG:O	18:CR:37:VAL:HG13	2.09	0.53
29:D3:29:ARG:HB2	29:D3:33:GLN:HE22	1.74	0.53
30:D4:39:ARG:HH11	30:D4:39:ARG:HG2	1.74	0.53
36:DA:460:A:H2'	36:DA:461:C:O4'	2.08	0.53
36:DA:987:G:H2'	36:DA:988:A:O4'	2.09	0.53
36:DA:1175:U:H4'	36:DA:1176:G:C3'	2.39	0.53
36:DA:1202:C:C2'	36:DA:1203:G:H5'	2.38	0.53
36:DA:1453:U:H4'	36:DA:1455:G:OP1	2.08	0.53
36:DA:2207:G:N3	36:DA:2207:G:H2'	2.24	0.53
36:DA:2389:G:H5"	36:DA:2390:U:H5'	1.89	0.53
36:DA:2885:C:N3	36:DA:2886:G:H1'	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:143:ASN:HB2	40:DE:147:PRO:HD2	1.91	0.53
41:DF:181:LEU:HB3	41:DF:205:ARG:NH1	2.23	0.53
42:DG:37:VAL:CB	42:DG:94:LEU:HD12	2.37	0.53
47:DP:23:PRO:HB2	47:DP:33:ARG:NE	2.23	0.53
48:DQ:34:LEU:HD12	48:DQ:130:LYS:O	2.09	0.53
49:DR:8:ARG:HE	49:DR:8:ARG:CA	2.17	0.53
49:DR:28:LEU:HA	49:DR:34:ILE:HG13	1.90	0.53
53:DV:38:LEU:O	53:DV:52:VAL:HG12	2.08	0.53
55:DX:35:THR:O	55:DX:39:ILE:HG12	2.08	0.53
57:DZ:104:PHE:CE1	57:DZ:117:LEU:HG	2.44	0.53
1:AA:341:C:O2'	1:AA:342:C:H5'	2.08	0.53
1:AA:404:U:H2'	1:AA:405:U:H6	1.72	0.53
1:AA:512:U:H2'	1:AA:513:C:H6	1.72	0.53
3:AC:79:ARG:HH12	11:CK:99:GLN:HB3	1.73	0.53
3:AC:131:ARG:HH12	3:AC:135:LYS:HE3	1.72	0.53
4:AD:130:GLY:O	4:AD:131:ARG:C	2.46	0.53
4:AD:169:LYS:NZ	6:CF:25:ILE:HD11	2.23	0.53
4:AD:187:ARG:NH2	4:AD:193:ASP:OD2	2.42	0.53
9:AI:10:ARG:HD3	9:AI:75:ASP:CB	2.38	0.53
13:AM:72:ALA:O	13:AM:75:ALA:HB3	2.08	0.53
18:AR:53:ARG:HG2	18:AR:53:ARG:HH11	1.73	0.53
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.89	0.53
27:B1:35:THR:HG21	36:BA:2080:G:P	2.49	0.53
36:BA:8:A:H2'	36:BA:9:U:C6	2.44	0.53
36:BA:1479:G:H5'	36:BA:1558:A:H2	1.72	0.53
36:BA:1641:A:H2'	36:BA:1642:G:O4'	2.08	0.53
36:BA:2203:U:O2	36:BA:2203:U:H2'	2.08	0.53
36:BA:2302:G:H21	42:BG:128:ARG:HD2	1.74	0.53
36:BA:2787:C:H1'	40:BE:61:ARG:HG3	1.91	0.53
36:BA:2817:G:H21	36:BA:2836:U:C1'	2.22	0.53
37:BB:28:C:O2'	37:BB:29:A:H5'	2.09	0.53
39:BD:26:LYS:HE2	39:BD:82:ILE:N	2.23	0.53
42:BG:83:ARG:HH11	42:BG:84:LYS:HD2	1.73	0.53
43:BH:158:HIS:O	43:BH:159:GLU:CB	2.57	0.53
48:BQ:60:ARG:HA	57:BZ:178:GLU:O	2.09	0.53
51:BT:3:ARG:O	51:BT:5:ALA:N	2.42	0.53
51:BT:96:ARG:HH11	51:BT:96:ARG:CG	2.19	0.53
56:BY:54:LYS:O	56:BY:55:TYR:CG	2.62	0.53
57:BZ:30:ASN:HA	57:BZ:89:PHE:CE2	2.43	0.53
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.09	0.53
1:CA:560:U:O2'	1:CA:561:U:OP2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:738:C:H2'	1:CA:739:C:C6	2.43	0.53
1:CA:838:G:C2'	1:CA:839:U:H5"	2.38	0.53
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.24	0.53
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.90	0.53
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.43	0.53
5:CE:53:LEU:O	5:CE:57:LYS:HB2	2.08	0.53
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.39	0.53
8:CH:85:ARG:HD3	8:CH:85:ARG:C	2.28	0.53
15:CO:78:TYR:C	15:CO:80:ALA:N	2.62	0.53
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.73	0.53
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.29	0.53
22:CV:12:G:H1'	36:DA:1923:U:O2'	2.08	0.53
27:D1:91:LYS:O	27:D1:92:LYS:C	2.47	0.53
36:DA:18:C:H5"	52:DU:24:TYR:O	2.09	0.53
36:DA:49:A:H5"	36:DA:51:G:O4'	2.09	0.53
36:DA:287:C:H2'	36:DA:288:C:O4'	2.07	0.53
36:DA:816:C:H2'	36:DA:817:C:H6	1.73	0.53
36:DA:926:A:H5'	36:DA:926:A:C8	2.42	0.53
36:DA:1160:G:N2	53:DV:10:LYS:HE2	2.23	0.53
36:DA:2126:A:C5'	38:DC:36:LYS:HG2	2.37	0.53
40:DE:59:VAL:CG2	40:DE:60:ASN:H	2.02	0.53
41:DF:202:PHE:HE1	41:DF:206:ILE:HD13	1.73	0.53
43:DH:17:VAL:HG11	43:DH:50:VAL:HG21	1.90	0.53
43:DH:68:THR:C	43:DH:70:THR:H	2.12	0.53
47:DP:105:LEU:N	47:DP:105:LEU:CD2	2.71	0.53
47:DP:126:VAL:HG22	47:DP:145:PRO:CB	2.39	0.53
49:DR:28:LEU:HD11	49:DR:116:LEU:CD2	2.37	0.53
50:DS:26:LEU:HA	50:DS:39:ILE:HD13	1.89	0.53
51:DT:115:ARG:HA	51:DT:115:ARG:HE	1.74	0.53
57:DZ:14:LYS:C	57:DZ:16:SER:N	2.62	0.53
57:DZ:57:ILE:CG2	57:DZ:58:VAL:H	2.22	0.53
57:DZ:127:LYS:HB3	57:DZ:162:GLU:CG	2.39	0.53
1:AA:612:C:O2'	1:AA:613:C:H5'	2.09	0.53
1:AA:738:C:H2'	1:AA:739:C:C6	2.43	0.53
1:AA:745:C:H2'	1:AA:746:A:C8	2.43	0.53
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.24	0.53
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	2.08	0.53
1:AA:1222:G:H2'	1:AA:1223:C:O4'	2.09	0.53
3:AC:36:ASP:OD2	3:AC:57:ILE:HG21	2.07	0.53
6:AF:10:LEU:HA	6:AF:84:ASN:O	2.08	0.53
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:18:G:H1	23:AW:55:U:H1'	1.72	0.53
33:B7:12:ARG:HG3	36:BA:686:G:O6	2.09	0.53
35:B9:14:CYS:SG	35:B9:25:VAL:HG13	2.48	0.53
36:BA:614(C):A:O2'	36:BA:615:G:P	2.66	0.53
36:BA:815:C:O2'	36:BA:816:C:H5'	2.09	0.53
36:BA:848:G:H2'	36:BA:849:A:C8	2.44	0.53
36:BA:1270:C:H5"	36:BA:1271:G:O5'	2.09	0.53
36:BA:1652:A:O2'	36:BA:1653:G:H5'	2.08	0.53
36:BA:2012:G:O2'	54:BW:96:ILE:HD11	2.09	0.53
36:BA:2176:A:O5'	38:BC:217:THR:HA	2.08	0.53
36:BA:2330:G:O2'	36:BA:2331:G:H5'	2.08	0.53
36:BA:2887:U:H2'	36:BA:2888:C:H6	1.74	0.53
44:BI:1:MET:C	44:BI:20:ASP:HB2	2.28	0.53
49:BR:74:LYS:HD2	49:BR:77:ARG:NH2	2.22	0.53
54:BW:12:ILE:HD12	54:BW:42:ARG:NH1	2.23	0.53
56:BY:16:ALA:HA	56:BY:21:LYS:HD2	1.90	0.53
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.09	0.53
9:CI:126:SER:O	9:CI:128:ARG:HG2	2.08	0.53
12:CL:24:VAL:O	12:CL:24:VAL:CG1	2.57	0.53
12:CL:55:VAL:HG12	12:CL:56:ALA:N	2.24	0.53
14:CN:7:ILE:O	14:CN:11:LYS:HE3	2.09	0.53
23:CW:30:G:H2'	23:CW:31:A:H8	1.72	0.53
27:D1:52:ARG:CG	27:D1:53:VAL:H	2.01	0.53
29:D3:6:VAL:HG12	29:D3:56:VAL:HG22	1.91	0.53
29:D3:40:THR:HA	29:D3:44:ARG:NH2	2.24	0.53
34:D8:49:VAL:HG23	34:D8:53:PRO:HB3	1.90	0.53
36:DA:270:A:O2'	36:DA:271:A:H5'	2.09	0.53
36:DA:1175:U:H4'	36:DA:1176:G:H3'	1.91	0.53
36:DA:1880:C:H5'	36:DA:1880:C:C6	2.27	0.53
37:DB:87:G:H2'	37:DB:88:C:H5"	1.90	0.53
38:DC:141:LYS:O	38:DC:142:ALA:HB2	2.09	0.53
39:DD:33:LEU:O	39:DD:35:LYS:HG2	2.09	0.53
41:DF:202:PHE:CE1	41:DF:206:ILE:HD13	2.44	0.53
52:DU:79:PHE:HE2	52:DU:83:LEU:HD21	1.74	0.53
53:DV:2:PHE:HE1	53:DV:13:ARG:HD2	1.73	0.53
53:DV:27:ALA:O	53:DV:28:GLU:O	2.27	0.53
55:DX:61:GLY:HA3	55:DX:73:ARG:O	2.08	0.53
1:AA:539:A:H2'	1:AA:540:G:H8	1.71	0.53
1:AA:1053:G:N7	1:AA:1200:C:C5'	2.72	0.53
1:AA:1141:C:H2'	1:AA:1142:G:N7	2.24	0.53
1:AA:1178:G:N2	1:AA:1180:A:H3'	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.08	0.53
5:AE:101:ILE:H	5:AE:101:ILE:CD1	2.17	0.53
7:AG:15:ASP:OD2	7:AG:44:TYR:OH	2.26	0.53
10:AJ:16:LEU:HD23	10:AJ:94:VAL:CG1	2.39	0.53
15:AO:82:ILE:HD11	15:AO:88:ARG:HB2	1.89	0.53
20:AT:98:PRO:C	20:AT:100:ILE:H	2.13	0.53
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.24	0.53
22:AV:69:C:H2'	22:AV:70:G:O4'	2.09	0.53
36:BA:62:C:H2'	36:BA:63:U:H5'	1.91	0.53
36:BA:119:A:H4'	36:BA:120:U:OP1	2.09	0.53
36:BA:907:U:OP1	48:BQ:24:GLY:N	2.41	0.53
36:BA:941:A:H4'	47:BP:35:HIS:CE1	2.44	0.53
36:BA:999:U:H2'	36:BA:1000:A:C5'	2.38	0.53
36:BA:2189:U:C2'	36:BA:2190:G:H5"	2.39	0.53
36:BA:2716:U:O2'	36:BA:2717:G:H5'	2.09	0.53
39:BD:26:LYS:CE	39:BD:82:ILE:N	2.72	0.53
39:BD:70:TRP:HZ3	39:BD:146:GLU:CD	2.13	0.53
40:BE:36:ARG:NH1	40:BE:85:ASN:OD1	2.42	0.53
42:BG:123:ASN:O	42:BG:125:PHE:N	2.41	0.53
47:BP:17:LYS:O	47:BP:17:LYS:HG2	2.09	0.53
47:BP:48:PRO:O	47:BP:49:ARG:C	2.44	0.53
48:BQ:31:ASP:O	48:BQ:133:ARG:O	2.26	0.53
48:BQ:115:MET:O	48:BQ:119:ARG:HB2	2.09	0.53
49:BR:45:ARG:CG	49:BR:46:GLY:H	2.22	0.53
50:BS:97:ARG:C	50:BS:97:ARG:NE	2.62	0.53
51:BT:55:ASN:H	51:BT:59:THR:HG22	1.73	0.53
54:BW:24:ILE:HD13	54:BW:36:LEU:HD11	1.91	0.53
54:BW:24:ILE:HG21	54:BW:36:LEU:HD21	1.90	0.53
1:CA:437:U:C2'	1:CA:438:G:H5'	2.38	0.53
1:CA:811:C:O2'	1:CA:901:A:N1	2.42	0.53
1:CA:940:C:H2'	1:CA:941:G:H8	1.74	0.53
4:CD:146:ILE:N	4:CD:146:ILE:CD1	2.72	0.53
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.90	0.53
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.24	0.53
14:CN:37:PHE:CE1	14:CN:53:LEU:HD22	2.43	0.53
27:D1:64:ALA:C	27:D1:66:HIS:H	2.12	0.53
29:D3:17:LYS:HD2	29:D3:20:LYS:HD2	1.90	0.53
33:D7:19:ARG:HG2	33:D7:19:ARG:NH1	2.23	0.53
36:DA:1484:G:H3'	36:DA:1485:G:C5'	2.37	0.53
36:DA:1578:U:H2'	36:DA:1578:U:O2	2.08	0.53
36:DA:1678:G:N2	36:DA:1989:G:H22	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1987:G:H8	36:DA:1987:G:C5'	2.22	0.53
36:DA:2178:C:H2'	36:DA:2179:C:H6	1.73	0.53
36:DA:2870:C:C2'	36:DA:2871:C:H5'	2.38	0.53
39:DD:101:GLU:OE1	39:DD:103:ARG:HD3	2.09	0.53
39:DD:166:GLN:NE2	39:DD:166:GLN:HA	2.24	0.53
43:DH:58:GLU:C	43:DH:60:ARG:H	2.12	0.53
43:DH:97:ARG:O	43:DH:98:LEU:HB2	2.08	0.53
44:DI:79:ILE:CG1	44:DI:140:LEU:HD11	2.37	0.53
45:DN:2:LYS:HE2	52:DU:95:LEU:HD21	1.90	0.53
47:DP:47:ASP:HB3	47:DP:48:PRO:HA	1.89	0.53
48:DQ:51:ARG:O	48:DQ:55:VAL:HG12	2.08	0.53
51:DT:23:ARG:HA	51:DT:52:ILE:CD1	2.38	0.53
52:DU:25:TRP:HB3	52:DU:28:ARG:HD2	1.89	0.53
53:DV:5:VAL:HG22	53:DV:6:LYS:N	2.24	0.53
56:DY:31:LEU:HD23	56:DY:36:ALA:O	2.09	0.53
57:DZ:23:LYS:HG3	57:DZ:38:TYR:CE1	2.43	0.53
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.74	0.53
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.32	0.53
2:AB:92:TYR:C	2:AB:92:TYR:CD1	2.82	0.53
13:AM:22:ILE:HG22	13:AM:25:ILE:HD13	1.91	0.53
29:B3:36:VAL:HG23	29:B3:36:VAL:O	2.08	0.53
34:B8:52:LYS:N	34:B8:53:PRO:CD	2.68	0.53
36:BA:271(O):C:O2'	36:BA:271(P):C:C6	2.61	0.53
36:BA:518:G:H4'	54:BW:18:ARG:NH1	2.23	0.53
36:BA:1506:C:H2'	36:BA:1506:C:O2	2.08	0.53
36:BA:1678:G:N2	36:BA:1989:G:H22	2.07	0.53
36:BA:2543:G:H2'	36:BA:2544:G:C8	2.44	0.53
38:BC:141:LYS:O	38:BC:142:ALA:HB2	2.09	0.53
40:BE:31:CYS:HB3	40:BE:49:LEU:HB3	1.91	0.53
40:BE:71:GLY:O	40:BE:72:VAL:C	2.47	0.53
41:BF:181:LEU:HB3	41:BF:205:ARG:NH1	2.23	0.53
45:BN:22:THR:HB	45:BN:25:ARG:HB2	1.91	0.53
45:BN:62:VAL:HG22	45:BN:66:LYS:CB	2.39	0.53
47:BP:75:ILE:HD12	47:BP:75:ILE:N	2.23	0.53
50:BS:28:VAL:HG12	50:BS:29:PHE:N	2.24	0.53
50:BS:75:GLU:HA	50:BS:78:LEU:HD12	1.90	0.53
51:BT:27:THR:O	51:BT:28:VAL:HG23	2.09	0.53
53:BV:14:VAL:HB	53:BV:96:ILE:HG13	1.91	0.53
57:BZ:4:ARG:HH21	57:BZ:60:GLU:HG2	1.72	0.53
57:BZ:117:LEU:HD23	57:BZ:118:GLN:N	2.23	0.53
1:CA:174:C:O2'	1:CA:175:C:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:976:G:N2	1:CA:1362:C:H2'	2.23	0.53
1:CA:1068:G:OP2	1:CA:1068:G:H8	1.91	0.53
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.91	0.53
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.09	0.53
1:CA:1381:U:H2'	1:CA:1382:C:H5'	1.91	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	1.91	0.53
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.48	0.53
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.08	0.53
13:CM:28:ALA:C	13:CM:30:ALA:H	2.12	0.53
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.08	0.53
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.23	0.53
22:CV:50:U:H2'	22:CV:51:C:C6	2.44	0.53
26:D0:41:ARG:HD2	26:D0:41:ARG:N	2.15	0.53
36:DA:535:C:O2'	36:DA:536:A:H5'	2.09	0.53
36:DA:896:A:H2	57:DZ:113:ALA:HB3	1.72	0.53
36:DA:1431:U:O2'	36:DA:1432:C:H5'	2.09	0.53
40:DE:57:LYS:C	40:DE:59:VAL:H	2.11	0.53
40:DE:61:ARG:CB	40:DE:62:PRO:CD	2.86	0.53
41:DF:20:LEU:HD22	41:DF:203:GLN:OE1	2.09	0.53
43:DH:20:ALA:HB1	43:DH:21:PRO:CD	2.38	0.53
50:DS:75:GLU:HA	50:DS:78:LEU:HD12	1.91	0.53
57:DZ:119:GLU:OE2	57:DZ:122:ARG:HB3	2.08	0.53
1:AA:423:G:H2'	1:AA:424:G:O4'	2.09	0.52
1:AA:542:G:H2'	1:AA:543:C:H6	1.75	0.52
1:AA:1442(A):G:H5"	51:BT:118:ARG:HH12	1.73	0.52
2:AB:91:PRO:HG2	2:AB:155:LEU:CD2	2.31	0.52
2:AB:92:TYR:C	2:AB:92:TYR:HD1	2.11	0.52
2:AB:132:LYS:HA	2:AB:135:GLN:HE21	1.74	0.52
4:AD:114:ARG:HH11	4:AD:114:ARG:HG3	1.74	0.52
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.09	0.52
10:AJ:43:ARG:O	10:AJ:67:THR:HG22	2.09	0.52
19:AS:11:VAL:HG22	19:AS:16:LEU:HD11	1.91	0.52
19:AS:29:ARG:O	19:AS:31:ILE:N	2.42	0.52
26:B0:14:ARG:O	26:B0:15:ASP:HB2	2.09	0.52
26:B0:41:ARG:HD2	26:B0:41:ARG:N	2.17	0.52
27:B1:66:HIS:C	27:B1:68:PRO:HD2	2.30	0.52
28:B2:43:GLN:O	28:B2:44:LEU:CD2	2.57	0.52
36:BA:270:A:O2'	36:BA:271:A:H5'	2.10	0.52
36:BA:2059:A:H5'	36:BA:2060:A:OP2	2.08	0.52
36:BA:2777:G:H5"	36:BA:2778:A:C5'	2.40	0.52
39:BD:68:LYS:O	39:BD:68:LYS:HG3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BE:120:TRP:CD1	40:BE:155:LYS:HB3	2.45	0.52
40:BE:137:HIS:HB3	40:BE:138:PRO:HD2	1.91	0.52
42:BG:31:VAL:CG2	42:BG:32:PRO:HD2	2.39	0.52
43:BH:30:LYS:HG2	43:BH:79:VAL:O	2.09	0.52
43:BH:130:ARG:HD3	43:BH:132:ARG:NH2	2.24	0.52
43:BH:148:ILE:O	43:BH:151:ILE:HG12	2.09	0.52
47:BP:97:PRO:HD3	47:BP:126:VAL:O	2.08	0.52
50:BS:35:ILE:O	50:BS:35:ILE:HG23	2.09	0.52
51:BT:86:ILE:HG12	51:BT:87:ASP:N	2.23	0.52
56:BY:86:ARG:NH1	56:BY:95:LYS:NZ	2.57	0.52
1:CA:1430:C:H2'	1:CA:1431:C:C6	2.43	0.52
2:CB:219:VAL:HA	2:CB:222:ILE:CG1	2.38	0.52
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	2.09	0.52
10:CJ:43:ARG:O	10:CJ:67:THR:HG22	2.09	0.52
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.24	0.52
11:CK:48:ILE:HG22	11:CK:49:GLY:N	2.23	0.52
16:CP:76:GLN:HG2	16:CP:76:GLN:O	2.10	0.52
27:D1:3:LYS:HG2	27:D1:4:VAL:H	1.73	0.52
36:DA:539:G:H2'	36:DA:540:C:H6	1.72	0.52
36:DA:554:U:C2'	36:DA:555:U:H5'	2.40	0.52
36:DA:624:C:O2'	36:DA:625:G:H5'	2.09	0.52
36:DA:708:C:H5'	36:DA:709:U:OP2	2.09	0.52
36:DA:907:U:OP1	48:DQ:24:GLY:N	2.42	0.52
36:DA:1324:G:H3'	36:DA:1325:G:C5'	2.39	0.52
36:DA:2795:G:N7	36:DA:2801(A):A:H2	2.07	0.52
38:DC:87:GLU:HG2	38:DC:93:TYR:HA	1.91	0.52
39:DD:30:GLU:CD	39:DD:63:ARG:HE	2.12	0.52
43:DH:89:ILE:HD13	43:DH:94:TYR:HB3	1.91	0.52
45:DN:131:GLN:NE2	45:DN:134:ARG:HD2	2.20	0.52
46:DO:77:ILE:HD13	51:DT:74:ARG:HG2	1.91	0.52
47:DP:46:LYS:HG2	47:DP:52:GLU:CD	2.29	0.52
50:DS:57:LYS:O	50:DS:58:LEU:O	2.26	0.52
51:DT:3:ARG:HH11	51:DT:3:ARG:HG3	1.75	0.52
51:DT:28:VAL:O	51:DT:29:ARG:CB	2.57	0.52
51:DT:32:TYR:CG	51:DT:81:PRO:HB3	2.44	0.52
51:DT:65:LYS:HZ1	51:DT:66:VAL:HB	1.74	0.52
51:DT:86:ILE:HG12	51:DT:87:ASP:N	2.23	0.52
53:DV:47:VAL:O	53:DV:48:GLY:C	2.46	0.52
1:AA:174:C:O2'	1:AA:175:C:H5'	2.09	0.52
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.91	0.52
1:AA:512:U:H2'	1:AA:513:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.44	0.52
7:AG:72:ARG:O	7:AG:73:MET:HG3	2.09	0.52
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.09	0.52
17:AQ:31:LEU:O	17:AQ:31:LEU:HG	2.08	0.52
34:B8:23:VAL:HA	34:B8:47:LYS:O	2.09	0.52
36:BA:66:C:O2'	36:BA:67:U:H5'	2.09	0.52
36:BA:896:A:H1'	57:BZ:146:ILE:CD1	2.39	0.52
36:BA:1150:C:O2'	36:BA:1151:G:H5'	2.08	0.52
36:BA:1230:C:O2'	36:BA:1231:G:H5'	2.10	0.52
36:BA:2126:A:N1	36:BA:2162:G:O2'	2.31	0.52
36:BA:2263:C:H5'	36:BA:2263:C:C6	2.34	0.52
36:BA:2698:U:H2'	36:BA:2699:C:C6	2.43	0.52
36:BA:2777:G:H5"	36:BA:2778:A:H5"	1.90	0.52
36:BA:2795:G:N7	36:BA:2801(A):A:H2	2.07	0.52
39:BD:33:LEU:O	39:BD:35:LYS:HG2	2.09	0.52
40:BE:149:ARG:HG3	40:BE:149:ARG:HH11	1.73	0.52
41:BF:152:GLU:O	41:BF:154:VAL:HG23	2.08	0.52
43:BH:41:MET:CE	43:BH:54:ARG:HA	2.38	0.52
43:BH:130:ARG:HH11	43:BH:132:ARG:HH21	1.57	0.52
44:BI:129:THR:HA	44:BI:137:PRO:CA	2.37	0.52
45:BN:43:THR:O	45:BN:45:ASN:N	2.42	0.52
50:BS:96:GLY:C	50:BS:98:VAL:H	2.12	0.52
52:BU:15:LYS:O	52:BU:19:LYS:HG3	2.10	0.52
53:BV:18:LEU:CD1	53:BV:19:LYS:H	2.22	0.52
57:BZ:89:PHE:O	57:BZ:91:LEU:HD12	2.10	0.52
57:BZ:103:ARG:O	57:BZ:138:GLU:HA	2.09	0.52
1:CA:707:C:O2'	1:CA:708:C:H5'	2.09	0.52
1:CA:802:A:H2'	1:CA:803:G:O4'	2.09	0.52
1:CA:1036:G:H5'	1:CA:1037:C:OP2	2.09	0.52
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.75	0.52
1:CA:1222:G:H2'	1:CA:1223:C:O4'	2.09	0.52
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.24	0.52
2:CB:92:TYR:C	2:CB:92:TYR:CD1	2.83	0.52
2:CB:204:ASN:HB3	2:CB:210:SER:OG	2.08	0.52
12:CL:27:LEU:O	12:CL:29:GLY:N	2.42	0.52
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.08	0.52
16:CP:71:ARG:HA	16:CP:74:LEU:CD1	2.33	0.52
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.09	0.52
26:D0:24:LYS:O	26:D0:25:ARG:HD3	2.08	0.52
26:D0:30:VAL:HA	26:D0:66:VAL:HG22	1.91	0.52
35:D9:9:ARG:HA	35:D9:14:CYS:SG	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:62:C:H2'	36:DA:63:U:H5'	1.91	0.52
36:DA:664:C:H4'	36:DA:941:A:OP1	2.08	0.52
36:DA:926:A:H2'	36:DA:927:G:H8	1.73	0.52
36:DA:991:C:H5'	36:DA:991:C:H6	1.74	0.52
36:DA:1000:A:H8	36:DA:1000:A:H5'	1.74	0.52
36:DA:2267:A:H5"	36:DA:2268:A:H5'	1.90	0.52
36:DA:2320:A:N3	36:DA:2320:A:H2'	2.22	0.52
36:DA:2453:A:O2'	36:DA:2454:G:H5'	2.08	0.52
37:DB:55:U:H2'	37:DB:56:G:H8	1.74	0.52
38:DC:36:LYS:HZ2	38:DC:36:LYS:HA	1.72	0.52
39:DD:68:LYS:O	39:DD:68:LYS:HG3	2.09	0.52
40:DE:167:VAL:HG22	40:DE:168:MET:N	2.24	0.52
41:DF:127:GLU:O	41:DF:127:GLU:OE2	2.27	0.52
42:DG:37:VAL:HG23	42:DG:99:MET:HG3	1.92	0.52
45:DN:48:MET:HE3	45:DN:48:MET:N	2.24	0.52
45:DN:58:ASP:OD1	45:DN:124:ALA:HB1	2.09	0.52
45:DN:78:TYR:HB3	45:DN:79:PRO:CD	2.39	0.52
46:DO:101:PRO:HG3	51:DT:67:SER:OG	2.09	0.52
48:DQ:65:PHE:HB2	48:DQ:105:GLU:CG	2.38	0.52
49:DR:82:GLU:O	49:DR:86:ARG:HG3	2.09	0.52
53:DV:5:VAL:CG2	53:DV:6:LYS:N	2.72	0.52
54:DW:12:ILE:HD12	54:DW:42:ARG:NH1	2.23	0.52
55:DX:80:ILE:HD13	55:DX:80:ILE:O	2.09	0.52
1:AA:922:G:N3	1:AA:1398:A:H2	2.08	0.52
2:AB:107:THR:HG23	2:AB:110:GLN:NE2	2.24	0.52
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.73	0.52
12:AL:6:THR:HG23	12:AL:9:GLN:CD	2.29	0.52
13:AM:28:ALA:C	13:AM:30:ALA:H	2.12	0.52
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.24	0.52
28:B2:55:ARG:O	28:B2:58:ALA:HB3	2.09	0.52
29:B3:5:LYS:CG	29:B3:36:VAL:HG12	2.39	0.52
31:B5:57:VAL:C	31:B5:58:LEU:HD23	2.29	0.52
35:B9:26:ILE:HD12	35:B9:26:ILE:N	2.25	0.52
36:BA:813:U:H2'	36:BA:814:C:H6	1.73	0.52
36:BA:1151:G:H4'	52:BU:81:HIS:CD2	2.45	0.52
36:BA:1350:C:O2'	36:BA:1351:C:H5'	2.09	0.52
36:BA:1424:G:H2'	36:BA:1425:G:O4'	2.10	0.52
36:BA:2334:G:H21	50:BS:18:ILE:HG13	1.74	0.52
36:BA:2472:G:H5'	36:BA:2473:U:H5"	1.91	0.52
37:BB:15:A:H5'	37:BB:16:G:C8	2.45	0.52
41:BF:127:GLU:HB2	41:BF:196:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:52:ARG:O	44:BI:56:LYS:HG2	2.09	0.52
51:BT:81:PRO:C	51:BT:82:LEU:HD12	2.30	0.52
52:BU:55:ARG:HA	52:BU:58:ARG:CG	2.40	0.52
53:BV:47:VAL:O	53:BV:48:GLY:C	2.47	0.52
54:BW:50:VAL:CG1	54:BW:51:LEU:H	2.20	0.52
1:CA:39:G:O2'	1:CA:40:C:H5'	2.08	0.52
1:CA:932:C:H2'	1:CA:932:C:O2	2.10	0.52
1:CA:952:U:H2'	1:CA:953:G:H8	1.74	0.52
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.73	0.52
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.39	0.52
4:CD:10:ARG:HH11	4:CD:10:ARG:HG2	1.74	0.52
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.09	0.52
9:CI:118:LYS:NZ	9:CI:118:LYS:CB	2.72	0.52
22:CV:35:A:O2'	22:CV:36:U:H5'	2.09	0.52
34:D8:4:MET:O	34:D8:62:LEU:HD11	2.09	0.52
34:D8:63:PRO:HB2	34:D8:64:TYR:CD1	2.44	0.52
36:DA:143:G:H2'	36:DA:143(A):C:C6	2.44	0.52
36:DA:1203:G:H4'	47:DP:7:ARG:HG2	1.92	0.52
36:DA:1210:A:H4'	36:DA:1211:U:O5'	2.09	0.52
36:DA:1592:C:H2'	36:DA:1593:G:C8	2.44	0.52
36:DA:1686:C:H2'	36:DA:1687:G:H5'	1.91	0.52
36:DA:2712:U:OP1	36:DA:2714:G:H4'	2.09	0.52
36:DA:2787:C:H1'	40:DE:61:ARG:HG3	1.89	0.52
37:DB:30:C:H2'	37:DB:31:C:O4'	2.09	0.52
37:DB:107:G:O2'	37:DB:108:U:H5'	2.08	0.52
39:DD:26:LYS:HE2	39:DD:82:ILE:N	2.24	0.52
41:DF:7:TYR:HB3	41:DF:16:GLY:N	2.22	0.52
41:DF:65:TRP:CZ3	41:DF:73:ALA:O	2.61	0.52
45:DN:3:THR:C	45:DN:5:VAL:H	2.12	0.52
45:DN:18:ALA:O	45:DN:21:LYS:N	2.35	0.52
46:DO:8:LEU:HD13	46:DO:82:ASN:HB3	1.92	0.52
52:DU:57:PHE:C	52:DU:59:ARG:N	2.61	0.52
57:DZ:14:LYS:H	57:DZ:14:LYS:CE	2.22	0.52
57:DZ:161:VAL:HG12	57:DZ:162:GLU:N	2.25	0.52
1:AA:20:U:H2'	1:AA:21:G:O4'	2.10	0.52
1:AA:509:A:H5'	4:AD:54:TYR:CD2	2.43	0.52
1:AA:977:A:H2'	1:AA:978:A:H5'	1.92	0.52
9:AI:105:ASP:C	9:AI:107:ARG:H	2.12	0.52
18:AR:35:ARG:O	18:AR:37:VAL:HG13	2.09	0.52
22:AV:17:C:O4'	22:AV:17:C:O2	2.28	0.52
23:AW:69:G:C3'	23:AW:70:G:H5"	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B0:27:GLU:HG3	26:B0:68:GLU:HA	1.91	0.52
36:BA:1141:U:C2'	45:BN:63:THR:HG21	2.23	0.52
36:BA:1338:G:N3	36:BA:1393:A:H2	2.08	0.52
36:BA:2469:A:H62	36:BA:2481:G:H1'	1.74	0.52
36:BA:2745:C:H4'	43:BH:142:GLY:O	2.09	0.52
37:BB:31:C:H2'	37:BB:53:A:H61	1.74	0.52
37:BB:104:U:O2'	37:BB:105:A:H5'	2.09	0.52
37:BB:107:G:O2'	37:BB:108:U:H5'	2.09	0.52
38:BC:78:ALA:HB2	38:BC:82:LYS:HB2	1.90	0.52
38:BC:87:GLU:HG2	38:BC:93:TYR:HA	1.91	0.52
39:BD:30:GLU:HG3	39:BD:63:ARG:CZ	2.39	0.52
39:BD:69:ARG:NH2	39:BD:192:THR:HB	2.24	0.52
40:BE:66:HIS:O	40:BE:66:HIS:CD2	2.62	0.52
43:BH:146:ALA:HB2	43:BH:164:TYR:OH	2.09	0.52
46:BO:104:ARG:HE	51:BT:33:LYS:CE	2.23	0.52
50:BS:92:TYR:CG	50:BS:93:LYS:N	2.78	0.52
52:BU:92:ARG:NH1	53:BV:11:GLN:HB2	2.25	0.52
53:BV:64:HIS:CE1	53:BV:92:THR:HG22	2.43	0.52
55:BX:61:GLY:HA3	55:BX:73:ARG:O	2.09	0.52
1:CA:302:G:N3	1:CA:556:C:H4'	2.25	0.52
1:CA:718:G:H5'	11:CK:117:ASN:OD1	2.10	0.52
1:CA:1314:C:H41	19:CS:4:SER:N	2.08	0.52
1:CA:1360:A:H2'	1:CA:1361:G:C8	2.45	0.52
2:CB:84:GLU:O	2:CB:219:VAL:HG21	2.09	0.52
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.20	0.52
4:CD:130:GLY:O	4:CD:131:ARG:C	2.47	0.52
4:CD:150:GLU:OE1	4:CD:150:GLU:N	2.41	0.52
6:CF:8:ILE:CG2	6:CF:9:VAL:N	2.71	0.52
7:CG:53:LYS:O	7:CG:54:THR:HB	2.08	0.52
10:CJ:88:LEU:CD1	10:CJ:90:LEU:HD11	2.39	0.52
23:CW:26:A:H2'	23:CW:27:G:O4'	2.09	0.52
26:D0:27:GLU:HG3	26:D0:68:GLU:HA	1.90	0.52
26:D0:72:ARG:NE	26:D0:75:LEU:HD13	2.24	0.52
27:D1:52:ARG:O	27:D1:56:GLN:O	2.28	0.52
36:DA:815:C:O2'	36:DA:816:C:H5'	2.09	0.52
36:DA:819:A:OP2	36:DA:1187:G:N2	2.29	0.52
36:DA:1049:C:N4	36:DA:1111:A:C2	2.77	0.52
36:DA:1178:C:H2'	36:DA:1179:C:H6	1.74	0.52
36:DA:1336:A:H2'	36:DA:1337:G:H8	1.74	0.52
36:DA:1503:U:O2'	36:DA:1504:C:H5'	2.08	0.52
36:DA:2039:C:H2'	36:DA:2040:C:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2189:U:C2'	36:DA:2190:G:H5"	2.39	0.52
38:DC:74:VAL:CG2	38:DC:91:ALA:HB2	2.40	0.52
39:DD:32:SER:O	39:DD:34:VAL:N	2.43	0.52
44:DI:82:ARG:HH11	44:DI:82:ARG:HG3	1.74	0.52
44:DI:129:THR:O	44:DI:130:TYR:HB2	2.08	0.52
45:DN:39:ARG:HG2	45:DN:39:ARG:NH1	2.24	0.52
48:DQ:70:PRO:HA	48:DQ:94:VAL:C	2.30	0.52
55:DX:66:LEU:HD23	55:DX:66:LEU:C	2.30	0.52
1:AA:665:A:N3	1:AA:732:C:H2'	2.25	0.52
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.24	0.52
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.74	0.52
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.09	0.52
5:AE:33:VAL:HG22	5:AE:43:LEU:HD13	1.91	0.52
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.73	0.52
14:AN:47:LEU:HA	14:AN:50:LYS:HD2	1.91	0.52
33:B7:19:ARG:HG2	33:B7:19:ARG:NH1	2.25	0.52
35:B9:27:CYS:SG	35:B9:28:GLU:N	2.80	0.52
36:BA:271(O):C:O2'	36:BA:271(P):C:H6	1.92	0.52
36:BA:708:C:H5'	36:BA:709:U:OP2	2.09	0.52
36:BA:769:G:H2'	36:BA:770:G:H8	1.74	0.52
36:BA:1019:U:H3	36:BA:1142(A):A:N6	2.06	0.52
36:BA:1416:G:H21	36:BA:1586:A:H62	1.57	0.52
36:BA:2114:A:H2'	36:BA:2115:G:O4'	2.09	0.52
36:BA:2349:G:H5'	36:BA:2349:G:H8	1.73	0.52
37:BB:65:C:N4	37:BB:109:C:H2'	2.22	0.52
41:BF:9:ILE:HG22	41:BF:9:ILE:O	2.08	0.52
41:BF:139:PHE:CB	41:BF:166:ALA:HB1	2.39	0.52
42:BG:72:ARG:HH11	42:BG:86:MET:HA	1.73	0.52
43:BH:58:GLU:C	43:BH:60:ARG:H	2.12	0.52
43:BH:137:ASP:OD1	43:BH:138:LYS:N	2.42	0.52
44:BI:92:VAL:HA	44:BI:96:ASP:OD1	2.09	0.52
46:BO:9:GLU:O	46:BO:83:ALA:HA	2.08	0.52
47:BP:63:PRO:O	47:BP:65:ARG:N	2.43	0.52
51:BT:38:ASN:O	51:BT:39:ARG:C	2.47	0.52
52:BU:25:TRP:CG	52:BU:26:GLY:N	2.75	0.52
52:BU:57:PHE:C	52:BU:59:ARG:H	2.13	0.52
52:BU:106:PHE:O	52:BU:110:VAL:HG23	2.09	0.52
57:BZ:102:LEU:HD22	57:BZ:121:HIS:O	2.09	0.52
57:BZ:158:PRO:CB	57:BZ:159:PRO:CD	2.87	0.52
1:CA:403:C:H2'	1:CA:404:U:H6	1.73	0.52
1:CA:532:A:H2	1:CA:1207:G:C1'	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:554:C:O2'	1:CA:555:C:H5'	2.09	0.52
1:CA:586:C:C2'	1:CA:587:G:H5'	2.40	0.52
1:CA:911:U:OP1	12:CL:95:GLY:HA2	2.10	0.52
1:CA:949:A:H1'	1:CA:1364:U:H3	1.74	0.52
2:CB:158:LEU:H	2:CB:158:LEU:HD12	1.74	0.52
16:CP:21:VAL:HG13	16:CP:33:ILE:HB	1.91	0.52
17:CQ:18:THR:HG22	17:CQ:19:VAL:H	1.74	0.52
23:CW:39:U:C2'	23:CW:40:C:H5'	2.39	0.52
35:D9:27:CYS:SG	35:D9:28:GLU:N	2.82	0.52
36:DA:99:U:C4'	36:DA:102:G:H1'	2.40	0.52
36:DA:557:U:H2'	36:DA:558:G:C8	2.43	0.52
36:DA:1652:A:H2'	36:DA:1653:G:H5'	1.91	0.52
36:DA:1953:A:H2	36:DA:2549:G:N3	2.08	0.52
36:DA:2505:G:O2'	36:DA:2506:U:H5'	2.10	0.52
37:DB:15:A:H5'	37:DB:16:G:H8	1.74	0.52
40:DE:78:LEU:C	40:DE:79:ARG:HD2	2.30	0.52
41:DF:3:GLU:HA	41:DF:24:LEU:HB3	1.92	0.52
41:DF:75:HIS:HE1	41:DF:82:ILE:HD11	1.74	0.52
48:DQ:33:GLY:HA2	48:DQ:105:GLU:HA	1.92	0.52
51:DT:55:ASN:C	51:DT:59:THR:HG22	2.30	0.52
51:DT:129:ARG:CZ	51:DT:131:ALA:HB3	2.39	0.52
1:AA:473:G:H2'	1:AA:474:G:H8	1.74	0.52
1:AA:841:U:H3'	1:AA:848:C:H5'	1.91	0.52
1:AA:1002:G:N2	1:AA:1003:G:H1'	2.25	0.52
1:AA:1302:U:C5	13:AM:17:VAL:HG21	2.45	0.52
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.07	0.52
2:AB:219:VAL:HA	2:AB:222:ILE:CG1	2.39	0.52
3:AC:79:ARG:HG3	3:AC:82:GLU:OE2	2.08	0.52
4:AD:156:GLU:HB3	4:AD:160:GLN:HE21	1.74	0.52
7:AG:53:LYS:O	7:AG:54:THR:HB	2.10	0.52
8:AH:6:ILE:HD12	8:AH:6:ILE:N	2.16	0.52
11:AK:124:LYS:HB3	11:AK:125:PHE:HD1	1.74	0.52
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.71	0.52
16:AP:21:VAL:HG13	16:AP:33:ILE:HB	1.91	0.52
19:AS:43:GLU:C	19:AS:45:VAL:N	2.63	0.52
26:B0:11:ARG:HB2	26:B0:11:ARG:HH11	1.75	0.52
30:B4:51:TYR:CE2	42:BG:2:PRO:HG2	2.44	0.52
31:B5:56:LYS:H	31:B5:56:LYS:HD2	1.74	0.52
36:BA:8:A:OP1	45:BN:51:PHE:HE2	1.92	0.52
36:BA:589:C:O3'	41:BF:95:ARG:NH1	2.42	0.52
36:BA:1301:A:O2'	36:BA:1302:A:C2'	2.52	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:55:U:H2'	37:BB:56:G:H8	1.73	0.52
39:BD:159:ALA:HB1	39:BD:198:ASN:O	2.09	0.52
40:BE:176:ILE:HD12	40:BE:176:ILE:N	2.25	0.52
42:BG:17:PRO:O	42:BG:20:ILE:N	2.42	0.52
42:BG:65:GLY:O	42:BG:66:GLN:HG3	2.09	0.52
42:BG:114:ILE:HB	42:BG:117:PHE:HB2	1.91	0.52
43:BH:156:ALA:C	43:BH:158:HIS:H	2.11	0.52
43:BH:158:HIS:CD2	43:BH:170:ARG:HA	2.45	0.52
44:BI:65:ALA:HB1	44:BI:131:LYS:HG2	1.90	0.52
45:BN:38:HIS:NE2	45:BN:50:ASP:OD2	2.43	0.52
47:BP:7:ARG:NE	47:BP:7:ARG:CA	2.65	0.52
48:BQ:39:PRO:HD3	48:BQ:99:PRO:CG	2.39	0.52
51:BT:3:ARG:HG3	51:BT:3:ARG:HH11	1.73	0.52
51:BT:65:LYS:HZ2	51:BT:66:VAL:N	2.06	0.52
57:BZ:94:GLU:O	57:BZ:96:VAL:N	2.39	0.52
1:CA:125:U:H2'	1:CA:126:G:H8	1.75	0.52
1:CA:601:C:H2'	1:CA:602:A:C8	2.44	0.52
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.10	0.52
2:CB:114:ARG:HH12	2:CB:118:LEU:HD21	1.75	0.52
3:CC:13:GLY:HA3	14:CN:57:ARG:NE	2.24	0.52
4:CD:150:GLU:HG2	4:CD:151:LYS:H	1.75	0.52
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.09	0.52
12:CL:6:THR:HG23	12:CL:9:GLN:HG3	1.92	0.52
26:D0:43:THR:HG21	36:DA:2336:A:H61	1.74	0.52
35:D9:24:TYR:CE2	35:D9:35:ARG:HG3	2.44	0.52
36:DA:380:U:H2'	36:DA:381:G:H8	1.74	0.52
36:DA:637:A:H2'	47:DP:117:GLU:OE2	2.09	0.52
36:DA:807:U:O2'	36:DA:808:G:H5'	2.09	0.52
36:DA:1300:U:H5	36:DA:1634:A:N3	2.08	0.52
36:DA:1503:U:H2'	36:DA:1504:C:C6	2.45	0.52
36:DA:2261:C:O4'	36:DA:2388:A:H1'	2.10	0.52
36:DA:2393:A:H5'	47:DP:62:LEU:HB3	1.90	0.52
39:DD:112:GLN:N	39:DD:115:GLN:NE2	2.58	0.52
41:DF:9:ILE:HG22	41:DF:9:ILE:O	2.10	0.52
41:DF:192:LEU:HD21	41:DF:194:MET:CE	2.40	0.52
42:DG:45:GLU:HG3	42:DG:51:ARG:HH11	1.74	0.52
42:DG:124:SER:HB2	42:DG:131:TYR:CG	2.45	0.52
43:DH:137:ASP:OD1	43:DH:138:LYS:N	2.42	0.52
43:DH:158:HIS:O	43:DH:159:GLU:CB	2.57	0.52
45:DN:99:LEU:HD12	45:DN:122:VAL:HG21	1.92	0.52
49:DR:45:ARG:CG	49:DR:46:GLY:H	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DX:71:GLY:C	55:DX:72:LYS:HD2	2.29	0.52
57:DZ:136:PHE:C	57:DZ:137:ILE:HD13	2.30	0.52
1:AA:392:G:H2'	1:AA:393:A:C8	2.43	0.52
1:AA:802:A:H2'	1:AA:803:G:O4'	2.10	0.52
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.10	0.52
2:AB:77:ALA:O	2:AB:80:ILE:HG23	2.10	0.52
4:AD:3:ARG:HG2	4:AD:118:ARG:HD3	1.92	0.52
4:AD:150:GLU:OE1	4:AD:150:GLU:N	2.39	0.52
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.91	0.52
13:AM:10:PRO:O	13:AM:11:ARG:HG3	2.10	0.52
15:AO:78:TYR:O	15:AO:80:ALA:N	2.42	0.52
19:AS:60:VAL:HG22	19:AS:61:TYR:O	2.10	0.52
23:AW:18:G:N1	23:AW:55:U:H1'	2.24	0.52
27:B1:50:ARG:HH11	27:B1:50:ARG:CG	2.23	0.52
27:B1:94:LEU:C	27:B1:96:LYS:N	2.62	0.52
33:B7:5:TRP:CZ3	36:BA:464:U:C4'	2.92	0.52
36:BA:662:G:OP1	47:BP:18:ARG:HD2	2.10	0.52
36:BA:991:C:H5'	36:BA:991:C:H6	1.75	0.52
36:BA:1178:C:H2'	36:BA:1179:C:H6	1.74	0.52
36:BA:1216:G:P	52:BU:12:ARG:HH21	2.32	0.52
36:BA:1751:C:O2'	36:BA:1752:C:H5'	2.10	0.52
36:BA:2240:C:O2'	36:BA:2241:A:H5'	2.09	0.52
37:BB:52:A:C8	50:BS:33:LYS:HE3	2.44	0.52
39:BD:101:GLU:OE1	39:BD:103:ARG:HD3	2.10	0.52
41:BF:46:ARG:HG3	41:BF:46:ARG:NH1	2.23	0.52
41:BF:57:VAL:CG1	41:BF:59:TYR:CD1	2.93	0.52
46:BO:50:GLY:C	46:BO:52:VAL:H	2.11	0.52
51:BT:14:TYR:N	51:BT:14:TYR:CD1	2.77	0.52
51:BT:32:TYR:CG	51:BT:81:PRO:HB3	2.44	0.52
57:BZ:118:GLN:HG2	57:BZ:119:GLU:N	2.24	0.52
1:CA:60:A:H4'	1:CA:61:G:O5'	2.09	0.52
1:CA:276:G:O2'	1:CA:277:C:H5'	2.10	0.52
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.44	0.52
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.45	0.52
4:CD:108:LEU:O	4:CD:110:PHE:HD1	1.93	0.52
10:CJ:87:THR:OG1	10:CJ:88:LEU:N	2.41	0.52
12:CL:92:ASP:O	12:CL:93:LEU:HD23	2.10	0.52
13:CM:8:GLU:OE1	13:CM:22:ILE:HG23	2.10	0.52
29:D3:29:ARG:HG3	29:D3:29:ARG:NH1	2.24	0.52
34:D8:32:LEU:HD13	36:DA:2392:A:OP1	2.10	0.52
36:DA:848:G:H8	36:DA:848:G:H5'	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1024:G:C3'	36:DA:1025:G:H5"	2.39	0.52
36:DA:1479:G:H5'	36:DA:1558:A:C2	2.45	0.52
36:DA:1502:C:H2'	36:DA:1502:C:O2	2.10	0.52
36:DA:1688:U:H1'	36:DA:1701:A:C6	2.45	0.52
36:DA:2461:C:H2'	36:DA:2462:U:C6	2.45	0.52
36:DA:2777:G:H5"	36:DA:2778:A:H5"	1.91	0.52
36:DA:2807:G:C3'	36:DA:2808:U:H5"	2.40	0.52
39:DD:182:LEU:H	39:DD:272:ALA:HB3	1.75	0.52
40:DE:184:VAL:CG1	40:DE:185:LYS:H	2.16	0.52
42:DG:97:ASP:O	42:DG:101:ILE:HG23	2.10	0.52
42:DG:171:ALA:O	42:DG:175:LEU:HB3	2.10	0.52
43:DH:85:LYS:HE2	43:DH:145:ALA:HA	1.91	0.52
46:DO:1:MET:CE	46:DO:67:LYS:HG2	2.40	0.52
46:DO:71:ARG:NH1	51:DT:74:ARG:HH22	2.07	0.52
50:DS:17:ARG:HH21	50:DS:90:GLY:N	2.07	0.52
56:DY:86:ARG:NH1	56:DY:95:LYS:NZ	2.57	0.52
1:AA:488:C:O2'	1:AA:489:C:H5'	2.10	0.52
1:AA:1056:U:C5'	3:AC:163:ALA:HB2	2.39	0.52
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.45	0.52
13:AM:40:ASN:ND2	13:AM:43:THR:HG23	2.10	0.52
16:AP:71:ARG:HA	16:AP:74:LEU:CD1	2.34	0.52
22:AV:17:C:H5"	22:AV:17(A):U:H5	1.72	0.52
22:AV:28:C:H2'	22:AV:29:G:C8	2.43	0.52
28:B2:55:ARG:NH1	36:BA:75:G:H4'	2.21	0.52
29:B3:42:ALA:O	29:B3:43:ILE:HD13	2.10	0.52
31:B5:2:ALA:CA	36:BA:2015:A:H1'	2.33	0.52
36:BA:139:G:H1	36:BA:142(A):C:H42	1.57	0.52
36:BA:143:G:H2'	36:BA:143(A):C:C6	2.45	0.52
36:BA:1301:A:H4'	36:BA:1302:A:OP1	2.09	0.52
36:BA:2591:C:H2'	36:BA:2592:G:C8	2.44	0.52
36:BA:2807:G:C3'	36:BA:2808:U:H5"	2.40	0.52
36:BA:2870:C:C2'	36:BA:2871:C:H5'	2.40	0.52
39:BD:226:MET:HB3	39:BD:230:ASP:HB2	1.91	0.52
40:BE:92:THR:H	40:BE:95:ILE:HD13	1.74	0.52
47:BP:121:LYS:O	47:BP:123:LEU:HG	2.10	0.52
49:BR:63:ARG:HA	49:BR:80:PHE:HE2	1.73	0.52
50:BS:74:ALA:HB1	50:BS:103:GLU:CG	2.39	0.52
56:BY:77:PRO:O	56:BY:78:ALA:HB2	2.10	0.52
1:CA:15:G:H4'	5:CE:24:ARG:CZ	2.40	0.52
1:CA:105:G:H2'	1:CA:106:C:C6	2.45	0.52
1:CA:119:A:O2'	1:CA:120:A:OP2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:284:G:H2'	1:CA:285:G:C8	2.45	0.52
1:CA:828:A:H2'	1:CA:829:G:O4'	2.10	0.52
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.92	0.52
6:CF:45:LEU:HD12	6:CF:46:ARG:N	2.24	0.52
8:CH:86:ILE:CG2	8:CH:87:SER:H	2.18	0.52
12:CL:39:VAL:HB	12:CL:57:LYS:HB2	1.91	0.52
14:CN:21:TYR:HD2	14:CN:22:THR:O	1.93	0.52
14:CN:24:CYS:H	14:CN:33:VAL:HG11	1.74	0.52
19:CS:58:VAL:O	19:CS:58:VAL:HG23	2.09	0.52
25:CY:48:C:OP2	25:CY:59:U:H5'	2.10	0.52
36:DA:814:C:H2'	36:DA:815:C:H6	1.75	0.52
36:DA:1506:C:O2	36:DA:1506:C:H2'	2.09	0.52
36:DA:2735:G:H2'	36:DA:2736:G:H8	1.75	0.52
37:DB:66:A:H61	37:DB:108:U:H2'	1.75	0.52
42:DG:14:GLU:OE1	42:DG:15:VAL:HG23	2.10	0.52
42:DG:72:ARG:HD3	42:DG:87:PRO:O	2.09	0.52
43:DH:98:LEU:HD12	43:DH:102:ALA:O	2.10	0.52
43:DH:130:ARG:HD3	43:DH:132:ARG:NH2	2.25	0.52
44:DI:12:LEU:O	44:DI:12:LEU:HG	2.10	0.52
49:DR:28:LEU:HA	49:DR:34:ILE:HG12	1.91	0.52
50:DS:48:LEU:HD12	50:DS:48:LEU:N	2.25	0.52
50:DS:92:TYR:CG	50:DS:93:LYS:N	2.77	0.52
52:DU:104:GLN:NE2	52:DU:105:VAL:H	2.08	0.52
54:DW:68:ARG:HD2	54:DW:110:LYS:HB3	1.92	0.52
56:DY:38:ILE:O	56:DY:39:VAL:HB	2.10	0.52
57:DZ:56:VAL:CG1	57:DZ:57:ILE:N	2.73	0.52
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.39	0.52
1:AA:353:A:H5'	1:AA:353:A:C8	2.44	0.52
1:AA:940:C:H2'	1:AA:941:G:H8	1.75	0.52
1:AA:1054:C:H42	25:AY:34:G:H1'	1.75	0.52
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.44	0.52
2:AB:96:ARG:NH1	2:AB:148:TYR:HE1	2.07	0.52
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.09	0.52
4:AD:15:GLU:HG2	4:AD:63:LYS:CG	2.39	0.52
9:AI:126:SER:O	9:AI:127:LYS:HB3	2.08	0.52
14:AN:24:CYS:H	14:AN:33:VAL:HG11	1.75	0.52
17:AQ:75:ARG:HH11	17:AQ:75:ARG:HG3	1.75	0.52
29:B3:7:LYS:O	29:B3:54:VAL:HG13	2.09	0.52
32:B6:9:LEU:O	32:B6:25:LYS:HG3	2.10	0.52
36:BA:827:U:H2'	36:BA:2068:U:C2	2.44	0.52
36:BA:1416:G:H21	36:BA:1586:A:N6	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1722:A:C2	36:BA:1740:G:C8	2.97	0.52
36:BA:2207:G:H2'	36:BA:2207:G:N3	2.24	0.52
36:BA:2689:U:H5"	36:BA:2690:C:H5'	1.91	0.52
36:BA:2700:C:O2'	36:BA:2701:C:H5'	2.10	0.52
37:BB:38:C:O2	37:BB:48:A:H1'	2.09	0.52
40:BE:132:HIS:CD2	40:BE:135:HIS:CE1	2.97	0.52
41:BF:202:PHE:HE1	41:BF:206:ILE:HD13	1.74	0.52
42:BG:111:LEU:HD23	42:BG:114:ILE:HD11	1.91	0.52
44:BI:101:LEU:CB	44:BI:109:ILE:HD11	2.39	0.52
49:BR:54:LEU:HD23	49:BR:66:VAL:CG2	2.40	0.52
50:BS:46:VAL:CG1	50:BS:47:THR:H	2.04	0.52
54:BW:61:ASN:N	54:BW:61:ASN:ND2	2.58	0.52
56:BY:7:VAL:HB	56:BY:8:LYS:HD2	1.91	0.52
57:BZ:58:VAL:HA	57:BZ:67:LEU:O	2.10	0.52
1:CA:972:C:O3'	10:CJ:57:LYS:CG	2.58	0.52
1:CA:1505:G:H4'	1:CA:1506:U:C5'	2.40	0.52
2:CB:67:THR:HG21	2:CB:155:LEU:HD21	1.92	0.52
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.25	0.52
3:CC:70:VAL:CG1	3:CC:71:ALA:H	2.22	0.52
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.45	0.52
6:CF:75:LEU:HD21	6:CF:79:LEU:HD11	1.92	0.52
7:CG:43:PHE:C	7:CG:43:PHE:HD1	2.14	0.52
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	2.10	0.52
11:CK:111:ASP:CA	18:CR:84:LYS:HG3	2.29	0.52
17:CQ:75:ARG:HG3	17:CQ:75:ARG:HH11	1.74	0.52
18:CR:53:ARG:HG2	18:CR:53:ARG:NH1	2.23	0.52
19:CS:6:LYS:CG	19:CS:7:LYS:HE3	2.40	0.52
20:CT:57:ARG:CZ	20:CT:102:GLY:HA2	2.40	0.52
29:D3:36:VAL:O	29:D3:36:VAL:HG23	2.10	0.52
36:DA:271(O):C:O2'	36:DA:271(P):C:H6	1.91	0.52
36:DA:329:G:OP2	56:DY:71:LYS:HD3	2.10	0.52
36:DA:1882:C:H2'	36:DA:1882:C:O2	2.08	0.52
36:DA:2223:G:H2'	36:DA:2224:G:H5'	1.91	0.52
36:DA:2872:G:C2	36:DA:2873:A:N6	2.78	0.52
41:DF:28:ILE:CG2	41:DF:116:ASP:HB2	2.39	0.52
41:DF:42:ALA:O	41:DF:45:ARG:HB2	2.10	0.52
44:DI:53:ALA:O	44:DI:57:ARG:HG3	2.10	0.52
44:DI:88:ILE:CD1	44:DI:123:LEU:H	2.18	0.52
49:DR:87:TYR:HE1	49:DR:117:VAL:O	1.93	0.52
50:DS:18:ILE:HG23	50:DS:18:ILE:O	2.09	0.52
52:DU:12:ARG:C	52:DU:15:LYS:HZ2	2.11	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:19:LYS:HZ3	53:DV:20:LEU:HB2	1.75	0.52
54:DW:3:ALA:HB2	54:DW:58:ALA:HA	1.91	0.52
55:DX:29:TRP:CE3	55:DX:78:LYS:HB3	2.44	0.52
1:AA:123:C:OP1	1:AA:312:C:H5'	2.10	0.52
1:AA:586:C:C2'	1:AA:587:G:H5'	2.40	0.52
1:AA:718:G:H5'	11:AK:117:ASN:OD1	2.10	0.52
1:AA:1221:G:H4'	19:AS:77:THR:HG22	1.91	0.52
2:AB:95:GLN:HG3	2:AB:148:TYR:HA	1.92	0.52
3:AC:138:VAL:CG2	3:AC:151:VAL:HG23	2.40	0.52
12:AL:39:VAL:HB	12:AL:57:LYS:HB2	1.92	0.52
19:AS:58:VAL:O	19:AS:58:VAL:HG23	2.09	0.52
22:AV:71:C:C6	22:AV:71:C:C3'	2.93	0.52
23:AW:17:C:H5	36:BA:2180:U:HO2'	1.58	0.52
25:AY:19:G:H3'	25:AY:20:U:C6	2.45	0.52
28:B2:38:GLN:HA	28:B2:41:ILE:CD1	2.40	0.52
29:B3:17:LYS:HD2	29:B3:20:LYS:HD2	1.92	0.52
30:B4:51:TYR:CE1	42:BG:5:VAL:HG12	2.45	0.52
31:B5:35:GLU:O	31:B5:36:CYS:HB2	2.08	0.52
32:B6:19:ARG:CG	32:B6:20:ASN:N	2.68	0.52
34:B8:4:MET:SD	34:B8:61:LEU:CD2	2.98	0.52
34:B8:32:LEU:HB3	34:B8:36:LYS:NZ	2.25	0.52
34:B8:61:LEU:CD1	34:B8:61:LEU:H	2.14	0.52
35:B9:9:ARG:HA	35:B9:14:CYS:SG	2.50	0.52
36:BA:1686:C:C2'	36:BA:1687:G:H5'	2.40	0.52
36:BA:2777:G:C4'	36:BA:2778:A:H5'	2.38	0.52
36:BA:2778:A:H4'	36:BA:2779:U:OP2	2.10	0.52
36:BA:2882:A:OP1	49:BR:96:ARG:HD3	2.09	0.52
37:BB:82:G:O2'	37:BB:83:G:H5'	2.10	0.52
38:BC:36:LYS:HA	38:BC:36:LYS:HZ2	1.75	0.52
39:BD:270:ILE:C	39:BD:271:ILE:CG1	2.78	0.52
40:BE:16:ARG:O	40:BE:17:ASP:HB3	2.10	0.52
40:BE:59:VAL:CG2	40:BE:60:ASN:N	2.67	0.52
40:BE:69:LYS:HD3	40:BE:89:ASP:HA	1.91	0.52
43:BH:17:VAL:HG11	43:BH:50:VAL:HG22	1.92	0.52
44:BI:57:ARG:O	44:BI:61:ARG:NE	2.43	0.52
44:BI:92:VAL:HG11	44:BI:120:ILE:CG1	2.40	0.52
44:BI:120:ILE:O	44:BI:121:LYS:CB	2.57	0.52
50:BS:49:VAL:HG22	50:BS:80:LEU:HD22	1.92	0.52
53:BV:5:VAL:HG22	53:BV:6:LYS:N	2.25	0.52
54:BW:60:ASN:ND2	54:BW:60:ASN:H	2.07	0.52
1:CA:423:G:H2'	1:CA:424:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:488:C:O2'	1:CA:489:C:H5'	2.10	0.52
1:CA:826:C:H2'	1:CA:827:U:C6	2.45	0.52
1:CA:892:A:H2'	1:CA:893:C:C6	2.44	0.52
1:CA:935:A:H2'	1:CA:936:C:C6	2.45	0.52
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.10	0.52
1:CA:1442(A):G:C8	51:DT:118:ARG:HD2	2.45	0.52
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.91	0.52
7:CG:91:VAL:HG12	7:CG:96:GLN:HB2	1.92	0.52
15:CO:54:ARG:HG2	15:CO:54:ARG:NH1	2.22	0.52
16:CP:14:ASN:O	16:CP:16:HIS:ND1	2.41	0.52
19:CS:28:LYS:HD2	19:CS:29:ARG:CZ	2.40	0.52
22:CV:20:U:H5'	22:CV:21:A:OP2	2.10	0.52
23:CW:57:G:H2'	23:CW:58:A:C5'	2.31	0.52
33:D7:29:LYS:O	33:D7:32:LYS:HB3	2.09	0.52
35:D9:14:CYS:SG	35:D9:25:VAL:HG13	2.50	0.52
36:DA:18:C:H4'	52:DU:23:GLY:O	2.10	0.52
36:DA:888:C:H2'	36:DA:889:C:H5'	1.91	0.52
36:DA:1039:G:C6	36:DA:1040:C:N4	2.78	0.52
36:DA:1801:G:OP2	39:DD:154:LYS:HE2	2.09	0.52
36:DA:2552:U:H2'	36:DA:2554:U:OP2	2.10	0.52
36:DA:2698:U:H2'	36:DA:2699:C:C6	2.45	0.52
36:DA:2887:U:H2'	36:DA:2888:C:C6	2.45	0.52
37:DB:31:C:C2'	37:DB:53:A:H61	2.22	0.52
37:DB:75:G:N1	37:DB:103:G:N2	2.58	0.52
40:DE:71:GLY:O	40:DE:72:VAL:C	2.48	0.52
41:DF:75:HIS:CE1	41:DF:82:ILE:HD11	2.44	0.52
42:DG:14:GLU:O	42:DG:17:PRO:HG2	2.10	0.52
42:DG:107:LEU:HD23	42:DG:111:LEU:CD1	2.40	0.52
43:DH:43:VAL:HG12	43:DH:53:GLU:H	1.73	0.52
43:DH:89:ILE:HD13	43:DH:94:TYR:CB	2.40	0.52
44:DI:65:ALA:CB	44:DI:131:LYS:HE2	2.39	0.52
46:DO:71:ARG:HH12	51:DT:74:ARG:NH2	2.08	0.52
47:DP:85:LEU:HD23	47:DP:85:LEU:N	2.19	0.52
51:DT:78:LEU:O	51:DT:78:LEU:HD23	2.09	0.52
53:DV:25:LEU:HD11	53:DV:94:LEU:HD11	1.92	0.52
1:AA:276:G:O2'	1:AA:277:C:H5'	2.09	0.51
1:AA:302:G:N3	1:AA:556:C:H4'	2.24	0.51
1:AA:1004:A:H5'	1:AA:1025:U:H3	1.75	0.51
1:AA:1134:G:C2'	1:AA:1135:U:H5'	2.40	0.51
3:AC:22:TRP:CZ3	3:AC:32:LEU:HB3	2.44	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.70	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:15:PRO:O	16:AP:41:PRO:HD2	2.10	0.51
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.57	0.51
18:AR:66:LEU:CD1	18:AR:70:ILE:HD11	2.36	0.51
25:AY:13:C:H2'	25:AY:22:G:H1	1.74	0.51
32:B6:9:LEU:HD23	32:B6:10:LEU:O	2.10	0.51
36:BA:889:C:H1'	36:BA:890:A:O4'	2.10	0.51
36:BA:1652:A:H2'	36:BA:1653:G:H5'	1.91	0.51
36:BA:1885:A:H8	36:BA:1885:A:H5'	1.74	0.51
36:BA:2290:G:H5'	36:BA:2290:G:C8	2.37	0.51
39:BD:62:TYR:HA	39:BD:87:ASN:HD21	1.75	0.51
40:BE:57:LYS:C	40:BE:59:VAL:H	2.13	0.51
42:BG:111:LEU:HA	42:BG:114:ILE:CD1	2.40	0.51
43:BH:98:LEU:HD12	43:BH:102:ALA:O	2.11	0.51
45:BN:120:LEU:HD11	45:BN:122:VAL:CG2	2.38	0.51
46:BO:8:LEU:HD13	46:BO:82:ASN:HB3	1.91	0.51
47:BP:77:ARG:HB2	47:BP:78:PRO:HD2	1.91	0.51
47:BP:114:ILE:HD12	47:BP:115:LEU:N	2.24	0.51
48:BQ:4:PRO:O	48:BQ:6:ARG:N	2.40	0.51
50:BS:12:PHE:O	50:BS:12:PHE:CD1	2.62	0.51
51:BT:80:SER:HB3	51:BT:81:PRO:HD3	1.90	0.51
51:BT:106:SER:C	51:BT:107:ASP:OD1	2.48	0.51
52:BU:99:ALA:HB2	52:BU:106:PHE:CD1	2.45	0.51
55:BX:71:GLY:C	55:BX:72:LYS:HD2	2.31	0.51
57:BZ:56:VAL:CG1	57:BZ:57:ILE:N	2.73	0.51
1:CA:532:A:H2	1:CA:1207:G:O4'	1.92	0.51
1:CA:975:A:H8	1:CA:975:A:H5'	1.75	0.51
4:CD:6:GLY:O	4:CD:7:PRO:C	2.48	0.51
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.27	0.51
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.10	0.51
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.40	0.51
28:D2:21:LEU:HD12	28:D2:64:LEU:HA	1.92	0.51
36:DA:70:G:H2'	36:DA:113:G:O2'	2.10	0.51
36:DA:919:G:H4'	37:DB:81:G:H4'	1.91	0.51
36:DA:1151:G:H4'	52:DU:81:HIS:CD2	2.44	0.51
36:DA:1579:A:H2'	36:DA:1580:A:O4'	2.11	0.51
36:DA:1594:G:H5'	36:DA:1594:G:C8	2.43	0.51
36:DA:2809:A:C2	36:DA:2892:A:N3	2.78	0.51
37:DB:65:C:N4	37:DB:109:C:H2'	2.23	0.51
37:DB:106:G:C5'	57:DZ:31:ARG:HA	2.40	0.51
39:DD:154:LYS:C	39:DD:155:LEU:HD12	2.30	0.51
42:DG:45:GLU:CG	42:DG:51:ARG:HH11	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:101:ILE:C	42:DG:105:LYS:HE3	2.30	0.51
45:DN:62:VAL:HG22	45:DN:66:LYS:CB	2.39	0.51
47:DP:58:THR:O	47:DP:61:ARG:NH2	2.43	0.51
47:DP:115:LEU:N	47:DP:115:LEU:HD23	2.25	0.51
49:DR:77:ARG:C	49:DR:79:LEU:N	2.63	0.51
51:DT:29:ARG:HB3	51:DT:85:LYS:HA	1.91	0.51
56:DY:27:VAL:HG12	56:DY:29:GLU:OE1	2.08	0.51
1:AA:232:G:H1'	1:AA:262:A:N1	2.25	0.51
1:AA:390:C:H2'	1:AA:391:G:H8	1.72	0.51
1:AA:394:G:H2'	1:AA:395:C:H6	1.74	0.51
1:AA:953:G:H5'	1:AA:965:A:H61	1.75	0.51
2:AB:40:HIS:CB	2:AB:190:THR:HG21	2.41	0.51
3:AC:13:GLY:HA3	14:AN:57:ARG:NE	2.25	0.51
6:AF:50:TYR:CE2	6:AF:52:ILE:HD11	2.46	0.51
7:AG:32:ARG:O	7:AG:33:ASP:CB	2.58	0.51
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.93	0.51
20:AT:49:ALA:O	20:AT:52:ALA:HB3	2.08	0.51
20:AT:100:ILE:N	20:AT:100:ILE:CD1	2.63	0.51
22:AV:23:C:H2'	22:AV:24:U:C6	2.44	0.51
27:B1:40:ARG:HD3	27:B1:40:ARG:O	2.11	0.51
29:B3:13:ILE:HG22	29:B3:13:ILE:O	2.10	0.51
34:B8:6:THR:HG21	36:BA:243:U:OP1	2.11	0.51
36:BA:476:G:H4'	36:BA:502:A:N1	2.25	0.51
36:BA:535:C:O2'	36:BA:536:A:H5'	2.10	0.51
36:BA:554:U:C2'	36:BA:555:U:H5'	2.40	0.51
36:BA:784:A:C5	39:BD:229:VAL:HG21	2.45	0.51
36:BA:1479:G:H2'	36:BA:1480:G:O4'	2.10	0.51
36:BA:2632:A:C2	40:BE:61:ARG:HD3	2.45	0.51
37:BB:77:U:C5	37:BB:99:G:N2	2.78	0.51
40:BE:61:ARG:HB3	40:BE:62:PRO:HD3	1.91	0.51
41:BF:11:VAL:HG12	41:BF:12:LEU:N	2.17	0.51
42:BG:112:PRO:C	42:BG:113:ARG:NH1	2.62	0.51
43:BH:68:THR:C	43:BH:70:THR:H	2.12	0.51
47:BP:7:ARG:O	47:BP:10:PRO:CD	2.54	0.51
47:BP:147:LEU:HG	47:BP:148:LEU:N	2.25	0.51
49:BR:21:TYR:OH	49:BR:43:GLU:HG2	2.10	0.51
51:BT:115:ARG:HA	51:BT:115:ARG:HE	1.75	0.51
52:BU:79:PHE:HE2	52:BU:83:LEU:HD21	1.75	0.51
55:BX:89:ILE:O	55:BX:93:GLU:HG2	2.10	0.51
1:CA:20:U:H2'	1:CA:21:G:O4'	2.10	0.51
1:CA:277:C:H5"	17:CQ:68:ARG:NH2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.43	0.51
1:CA:881:G:P	12:CL:12:ARG:HH22	2.33	0.51
1:CA:1004:A:H5'	1:CA:1025:U:H3	1.74	0.51
3:CC:173:VAL:HG12	3:CC:175:LEU:HD12	1.92	0.51
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.92	0.51
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.74	0.51
5:CE:6:PHE:HD1	5:CE:63:ARG:HH12	1.58	0.51
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	2.41	0.51
7:CG:68:ASN:ND2	7:CG:128:ALA:HA	2.25	0.51
10:CJ:16:LEU:HD23	10:CJ:94:VAL:CG1	2.40	0.51
12:CL:59:ARG:HG3	12:CL:64:TYR:O	2.10	0.51
25:CY:70:G:C2'	25:CY:71:G:OP1	2.58	0.51
26:D0:6:GLY:O	26:D0:7:LEU:HD23	2.10	0.51
34:D8:23:VAL:CG1	34:D8:46:ARG:HH11	2.23	0.51
36:DA:208:C:H2'	36:DA:209:C:C6	2.46	0.51
36:DA:271(K):U:H3'	36:DA:271(L):U:H5'	1.91	0.51
36:DA:518:G:H4'	54:DW:18:ARG:NH1	2.25	0.51
36:DA:1188:U:H4'	53:DV:79:VAL:HG22	1.92	0.51
36:DA:1384:A:N3	36:DA:1405:U:H1'	2.25	0.51
36:DA:2262:U:H2'	36:DA:2263:C:C5'	2.40	0.51
36:DA:2262:U:O2'	36:DA:2263:C:H5"	2.09	0.51
37:DB:28:C:O2'	37:DB:29:A:H5'	2.10	0.51
39:DD:109:ASP:HB2	39:DD:197:GLY:CA	2.40	0.51
39:DD:172:TYR:HD1	39:DD:186:HIS:CA	2.19	0.51
40:DE:59:VAL:HG13	40:DE:60:ASN:N	2.25	0.51
40:DE:149:ARG:HH11	40:DE:149:ARG:HG3	1.74	0.51
41:DF:22:ALA:HA	41:DF:26:ALA:HB2	1.92	0.51
42:DG:3:LEU:O	42:DG:4:ASP:HB3	2.08	0.51
44:DI:104:GLN:O	44:DI:105:HIS:HD2	1.93	0.51
48:DQ:12:GLN:NE2	48:DQ:72:LYS:HG3	2.24	0.51
48:DQ:30:GLY:CA	48:DQ:107:ALA:HB2	2.38	0.51
48:DQ:59:ARG:NH1	48:DQ:59:ARG:HG3	2.24	0.51
50:DS:49:VAL:HG22	50:DS:80:LEU:HD22	1.93	0.51
52:DU:89:GLU:HG2	53:DV:50:PRO:HG2	1.91	0.51
53:DV:35:LEU:HB2	53:DV:57:VAL:CG1	2.40	0.51
53:DV:82:ARG:HG2	53:DV:82:ARG:NH1	2.25	0.51
54:DW:43:GLY:O	54:DW:44:ALA:C	2.48	0.51
54:DW:111:HIS:CG	54:DW:112:GLY:N	2.78	0.51
57:DZ:23:LYS:C	57:DZ:25:PRO:HD3	2.30	0.51
1:AA:160:A:H2'	1:AA:161:A:O4'	2.09	0.51
1:AA:783:C:H2'	1:AA:784:C:H6	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:935:A:H2'	1:AA:936:C:C6	2.46	0.51
1:AA:963:G:N2	10:AJ:55:LYS:NZ	2.57	0.51
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.92	0.51
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HA	2.40	0.51
13:AM:18:ALA:HB2	13:AM:45:VAL:HG21	1.92	0.51
13:AM:93:ARG:NH1	36:BA:888:C:H5'	2.25	0.51
16:AP:53:VAL:CG1	16:AP:79:VAL:HG22	2.41	0.51
35:B9:7:VAL:HG13	35:B9:34:GLN:HB3	1.91	0.51
36:BA:90:U:H1'	36:BA:92:A:C8	2.45	0.51
36:BA:773:U:H4'	39:BD:47:GLY:HA3	1.93	0.51
36:BA:1106:A:H1'	36:BA:1107:G:C8	2.46	0.51
36:BA:2469:A:O2'	48:BQ:56:ARG:HD3	2.10	0.51
36:BA:2629:A:C8	36:BA:2895:U:N3	2.78	0.51
37:BB:75:G:N1	37:BB:103:G:N2	2.58	0.51
39:BD:35:LYS:O	39:BD:64:ILE:HG22	2.09	0.51
39:BD:172:TYR:HD1	39:BD:186:HIS:CA	2.21	0.51
43:BH:85:LYS:HE2	43:BH:145:ALA:HA	1.92	0.51
44:BI:87:LYS:HA	44:BI:122:GLU:CG	2.30	0.51
45:BN:126:PRO:O	45:BN:127:ASP:HB2	2.10	0.51
47:BP:32:THR:HG21	47:BP:37:GLY:CA	2.40	0.51
48:BQ:141:GLN:OE1	57:BZ:72:ARG:HA	2.10	0.51
49:BR:77:ARG:C	49:BR:79:LEU:N	2.64	0.51
49:BR:86:ARG:HB3	49:BR:118:GLU:OE2	2.10	0.51
52:BU:91:ASP:OD2	52:BU:96:ALA:CB	2.57	0.51
57:BZ:111:VAL:O	57:BZ:111:VAL:HG13	2.10	0.51
1:CA:564:C:H5'	17:CQ:32:TYR:CE2	2.45	0.51
1:CA:981:U:H5'	14:CN:21:TYR:CE1	2.45	0.51
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.45	0.51
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.10	0.51
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.58	0.51
10:CJ:32:ALA:H	10:CJ:76:ASN:HD22	1.57	0.51
11:CK:80:VAL:HG23	11:CK:80:VAL:O	2.09	0.51
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ3	1.75	0.51
22:CV:40:C:O2'	22:CV:41:C:H5'	2.10	0.51
25:CY:24:G:H2'	25:CY:25:C:O4'	2.10	0.51
27:D1:95:LEU:O	27:D1:95:LEU:HG	2.11	0.51
28:D2:22:GLU:HG2	28:D2:64:LEU:HD11	1.91	0.51
36:DA:7:G:H2'	36:DA:8:A:C8	2.44	0.51
36:DA:66:C:O2'	36:DA:67:U:H5'	2.10	0.51
36:DA:645:C:O2	36:DA:645:C:C2'	2.58	0.51
36:DA:1175:U:O5'	36:DA:1176:G:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2171:A:O2'	36:DA:2172:U:O5'	2.19	0.51
38:DC:78:ALA:HB2	38:DC:82:LYS:HB2	1.92	0.51
39:DD:71:ASP:CB	39:DD:103:ARG:HH22	2.20	0.51
39:DD:238:GLY:O	39:DD:239:ARG:O	2.28	0.51
41:DF:34:TRP:HB2	47:DP:10:PRO:O	2.09	0.51
42:DG:57:ALA:HB1	42:DG:90:LEU:HD11	1.91	0.51
45:DN:26:LEU:CG	45:DN:30:ILE:HD11	2.41	0.51
45:DN:119:ARG:HG3	45:DN:119:ARG:NH1	2.26	0.51
46:DO:50:GLY:C	46:DO:52:VAL:H	2.13	0.51
47:DP:17:LYS:O	47:DP:17:LYS:HG2	2.10	0.51
48:DQ:39:PRO:HD3	48:DQ:99:PRO:CG	2.40	0.51
48:DQ:109:VAL:CG1	48:DQ:110:THR:N	2.73	0.51
50:DS:85:VAL:HG23	50:DS:86:ALA:N	2.25	0.51
56:DY:7:VAL:HB	56:DY:8:LYS:HD2	1.93	0.51
56:DY:96:ILE:HD12	56:DY:99:CYS:HB2	1.92	0.51
1:AA:409:G:OP1	4:AD:24:GLU:HB2	2.11	0.51
1:AA:601:C:H2'	1:AA:602:A:C8	2.45	0.51
1:AA:731:G:OP1	1:AA:766:A:H1'	2.10	0.51
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.51
4:AD:107:ARG:HB3	4:AD:174:LEU:CD1	2.40	0.51
6:AF:45:LEU:HD12	6:AF:46:ARG:N	2.23	0.51
7:AG:46:ALA:O	7:AG:49:ILE:HB	2.09	0.51
7:AG:68:ASN:HD22	7:AG:128:ALA:HA	1.76	0.51
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.30	0.51
11:AK:58:PRO:HA	11:AK:90:GLY:HA3	1.93	0.51
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.93	0.51
26:B0:30:VAL:HA	26:B0:66:VAL:HG22	1.91	0.51
32:B6:9:LEU:HD23	32:B6:10:LEU:N	2.26	0.51
32:B6:32:ASN:HD22	32:B6:33:LYS:HE3	1.75	0.51
36:BA:556:G:H2'	36:BA:557:U:H6	1.75	0.51
36:BA:664:C:H4'	36:BA:941:A:OP1	2.10	0.51
36:BA:911:A:C5	48:BQ:9:TYR:CD1	2.98	0.51
36:BA:1503:U:O2'	36:BA:1504:C:H5'	2.10	0.51
36:BA:1827:C:O2'	36:BA:1828:G:H5'	2.10	0.51
36:BA:2290:G:H2'	36:BA:2291:U:O4'	2.11	0.51
40:BE:36:ARG:HH12	40:BE:86:PRO:HD2	1.76	0.51
44:BI:42:SER:C	44:BI:44:LEU:H	2.13	0.51
46:BO:86:ILE:H	46:BO:86:ILE:HD12	1.75	0.51
48:BQ:51:ARG:O	48:BQ:55:VAL:HG12	2.10	0.51
48:BQ:141:GLN:HE22	57:BZ:72:ARG:C	2.12	0.51
49:BR:28:LEU:HD13	49:BR:28:LEU:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BX:27:THR:HG22	55:BX:80:ILE:CB	2.18	0.51
1:CA:80:G:H3'	1:CA:81:U:H5'	1.92	0.51
1:CA:155:C:H2'	1:CA:156:G:C8	2.45	0.51
2:CB:112:VAL:HG22	2:CB:149:LEU:HD13	1.93	0.51
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.44	0.51
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.10	0.51
7:CG:116:ALA:HA	7:CG:119:ARG:HG3	1.93	0.51
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.41	0.51
14:CN:47:LEU:HA	14:CN:50:LYS:HD2	1.93	0.51
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.38	0.51
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.25	0.51
23:CW:27:G:H1	23:CW:43:C:N4	2.05	0.51
26:D0:11:ARG:HH11	26:D0:11:ARG:CB	2.23	0.51
27:D1:72:GLU:OE1	27:D1:76:ARG:HD3	2.10	0.51
28:D2:47:ASN:ND2	36:DA:94(A):G:N3	2.59	0.51
32:D6:26:ASN:O	32:D6:27:LYS:HG2	2.10	0.51
34:D8:21:LYS:HD3	34:D8:48:PHE:CE2	2.45	0.51
36:DA:118:A:H5'	36:DA:119:A:H8	1.75	0.51
36:DA:784:A:H5'	36:DA:785:G:OP1	2.09	0.51
36:DA:2199:A:H3'	36:DA:2200:C:C6	2.45	0.51
36:DA:2290:G:H5'	36:DA:2290:G:C8	2.40	0.51
36:DA:2307:G:N3	36:DA:2307:G:H5"	2.26	0.51
36:DA:2376:A:N6	50:DS:92:TYR:HE2	2.08	0.51
36:DA:2885:C:C2	36:DA:2886:G:H1'	2.45	0.51
39:DD:10:THR:HG23	39:DD:13:ARG:CB	2.32	0.51
41:DF:28:ILE:HG12	41:DF:119:ARG:HH21	1.74	0.51
44:DI:115:ALA:HB1	44:DI:129:THR:HG23	1.92	0.51
47:DP:84:ASN:C	47:DP:86:LYS:N	2.64	0.51
48:DQ:38:GLU:HG3	48:DQ:127:ILE:HB	1.91	0.51
50:DS:65:VAL:O	50:DS:69:VAL:HG12	2.10	0.51
50:DS:96:GLY:C	50:DS:98:VAL:H	2.14	0.51
54:DW:51:LEU:HD13	54:DW:52:GLU:N	2.25	0.51
56:DY:68:HIS:HB3	56:DY:71:LYS:CG	2.40	0.51
1:AA:60:A:H4'	1:AA:61:G:O5'	2.10	0.51
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.43	0.51
1:AA:892:A:H2'	1:AA:893:C:C6	2.45	0.51
1:AA:1396:A:C4'	1:AA:1398:A:H1'	2.40	0.51
6:AF:3:ARG:HD3	6:AF:64:GLN:OE1	2.10	0.51
7:AG:153:HIS:CE1	11:AK:57:THR:HG23	2.45	0.51
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.10	0.51
20:AT:57:ARG:CZ	20:AT:102:GLY:HA2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:9:ARG:NH1	21:AU:22:ARG:HA	2.25	0.51
23:AW:2:C:H42	23:AW:71:G:H1	1.59	0.51
24:AX:14:A:C2'	24:AX:15:A:H5'	2.40	0.51
26:B0:24:LYS:O	26:B0:25:ARG:HD3	2.10	0.51
26:B0:43:THR:HG21	36:BA:2336:A:H61	1.75	0.51
28:B2:7:ARG:HB3	28:B2:7:ARG:CZ	2.40	0.51
29:B3:29:ARG:HG3	29:B3:29:ARG:NH1	2.24	0.51
36:BA:94(A):G:H2'	36:BA:95:G:H5"	1.92	0.51
36:BA:251:A:H5"	47:BP:51:PHE:CZ	2.45	0.51
36:BA:469:G:OP1	41:BF:59:TYR:HB3	2.11	0.51
36:BA:645:C:O2	36:BA:645:C:C2'	2.57	0.51
36:BA:1168:G:C2	36:BA:1182:A:C2	2.98	0.51
36:BA:1175:U:O5'	36:BA:1176:G:H5'	2.09	0.51
36:BA:2142:C:O2'	36:BA:2143:C:H5'	2.11	0.51
36:BA:2302:G:H21	42:BG:128:ARG:CG	2.23	0.51
39:BD:28:GLU:N	39:BD:29:PRO:CD	2.64	0.51
41:BF:160:ASN:HB3	41:BF:163:VAL:HG23	1.91	0.51
42:BG:39:ILE:HG23	42:BG:92:VAL:CG1	2.40	0.51
42:BG:165:THR:HG1	42:BG:168:GLU:HG3	1.76	0.51
43:BH:140:LYS:HG2	43:BH:140:LYS:O	2.10	0.51
48:BQ:59:ARG:HG3	48:BQ:59:ARG:HH11	1.75	0.51
49:BR:97:VAL:CG2	49:BR:114:VAL:HG22	2.32	0.51
50:BS:83:LYS:HG2	50:BS:105:ALA:HB3	1.90	0.51
50:BS:90:GLY:O	50:BS:92:TYR:N	2.35	0.51
53:BV:35:LEU:HB2	53:BV:57:VAL:CG1	2.40	0.51
1:CA:15:G:H2'	1:CA:16:A:C8	2.46	0.51
1:CA:394:G:H2'	1:CA:395:C:H6	1.76	0.51
1:CA:598:U:H4'	8:CH:94:TYR:CG	2.45	0.51
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.76	0.51
1:CA:1053:G:N7	1:CA:1200:C:C5'	2.74	0.51
2:CB:8:LYS:NZ	2:CB:217:ARG:HH12	2.09	0.51
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.93	0.51
2:CB:164:VAL:HB	2:CB:186:ALA:HB1	1.91	0.51
3:CC:17:ASP:OD2	3:CC:18:TRP:N	2.44	0.51
6:CF:39:LYS:HG2	6:CF:40:VAL:N	2.23	0.51
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.10	0.51
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.11	0.51
10:CJ:97:GLU:OE2	10:CJ:97:GLU:HA	2.10	0.51
12:CL:5:PRO:O	12:CL:6:THR:C	2.48	0.51
19:CS:16:LEU:HA	19:CS:19:VAL:HB	1.93	0.51
29:D3:29:ARG:HB2	29:D3:33:GLN:NE2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D5:2:ALA:CA	36:DA:2015:A:H1'	2.34	0.51
36:DA:321:G:O4'	41:DF:165:ARG:HD2	2.10	0.51
36:DA:752:A:O2'	36:DA:753:C:OP2	2.26	0.51
36:DA:827:U:H2'	36:DA:2068:U:C2	2.45	0.51
36:DA:1171:G:H5"	36:DA:1173:G:C4'	2.41	0.51
36:DA:2040:C:H2'	36:DA:2041:U:C6	2.45	0.51
36:DA:2161:C:H2'	36:DA:2162:G:H8	1.73	0.51
36:DA:2341:G:H2'	36:DA:2342:C:C6	2.46	0.51
36:DA:2543:G:H2'	36:DA:2544:G:C8	2.45	0.51
36:DA:2600:A:H2'	36:DA:2601:C:C6	2.45	0.51
38:DC:36:LYS:HB2	38:DC:36:LYS:NZ	2.25	0.51
39:DD:25:THR:CG2	39:DD:26:LYS:H	2.20	0.51
41:DF:7:TYR:HB2	41:DF:17:ARG:N	2.25	0.51
42:DG:45:GLU:HG3	42:DG:46:ALA:N	2.25	0.51
42:DG:124:SER:C	42:DG:126:ASP:N	2.63	0.51
44:DI:83:ALA:HB1	44:DI:88:ILE:HD12	1.90	0.51
44:DI:92:VAL:O	44:DI:93:THR:O	2.29	0.51
47:DP:101:VAL:HG12	47:DP:107:LYS:N	2.25	0.51
49:DR:63:ARG:NH1	49:DR:80:PHE:HD2	2.08	0.51
52:DU:57:PHE:C	52:DU:59:ARG:H	2.14	0.51
56:DY:15:VAL:CG1	56:DY:16:ALA:N	2.73	0.51
56:DY:66:PRO:O	56:DY:67:LEU:HG	2.10	0.51
1:AA:137:C:H42	1:AA:226:G:H1	1.58	0.51
1:AA:712:A:O2'	1:AA:713:G:H5'	2.09	0.51
1:AA:826:C:H2'	1:AA:827:U:C6	2.46	0.51
1:AA:828:A:H5"	1:AA:859:A:C2	2.45	0.51
3:AC:22:TRP:CH2	3:AC:32:LEU:HB3	2.46	0.51
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.10	0.51
7:AG:32:ARG:O	7:AG:33:ASP:HB2	2.11	0.51
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.10	0.51
10:AJ:32:ALA:H	10:AJ:76:ASN:HD22	1.57	0.51
10:AJ:97:GLU:HA	10:AJ:97:GLU:OE2	2.11	0.51
25:AY:56:C:C2'	25:AY:57:G:H5"	2.41	0.51
26:B0:11:ARG:HH11	26:B0:11:ARG:CB	2.23	0.51
32:B6:24:GLU:O	32:B6:25:LYS:HB2	2.11	0.51
34:B8:23:VAL:CG1	34:B8:46:ARG:HH11	2.24	0.51
36:BA:365:C:H6	36:BA:365:C:C5'	2.19	0.51
36:BA:1140:C:P	45:BN:66:LYS:HZ3	2.33	0.51
36:BA:1453:U:H4'	36:BA:1455:G:OP1	2.11	0.51
36:BA:2097:C:H2'	36:BA:2098:U:O4'	2.11	0.51
36:BA:2657:A:O2'	43:BH:160:LYS:HE3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2721:A:H2'	36:BA:2722:G:H8	1.74	0.51
36:BA:2838:G:H2'	36:BA:2839:G:H8	1.75	0.51
38:BC:45:ALA:O	38:BC:46:LYS:HB2	2.11	0.51
39:BD:210:GLY:C	39:BD:212:SER:H	2.14	0.51
41:BF:28:ILE:HG12	41:BF:119:ARG:HH21	1.76	0.51
41:BF:202:PHE:CE1	41:BF:206:ILE:HD13	2.45	0.51
43:BH:43:VAL:HG12	43:BH:53:GLU:H	1.75	0.51
44:BI:5:LEU:HD12	44:BI:5:LEU:N	2.24	0.51
45:BN:26:LEU:CD2	45:BN:30:ILE:HD11	2.40	0.51
45:BN:30:ILE:HG23	45:BN:52:VAL:HG11	1.93	0.51
48:BQ:66:ILE:HG22	48:BQ:104:PHE:CD2	2.44	0.51
53:BV:19:LYS:HZ3	53:BV:20:LEU:HB2	1.74	0.51
53:BV:21:ARG:HB3	53:BV:91:TYR:CB	2.35	0.51
57:BZ:30:ASN:O	57:BZ:31:ARG:HB3	2.10	0.51
57:BZ:101:PRO:HB2	57:BZ:136:PHE:HB3	1.93	0.51
1:CA:188:C:H2'	1:CA:189:G:H8	1.76	0.51
1:CA:197:A:N6	1:CA:221:C:H5'	2.24	0.51
1:CA:277:C:H5"	17:CQ:68:ARG:HH22	1.74	0.51
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.45	0.51
2:CB:213:LEU:HD23	2:CB:213:LEU:O	2.11	0.51
4:CD:62:GLN:O	4:CD:66:ARG:HD2	2.11	0.51
7:CG:43:PHE:C	7:CG:43:PHE:CD1	2.83	0.51
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.40	0.51
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.10	0.51
10:CJ:38:ILE:O	10:CJ:38:ILE:HG13	2.10	0.51
14:CN:33:VAL:HG12	14:CN:39:LEU:O	2.11	0.51
19:CS:43:GLU:O	19:CS:45:VAL:N	2.41	0.51
26:D0:26:TYR:H	26:D0:29:GLN:NE2	2.08	0.51
32:D6:9:LEU:O	32:D6:25:LYS:HG3	2.10	0.51
32:D6:32:ASN:HD22	32:D6:33:LYS:HE3	1.74	0.51
36:DA:451:C:N4	36:DA:453:C:H3'	2.25	0.51
36:DA:717:G:H2'	36:DA:718:A:O4'	2.10	0.51
36:DA:1887:C:H3'	36:DA:1888:G:H5"	1.91	0.51
36:DA:2121:G:H21	38:DC:172:HIS:CB	2.24	0.51
36:DA:2334:G:H21	50:DS:18:ILE:HG13	1.75	0.51
36:DA:2469:A:H62	36:DA:2481:G:H1'	1.76	0.51
36:DA:2689:U:H5"	36:DA:2690:C:H5'	1.93	0.51
37:DB:71:C:C2	37:DB:72:G:C8	2.98	0.51
37:DB:87:G:C3'	37:DB:88:C:H5"	2.41	0.51
40:DE:31:CYS:HB3	40:DE:49:LEU:HB3	1.92	0.51
40:DE:197:ILE:O	40:DE:197:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:16:SER:HB2	43:DH:27:LYS:HB2	1.93	0.51
43:DH:158:HIS:CD2	43:DH:170:ARG:HA	2.46	0.51
45:DN:26:LEU:HG	45:DN:30:ILE:HD11	1.93	0.51
45:DN:126:PRO:O	45:DN:127:ASP:HB2	2.10	0.51
47:DP:108:LYS:C	47:DP:110:TYR:H	2.14	0.51
49:DR:77:ARG:C	49:DR:79:LEU:H	2.14	0.51
50:DS:90:GLY:C	50:DS:92:TYR:H	2.14	0.51
53:DV:62:LEU:HD22	53:DV:62:LEU:N	2.25	0.51
54:DW:51:LEU:HD13	54:DW:51:LEU:C	2.31	0.51
56:DY:88:LYS:HZ1	56:DY:93:GLY:CA	2.22	0.51
57:DZ:14:LYS:HZ2	57:DZ:14:LYS:HB2	1.75	0.51
57:DZ:103:ARG:C	57:DZ:105:VAL:H	2.13	0.51
57:DZ:112:ARG:HH11	57:DZ:112:ARG:HG2	1.75	0.51
1:AA:272:C:O2'	1:AA:273:A:H5'	2.10	0.51
1:AA:287:U:O2'	1:AA:288:A:H5'	2.09	0.51
1:AA:972:C:H4'	10:AJ:57:LYS:CG	2.40	0.51
1:AA:1036:G:H5'	1:AA:1037:C:OP2	2.10	0.51
2:AB:28:PHE:CD1	2:AB:28:PHE:O	2.63	0.51
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.93	0.51
4:AD:150:GLU:HG2	4:AD:151:LYS:H	1.75	0.51
5:AE:63:ARG:C	5:AE:65:ASN:H	2.14	0.51
6:AF:39:LYS:HG2	6:AF:40:VAL:N	2.24	0.51
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.92	0.51
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.10	0.51
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.40	0.51
11:AK:78:GLN:O	11:AK:103:LEU:HD13	2.11	0.51
12:AL:5:PRO:O	12:AL:6:THR:C	2.48	0.51
31:B5:20:ARG:O	31:B5:23:HIS:HB2	2.10	0.51
36:BA:573:G:O2'	36:BA:574:C:H3'	2.11	0.51
36:BA:1448:G:H5'	36:BA:1449:A:OP1	2.11	0.51
36:BA:1532:C:HO2'	36:BA:1533:G:N2	2.09	0.51
36:BA:1594:G:H5'	36:BA:1594:G:C8	2.46	0.51
36:BA:2040:C:H2'	36:BA:2041:U:C6	2.46	0.51
41:BF:164:ARG:HG2	41:BF:164:ARG:NH1	2.24	0.51
42:BG:109:VAL:HG11	42:BG:142:PRO:HB3	1.93	0.51
42:BG:165:THR:OG1	42:BG:168:GLU:HB2	2.11	0.51
45:BN:30:ILE:O	45:BN:34:LEU:HB2	2.10	0.51
48:BQ:52:VAL:O	48:BQ:56:ARG:HB2	2.10	0.51
53:BV:2:PHE:HE1	53:BV:13:ARG:HD2	1.73	0.51
53:BV:22:VAL:O	53:BV:23:GLU:HB2	2.11	0.51
53:BV:69:LYS:HA	53:BV:88:ARG:CG	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BW:111:HIS:CG	54:BW:112:GLY:N	2.78	0.51
56:BY:26:LYS:HG2	56:BY:27:VAL:HG23	1.92	0.51
1:CA:160:A:H2'	1:CA:161:A:O4'	2.10	0.51
1:CA:336:C:H2'	1:CA:337:C:H6	1.74	0.51
1:CA:832:C:O2'	1:CA:833:U:H6	1.93	0.51
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.25	0.51
2:CB:92:TYR:O	2:CB:93:VAL:HG13	2.10	0.51
8:CH:23:SER:HB2	8:CH:61:VAL:O	2.10	0.51
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.76	0.51
14:CN:23:ARG:HD2	14:CN:28:GLY:O	2.11	0.51
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.92	0.51
17:CQ:11:VAL:HG23	17:CQ:20:THR:HB	1.93	0.51
17:CQ:92:ARG:HA	17:CQ:95:TYR:CE2	2.46	0.51
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.92	0.51
23:CW:75:C:H5'	27:D1:30:VAL:HG21	1.92	0.51
29:D3:42:ALA:O	29:D3:43:ILE:HD13	2.11	0.51
32:D6:9:LEU:HD23	32:D6:10:LEU:N	2.26	0.51
36:DA:39:C:O2	41:DF:46:ARG:NH2	2.39	0.51
36:DA:150:C:H2'	36:DA:151:C:C6	2.46	0.51
36:DA:185:U:H4'	36:DA:218:A:H4'	1.92	0.51
36:DA:2577:A:H5"	36:DA:2578:G:H5'	1.91	0.51
36:DA:2886:G:H2'	36:DA:2887:U:H6	1.76	0.51
37:DB:7:G:O5'	50:DS:29:PHE:CE1	2.64	0.51
39:DD:158:ALA:HB3	39:DD:161:THR:CG2	2.40	0.51
47:DP:50:ARG:NH2	47:DP:50:ARG:HG2	2.25	0.51
49:DR:33:ARG:HG3	49:DR:115:GLU:CB	2.41	0.51
49:DR:86:ARG:HB3	49:DR:118:GLU:OE2	2.11	0.51
51:DT:96:ARG:HH11	51:DT:96:ARG:CG	2.19	0.51
52:DU:92:ARG:NH1	53:DV:11:GLN:HB2	2.26	0.51
54:DW:111:HIS:CD2	54:DW:112:GLY:H	2.28	0.51
1:AA:197:A:N6	1:AA:221:C:H5'	2.26	0.51
1:AA:560:U:O2'	1:AA:561:U:OP2	2.24	0.51
2:AB:74:LYS:H	2:AB:74:LYS:HD2	1.76	0.51
5:AE:53:LEU:HD12	5:AE:53:LEU:N	2.23	0.51
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.11	0.51
12:AL:75:HIS:HD2	12:AL:77:LEU:HB2	1.76	0.51
14:AN:21:TYR:HD2	14:AN:22:THR:O	1.93	0.51
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.24	0.51
19:AS:16:LEU:HA	19:AS:19:VAL:HB	1.93	0.51
25:AY:65:G:H2'	25:AY:65:G:N3	2.26	0.51
36:BA:271(H):G:O2'	36:BA:271(I):G:H8	1.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:283:A:H5'	36:BA:284:U:H5	1.76	0.51
36:BA:1579:A:H2'	36:BA:1580:A:O4'	2.11	0.51
36:BA:2787:C:O2	40:BE:61:ARG:NH1	2.44	0.51
41:BF:116:ASP:OD2	47:BP:5:ASP:N	2.44	0.51
43:BH:135:GLY:HA3	43:BH:141:VAL:CG2	2.40	0.51
44:BI:72:LEU:O	44:BI:138:ILE:HG23	2.10	0.51
45:BN:104:LYS:HB2	45:BN:117:PHE:CE1	2.45	0.51
47:BP:97:PRO:O	47:BP:98:GLU:CG	2.59	0.51
47:BP:107:LYS:C	47:BP:109:GLY:N	2.62	0.51
47:BP:108:LYS:C	47:BP:110:TYR:H	2.12	0.51
50:BS:74:ALA:O	50:BS:75:GLU:C	2.49	0.51
54:BW:47:VAL:O	54:BW:47:VAL:HG12	2.10	0.51
56:BY:87:LYS:HG3	56:BY:88:LYS:H	1.72	0.51
57:BZ:135:GLU:HG2	57:BZ:136:PHE:HD2	1.75	0.51
1:CA:255:G:O6	1:CA:266:G:O6	2.29	0.51
1:CA:539:A:H2'	1:CA:540:G:H8	1.76	0.51
1:CA:731:G:OP1	1:CA:766:A:H1'	2.11	0.51
1:CA:841:U:H3'	1:CA:848:C:C5'	2.41	0.51
1:CA:1129:C:H5"	1:CA:1139:G:O6	2.11	0.51
2:CB:132:LYS:HA	2:CB:135:GLN:HE21	1.75	0.51
3:CC:135:LYS:NZ	5:CE:53:LEU:HD21	2.25	0.51
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	2.24	0.51
8:CH:40:ALA:C	8:CH:42:GLU:H	2.14	0.51
8:CH:67:PRO:O	8:CH:68:ARG:O	2.29	0.51
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.91	0.51
23:CW:38:A:H2'	23:CW:39:U:H5"	1.92	0.51
31:D5:20:ARG:HA	31:D5:23:HIS:HD1	1.75	0.51
36:DA:365:C:H5'	36:DA:365:C:C6	2.32	0.51
36:DA:587:C:O2'	36:DA:588:U:OP2	2.19	0.51
36:DA:1049:C:O2	36:DA:1049:C:H2'	2.10	0.51
36:DA:1301:A:HO2'	36:DA:1302:A:H2'	1.73	0.51
36:DA:1368:G:O2'	36:DA:1369:G:H5'	2.10	0.51
36:DA:1666:G:H1'	46:DO:3:GLN:NE2	2.26	0.51
38:DC:43:VAL:HG12	38:DC:43:VAL:O	2.10	0.51
39:DD:70:TRP:HZ3	39:DD:146:GLU:CD	2.14	0.51
40:DE:2:LYS:NZ	40:DE:95:ILE:O	2.39	0.51
41:DF:24:LEU:HB3	41:DF:25:PRO:CD	2.41	0.51
42:DG:38:VAL:HG22	42:DG:93:THR:HG23	1.91	0.51
42:DG:41:GLN:CG	42:DG:90:LEU:HB2	2.40	0.51
42:DG:73:ALA:HB2	42:DG:82:LEU:HD21	1.93	0.51
42:DG:80:PHE:C	42:DG:81:LYS:HG2	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:99:MET:O	42:DG:103:LEU:CD2	2.59	0.51
44:DI:125:GLU:OE1	44:DI:125:GLU:HA	2.10	0.51
45:DN:17:ASP:HB2	45:DN:55:VAL:HG12	1.91	0.51
46:DO:14:THR:HG22	46:DO:52:VAL:HG12	1.92	0.51
46:DO:88:ASN:O	46:DO:91:LEU:N	2.43	0.51
48:DQ:51:ARG:HH11	48:DQ:51:ARG:CG	2.23	0.51
55:DX:89:ILE:O	55:DX:93:GLU:HG2	2.11	0.51
56:DY:28:LYS:HA	56:DY:39:VAL:N	2.22	0.51
1:AA:564:C:H5'	17:AQ:32:TYR:CE2	2.46	0.51
1:AA:841:U:H3'	1:AA:848:C:C5'	2.41	0.51
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.74	0.51
1:AA:1439:C:H42	1:AA:1462:G:H1	1.58	0.51
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.41	0.51
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.40	0.51
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.93	0.51
15:AO:17:ARG:HG3	15:AO:17:ARG:NH1	2.23	0.51
16:AP:76:GLN:O	16:AP:76:GLN:HG2	2.10	0.51
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.75	0.51
20:AT:13:LEU:HD12	20:AT:13:LEU:O	2.11	0.51
26:B0:72:ARG:NE	26:B0:75:LEU:HD13	2.26	0.51
36:BA:271(T):C:H6	36:BA:271(T):C:C5'	2.18	0.51
36:BA:1484:G:H3'	36:BA:1485:G:C5'	2.38	0.51
36:BA:1578:U:C2'	36:BA:1579:A:H5"	2.40	0.51
36:BA:2443:C:O2'	36:BA:2444:G:H5'	2.11	0.51
36:BA:2710:C:OP1	49:BR:15:SER:HB2	2.11	0.51
39:BD:65:ILE:HD13	39:BD:65:ILE:O	2.11	0.51
39:BD:166:GLN:HA	39:BD:166:GLN:NE2	2.26	0.51
40:BE:72:VAL:O	40:BE:73:GLU:O	2.28	0.51
41:BF:38:ARG:HH11	41:BF:38:ARG:HG3	1.75	0.51
41:BF:75:HIS:CE1	41:BF:82:ILE:HD11	2.46	0.51
41:BF:75:HIS:HE1	41:BF:82:ILE:HD11	1.76	0.51
42:BG:47:LYS:HD3	42:BG:82:LEU:HG	1.93	0.51
42:BG:83:ARG:O	42:BG:84:LYS:HB2	2.10	0.51
42:BG:137:GLU:HG2	42:BG:152:LEU:HD11	1.93	0.51
43:BH:106:THR:HG22	43:BH:112:PRO:HB3	1.92	0.51
44:BI:6:LEU:O	44:BI:8:PRO:N	2.43	0.51
47:BP:114:ILE:HG22	47:BP:127:ALA:CB	2.41	0.51
49:BR:63:ARG:NH1	49:BR:80:PHE:HD2	2.08	0.51
50:BS:24:LEU:HB3	50:BS:85:VAL:CG1	2.38	0.51
51:BT:11:GLU:CD	51:BT:11:GLU:H	2.14	0.51
51:BT:108:ARG:HA	51:BT:111:ARG:NH1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:121:ILE:O	51:BT:124:ASP:HB2	2.10	0.51
52:BU:104:GLN:NE2	52:BU:105:VAL:H	2.08	0.51
54:BW:43:GLY:O	54:BW:44:ALA:C	2.48	0.51
1:CA:763:G:O2'	1:CA:764:C:H5'	2.11	0.51
1:CA:918:A:H2'	1:CA:919:A:H8	1.75	0.51
1:CA:975:A:C4'	1:CA:976:G:H5"	2.28	0.51
1:CA:1009:G:O2'	1:CA:1010:G:H5'	2.11	0.51
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.46	0.51
1:CA:1188:A:C2'	1:CA:1189:C:H5'	2.41	0.51
4:CD:3:ARG:HG2	4:CD:118:ARG:HD3	1.93	0.51
9:CI:104:ARG:C	9:CI:105:ASP:N	2.64	0.51
11:CK:80:VAL:HG13	11:CK:103:LEU:CD1	2.41	0.51
13:CM:10:PRO:O	13:CM:11:ARG:HG3	2.10	0.51
15:CO:17:ARG:HG3	15:CO:17:ARG:NH1	2.20	0.51
17:CQ:74:LEU:C	17:CQ:74:LEU:HD13	2.31	0.51
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.76	0.51
20:CT:26:ASN:ND2	20:CT:26:ASN:N	2.50	0.51
36:DA:438:G:O2'	36:DA:440:G:H5'	2.10	0.51
36:DA:1332:G:H21	36:DA:1610:A:H8	1.56	0.51
36:DA:1494:A:O2'	36:DA:1495:A:H5"	2.11	0.51
39:DD:159:ALA:HB1	39:DD:198:ASN:O	2.11	0.51
40:DE:30:PRO:HA	40:DE:92:THR:HG22	1.91	0.51
42:DG:2:PRO:C	42:DG:4:ASP:N	2.60	0.51
45:DN:53:VAL:HG11	45:DN:130:HIS:HE1	1.76	0.51
50:DS:54:LEU:C	50:DS:56:LEU:H	2.13	0.51
52:DU:29:SER:OG	52:DU:30:LYS:HE2	2.11	0.51
54:DW:61:ASN:N	54:DW:61:ASN:ND2	2.58	0.51
56:DY:77:PRO:O	56:DY:78:ALA:HB2	2.11	0.51
1:AA:15:G:H2'	1:AA:16:A:H8	1.76	0.51
1:AA:105:G:H2'	1:AA:106:C:C6	2.46	0.51
1:AA:188:C:H2'	1:AA:189:G:H8	1.76	0.51
1:AA:774:G:OP1	39:BD:202:LYS:NZ	2.44	0.51
1:AA:1004:A:C5'	1:AA:1025:U:H3	2.24	0.51
1:AA:1381:U:H2'	1:AA:1382:C:H5'	1.93	0.51
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.46	0.51
1:AA:1505:G:H4'	1:AA:1506:U:H5"	1.93	0.51
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.92	0.51
3:AC:14:ILE:O	3:AC:15:THR:C	2.49	0.51
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.93	0.51
7:AG:27:ILE:HG12	7:AG:43:PHE:HD2	1.76	0.51
8:AH:40:ALA:C	8:AH:42:GLU:H	2.15	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:3:GLN:CG	9:AI:20:ARG:HH12	2.23	0.51
22:AV:53:G:O2'	22:AV:54:5MU:H5"	2.11	0.51
25:AY:11:C:N3	25:AY:24:G:N2	2.58	0.51
26:B0:43:THR:H	36:BA:2331:G:H4'	1.76	0.51
31:B5:46:CYS:HB3	31:B5:49:CYS:HB2	1.92	0.51
36:BA:327:G:H2'	36:BA:328:U:H6	1.76	0.51
36:BA:1171:G:H5'	36:BA:1173:G:OP2	2.11	0.51
36:BA:1317:A:H2'	36:BA:1318:C:H6	1.75	0.51
36:BA:1688:U:H1'	36:BA:1701:A:C6	2.45	0.51
36:BA:1719:G:C2'	36:BA:1720:U:H5'	2.41	0.51
36:BA:2569:G:O2'	36:BA:2570:G:H5'	2.11	0.51
36:BA:2721:A:H2'	36:BA:2722:G:C8	2.46	0.51
36:BA:2755:C:O2'	36:BA:2756:U:H2'	2.12	0.51
39:BD:30:GLU:CD	39:BD:63:ARG:HH21	2.14	0.51
40:BE:78:LEU:C	40:BE:79:ARG:HD2	2.31	0.51
42:BG:114:ILE:HD12	42:BG:117:PHE:CD2	2.46	0.51
44:BI:18:VAL:HG12	44:BI:18:VAL:O	2.11	0.51
47:BP:57:THR:HG1	47:BP:58:THR:H	1.59	0.51
48:BQ:65:PHE:HB2	48:BQ:105:GLU:CG	2.38	0.51
50:BS:26:LEU:HA	50:BS:39:ILE:HD13	1.93	0.51
50:BS:85:VAL:HG23	50:BS:86:ALA:N	2.25	0.51
52:BU:90:VAL:HG22	53:BV:39:LEU:HG	1.92	0.51
1:CA:453:A:H4'	16:CP:72:ARG:HG3	1.92	0.51
1:CA:797:C:OP1	11:CK:124:LYS:HE2	2.11	0.51
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.76	0.51
6:CF:75:LEU:HD23	6:CF:75:LEU:C	2.32	0.51
11:CK:13:GLN:HB3	11:CK:75:TYR:O	2.11	0.51
11:CK:20:TYR:HB2	11:CK:31:THR:O	2.11	0.51
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.14	0.51
13:CM:48:LEU:HA	13:CM:52:GLU:OE1	2.11	0.51
19:CS:43:GLU:C	19:CS:45:VAL:N	2.63	0.51
21:CU:25:LYS:HB2	21:CU:25:LYS:NZ	2.27	0.51
22:CV:11:A:H61	22:CV:24:U:H3	1.59	0.51
28:D2:59:ARG:NH1	36:DA:77:C:OP1	2.43	0.51
36:DA:139:G:H2'	36:DA:140:G:N7	2.26	0.51
36:DA:619:G:P	36:DA:620:G:H22	2.34	0.51
36:DA:910:A:N7	48:DQ:13:GLN:HG3	2.25	0.51
36:DA:1232:G:H2'	36:DA:1233:C:H6	1.75	0.51
36:DA:1239:G:H2'	36:DA:1240:U:O4'	2.10	0.51
36:DA:1497:U:H5'	36:DA:1498:C:C5	2.46	0.51
36:DA:2472:G:H3'	36:DA:2475:C:N4	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2831:G:O4'	36:DA:2883:A:C2	2.64	0.51
36:DA:2869:G:H2'	36:DA:2870:C:O4'	2.11	0.51
37:DB:42:C:H4'	42:DG:67:LYS:C	2.31	0.51
40:DE:119:ARG:HD2	40:DE:120:TRP:CD1	2.44	0.51
42:DG:7:LEU:HD13	42:DG:100:TRP:HB3	1.92	0.51
42:DG:142:PRO:HG2	42:DG:143:GLU:H	1.75	0.51
43:DH:157:TYR:O	43:DH:158:HIS:HB2	2.11	0.51
44:DI:129:THR:OG1	44:DI:130:TYR:N	2.42	0.51
46:DO:2:ILE:CD1	46:DO:82:ASN:ND2	2.68	0.51
51:DT:26:ASP:C	51:DT:26:ASP:OD2	2.48	0.51
52:DU:95:LEU:O	52:DU:98:LEU:HG	2.11	0.51
52:DU:98:LEU:HD21	53:DV:2:PHE:HZ	1.76	0.51
53:DV:14:VAL:HB	53:DV:96:ILE:HG13	1.93	0.51
57:DZ:8:TYR:HB2	57:DZ:38:TYR:CZ	2.46	0.51
57:DZ:52:SER:C	57:DZ:53:ILE:HD13	2.30	0.51
3:AC:59:ARG:HG2	3:AC:64:VAL:HG12	1.93	0.50
4:AD:57:ARG:HG2	4:AD:202:LEU:HD22	1.93	0.50
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.41	0.50
20:AT:22:ARG:O	20:AT:26:ASN:ND2	2.45	0.50
20:AT:57:ARG:NH1	20:AT:57:ARG:HB2	2.26	0.50
22:AV:52:G:O2'	22:AV:53:G:P	2.69	0.50
31:B5:2:ALA:N	36:BA:747:U:N3	2.59	0.50
36:BA:671:C:O2'	36:BA:672:C:H5'	2.11	0.50
36:BA:869:G:H2'	36:BA:870:A:C8	2.45	0.50
36:BA:987:G:H2'	36:BA:988:A:O4'	2.11	0.50
36:BA:1335:U:H2'	36:BA:1336:A:H8	1.76	0.50
36:BA:1493:C:O2	36:BA:1493:C:H2'	2.11	0.50
36:BA:2735:G:H2'	36:BA:2736:G:H8	1.75	0.50
39:BD:2:ALA:O	39:BD:3:VAL:HB	2.10	0.50
40:BE:30:PRO:HA	40:BE:92:THR:HG22	1.93	0.50
42:BG:172:LEU:HG	42:BG:176:LEU:CD1	2.41	0.50
44:BI:100:ALA:O	44:BI:101:LEU:HB2	2.09	0.50
45:BN:53:VAL:HG11	45:BN:130:HIS:HE1	1.76	0.50
47:BP:84:ASN:C	47:BP:86:LYS:N	2.64	0.50
47:BP:144:GLU:N	47:BP:145:PRO:CD	2.72	0.50
48:BQ:70:PRO:HA	48:BQ:94:VAL:C	2.32	0.50
49:BR:8:ARG:HE	49:BR:8:ARG:CA	2.17	0.50
50:BS:61:ASN:O	50:BS:62:LYS:HG2	2.10	0.50
50:BS:93:LYS:O	50:BS:93:LYS:CG	2.60	0.50
51:BT:92:GLY:O	51:BT:93:ARG:HB3	2.12	0.50
54:BW:111:HIS:CD2	54:BW:112:GLY:H	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:194:C:C2'	1:CA:195:A:H5"	2.41	0.50
1:CA:509:A:H5'	4:CD:54:TYR:CD2	2.46	0.50
1:CA:728:A:H2'	1:CA:729:A:C8	2.46	0.50
1:CA:877:C:H5"	8:CH:88:LYS:CD	2.33	0.50
3:CC:124:ILE:HG12	3:CC:130:VAL:HG22	1.93	0.50
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.41	0.50
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.26	0.50
10:CJ:57:LYS:HE3	10:CJ:60:ARG:NH2	2.26	0.50
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.23	0.50
11:CK:99:GLN:NE2	11:CK:105:VAL:HG21	2.26	0.50
16:CP:53:VAL:CG1	16:CP:79:VAL:HG22	2.41	0.50
18:CR:53:ARG:HG2	18:CR:53:ARG:HH11	1.75	0.50
25:CY:28:G:H2'	25:CY:29:G:O4'	2.11	0.50
26:D0:29:GLN:O	26:D0:31:VAL:HG13	2.10	0.50
28:D2:2:LYS:HB3	36:DA:97:C:O3'	2.11	0.50
36:DA:523:C:H5"	36:DA:540:C:O2'	2.11	0.50
36:DA:1885:A:H5'	36:DA:1885:A:H8	1.76	0.50
39:DD:65:ILE:HD11	39:DD:67:PHE:CE1	2.46	0.50
39:DD:183:ARG:HH11	39:DD:183:ARG:HG2	1.75	0.50
42:DG:51:ARG:NE	42:DG:51:ARG:CA	2.71	0.50
42:DG:58:GLN:O	42:DG:62:LEU:HB2	2.11	0.50
42:DG:114:ILE:HD12	42:DG:117:PHE:HB2	1.92	0.50
43:DH:30:LYS:HG2	43:DH:79:VAL:O	2.11	0.50
47:DP:32:THR:HG21	47:DP:37:GLY:CA	2.41	0.50
51:DT:11:GLU:CD	51:DT:11:GLU:H	2.14	0.50
51:DT:38:ASN:O	51:DT:39:ARG:C	2.48	0.50
57:DZ:79:ARG:O	57:DZ:80:ARG:CG	2.59	0.50
1:AA:277:C:H5"	17:AQ:68:ARG:HH22	1.76	0.50
1:AA:976:G:N2	1:AA:1362:C:H2'	2.26	0.50
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.76	0.50
1:AA:1442(B):A:H2'	1:AA:1442(B):A:N3	2.25	0.50
1:AA:1480:G:H2'	1:AA:1481:U:C6	2.47	0.50
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.11	0.50
3:AC:127:ARG:HH11	3:AC:127:ARG:HG2	1.76	0.50
4:AD:17:VAL:HG12	4:AD:18:LYS:N	2.26	0.50
6:AF:4:TYR:CD1	6:AF:92:LYS:HA	2.46	0.50
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.11	0.50
13:AM:76:ALA:HA	13:AM:79:LYS:HD2	1.93	0.50
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.46	0.50
25:AY:50:U:H1'	25:AY:65:G:H1	1.77	0.50
26:B0:6:GLY:O	26:B0:7:LEU:HD23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B1:52:ARG:HG3	27:B1:53:VAL:N	2.16	0.50
36:BA:118:A:H5'	36:BA:119:A:H8	1.76	0.50
36:BA:873:G:O3'	48:BQ:63:LYS:HE2	2.10	0.50
36:BA:1502:C:H2'	36:BA:1502:C:O2	2.12	0.50
36:BA:1503:U:H2'	36:BA:1504:C:C6	2.47	0.50
36:BA:2307:G:H5"	36:BA:2307:G:N3	2.26	0.50
36:BA:2810:A:H2'	40:BE:61:ARG:NH2	2.26	0.50
36:BA:2869:G:H2'	36:BA:2870:C:O4'	2.11	0.50
36:BA:2885:C:C2	36:BA:2886:G:H1'	2.45	0.50
38:BC:74:VAL:HG23	38:BC:91:ALA:HB2	1.93	0.50
40:BE:11:MET:HB3	40:BE:24:THR:HA	1.93	0.50
40:BE:184:VAL:CG1	40:BE:185:LYS:H	2.12	0.50
48:BQ:33:GLY:HA2	48:BQ:105:GLU:HA	1.92	0.50
49:BR:33:ARG:HG3	49:BR:115:GLU:CB	2.41	0.50
53:BV:27:ALA:O	53:BV:28:GLU:O	2.29	0.50
56:BY:96:ILE:HD12	56:BY:99:CYS:HB2	1.92	0.50
57:BZ:94:GLU:O	57:BZ:96:VAL:HG23	2.10	0.50
57:BZ:144:LEU:HA	57:BZ:148:ASP:HB3	1.94	0.50
1:CA:167:G:O2'	1:CA:168:G:H5'	2.11	0.50
1:CA:264:U:O2'	17:CQ:64:PRO:HB2	2.11	0.50
1:CA:1080:A:H5"	5:CE:16:THR:HG21	1.93	0.50
1:CA:1456:G:H2'	1:CA:1457:G:O4'	2.12	0.50
2:CB:82:ARG:O	2:CB:86:GLU:HG3	2.12	0.50
2:CB:96:ARG:NH1	2:CB:148:TYR:HE1	2.08	0.50
2:CB:165:VAL:O	2:CB:187:LEU:O	2.29	0.50
7:CG:16:LEU:HD11	9:CI:42:ARG:HG3	1.93	0.50
9:CI:3:GLN:CG	9:CI:20:ARG:HH12	2.24	0.50
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.91	0.50
23:CW:18:G:H1	23:CW:55:U:C1'	2.24	0.50
28:D2:65:ASN:HB3	28:D2:69:ARG:NH2	2.26	0.50
36:DA:8:A:H2'	36:DA:9:U:C6	2.45	0.50
36:DA:773:U:H4'	39:DD:47:GLY:HA3	1.93	0.50
36:DA:1424:G:H2'	36:DA:1425:G:O4'	2.11	0.50
36:DA:2142:C:O2'	36:DA:2143:C:H5'	2.12	0.50
36:DA:2569:G:O2'	36:DA:2570:G:H5'	2.12	0.50
37:DB:79:C:C2'	37:DB:80:U:H5'	2.41	0.50
38:DC:45:ALA:O	38:DC:46:LYS:HB2	2.11	0.50
41:DF:46:ARG:HG3	41:DF:46:ARG:NH1	2.21	0.50
41:DF:46:ARG:NH1	41:DF:46:ARG:CG	2.74	0.50
41:DF:101:LEU:HD12	41:DF:102:PRO:CD	2.39	0.50
41:DF:167:ALA:O	41:DF:168:ARG:C	2.49	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:43:VAL:CG1	43:DH:53:GLU:H	2.23	0.50
43:DH:85:LYS:HE2	43:DH:145:ALA:CA	2.42	0.50
43:DH:106:THR:HG22	43:DH:112:PRO:HB3	1.94	0.50
43:DH:135:GLY:HA3	43:DH:141:VAL:CG2	2.41	0.50
44:DI:19:VAL:HG22	44:DI:20:ASP:N	2.26	0.50
46:DO:68:GLU:HB3	46:DO:78:ARG:HB2	1.92	0.50
47:DP:41:ARG:CZ	47:DP:45:LEU:HD12	2.41	0.50
51:DT:70:VAL:HG12	51:DT:71:GLY:N	2.25	0.50
51:DT:80:SER:HB3	51:DT:81:PRO:HD3	1.92	0.50
53:DV:2:PHE:CD1	53:DV:13:ARG:NH1	2.78	0.50
57:DZ:150:LEU:HD13	57:DZ:150:LEU:O	2.12	0.50
1:AA:403:C:H2'	1:AA:404:U:H6	1.76	0.50
1:AA:437:U:C2'	1:AA:438:G:H5'	2.41	0.50
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.10	0.50
1:AA:1129:C:H5"	1:AA:1139:G:O6	2.12	0.50
1:AA:1170:A:H2'	1:AA:1171:G:H5'	1.92	0.50
1:AA:1410:G:O2'	1:AA:1411:C:H5'	2.11	0.50
2:AB:207:ALA:HB1	2:AB:209:ARG:HG2	1.92	0.50
3:AC:127:ARG:N	3:AC:127:ARG:HD2	2.27	0.50
12:AL:113:ARG:HH11	12:AL:113:ARG:HG2	1.76	0.50
12:AL:117:ARG:O	12:AL:119:LYS:O	2.29	0.50
13:AM:93:ARG:HD3	36:BA:888:C:C5'	2.40	0.50
13:AM:108:ARG:NH1	13:AM:111:LYS:HB2	2.27	0.50
28:B2:17:SER:HB3	28:B2:20:GLU:HB3	1.93	0.50
29:B3:29:ARG:HB2	29:B3:33:GLN:NE2	2.27	0.50
32:B6:20:ASN:ND2	32:B6:21:TYR:N	2.59	0.50
33:B7:9:ARG:NH1	36:BA:1310:G:OP2	2.44	0.50
36:BA:154(A):C:O4'	36:BA:154(A):C:O2	2.26	0.50
36:BA:596:G:H2'	36:BA:597:U:O4'	2.12	0.50
36:BA:926:A:H2'	36:BA:927:G:H8	1.75	0.50
36:BA:1300:U:O2'	36:BA:1301:A:P	2.69	0.50
36:BA:1327:C:H2'	36:BA:1328:G:O4'	2.12	0.50
36:BA:2236:C:C2'	36:BA:2237:G:H5'	2.41	0.50
39:BD:106:ILE:O	39:BD:106:ILE:HG23	2.10	0.50
40:BE:47:VAL:HG12	40:BE:49:LEU:HD12	1.93	0.50
40:BE:100:GLU:O	40:BE:172:VAL:HG23	2.12	0.50
40:BE:161:GLY:O	40:BE:162:ALA:C	2.49	0.50
41:BF:32:LEU:HD23	41:BF:32:LEU:C	2.32	0.50
44:BI:5:LEU:O	44:BI:6:LEU:HD23	2.12	0.50
44:BI:131:LYS:HG3	44:BI:132:PRO:CD	2.41	0.50
47:BP:105:LEU:O	47:BP:106:LEU:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:24:LEU:CB	50:BS:85:VAL:HG12	2.37	0.50
55:BX:64:LYS:HD3	55:BX:73:ARG:CZ	2.40	0.50
56:BY:38:ILE:O	56:BY:39:VAL:HB	2.11	0.50
57:BZ:4:ARG:HE	57:BZ:60:GLU:CG	2.23	0.50
57:BZ:8:TYR:N	57:BZ:8:TYR:CD1	2.80	0.50
57:BZ:103:ARG:HB2	57:BZ:136:PHE:CD1	2.46	0.50
1:CA:226:G:O2'	1:CA:227:G:H5'	2.11	0.50
1:CA:841:U:H3'	1:CA:848:C:H5'	1.92	0.50
1:CA:924:C:H2'	1:CA:925:G:C8	2.47	0.50
1:CA:954:G:H2'	1:CA:955:U:C6	2.46	0.50
2:CB:57:PHE:CE2	2:CB:185:ILE:HD11	2.47	0.50
22:CV:2:G:H4'	26:D0:7:LEU:O	2.11	0.50
26:D0:51:VAL:CG2	26:D0:81:VAL:HG23	2.41	0.50
29:D3:1:MET:HE3	29:D3:44:ARG:HH22	1.77	0.50
36:DA:352:G:H2'	36:DA:352:G:N3	2.26	0.50
36:DA:865:C:H4'	36:DA:866:A:OP1	2.12	0.50
36:DA:889:C:H1'	36:DA:890:A:O4'	2.11	0.50
36:DA:1578:U:H2'	36:DA:1579:A:H5'	1.92	0.50
36:DA:2087:G:C2'	36:DA:2088:G:H5'	2.42	0.50
36:DA:2282:G:O2'	36:DA:2283:C:OP2	2.27	0.50
36:DA:2777:G:H5"	36:DA:2778:A:C5'	2.40	0.50
36:DA:2838:G:H2'	36:DA:2839:G:C8	2.44	0.50
36:DA:2884:U:C2'	36:DA:2885:C:H5'	2.41	0.50
42:DG:170:ARG:O	42:DG:173:LEU:HD23	2.11	0.50
43:DH:35:VAL:HG21	43:DH:75:ALA:HB2	1.94	0.50
43:DH:149:ARG:HD3	43:DH:164:TYR:CD1	2.46	0.50
47:DP:105:LEU:O	47:DP:106:LEU:HB3	2.12	0.50
50:DS:74:ALA:HB1	50:DS:103:GLU:CG	2.41	0.50
51:DT:108:ARG:HA	51:DT:111:ARG:NH1	2.26	0.50
53:DV:69:LYS:HA	53:DV:88:ARG:CG	2.39	0.50
55:DX:12:VAL:HG12	55:DX:27:THR:HG1	1.73	0.50
57:DZ:134:PRO:O	57:DZ:136:PHE:N	2.45	0.50
1:AA:782:A:H4'	1:AA:1514:C:O2'	2.10	0.50
1:AA:975:A:H8	1:AA:975:A:H5'	1.75	0.50
1:AA:1068:G:H8	1:AA:1068:G:OP2	1.94	0.50
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.11	0.50
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.46	0.50
2:AB:204:ASN:HB3	2:AB:210:SER:OG	2.10	0.50
3:AC:17:ASP:OD2	3:AC:18:TRP:N	2.44	0.50
3:AC:34:LEU:HD12	14:AN:25:VAL:HG13	1.93	0.50
4:AD:6:GLY:O	4:AD:7:PRO:C	2.49	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:92:LYS:O	5:AE:118:ILE:HD12	2.11	0.50
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.11	0.50
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.11	0.50
25:AY:41:C:H2'	25:AY:42:C:C6	2.46	0.50
36:BA:955:C:H5'	36:BA:956:G:OP2	2.11	0.50
36:BA:1813:G:H1'	39:BD:50:THR:OG1	2.11	0.50
36:BA:2461:C:H2'	36:BA:2462:U:C6	2.46	0.50
36:BA:2838:G:H2'	36:BA:2839:G:C8	2.47	0.50
40:BE:3:GLY:O	40:BE:4:ILE:CB	2.58	0.50
40:BE:119:ARG:HD2	40:BE:120:TRP:CD1	2.47	0.50
42:BG:133:LEU:HD11	42:BG:157:ILE:CD1	2.35	0.50
44:BI:82:ARG:O	44:BI:89:TYR:HD1	1.94	0.50
48:BQ:140:ALA:HB3	57:BZ:53:ILE:CD1	2.41	0.50
50:BS:18:ILE:O	50:BS:18:ILE:HG23	2.11	0.50
51:BT:24:PRO:HD3	51:BT:52:ILE:HD12	1.94	0.50
51:BT:27:THR:CG2	51:BT:28:VAL:H	2.19	0.50
51:BT:70:VAL:HG12	51:BT:71:GLY:N	2.26	0.50
52:BU:66:ASN:O	52:BU:70:ARG:HB2	2.12	0.50
53:BV:89:GLN:OE1	53:BV:90:PRO:HD2	2.11	0.50
54:BW:68:ARG:HD2	54:BW:110:LYS:HB3	1.92	0.50
55:BX:59:VAL:N	55:BX:76:ARG:O	2.40	0.50
1:CA:645:C:H2'	1:CA:646:U:C6	2.47	0.50
1:CA:683:G:C6	1:CA:684:A:C6	2.99	0.50
1:CA:828:A:H5"	1:CA:859:A:C2	2.46	0.50
4:CD:9:CYS:SG	4:CD:22:LYS:CD	2.99	0.50
5:CE:63:ARG:C	5:CE:65:ASN:H	2.14	0.50
5:CE:92:LYS:O	5:CE:118:ILE:HD12	2.11	0.50
7:CG:73:MET:CG	7:CG:90:GLU:HA	2.31	0.50
13:CM:65:LYS:C	13:CM:66:LEU:N	2.65	0.50
13:CM:91:ARG:HH22	13:CM:103:THR:HG21	1.76	0.50
14:CN:12:ARG:HB3	14:CN:14:PRO:HG2	1.92	0.50
19:CS:60:VAL:HG22	19:CS:61:TYR:O	2.12	0.50
27:D1:3:LYS:HE2	36:DA:1364:G:N7	2.26	0.50
29:D3:7:LYS:C	29:D3:54:VAL:HG13	2.32	0.50
31:D5:7:PRO:HA	36:DA:2615:U:C2	2.46	0.50
31:D5:19:ARG:NH1	36:DA:1266:G:OP2	2.45	0.50
36:DA:610:G:H2'	36:DA:611:C:C6	2.46	0.50
36:DA:1106:A:H1'	36:DA:1107:G:C8	2.46	0.50
36:DA:1479:G:H2'	36:DA:1480:G:O4'	2.11	0.50
36:DA:1778:U:H2'	36:DA:1784:A:N6	2.26	0.50
36:DA:2012:G:O2'	54:DW:96:ILE:HD11	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2261:C:O2'	36:DA:2262:U:H5'	2.11	0.50
36:DA:2863:C:H2'	36:DA:2864:G:H5'	1.93	0.50
38:DC:86:ALA:CB	38:DC:94:VAL:HG11	2.40	0.50
40:DE:2:LYS:HE2	40:DE:95:ILE:HG23	1.94	0.50
40:DE:34:VAL:O	40:DE:35:GLN:CB	2.58	0.50
40:DE:47:VAL:HG12	40:DE:49:LEU:HD12	1.94	0.50
42:DG:69:ALA:HB3	42:DG:91:ARG:O	2.12	0.50
42:DG:135:LEU:HD11	42:DG:157:ILE:H	1.75	0.50
42:DG:180:PHE:CB	42:DG:182:LYS:HG3	2.31	0.50
43:DH:41:MET:HG2	43:DH:52:VAL:HG12	1.94	0.50
44:DI:42:SER:C	44:DI:44:LEU:H	2.14	0.50
44:DI:120:ILE:HG22	44:DI:121:LYS:N	2.26	0.50
47:DP:121:LYS:O	47:DP:123:LEU:HG	2.11	0.50
49:DR:74:LYS:HD2	49:DR:77:ARG:NH2	2.23	0.50
52:DU:66:ASN:O	52:DU:70:ARG:HB2	2.12	0.50
54:DW:73:ALA:O	54:DW:106:ILE:HG12	2.12	0.50
55:DX:32:PRO:HA	55:DX:77:LYS:HB2	1.93	0.50
56:DY:88:LYS:NZ	56:DY:93:GLY:HA3	2.24	0.50
57:DZ:110:GLY:HA3	57:DZ:145:GLU:OE2	2.11	0.50
1:AA:554:C:H2'	1:AA:555:C:H6	1.76	0.50
1:AA:801:U:H2'	1:AA:802:A:C8	2.47	0.50
1:AA:836:G:OP1	18:AR:61:LYS:NZ	2.44	0.50
1:AA:882:C:O2'	1:AA:883:C:H5'	2.11	0.50
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	2.12	0.50
2:AB:31:TYR:CD2	2:AB:31:TYR:N	2.80	0.50
4:AD:57:ARG:HG3	4:AD:57:ARG:NH1	2.27	0.50
4:AD:96:LEU:HG	4:AD:139:ARG:NH1	2.26	0.50
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.93	0.50
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.42	0.50
8:AH:86:ILE:O	8:AH:87:SER:C	2.50	0.50
9:AI:126:SER:C	9:AI:128:ARG:H	2.15	0.50
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HG22	1.91	0.50
11:AK:38:ASN:N	11:AK:38:ASN:ND2	2.56	0.50
29:B3:31:LEU:C	29:B3:33:GLN:H	2.14	0.50
33:B7:41:ARG:HB2	33:B7:41:ARG:HH11	1.76	0.50
36:BA:185:U:H4'	36:BA:218:A:H4'	1.94	0.50
36:BA:807:U:O2'	36:BA:808:G:H5'	2.10	0.50
36:BA:1049:C:N4	36:BA:1111:A:C2	2.79	0.50
36:BA:1202:C:C2'	36:BA:1203:G:H5'	2.41	0.50
36:BA:1227:G:OP1	52:BU:13:LYS:HG2	2.12	0.50
36:BA:2228:G:P	39:BD:263:ARG:HH12	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2635:C:H5”	40:BE:78:LEU:O	2.11	0.50
36:BA:2887:U:H2’	36:BA:2888:C:C6	2.47	0.50
37:BB:50:G:OP2	50:BS:62:LYS:HB3	2.12	0.50
39:BD:190:TYR:O	39:BD:191:ALA:HB2	2.11	0.50
40:BE:9:VAL:HG13	40:BE:25:VAL:O	2.12	0.50
40:BE:59:VAL:HG13	40:BE:60:ASN:N	2.27	0.50
40:BE:118:LYS:H	40:BE:121:ASN:H	1.58	0.50
40:BE:178:GLU:HG3	40:BE:179:GLU:OE1	2.12	0.50
41:BF:20:LEU:HD22	41:BF:203:GLN:OE1	2.12	0.50
46:BO:14:THR:HG22	46:BO:52:VAL:HG12	1.94	0.50
47:BP:46:LYS:HG2	47:BP:52:GLU:CD	2.32	0.50
53:BV:5:VAL:CG2	53:BV:6:LYS:N	2.74	0.50
1:CA:152:A:N6	1:CA:170:U:C2	2.80	0.50
1:CA:186:C:H5’	20:CT:78:ALA:HB1	1.93	0.50
1:CA:426:G:H4’	4:CD:41:GLY:O	2.11	0.50
1:CA:781:A:H4’	1:CA:1522:U:O2’	2.12	0.50
1:CA:1002:G:N2	1:CA:1003:G:H1’	2.27	0.50
1:CA:1353:G:O2’	1:CA:1354:C:H5’	2.12	0.50
1:CA:1370:G:H5”	9:CI:12:GLU:HG3	1.93	0.50
2:CB:77:ALA:O	2:CB:80:ILE:HG23	2.11	0.50
4:CD:128:VAL:O	4:CD:129:ASN:C	2.48	0.50
4:CD:156:GLU:HB3	4:CD:160:GLN:HE21	1.76	0.50
7:CG:84:ASN:ND2	23:CW:33:U:H4’	2.21	0.50
12:CL:26:ALA:C	12:CL:27:LEU:HD22	2.31	0.50
28:D2:35:LEU:HB3	28:D2:50:ILE:HD11	1.92	0.50
34:D8:4:MET:SD	34:D8:61:LEU:CD2	3.00	0.50
36:DA:221:A:O2’	36:DA:222:A:OP2	2.27	0.50
36:DA:1227:G:OP1	52:DU:13:LYS:HG2	2.12	0.50
36:DA:1301:A:H2’	36:DA:1302:A:H3’	1.93	0.50
36:DA:2763:G:H5’	36:DA:2763:G:H8	1.75	0.50
39:DD:166:GLN:HE21	39:DD:166:GLN:N	2.10	0.50
39:DD:226:MET:HB3	39:DD:230:ASP:HB2	1.92	0.50
40:DE:120:TRP:CD1	40:DE:155:LYS:HB3	2.47	0.50
42:DG:45:GLU:O	42:DG:46:ALA:CB	2.59	0.50
42:DG:57:ALA:O	42:DG:60:LEU:HB3	2.11	0.50
42:DG:162:THR:O	42:DG:164:GLU:N	2.44	0.50
43:DH:17:VAL:HG11	43:DH:50:VAL:HG22	1.91	0.50
43:DH:18:GLU:CB	43:DH:25:LYS:HG2	2.42	0.50
43:DH:103:LEU:HD22	43:DH:123:PHE:CD2	2.47	0.50
43:DH:155:SER:OG	43:DH:156:ALA:N	2.44	0.50
44:DI:82:ARG:HG3	44:DI:82:ARG:NH1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DI:114:LEU:HD23	44:DI:130:TYR:CE1	2.46	0.50
45:DN:120:LEU:HD13	45:DN:122:VAL:HG23	1.91	0.50
47:DP:61:ARG:HD2	47:DP:61:ARG:H	1.77	0.50
50:DS:17:ARG:C	50:DS:19:LYS:N	2.63	0.50
52:DU:90:VAL:HG22	53:DV:39:LEU:HG	1.92	0.50
54:DW:47:VAL:HG12	54:DW:47:VAL:O	2.12	0.50
56:DY:28:LYS:NZ	56:DY:28:LYS:H	2.03	0.50
57:DZ:82:ARG:HH11	57:DZ:82:ARG:CG	2.25	0.50
57:DZ:116:VAL:N	57:DZ:174:VAL:HG13	2.27	0.50
1:AA:35:G:H2'	1:AA:36:C:C6	2.47	0.50
1:AA:167:G:O2'	1:AA:168:G:H5'	2.11	0.50
1:AA:932:C:H2'	1:AA:932:C:O2	2.10	0.50
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.34	0.50
1:AA:1292:U:C2	1:AA:1293:G:N7	2.80	0.50
2:AB:30:ARG:HH21	2:AB:194:PRO:HB2	1.77	0.50
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.72	0.50
2:AB:134:GLU:HA	2:AB:137:ARG:CB	2.42	0.50
3:AC:148:GLY:CA	3:AC:203:PHE:HB3	2.41	0.50
3:AC:173:VAL:HG12	3:AC:175:LEU:CD1	2.42	0.50
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.94	0.50
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.12	0.50
11:AK:13:GLN:HB3	11:AK:75:TYR:O	2.12	0.50
11:AK:99:GLN:NE2	11:AK:105:VAL:HG11	2.26	0.50
13:AM:90:LEU:O	13:AM:91:ARG:CB	2.59	0.50
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.93	0.50
26:B0:11:ARG:HB2	26:B0:11:ARG:NH1	2.26	0.50
36:BA:557:U:H2'	36:BA:558:G:C8	2.46	0.50
36:BA:816:C:H2'	36:BA:817:C:H6	1.77	0.50
36:BA:1049:C:H2'	36:BA:1049:C:O2	2.11	0.50
36:BA:2734:A:H5'	36:BA:2735:G:OP2	2.12	0.50
37:BB:79:C:C2'	37:BB:80:U:H5'	2.42	0.50
40:BE:2:LYS:HE2	40:BE:95:ILE:HG23	1.92	0.50
40:BE:134:ILE:O	40:BE:134:ILE:CG1	2.59	0.50
42:BG:32:PRO:HB2	42:BG:172:LEU:HD13	1.92	0.50
44:BI:136:VAL:HG22	44:BI:136:VAL:O	2.11	0.50
45:BN:3:THR:HG22	45:BN:5:VAL:HG12	1.94	0.50
46:BO:87:ILE:HG21	46:BO:91:LEU:HA	1.91	0.50
49:BR:52:ILE:O	49:BR:55:ALA:HB3	2.11	0.50
50:BS:89:ARG:CB	50:BS:92:TYR:HB3	2.36	0.50
51:BT:55:ASN:C	51:BT:59:THR:HG22	2.32	0.50
53:BV:2:PHE:CE2	53:BV:4:ILE:HG13	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:18:LEU:HD12	53:BV:18:LEU:N	2.27	0.50
1:CA:865:A:H5'	1:CA:1078:U:C5	2.46	0.50
1:CA:1152:A:OP1	10:CJ:13:HIS:HB2	2.12	0.50
1:CA:1191:A:H5"	3:CC:4:LYS:HZ3	1.76	0.50
2:CB:40:HIS:CB	2:CB:190:THR:HG21	2.41	0.50
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.92	0.50
7:CG:78:ARG:HD2	7:CG:79:ARG:N	2.23	0.50
11:CK:80:VAL:HG13	11:CK:103:LEU:HD11	1.94	0.50
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.17	0.50
16:CP:14:ASN:N	16:CP:15:PRO:CD	2.75	0.50
25:CY:66:U:H2'	25:CY:67:C:C5	2.45	0.50
31:D5:48:GLU:HA	31:D5:57:VAL:HG22	1.93	0.50
33:D7:5:TRP:CZ3	36:DA:464:U:C4'	2.93	0.50
35:D9:7:VAL:HG13	35:D9:34:GLN:HB3	1.94	0.50
36:DA:873:G:O3'	48:DQ:63:LYS:HE2	2.11	0.50
36:DA:2783:G:H2'	36:DA:2784:C:C6	2.46	0.50
36:DA:2824:C:H2'	36:DA:2825:C:O4'	2.12	0.50
36:DA:2845:G:C2'	36:DA:2846:G:H5'	2.41	0.50
39:DD:32:SER:O	39:DD:33:LEU:C	2.48	0.50
40:DE:11:MET:HB3	40:DE:24:THR:HA	1.92	0.50
40:DE:101:ARG:HB2	40:DE:201:THR:CG2	2.42	0.50
40:DE:161:GLY:O	40:DE:162:ALA:C	2.50	0.50
43:DH:148:ILE:O	43:DH:151:ILE:HG12	2.11	0.50
46:DO:3:GLN:HB2	46:DO:4:PRO:HD2	1.93	0.50
46:DO:104:ARG:HE	51:DT:33:LYS:CE	2.23	0.50
47:DP:97:PRO:O	47:DP:98:GLU:CG	2.59	0.50
47:DP:113:LYS:HE2	47:DP:115:LEU:HD13	1.94	0.50
47:DP:144:GLU:N	47:DP:145:PRO:CD	2.74	0.50
49:DR:52:ILE:O	49:DR:55:ALA:HB3	2.12	0.50
51:DT:128:GLU:OE1	51:DT:128:GLU:C	2.50	0.50
51:DT:132:LYS:C	51:DT:134:GLU:N	2.63	0.50
54:DW:9:TYR:H	54:DW:102:HIS:CD2	2.29	0.50
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.12	0.50
1:AA:745:C:H2'	1:AA:746:A:H8	1.74	0.50
1:AA:818:G:O2'	1:AA:819:A:H5"	2.12	0.50
1:AA:926:G:H22	24:AX:16:A:P	2.35	0.50
1:AA:979:C:H42	14:AN:18:VAL:HG12	1.76	0.50
1:AA:981:U:H5'	14:AN:21:TYR:CE1	2.46	0.50
1:AA:1074:G:H4'	2:AB:103:THR:HG22	1.93	0.50
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.76	0.50
1:AA:1360:A:OP1	1:AA:1360:A:H8	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1514:C:O2'	1:AA:1515:C:H5'	2.12	0.50
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.93	0.50
31:B5:3:LYS:HG3	31:B5:4:HIS:H	1.76	0.50
32:B6:37:ARG:HG3	32:B6:37:ARG:NH1	2.26	0.50
33:B7:47:ARG:O	33:B7:47:ARG:HD2	2.12	0.50
36:BA:1140:C:C5'	45:BN:66:LYS:HZ3	2.17	0.50
36:BA:2121:G:H21	38:BC:172:HIS:CB	2.24	0.50
36:BA:2704:C:H2'	36:BA:2705:A:O4'	2.12	0.50
36:BA:2712:U:OP1	36:BA:2714:G:H4'	2.11	0.50
36:BA:2840:C:H5"	49:BR:53:HIS:CD2	2.47	0.50
39:BD:33:LEU:HD12	39:BD:33:LEU:N	2.17	0.50
39:BD:102:LYS:C	39:BD:103:ARG:HG2	2.31	0.50
40:BE:70:ALA:O	40:BE:71:GLY:C	2.50	0.50
41:BF:167:ALA:O	41:BF:168:ARG:C	2.49	0.50
42:BG:33:ARG:HB2	42:BG:162:THR:HG21	1.94	0.50
43:BH:87:LEU:HD23	43:BH:164:TYR:HA	1.94	0.50
43:BH:89:ILE:HD12	43:BH:89:ILE:C	2.32	0.50
45:BN:42:TRP:CE3	45:BN:48:MET:HE1	2.47	0.50
45:BN:58:ASP:OD1	45:BN:124:ALA:HB1	2.11	0.50
47:BP:5:ASP:OD2	47:BP:6:LEU:HD23	2.12	0.50
48:BQ:12:GLN:NE2	48:BQ:72:LYS:HG3	2.27	0.50
48:BQ:111:GLU:OE2	48:BQ:133:ARG:NH2	2.44	0.50
49:BR:28:LEU:HA	49:BR:34:ILE:HG13	1.93	0.50
49:BR:42:LYS:O	49:BR:45:ARG:HG2	2.11	0.50
50:BS:34:HIS:NE2	50:BS:54:LEU:HB2	2.26	0.50
50:BS:101:LEU:H	50:BS:101:LEU:HD13	1.77	0.50
53:BV:18:LEU:CD1	53:BV:18:LEU:N	2.75	0.50
53:BV:62:LEU:N	53:BV:62:LEU:HD22	2.27	0.50
54:BW:1:MET:HE2	54:BW:2:GLU:H	1.77	0.50
1:CA:612:C:O2'	1:CA:613:C:H5'	2.12	0.50
1:CA:1004:A:C5'	1:CA:1025:U:H3	2.24	0.50
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.77	0.50
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.12	0.50
2:CB:128:GLU:O	2:CB:129:GLU:HG2	2.12	0.50
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.12	0.50
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.92	0.50
27:D1:19:GLN:CB	27:D1:35:THR:HG22	2.40	0.50
32:D6:24:GLU:O	32:D6:25:LYS:HB2	2.11	0.50
32:D6:30:THR:HB	36:DA:2286:A:OP1	2.11	0.50
33:D7:8:ASN:HB3	33:D7:11:LYS:HB3	1.94	0.50
36:DA:185:U:H2'	36:DA:186:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:314:A:O2'	36:DA:315:G:H5'	2.11	0.50
36:DA:361:G:H2'	36:DA:362:U:H5"	1.94	0.50
36:DA:596:G:H2'	36:DA:597:U:O4'	2.12	0.50
36:DA:1331:A:O2'	36:DA:1332:G:H8	1.95	0.50
36:DA:1472:A:H2'	36:DA:1473:G:H8	1.77	0.50
38:DC:182:PRO:O	38:DC:183:GLU:CB	2.60	0.50
39:DD:2:ALA:O	39:DD:3:VAL:HB	2.12	0.50
39:DD:18:VAL:HG13	39:DD:211:ARG:HH12	1.77	0.50
39:DD:224:ALA:O	39:DD:225:ALA:HB2	2.11	0.50
40:DE:11:MET:H	51:DT:8:LYS:HZ2	1.59	0.50
41:DF:38:ARG:HG3	41:DF:38:ARG:HH11	1.76	0.50
42:DG:37:VAL:O	42:DG:157:ILE:HD11	2.12	0.50
42:DG:46:ALA:HB3	42:DG:87:PRO:HB3	1.92	0.50
44:DI:77:LEU:O	44:DI:140:LEU:HD12	2.12	0.50
48:DQ:141:GLN:HA	57:DZ:53:ILE:CG2	2.41	0.50
56:DY:54:LYS:O	56:DY:55:TYR:CG	2.65	0.50
1:AA:114:U:H2'	1:AA:115:G:C8	2.46	0.50
1:AA:255:G:O6	1:AA:266:G:O6	2.30	0.50
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.11	0.50
1:AA:1396:A:O4'	1:AA:1398:A:H1'	2.11	0.50
1:AA:1444:C:O2'	1:AA:1445:C:H5'	2.11	0.50
2:AB:15:VAL:HG21	2:AB:209:ARG:NH2	2.20	0.50
2:AB:80:ILE:C	2:AB:82:ARG:N	2.65	0.50
2:AB:128:GLU:O	2:AB:129:GLU:HG2	2.12	0.50
5:AE:126:ARG:NH1	5:AE:126:ARG:CG	2.75	0.50
8:AH:6:ILE:C	8:AH:10:LEU:HD12	2.32	0.50
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.75	0.50
17:AQ:92:ARG:HA	17:AQ:95:TYR:CE2	2.47	0.50
20:AT:58:LYS:O	20:AT:61:SER:HB3	2.12	0.50
36:BA:149:A:H2'	36:BA:150:C:O4'	2.11	0.50
36:BA:539:G:H2'	36:BA:540:C:C6	2.47	0.50
36:BA:1301:A:HO2'	36:BA:1302:A:H2'	1.76	0.50
36:BA:1666:G:H1'	46:BO:3:GLN:NE2	2.25	0.50
36:BA:2886:G:H2'	36:BA:2887:U:H6	1.77	0.50
39:BD:181:GLU:CA	39:BD:272:ALA:HB3	2.36	0.50
42:BG:97:ASP:O	42:BG:101:ILE:CG2	2.60	0.50
43:BH:85:LYS:HE2	43:BH:145:ALA:CA	2.42	0.50
44:BI:120:ILE:HG22	44:BI:122:GLU:N	2.27	0.50
48:BQ:111:GLU:O	48:BQ:115:MET:HG2	2.11	0.50
50:BS:17:ARG:HH21	50:BS:90:GLY:N	2.10	0.50
50:BS:73:LEU:O	50:BS:73:LEU:HD23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:89:ARG:HB3	50:BS:92:TYR:CB	2.35	0.50
50:BS:90:GLY:C	50:BS:92:TYR:H	2.14	0.50
54:BW:10:VAL:O	54:BW:11:ARG:CB	2.59	0.50
54:BW:75:TYR:N	54:BW:75:TYR:CD1	2.78	0.50
54:BW:84:ARG:HB2	54:BW:96:ILE:CG2	2.42	0.50
55:BX:12:VAL:CG2	55:BX:13:LEU:H	1.91	0.50
56:BY:28:LYS:O	56:BY:29:GLU:C	2.50	0.50
56:BY:37:VAL:O	56:BY:66:PRO:HA	2.11	0.50
57:BZ:102:LEU:HD13	57:BZ:123:ASP:CA	2.40	0.50
1:CA:110:C:H2'	1:CA:111:G:O4'	2.12	0.50
1:CA:544:G:H2'	1:CA:545:C:C6	2.47	0.50
1:CA:801:U:H2'	1:CA:802:A:C8	2.47	0.50
1:CA:952:U:C5	13:CM:104:ARG:NH2	2.79	0.50
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.45	0.50
1:CA:1074:G:H4'	2:CB:103:THR:HG22	1.94	0.50
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.94	0.50
3:CC:34:LEU:HD12	14:CN:25:VAL:HG13	1.94	0.50
6:CF:10:LEU:HA	6:CF:84:ASN:O	2.11	0.50
9:CI:126:SER:C	9:CI:128:ARG:H	2.15	0.50
11:CK:19:ALA:HB3	11:CK:82:VAL:HG23	1.94	0.50
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.12	0.50
12:CL:60:LEU:N	12:CL:60:LEU:HD22	2.27	0.50
13:CM:76:ALA:HA	13:CM:79:LYS:HD2	1.93	0.50
15:CO:78:TYR:O	15:CO:80:ALA:N	2.44	0.50
20:CT:72:LEU:HD21	20:CT:77:ALA:CA	2.42	0.50
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.12	0.50
22:CV:52:G:O2'	22:CV:53:G:H8	1.94	0.50
23:CW:56:C:H2'	23:CW:57:G:O4'	2.12	0.50
32:D6:20:ASN:ND2	32:D6:21:TYR:N	2.60	0.50
34:D8:7:HIS:CG	34:D8:59:LYS:HZ1	2.29	0.50
36:DA:236:C:H2'	36:DA:237:C:H6	1.76	0.50
36:DA:614(A):U:H4'	36:DA:614(B):G:H5"	1.93	0.50
36:DA:919:G:H5'	37:DB:81:G:C1'	2.41	0.50
36:DA:1168:G:C2	36:DA:1182:A:C2	3.00	0.50
36:DA:2097:C:H2'	36:DA:2098:U:O4'	2.11	0.50
36:DA:2167:U:O2'	36:DA:2168:G:H5'	2.12	0.50
39:DD:165:ILE:HD13	39:DD:175:LEU:CD2	2.42	0.50
41:DF:133:ASN:O	41:DF:135:LYS:N	2.44	0.50
45:DN:15:LEU:HB3	45:DN:136:GLU:HA	1.94	0.50
45:DN:22:THR:HB	45:DN:25:ARG:HB2	1.94	0.50
46:DO:71:ARG:HH12	51:DT:74:ARG:HH22	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:108:LYS:N	47:DP:108:LYS:HD2	2.27	0.50
48:DQ:12:GLN:HE21	48:DQ:73:PRO:CD	2.25	0.50
48:DQ:111:GLU:O	48:DQ:115:MET:HG2	2.12	0.50
50:DS:97:ARG:HH21	50:DS:98:VAL:CA	1.96	0.50
53:DV:18:LEU:HD12	53:DV:18:LEU:N	2.27	0.50
57:DZ:33:LEU:HD12	57:DZ:34:ASN:H	1.77	0.50
1:AA:398:C:H2'	1:AA:399:G:C8	2.46	0.50
1:AA:640:A:C2'	1:AA:641:U:H5'	2.42	0.50
1:AA:663:A:O2'	1:AA:664:G:H5'	2.11	0.50
1:AA:974:A:P	14:AN:41:ARG:HH12	2.35	0.50
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.42	0.50
6:AF:21:LEU:HD13	6:AF:24:GLU:CD	2.33	0.50
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.32	0.50
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.93	0.50
12:AL:26:ALA:C	12:AL:27:LEU:HD22	2.32	0.50
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.15	0.50
16:AP:39:TYR:CZ	16:AP:41:PRO:HA	2.46	0.50
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.42	0.50
17:AQ:74:LEU:C	17:AQ:74:LEU:HD13	2.32	0.50
20:AT:8:ARG:HH11	20:AT:8:ARG:HG3	1.77	0.50
23:AW:58:A:H2	23:AW:60:U:O2'	1.95	0.50
27:B1:94:LEU:O	27:B1:96:LYS:N	2.44	0.50
28:B2:13:ALA:O	28:B2:15:LYS:N	2.45	0.50
30:B4:50:THR:CG2	42:BG:104:GLU:HG2	2.38	0.50
36:BA:324:A:N6	36:BA:338:G:O2'	2.44	0.50
36:BA:1024:G:C3'	36:BA:1025:G:H5"	2.37	0.50
36:BA:1578:U:H2'	36:BA:1578:U:O2	2.12	0.50
36:BA:1653:G:O6	49:BR:11:ASN:HB2	2.11	0.50
36:BA:1882:C:O2	36:BA:1882:C:H2'	2.10	0.50
36:BA:2136:C:N4	36:BA:2155:G:H1	2.10	0.50
36:BA:2261:C:O4'	36:BA:2388:A:H1'	2.11	0.50
36:BA:2824:C:H2'	36:BA:2825:C:O4'	2.12	0.50
37:BB:66:A:H61	37:BB:108:U:H2'	1.76	0.50
38:BC:43:VAL:O	38:BC:43:VAL:HG12	2.12	0.50
39:BD:130:ALA:C	39:BD:131:LEU:HD12	2.32	0.50
41:BF:3:GLU:HA	41:BF:24:LEU:HB3	1.93	0.50
42:BG:137:GLU:HG2	42:BG:152:LEU:CD1	2.42	0.50
43:BH:16:SER:HB2	43:BH:27:LYS:HB2	1.92	0.50
44:BI:123:LEU:HD22	44:BI:142:VAL:HG12	1.93	0.50
48:BQ:39:PRO:O	48:BQ:40:ALA:HB2	2.12	0.50
49:BR:111:LEU:HD22	49:BR:111:LEU:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:27:THR:CG2	51:BT:28:VAL:N	2.73	0.50
51:BT:132:LYS:C	51:BT:134:GLU:N	2.62	0.50
56:BY:28:LYS:C	56:BY:38:ILE:HB	2.32	0.50
1:CA:421:U:OP2	1:CA:422:C:H5	1.95	0.50
1:CA:685:G:H5'	11:CK:39:PRO:O	2.12	0.50
2:CB:28:PHE:O	2:CB:28:PHE:CD1	2.65	0.50
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.77	0.50
2:CB:101:MET:HA	2:CB:108:ILE:HG21	1.94	0.50
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.21	0.50
2:CB:207:ALA:HB1	2:CB:209:ARG:HG2	1.94	0.50
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.11	0.50
4:CD:149:ALA:O	4:CD:153:ARG:HG3	2.11	0.50
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.46	0.50
12:CL:113:ARG:HH11	12:CL:113:ARG:HG2	1.76	0.50
26:D0:11:ARG:HH11	26:D0:11:ARG:HB2	1.75	0.50
26:D0:72:ARG:CB	26:D0:75:LEU:HB3	2.41	0.50
27:D1:51:VAL:HG12	27:D1:58:ILE:O	2.12	0.50
27:D1:62:VAL:CG2	27:D1:63:ALA:N	2.75	0.50
29:D3:26:LEU:O	29:D3:28:LEU:HG	2.11	0.50
36:DA:71:A:H5'	36:DA:71:A:C8	2.47	0.50
36:DA:198:C:H5'	36:DA:2244:U:OP1	2.11	0.50
36:DA:443:A:H1'	36:DA:1201:C:O4'	2.12	0.50
36:DA:852:G:H2'	36:DA:853:G:C8	2.47	0.50
36:DA:1338:G:N3	36:DA:1393:A:H2	2.09	0.50
36:DA:2290:G:H2'	36:DA:2291:U:O4'	2.12	0.50
36:DA:2704:C:H2'	36:DA:2705:A:O4'	2.12	0.50
40:DE:36:ARG:NH1	40:DE:85:ASN:OD1	2.44	0.50
41:DF:127:GLU:HB2	41:DF:196:LEU:HD21	1.92	0.50
42:DG:135:LEU:HD12	42:DG:135:LEU:N	2.27	0.50
43:DH:156:ALA:C	43:DH:158:HIS:H	2.11	0.50
45:DN:42:TRP:HA	45:DN:42:TRP:CE3	2.47	0.50
48:DQ:39:PRO:O	48:DQ:40:ALA:HB2	2.12	0.50
49:DR:2:ARG:NH2	49:DR:5:LYS:HZ1	2.09	0.50
50:DS:28:VAL:HG12	50:DS:29:PHE:N	2.27	0.50
52:DU:91:ASP:OD2	52:DU:96:ALA:CB	2.56	0.50
54:DW:8:ARG:HA	54:DW:102:HIS:CD2	2.47	0.50
57:DZ:128:VAL:CG2	57:DZ:132:ASN:HD22	2.25	0.50
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	2.12	0.49
1:AA:971:G:OP1	1:AA:971:G:H3'	2.12	0.49
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.28	0.49
3:AC:35:GLU:HA	3:AC:38:ARG:CD	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.40	0.49
8:AH:85:ARG:HD3	8:AH:86:ILE:N	2.27	0.49
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.36	0.49
11:AK:80:VAL:HG13	11:AK:103:LEU:CD1	2.42	0.49
12:AL:59:ARG:HA	12:AL:65:GLU:HA	1.94	0.49
16:AP:81:ARG:C	16:AP:82:GLN:HE21	2.15	0.49
18:AR:47:THR:HG21	18:AR:49:LYS:HE2	1.93	0.49
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.77	0.49
20:AT:24:LEU:HD13	20:AT:24:LEU:C	2.33	0.49
28:B2:46:GLN:O	28:B2:49:LYS:HB2	2.12	0.49
36:BA:65:C:O2'	36:BA:66:C:H5'	2.11	0.49
36:BA:225:A:C2'	36:BA:226:G:H5'	2.42	0.49
36:BA:919:G:H4'	37:BB:81:G:H4'	1.94	0.49
36:BA:1049:C:N4	36:BA:1110:G:H21	2.10	0.49
36:BA:1308:A:H2'	36:BA:1309:G:O4'	2.12	0.49
36:BA:1880:C:H5'	36:BA:1880:C:C6	2.27	0.49
36:BA:2629:A:H8	36:BA:2895:U:H3	1.58	0.49
36:BA:2884:U:C2'	36:BA:2885:C:H5'	2.42	0.49
38:BC:36:LYS:HB2	38:BC:36:LYS:NZ	2.25	0.49
39:BD:125:ILE:HD12	39:BD:136:ILE:HG23	1.94	0.49
40:BE:1:MET:HE3	40:BE:83:ASP:CB	2.40	0.49
41:BF:107:LYS:O	41:BF:108:LYS:C	2.50	0.49
42:BG:41:GLN:HB3	42:BG:43:LEU:HD21	1.93	0.49
43:BH:35:VAL:HG21	43:BH:75:ALA:HB2	1.94	0.49
43:BH:100:GLY:C	43:BH:102:ALA:H	2.15	0.49
44:BI:120:ILE:HG22	44:BI:122:GLU:H	1.76	0.49
46:BO:68:GLU:HB3	46:BO:78:ARG:HB2	1.93	0.49
47:BP:113:LYS:HE2	47:BP:115:LEU:HD13	1.93	0.49
51:BT:24:PRO:HD3	51:BT:52:ILE:CD1	2.42	0.49
51:BT:53:ARG:HG2	51:BT:53:ARG:NH1	2.25	0.49
51:BT:78:LEU:O	51:BT:78:LEU:HD23	2.12	0.49
51:BT:78:LEU:O	51:BT:79:HIS:ND1	2.45	0.49
54:BW:97:LYS:O	54:BW:99:ARG:N	2.45	0.49
57:BZ:72:ARG:NH2	57:BZ:97:GLU:O	2.45	0.49
57:BZ:136:PHE:CD1	57:BZ:137:ILE:N	2.80	0.49
1:CA:711:G:O2'	1:CA:712:A:H5'	2.12	0.49
1:CA:1228:C:H4'	13:CM:116:THR:HA	1.94	0.49
2:CB:137:ARG:HD3	2:CB:137:ARG:C	2.32	0.49
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.12	0.49
26:D0:3:HIS:CD2	26:D0:3:HIS:H	2.30	0.49
27:D1:29:GLY:C	27:D1:31:GLY:H	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D2:47:ASN:HB2	36:DA:95:G:H1'	1.94	0.49
36:DA:587:C:C5	47:DP:33:ARG:HD3	2.47	0.49
36:DA:919:G:H5'	37:DB:81:G:H1'	1.94	0.49
36:DA:971:C:H2'	36:DA:972:G:O4'	2.12	0.49
36:DA:1591:G:H8	36:DA:1591:G:H5'	1.76	0.49
36:DA:2228:G:P	39:DD:263:ARG:HH12	2.35	0.49
36:DA:2870:C:H2'	36:DA:2871:C:H5'	1.94	0.49
39:DD:106:ILE:HD11	39:DD:157:ARG:O	2.11	0.49
40:DE:176:ILE:HD12	40:DE:176:ILE:N	2.26	0.49
41:DF:83:PHE:O	41:DF:84:VAL:CB	2.59	0.49
41:DF:132:VAL:O	41:DF:133:ASN:C	2.50	0.49
46:DO:14:THR:HG22	46:DO:52:VAL:CG1	2.42	0.49
50:DS:41:ASP:OD2	50:DS:44:LYS:HB3	2.11	0.49
53:DV:18:LEU:CD1	53:DV:18:LEU:N	2.76	0.49
54:DW:8:ARG:HH11	54:DW:8:ARG:HG3	1.77	0.49
56:DY:42:VAL:CB	56:DY:65:ALA:HB3	2.41	0.49
1:AA:61:G:H2'	1:AA:62:U:O4'	2.12	0.49
1:AA:76:C:N4	1:AA:93:G:H1	2.07	0.49
1:AA:80:G:H3'	1:AA:81:U:H5'	1.93	0.49
1:AA:127:G:HO2'	17:AQ:2:PRO:N	2.10	0.49
1:AA:962:C:H2'	1:AA:963:G:H8	1.77	0.49
1:AA:1244:C:H2'	1:AA:1245:A:H8	1.77	0.49
2:AB:165:VAL:CG2	2:AB:166:ASP:H	2.22	0.49
6:AF:42:GLU:C	6:AF:44:GLY:H	2.14	0.49
6:AF:45:LEU:O	6:AF:46:ARG:HG2	2.12	0.49
14:AN:7:ILE:O	14:AN:11:LYS:HE3	2.12	0.49
17:AQ:18:THR:O	17:AQ:19:VAL:HG13	2.13	0.49
22:AV:52:G:C4	22:AV:53:G:C8	3.00	0.49
36:BA:1000:A:H8	36:BA:1000:A:H5'	1.76	0.49
36:BA:1175:U:H4'	36:BA:1176:G:C2'	2.42	0.49
36:BA:1329:U:C5'	36:BA:1330:C:H5	2.25	0.49
36:BA:1479:G:H5'	36:BA:1558:A:C2	2.46	0.49
36:BA:2178:C:H2'	36:BA:2179:C:H6	1.75	0.49
36:BA:2691:C:H5'	36:BA:2691:C:C6	2.43	0.49
36:BA:2749:A:H1'	43:BH:63:SER:OG	2.12	0.49
37:BB:15:A:H5'	37:BB:16:G:H8	1.76	0.49
37:BB:41:U:C2	42:BG:70:VAL:HG23	2.47	0.49
37:BB:87:G:C3'	37:BB:88:C:H5"	2.42	0.49
40:BE:101:ARG:HB2	40:BE:201:THR:CG2	2.41	0.49
41:BF:158:THR:HG23	41:BF:164:ARG:HE	1.77	0.49
45:BN:26:LEU:HG	45:BN:30:ILE:HD11	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:42:TRP:CE3	45:BN:42:TRP:HA	2.47	0.49
51:BT:26:ASP:C	51:BT:26:ASP:OD2	2.51	0.49
52:BU:62:ILE:HD12	52:BU:76:TYR:OH	2.13	0.49
52:BU:115:ALA:C	52:BU:117:GLN:H	2.16	0.49
55:BX:80:ILE:HD13	55:BX:80:ILE:O	2.12	0.49
56:BY:28:LYS:HB2	56:BY:38:ILE:N	2.19	0.49
56:BY:88:LYS:NZ	56:BY:93:GLY:HA3	2.26	0.49
1:CA:113:G:H2'	1:CA:114:U:H6	1.77	0.49
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.12	0.49
1:CA:1141:C:H2'	1:CA:1142:G:N7	2.26	0.49
4:CD:56:VAL:HG12	4:CD:202:LEU:HD13	1.94	0.49
6:CF:45:LEU:O	6:CF:46:ARG:HG2	2.11	0.49
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	1.94	0.49
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.77	0.49
8:CH:51:VAL:HG11	8:CH:60:ARG:CG	2.42	0.49
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.95	0.49
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG22	1.92	0.49
11:CK:99:GLN:NE2	11:CK:105:VAL:HG11	2.27	0.49
13:CM:10:PRO:HB2	13:CM:18:ALA:CB	2.39	0.49
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.12	0.49
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.94	0.49
26:D0:7:LEU:HD21	48:DQ:81:VAL:HG23	1.93	0.49
26:D0:43:THR:H	36:DA:2331:G:H4'	1.76	0.49
31:D5:46:CYS:HB3	31:D5:49:CYS:HB2	1.94	0.49
36:DA:89:G:H3'	36:DA:90:U:H5"	1.94	0.49
36:DA:833:U:H1'	47:DP:55:ARG:NH1	2.26	0.49
36:DA:950:G:H2'	36:DA:951:C:C6	2.47	0.49
36:DA:1003:G:N3	36:DA:1010:A:H2	2.10	0.49
36:DA:1329:U:C5'	36:DA:1330:C:H5	2.25	0.49
36:DA:1582:C:O2'	36:DA:1586:A:C8	2.66	0.49
36:DA:1653:G:O6	49:DR:11:ASN:HB2	2.12	0.49
36:DA:1670:C:O2	40:DE:129:HIS:HE1	1.94	0.49
36:DA:1751:C:O2'	36:DA:1752:C:H5'	2.12	0.49
36:DA:2734:A:H5'	36:DA:2735:G:OP2	2.12	0.49
36:DA:2845:G:OP1	51:DT:56:GLY:N	2.45	0.49
39:DD:270:ILE:C	39:DD:271:ILE:CG1	2.80	0.49
40:DE:45:THR:CG2	40:DE:83:ASP:HA	2.41	0.49
40:DE:61:ARG:HB3	40:DE:62:PRO:HD3	1.91	0.49
41:DF:65:TRP:CH2	41:DF:75:HIS:HD2	2.30	0.49
41:DF:136:THR:HG23	41:DF:137:LYS:N	2.27	0.49
42:DG:19:LEU:O	42:DG:22:ARG:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:97:VAL:CG2	49:DR:114:VAL:HG22	2.31	0.49
54:DW:2:GLU:HA	54:DW:64:MET:HE1	1.93	0.49
56:DY:84:ARG:HH12	56:DY:97:ARG:HD2	1.76	0.49
57:DZ:29:TYR:O	57:DZ:89:PHE:HA	2.12	0.49
57:DZ:77:ASP:OD1	57:DZ:80:ARG:HB2	2.12	0.49
1:AA:832:C:O2'	1:AA:833:U:H6	1.94	0.49
1:AA:949:A:H1'	1:AA:1364:U:H3	1.76	0.49
1:AA:1099:G:H5'	1:AA:1100:C:OP2	2.12	0.49
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.12	0.49
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.23	0.49
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.41	0.49
7:AG:48:LYS:O	7:AG:52:GLU:HB2	2.11	0.49
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.94	0.49
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.94	0.49
11:AK:12:ARG:HH21	11:AK:14:VAL:CG1	2.23	0.49
14:AN:37:PHE:CE1	14:AN:53:LEU:HD22	2.48	0.49
15:AO:74:ASP:HB3	15:AO:77:ARG:HG2	1.93	0.49
34:B8:49:VAL:HG23	34:B8:53:PRO:HB3	1.95	0.49
35:B9:7:VAL:HG13	35:B9:34:GLN:CB	2.43	0.49
36:BA:329:G:OP2	56:BY:71:LYS:HD3	2.10	0.49
36:BA:445:C:OP1	52:BU:2:PRO:HA	2.11	0.49
36:BA:1345:C:O2'	36:BA:1346:G:H5'	2.13	0.49
36:BA:1799:G:H5'	36:BA:1819:A:N6	2.28	0.49
36:BA:2199:A:H3'	36:BA:2200:C:C6	2.47	0.49
36:BA:2632:A:O2'	40:BE:61:ARG:NH2	2.45	0.49
39:BD:134:ARG:HD3	39:BD:135:PHE:CZ	2.48	0.49
40:BE:188:VAL:O	40:BE:188:VAL:HG13	2.13	0.49
42:BG:111:LEU:O	42:BG:114:ILE:HG13	2.12	0.49
43:BH:30:LYS:NZ	43:BH:83:TYR:HE1	2.10	0.49
44:BI:19:VAL:HG22	44:BI:20:ASP:N	2.27	0.49
44:BI:23:PRO:HB3	44:BI:27:ARG:NH1	2.26	0.49
50:BS:19:LYS:C	50:BS:20:ARG:NH1	2.66	0.49
57:BZ:30:ASN:HA	57:BZ:89:PHE:HE2	1.76	0.49
1:CA:398:C:H2'	1:CA:399:G:C8	2.48	0.49
1:CA:409:G:OP1	4:CD:24:GLU:HB2	2.12	0.49
1:CA:659:U:O2'	1:CA:660:G:H5'	2.11	0.49
1:CA:1014:A:H5"	19:CS:14:HIS:CB	2.42	0.49
1:CA:1070:U:OP1	5:CE:18:ARG:NH1	2.44	0.49
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.12	0.49
1:CA:1292:U:C2	1:CA:1293:G:N7	2.80	0.49
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:59:ARG:HG2	3:CC:64:VAL:HG12	1.94	0.49
6:CF:82:ARG:HB3	6:CF:82:ARG:NH1	2.26	0.49
7:CG:52:GLU:O	7:CG:54:THR:N	2.43	0.49
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.41	0.49
25:CY:52:G:H2'	25:CY:52:G:N3	2.27	0.49
34:D8:52:LYS:N	34:D8:53:PRO:CD	2.70	0.49
35:D9:15:LYS:NZ	36:DA:2753:A:H1'	2.27	0.49
36:DA:42:G:H2'	36:DA:43:A:O4'	2.12	0.49
36:DA:433:C:H2'	36:DA:434:U:C6	2.46	0.49
36:DA:543:C:N4	36:DA:551:G:N1	2.61	0.49
36:DA:612:C:C2'	36:DA:613:G:C5'	2.72	0.49
36:DA:708:C:H42	36:DA:723:G:H1	1.60	0.49
36:DA:908:C:O2'	36:DA:909:A:H5'	2.11	0.49
36:DA:1012:U:O4	45:DN:28:THR:HG21	2.10	0.49
36:DA:1114:G:C2'	36:DA:1115:G:H5"	2.41	0.49
36:DA:1270:C:H5"	36:DA:1271:G:C5'	2.41	0.49
36:DA:2632:A:C2	40:DE:61:ARG:HD3	2.47	0.49
36:DA:2746:U:O4'	43:DH:139:GLN:HB2	2.12	0.49
36:DA:2884:U:H2'	36:DA:2885:C:C5'	2.42	0.49
37:DB:66:A:C2	37:DB:109:C:C2	3.01	0.49
38:DC:83:ILE:HD12	38:DC:94:VAL:O	2.12	0.49
39:DD:125:ILE:HD12	39:DD:136:ILE:HG23	1.94	0.49
40:DE:118:LYS:H	40:DE:121:ASN:H	1.59	0.49
41:DF:11:VAL:HG12	41:DF:12:LEU:N	2.20	0.49
41:DF:125:LEU:HD22	41:DF:125:LEU:N	2.28	0.49
42:DG:16:ARG:HE	42:DG:31:VAL:CG1	2.18	0.49
42:DG:36:LYS:HZ1	42:DG:38:VAL:CG2	2.23	0.49
42:DG:111:LEU:CB	42:DG:112:PRO:HD3	2.18	0.49
42:DG:120:LEU:HD11	42:DG:180:PHE:CZ	2.48	0.49
43:DH:116:GLU:HG2	43:DH:117:PRO:CD	2.43	0.49
44:DI:4:ILE:HD11	44:DI:44:LEU:HD12	1.93	0.49
49:DR:4:LEU:C	49:DR:6:SER:H	2.14	0.49
50:DS:56:LEU:HD23	50:DS:56:LEU:C	2.32	0.49
52:DU:115:ALA:C	52:DU:117:GLN:H	2.15	0.49
54:DW:92:ARG:HG2	54:DW:92:ARG:NH1	2.27	0.49
1:AA:36:C:H2'	1:AA:37:U:C5'	2.43	0.49
1:AA:339:C:OP2	46:BO:97:ARG:NH1	2.45	0.49
1:AA:954:G:H21	1:AA:1227:A:N6	2.09	0.49
1:AA:1251:A:O2'	1:AA:1252:A:H5'	2.12	0.49
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.46	0.49
2:AB:17:PHE:N	2:AB:17:PHE:CD2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.11	0.49
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.95	0.49
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.48	0.49
14:AN:47:LEU:HA	14:AN:50:LYS:CD	2.42	0.49
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.75	0.49
20:AT:26:ASN:CB	20:AT:71:THR:HG23	2.39	0.49
34:B8:33:ASN:HA	34:B8:36:LYS:HD2	1.94	0.49
34:B8:63:PRO:HB2	34:B8:64:TYR:HD1	1.78	0.49
36:BA:1160:G:N2	53:BV:10:LYS:HE2	2.27	0.49
36:BA:1301:A:H2'	36:BA:1302:A:H3'	1.94	0.49
36:BA:2683:C:OP1	51:BT:53:ARG:NH2	2.41	0.49
39:BD:112:GLN:N	39:BD:115:GLN:NE2	2.60	0.49
41:BF:16:GLY:O	41:BF:17:ARG:HG3	2.12	0.49
42:BG:41:GLN:HB3	42:BG:43:LEU:CD2	2.42	0.49
42:BG:167:GLU:O	42:BG:170:ARG:N	2.45	0.49
44:BI:31:LEU:HB2	44:BI:32:PRO:HD3	1.93	0.49
44:BI:72:LEU:HD23	44:BI:107:VAL:HG21	1.94	0.49
44:BI:129:THR:O	44:BI:130:TYR:HB2	2.11	0.49
47:BP:7:ARG:HA	47:BP:7:ARG:HE	1.77	0.49
47:BP:9:ASN:O	47:BP:11:GLY:N	2.45	0.49
51:BT:13:ARG:NH1	51:BT:15:VAL:CG1	2.75	0.49
51:BT:16:ARG:HH12	51:BT:19:LEU:HG	1.76	0.49
51:BT:98:LYS:HB3	51:BT:100:TYR:CE1	2.48	0.49
53:BV:1:MET:HE1	53:BV:43:GLU:HG2	1.94	0.49
56:BY:68:HIS:HB3	56:BY:71:LYS:CG	2.43	0.49
1:CA:80:G:N2	1:CA:90:U:H4'	2.27	0.49
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	2.12	0.49
2:CB:24:TRP:CD1	2:CB:24:TRP:N	2.79	0.49
3:CC:83:ARG:O	3:CC:87:LEU:HG	2.11	0.49
9:CI:63:ILE:CD1	9:CI:81:ILE:HD11	2.38	0.49
11:CK:37:GLY:C	11:CK:38:ASN:HD22	2.16	0.49
12:CL:6:THR:HG23	12:CL:9:GLN:CD	2.32	0.49
12:CL:43:VAL:CG2	12:CL:93:LEU:HD22	2.41	0.49
26:D0:39:ARG:HH21	36:DA:2355:C:H1'	1.78	0.49
36:DA:843:G:O2'	36:DA:844:C:H5'	2.13	0.49
36:DA:1013:C:H42	36:DA:1149:G:H1	1.60	0.49
36:DA:1300:U:O2'	36:DA:1301:A:P	2.70	0.49
36:DA:1416:G:H21	36:DA:1586:A:N6	2.10	0.49
36:DA:2349:G:H8	36:DA:2349:G:H5'	1.77	0.49
36:DA:2408:U:O2'	36:DA:2409:G:H5'	2.12	0.49
37:DB:105:A:O4'	57:DZ:29:TYR:CE1	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DB:109:C:H5'	37:DB:110:G:O5'	2.12	0.49
39:DD:241:PRO:O	39:DD:243:GLY:N	2.45	0.49
40:DE:70:ALA:O	40:DE:71:GLY:C	2.50	0.49
42:DG:37:VAL:HG12	42:DG:94:LEU:HD12	1.93	0.49
45:DN:42:TRP:CZ3	45:DN:48:MET:HE1	2.47	0.49
47:DP:107:LYS:C	47:DP:109:GLY:N	2.65	0.49
47:DP:107:LYS:O	47:DP:107:LYS:HG3	2.11	0.49
49:DR:59:ASP:N	49:DR:59:ASP:OD2	2.43	0.49
50:DS:17:ARG:NH2	50:DS:90:GLY:N	2.61	0.49
56:DY:15:VAL:HG12	56:DY:16:ALA:N	2.27	0.49
56:DY:28:LYS:CB	56:DY:38:ILE:H	2.19	0.49
57:DZ:53:ILE:HD13	57:DZ:71:VAL:HG21	1.95	0.49
57:DZ:117:LEU:HD13	57:DZ:144:LEU:HB3	1.94	0.49
1:AA:116:A:H8	1:AA:116:A:O5'	1.94	0.49
1:AA:194:C:C2'	1:AA:195:A:H5"	2.42	0.49
1:AA:309:G:H1'	1:AA:608:A:C2	2.48	0.49
1:AA:832:C:O2'	1:AA:833:U:P	2.70	0.49
1:AA:955:U:H1'	1:AA:1227:A:H61	1.77	0.49
1:AA:1006:C:H42	1:AA:1024:G:H21	1.60	0.49
1:AA:1188:A:C2'	1:AA:1189:C:H5'	2.42	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB1	1.94	0.49
3:AC:15:THR:HG22	3:AC:16:ARG:H	1.76	0.49
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.12	0.49
4:AD:158:ILE:HG22	4:AD:181:MET:CE	2.41	0.49
5:AE:6:PHE:HD1	5:AE:63:ARG:HH12	1.59	0.49
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.42	0.49
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.27	0.49
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.27	0.49
11:AK:99:GLN:HE21	11:AK:105:VAL:HG11	1.77	0.49
12:AL:126:LYS:HG3	12:AL:127:GLU:N	2.27	0.49
19:AS:43:GLU:O	19:AS:45:VAL:N	2.40	0.49
27:B1:45:ASN:CB	36:BA:2230:G:H1'	2.43	0.49
36:BA:42:G:H2'	36:BA:43:A:O4'	2.12	0.49
36:BA:363(C):G:H2'	36:BA:363(D):G:H8	1.76	0.49
36:BA:380:U:H2'	36:BA:381:G:H8	1.77	0.49
36:BA:1171:G:H5"	36:BA:1173:G:C4'	2.40	0.49
36:BA:1268:A:C2	36:BA:2013:A:C4	3.00	0.49
36:BA:1578:U:H2'	36:BA:1579:A:H5'	1.94	0.49
39:BD:108:PRO:HB3	39:BD:143:HIS:HE1	1.75	0.49
40:BE:176:ILE:HG22	40:BE:176:ILE:O	2.13	0.49
42:BG:132:ASN:OD1	42:BG:158:ALA:HB1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:92:VAL:O	44:BI:93:THR:O	2.31	0.49
48:BQ:32:TYR:CZ	48:BQ:111:GLU:HB2	2.48	0.49
51:BT:63:VAL:O	51:BT:73:GLU:HA	2.11	0.49
52:BU:112:ARG:HH11	52:BU:112:ARG:HG2	1.77	0.49
56:BY:67:LEU:HD12	56:BY:68:HIS:O	2.13	0.49
1:CA:41:G:H2'	1:CA:42:G:C8	2.48	0.49
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.93	0.49
1:CA:767:A:H2'	1:CA:768:A:O4'	2.12	0.49
1:CA:1030(A):G:C1'	1:CA:1031:G:H22	2.25	0.49
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.77	0.49
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.31	0.49
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.47	0.49
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.12	0.49
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.95	0.49
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.12	0.49
22:CV:28:C:O2'	22:CV:29:G:H5'	2.12	0.49
23:CW:37:A:H3'	23:CW:38:A:C8	2.47	0.49
29:D3:48:GLU:O	29:D3:51:ALA:HB2	2.13	0.49
35:D9:36:GLN:OE1	36:DA:1124:C:H1'	2.12	0.49
36:DA:365:C:H6	36:DA:365:C:C5'	2.19	0.49
36:DA:1578:U:C2'	36:DA:1579:A:H5"	2.43	0.49
36:DA:2620:C:OP1	40:DE:152:LYS:O	2.30	0.49
36:DA:2823:A:OP1	40:DE:113:PHE:HB2	2.13	0.49
37:DB:82:G:O2'	37:DB:83:G:H5'	2.11	0.49
39:DD:26:LYS:CE	39:DD:82:ILE:N	2.73	0.49
39:DD:80:ALA:HB3	39:DD:94:LEU:HD13	1.95	0.49
39:DD:118:VAL:HG22	39:DD:119:ALA:N	2.27	0.49
41:DF:82:ILE:O	41:DF:82:ILE:HG13	2.13	0.49
41:DF:107:LYS:O	41:DF:108:LYS:C	2.50	0.49
43:DH:140:LYS:HG2	43:DH:140:LYS:O	2.11	0.49
44:DI:87:LYS:HB2	44:DI:121:LYS:O	2.12	0.49
50:DS:12:PHE:O	50:DS:12:PHE:CD1	2.65	0.49
51:DT:53:ARG:HG2	51:DT:53:ARG:NH1	2.24	0.49
55:DX:70:LEU:HD23	55:DX:71:GLY:N	2.28	0.49
56:DY:31:LEU:CD2	56:DY:36:ALA:O	2.61	0.49
1:AA:15:G:H2'	1:AA:16:A:C8	2.47	0.49
1:AA:321:A:O2'	1:AA:322:C:H5'	2.11	0.49
1:AA:599:C:O2'	1:AA:600:C:H5'	2.11	0.49
1:AA:1442(A):G:H2'	51:BT:118:ARG:HH11	1.78	0.49
2:AB:84:GLU:O	2:AB:219:VAL:HG21	2.13	0.49
7:AG:62:PHE:HA	7:AG:124:LEU:HD23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:118:LYS:O	9:AI:120:ARG:N	2.41	0.49
10:AJ:83:GLU:HB3	10:AJ:84:GLN:NE2	2.26	0.49
14:AN:36:PHE:CD1	14:AN:36:PHE:C	2.85	0.49
36:BA:402:A:H2'	36:BA:403:U:H5'	1.94	0.49
36:BA:548:A:H3'	36:BA:549:G:H5'	1.94	0.49
36:BA:865:C:H4'	36:BA:866:A:OP1	2.13	0.49
36:BA:2262:U:H2'	36:BA:2263:C:C5'	2.42	0.49
36:BA:2376:A:N6	50:BS:92:TYR:HE2	2.10	0.49
36:BA:2453:A:O2'	36:BA:2454:G:H5'	2.12	0.49
41:BF:132:VAL:O	41:BF:133:ASN:C	2.50	0.49
41:BF:136:THR:HG23	41:BF:137:LYS:N	2.27	0.49
44:BI:88:ILE:CD1	44:BI:123:LEU:H	2.21	0.49
45:BN:15:LEU:HB3	45:BN:136:GLU:HA	1.93	0.49
45:BN:55:VAL:HG22	45:BN:126:PRO:CA	2.41	0.49
51:BT:129:ARG:CZ	51:BT:131:ALA:HB3	2.43	0.49
52:BU:61:TRP:O	52:BU:63:VAL:N	2.45	0.49
53:BV:82:ARG:HG2	53:BV:82:ARG:NH1	2.27	0.49
54:BW:51:LEU:C	54:BW:51:LEU:HD13	2.32	0.49
55:BX:47:PHE:N	55:BX:47:PHE:CD1	2.80	0.49
56:BY:89:PHE:O	56:BY:90:LEU:HB3	2.13	0.49
1:CA:101:A:O2'	1:CA:102:G:H5'	2.12	0.49
1:CA:300:A:H1'	1:CA:565:U:O2	2.12	0.49
1:CA:763:G:H2'	1:CA:764:C:H6	1.77	0.49
1:CA:1251:A:O2'	1:CA:1252:A:H5'	2.13	0.49
3:CC:5:ILE:C	3:CC:5:ILE:CD1	2.80	0.49
7:CG:48:LYS:O	7:CG:52:GLU:HB2	2.13	0.49
10:CJ:83:GLU:HB3	10:CJ:84:GLN:NE2	2.28	0.49
11:CK:32:ILE:HD11	11:CK:68:ALA:O	2.12	0.49
16:CP:39:TYR:CZ	16:CP:41:PRO:HA	2.48	0.49
17:CQ:10:VAL:HG23	17:CQ:55:ASP:O	2.12	0.49
20:CT:26:ASN:CB	20:CT:71:THR:HG23	2.40	0.49
25:CY:16:U:C3'	25:CY:17:C:H5'	2.42	0.49
28:D2:5:GLU:CB	28:D2:9:GLN:HE22	2.26	0.49
29:D3:1:MET:HE2	29:D3:40:THR:HA	1.95	0.49
33:D7:41:ARG:HB2	33:D7:41:ARG:HH11	1.77	0.49
36:DA:554:U:O2'	36:DA:555:U:H5'	2.13	0.49
36:DA:813:U:H2'	36:DA:814:C:H6	1.76	0.49
36:DA:1528(A):A:N7	36:DA:1529:G:C8	2.80	0.49
36:DA:2749:A:H1'	43:DH:63:SER:OG	2.12	0.49
36:DA:2778:A:H4'	36:DA:2779:U:OP2	2.12	0.49
36:DA:2779:U:C4'	36:DA:2780:G:H5"	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DC:214:VAL:C	38:DC:216:THR:N	2.64	0.49
39:DD:24:ILE:O	39:DD:25:THR:O	2.30	0.49
39:DD:31:LYS:HB3	39:DD:35:LYS:HG3	1.95	0.49
40:DE:72:VAL:O	40:DE:73:GLU:O	2.30	0.49
40:DE:101:ARG:HA	40:DE:101:ARG:HE	1.77	0.49
41:DF:32:LEU:HD23	41:DF:32:LEU:C	2.33	0.49
42:DG:19:LEU:O	42:DG:20:ILE:C	2.51	0.49
43:DH:84:SER:O	43:DH:85:LYS:CB	2.61	0.49
44:DI:10:GLU:OE1	44:DI:11:ASN:HB2	2.13	0.49
44:DI:68:LEU:HD23	44:DI:68:LEU:O	2.13	0.49
45:DN:107:LEU:HD12	45:DN:117:PHE:HB2	1.94	0.49
48:DQ:4:PRO:HD3	48:DQ:70:PRO:O	2.11	0.49
51:DT:55:ASN:H	51:DT:59:THR:CG2	2.26	0.49
51:DT:78:LEU:O	51:DT:79:HIS:ND1	2.46	0.49
57:DZ:140:ASP:OD2	57:DZ:140:ASP:N	2.29	0.49
1:AA:337:C:H2'	1:AA:338:A:H8	1.76	0.49
1:AA:689:C:P	11:AK:46:GLY:HA3	2.52	0.49
2:AB:107:THR:HG23	2:AB:110:GLN:HE22	1.77	0.49
3:AC:11:ARG:HG2	3:AC:11:ARG:NH1	2.26	0.49
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.95	0.49
4:AD:174:LEU:O	4:AD:186:LEU:HD11	2.13	0.49
8:AH:35:ILE:O	8:AH:39:LEU:HD23	2.12	0.49
10:AJ:38:ILE:O	10:AJ:38:ILE:HG13	2.11	0.49
12:AL:60:LEU:N	12:AL:60:LEU:HD22	2.28	0.49
12:AL:75:HIS:CD2	12:AL:77:LEU:HB2	2.48	0.49
17:AQ:45:HIS:CG	17:AQ:65:ILE:HD13	2.48	0.49
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.45	0.49
20:AT:53:LEU:O	20:AT:54:LYS:C	2.51	0.49
22:AV:19:G:H21	22:AV:57:A:H1'	1.76	0.49
30:B4:51:TYR:HE1	42:BG:5:VAL:HG12	1.77	0.49
36:BA:363(F):A:HO2'	36:BA:364:C:H5	1.61	0.49
36:BA:407:G:H2'	36:BA:408:G:H8	1.77	0.49
36:BA:1188:U:H4'	53:BV:79:VAL:HG22	1.93	0.49
36:BA:2831:G:P	40:BE:58:ARG:HH22	2.36	0.49
36:BA:2892:A:H2'	36:BA:2893:G:C4'	2.40	0.49
38:BC:68:LEU:CD1	38:BC:179:SER:HA	2.32	0.49
38:BC:77:ILE:O	38:BC:77:ILE:HG23	2.13	0.49
40:BE:10:GLY:HA3	51:BT:8:LYS:HD2	1.94	0.49
40:BE:167:VAL:HG22	40:BE:168:MET:N	2.28	0.49
43:BH:43:VAL:CG1	43:BH:53:GLU:H	2.25	0.49
43:BH:116:GLU:HG2	43:BH:117:PRO:CD	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:38:GLU:HG3	48:BQ:127:ILE:HB	1.95	0.49
53:BV:15:GLU:CB	53:BV:16:PRO:CD	2.90	0.49
54:BW:48:ALA:O	54:BW:50:VAL:N	2.46	0.49
1:CA:36:C:H2'	1:CA:37:U:C5'	2.43	0.49
1:CA:255:G:C1'	17:CQ:16:GLN:HE21	2.19	0.49
1:CA:729:A:H2'	1:CA:730:G:C8	2.45	0.49
1:CA:931:C:H2'	1:CA:932:C:H6	1.78	0.49
1:CA:942:G:N2	9:CI:124:GLN:NE2	2.50	0.49
1:CA:978:A:O2'	1:CA:1322:C:N3	2.41	0.49
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.28	0.49
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.78	0.49
1:CA:1259:C:H42	1:CA:1276:G:H1	1.59	0.49
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.13	0.49
2:CB:61:LEU:HD11	2:CB:66:GLY:HA3	1.95	0.49
2:CB:74:LYS:HD2	2:CB:74:LYS:H	1.77	0.49
2:CB:91:PRO:HG2	2:CB:155:LEU:CD2	2.34	0.49
4:CD:17:VAL:HG12	4:CD:18:LYS:N	2.28	0.49
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.78	0.49
5:CE:144:THR:OG1	5:CE:146:ALA:HB3	2.12	0.49
25:CY:33:U:H2'	25:CY:34:G:H5"	1.93	0.49
27:D1:67:ILE:N	27:D1:68:PRO:CD	2.76	0.49
32:D6:30:THR:HG1	36:DA:2286:A:P	2.36	0.49
35:D9:26:ILE:HD12	35:D9:26:ILE:N	2.27	0.49
36:DA:149:A:H2'	36:DA:150:C:O4'	2.12	0.49
36:DA:225:A:C2'	36:DA:226:G:H5'	2.43	0.49
36:DA:543:C:OP1	36:DA:543:C:C6	2.66	0.49
36:DA:1158:C:HO2'	36:DA:1159:U:H6	1.59	0.49
36:DA:1308:A:H2'	36:DA:1309:G:O4'	2.12	0.49
36:DA:1425:G:H2'	36:DA:1426:G:C8	2.47	0.49
36:DA:1532:C:HO2'	36:DA:1533:G:N2	2.11	0.49
36:DA:1639:U:H2'	36:DA:1640:C:C5'	2.40	0.49
36:DA:1747(A):G:O2'	36:DA:1748:G:H5"	2.12	0.49
36:DA:2238:G:H2'	36:DA:2238:G:N3	2.28	0.49
36:DA:2306:C:H5'	36:DA:2307:G:O5'	2.13	0.49
37:DB:68:C:H2'	37:DB:69:G:H8	1.78	0.49
47:DP:80:TYR:CD1	47:DP:111:ARG:HB3	2.47	0.49
49:DR:51:LEU:CD2	49:DR:66:VAL:HG13	2.33	0.49
51:DT:133:GLU:OE2	51:DT:137:LYS:HB2	2.12	0.49
54:DW:24:ILE:HG21	54:DW:36:LEU:HD21	1.93	0.49
54:DW:68:ARG:HD2	54:DW:110:LYS:HB2	1.95	0.49
54:DW:68:ARG:O	54:DW:110:LYS:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:63:ASP:O	57:DZ:65:GLN:N	2.45	0.49
1:AA:15:G:H4'	5:AE:24:ARG:CZ	2.43	0.49
1:AA:152:A:N6	1:AA:170:U:C2	2.81	0.49
1:AA:238:G:O2'	1:AA:239:U:H5'	2.11	0.49
1:AA:407:G:H5'	4:AD:3:ARG:HH12	1.77	0.49
1:AA:629:G:H2'	1:AA:630:G:O4'	2.12	0.49
1:AA:924:C:H2'	1:AA:925:G:C8	2.48	0.49
1:AA:942:G:H2'	1:AA:943:U:C6	2.47	0.49
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.95	0.49
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.78	0.49
1:AA:1205:U:O2'	3:AC:195:VAL:HG23	2.12	0.49
1:AA:1360:A:H2'	1:AA:1361:G:C8	2.48	0.49
2:AB:57:PHE:CE2	2:AB:185:ILE:HD11	2.47	0.49
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.25	0.49
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.46	0.49
6:AF:75:LEU:HD21	6:AF:79:LEU:HD11	1.95	0.49
10:AJ:85:LEU:C	10:AJ:87:THR:N	2.66	0.49
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.76	0.49
12:AL:6:THR:HG23	12:AL:9:GLN:CG	2.42	0.49
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.12	0.49
18:AR:53:ARG:NE	18:AR:58:LEU:O	2.41	0.49
29:B3:29:ARG:HB2	29:B3:33:GLN:HE22	1.77	0.49
30:B4:37:PRO:HA	30:B4:51:TYR:HD2	1.76	0.49
32:B6:27:LYS:O	32:B6:29:ASN:N	2.46	0.49
34:B8:7:HIS:CD2	34:B8:59:LYS:HZ2	2.30	0.49
36:BA:879:G:N2	36:BA:899:A:H1'	2.28	0.49
36:BA:971:C:H2'	36:BA:972:G:O4'	2.12	0.49
37:BB:106:G:H4'	57:BZ:31:ARG:HG3	1.94	0.49
39:BD:142:VAL:HG22	39:BD:143:HIS:N	2.27	0.49
41:BF:101:LEU:HD12	41:BF:102:PRO:CD	2.39	0.49
41:BF:155:LEU:CD2	41:BF:186:ILE:HD13	2.42	0.49
41:BF:192:LEU:HD23	41:BF:193:VAL:N	2.28	0.49
42:BG:101:ILE:HD13	42:BG:101:ILE:C	2.33	0.49
43:BH:26:VAL:O	43:BH:32:GLU:HA	2.12	0.49
44:BI:62:LYS:O	44:BI:62:LYS:HD3	2.12	0.49
44:BI:69:LYS:O	44:BI:73:GLU:HB3	2.12	0.49
45:BN:93:THR:O	45:BN:94:HIS:HB2	2.13	0.49
47:BP:126:VAL:HG22	47:BP:145:PRO:HB2	1.93	0.49
49:BR:38:VAL:HB	49:BR:39:PRO:CD	2.38	0.49
51:BT:85:LYS:CB	51:BT:85:LYS:NZ	2.74	0.49
53:BV:29:PRO:O	53:BV:61:VAL:CG2	2.57	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:117:LEU:HD21	57:BZ:172:ALA:HB1	1.95	0.49
1:CA:61:G:H2'	1:CA:62:U:O4'	2.13	0.49
1:CA:586:C:H1'	1:CA:878:G:O2'	2.13	0.49
1:CA:818:G:C3'	1:CA:819:A:C5'	2.91	0.49
1:CA:973:G:O4'	10:CJ:55:LYS:HB3	2.12	0.49
1:CA:1035:A:H2'	1:CA:1036:G:C8	2.47	0.49
1:CA:1188:A:H2'	1:CA:1189:C:H5'	1.94	0.49
1:CA:1249:C:H4'	9:CI:36:TYR:OH	2.12	0.49
1:CA:1445:C:O2'	1:CA:1446:U:H5'	2.12	0.49
3:CC:14:ILE:O	3:CC:15:THR:C	2.50	0.49
3:CC:127:ARG:HH11	3:CC:127:ARG:HG2	1.78	0.49
8:CH:84:ARG:HG3	8:CH:85:ARG:H	1.77	0.49
11:CK:18:ARG:NH2	11:CK:36:ASP:O	2.46	0.49
11:CK:19:ALA:HB3	11:CK:82:VAL:CG2	2.43	0.49
11:CK:99:GLN:HE21	11:CK:105:VAL:HG11	1.77	0.49
15:CO:74:ASP:HB3	15:CO:77:ARG:HG2	1.94	0.49
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.94	0.49
36:DA:363(C):G:H2'	36:DA:363(D):G:H8	1.78	0.49
36:DA:539:G:H2'	36:DA:540:C:C6	2.47	0.49
36:DA:621:A:H2'	36:DA:622:G:H5'	1.95	0.49
36:DA:955:C:H5'	36:DA:956:G:OP2	2.13	0.49
36:DA:1171:G:H5'	36:DA:1173:G:OP2	2.13	0.49
36:DA:2183:C:O2'	36:DA:2184:G:H5'	2.13	0.49
36:DA:2522:U:C2'	36:DA:2523:G:H5"	2.43	0.49
37:DB:29:A:H2'	37:DB:30:C:C6	2.48	0.49
37:DB:42:C:O2	42:DG:92:VAL:CA	2.54	0.49
37:DB:75:G:H1'	57:DZ:27:VAL:HG11	1.95	0.49
38:DC:36:LYS:CD	38:DC:37:PHE:H	2.24	0.49
38:DC:76:ALA:C	38:DC:78:ALA:N	2.66	0.49
40:DE:101:ARG:HH21	40:DE:171:GLU:HA	1.78	0.49
41:DF:136:THR:HG23	41:DF:137:LYS:H	1.78	0.49
44:DI:37:VAL:HG12	44:DI:38:LEU:N	2.28	0.49
44:DI:120:ILE:HG21	44:DI:126:TYR:HE1	1.78	0.49
48:DQ:58:PHE:HD1	48:DQ:58:PHE:O	1.95	0.49
52:DU:98:LEU:O	52:DU:100:VAL:N	2.46	0.49
55:DX:64:LYS:HZ3	55:DX:73:ARG:HH21	1.60	0.49
1:AA:41:G:H2'	1:AA:42:G:C8	2.48	0.49
1:AA:1219:U:H2'	1:AA:1220:G:H8	1.78	0.49
1:AA:1259:C:H42	1:AA:1276:G:H1	1.59	0.49
2:AB:82:ARG:O	2:AB:86:GLU:HG3	2.12	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:236:TYR:HD2	2:AB:239:VAL:HB	1.77	0.49
4:AD:8:VAL:O	4:AD:10:ARG:N	2.31	0.49
4:AD:30:LYS:CA	4:AD:35:ARG:HD2	2.43	0.49
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.13	0.49
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.27	0.49
8:AH:24:THR:HG22	8:AH:25:ASP:N	2.27	0.49
8:AH:85:ARG:HH11	8:AH:85:ARG:HG3	1.78	0.49
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.12	0.49
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.77	0.49
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.94	0.49
27:B1:58:ILE:HD12	27:B1:91:LYS:HA	1.93	0.49
33:B7:41:ARG:HB2	33:B7:41:ARG:NH1	2.28	0.49
34:B8:32:LEU:HB3	34:B8:36:LYS:HZ2	1.77	0.49
36:BA:528:A:C8	36:BA:528:A:C3'	2.96	0.49
36:BA:814:C:H2'	36:BA:815:C:H6	1.78	0.49
36:BA:993:G:N3	53:BV:89:GLN:NE2	2.61	0.49
36:BA:1003:G:N3	36:BA:1010:A:H2	2.11	0.49
36:BA:1455:G:C8	49:BR:60:LEU:HD11	2.48	0.49
36:BA:1778:U:H2'	36:BA:1784:A:N6	2.28	0.49
37:BB:109:C:H5'	37:BB:110:G:O5'	2.13	0.49
38:BC:61:THR:HG22	38:BC:163:PHE:O	2.13	0.49
39:BD:65:ILE:HD11	39:BD:67:PHE:CE1	2.47	0.49
39:BD:172:TYR:CD1	39:BD:186:HIS:CA	2.94	0.49
43:BH:38:SER:O	43:BH:40:GLU:N	2.46	0.49
45:BN:23:LEU:CD1	45:BN:98:VAL:HG12	2.42	0.49
48:BQ:16:ARG:C	48:BQ:17:LEU:HD23	2.33	0.49
48:BQ:27:VAL:HG23	48:BQ:137:TYR:CE1	2.45	0.49
48:BQ:34:LEU:CD1	48:BQ:129:THR:HB	2.43	0.49
49:BR:24:GLN:NE2	49:BR:36:THR:HG21	2.27	0.49
52:BU:92:ARG:HD3	52:BU:92:ARG:N	2.27	0.49
57:BZ:155:LEU:O	57:BZ:157:LEU:HD12	2.13	0.49
1:CA:443:C:H2'	1:CA:444:C:C6	2.48	0.49
1:CA:629:G:H2'	1:CA:630:G:O4'	2.11	0.49
1:CA:648:A:H2'	1:CA:649:G:H8	1.78	0.49
1:CA:1030(B):C:C2'	1:CA:1030(C):G:H5'	2.42	0.49
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.95	0.49
2:CB:95:GLN:HG3	2:CB:148:TYR:HA	1.93	0.49
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.28	0.49
8:CH:6:ILE:C	8:CH:10:LEU:HD12	2.32	0.49
9:CI:99:LEU:HD12	9:CI:101:PHE:CE1	2.48	0.49
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:6:GLU:OE2	15:CO:6:GLU:N	2.44	0.49
28:D2:69:ARG:HH11	28:D2:69:ARG:HG2	1.77	0.49
33:D7:47:ARG:HH21	55:DX:60:ARG:HH22	1.59	0.49
36:DA:65:C:O2'	36:DA:66:C:H5'	2.13	0.49
36:DA:696:G:O2'	36:DA:697:C:H5'	2.13	0.49
36:DA:1416:G:H21	36:DA:1586:A:H62	1.59	0.49
36:DA:2364:C:O2'	36:DA:2365:G:H5'	2.13	0.49
36:DA:2710:C:OP1	49:DR:15:SER:HB2	2.13	0.49
36:DA:2755:C:O2'	36:DA:2756:U:H2'	2.13	0.49
37:DB:105:A:H2'	37:DB:106:G:O4'	2.13	0.49
38:DC:61:THR:HG22	38:DC:163:PHE:O	2.13	0.49
40:DE:119:ARG:HD2	40:DE:120:TRP:NE1	2.28	0.49
41:DF:16:GLY:O	41:DF:17:ARG:HG3	2.12	0.49
43:DH:30:LYS:NZ	43:DH:83:TYR:HE1	2.10	0.49
43:DH:43:VAL:HG11	43:DH:52:VAL:CA	2.31	0.49
48:DQ:24:GLY:HA2	48:DQ:67:ARG:HH22	1.78	0.49
49:DR:63:ARG:O	49:DR:67:LEU:HB2	2.13	0.49
50:DS:74:ALA:O	50:DS:75:GLU:C	2.51	0.49
53:DV:79:VAL:O	53:DV:80:GLN:HB2	2.12	0.49
54:DW:55:ALA:HA	54:DW:107:LEU:CD2	2.43	0.49
57:DZ:14:LYS:HZ2	57:DZ:14:LYS:CB	2.26	0.49
1:AA:763:G:H2'	1:AA:764:C:H6	1.78	0.49
1:AA:950:U:H4'	1:AA:971:G:C2	2.47	0.49
1:AA:1004:A:N7	1:AA:1036:G:O6	2.46	0.49
1:AA:1152:A:OP1	10:AJ:13:HIS:HB2	2.12	0.49
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	2.13	0.49
3:AC:39:ILE:C	3:AC:41:GLY:N	2.65	0.49
4:AD:100:ARG:HH12	4:AD:137:SER:HB3	1.78	0.49
8:AH:23:SER:HB2	8:AH:61:VAL:O	2.12	0.49
11:AK:18:ARG:NH2	11:AK:36:ASP:O	2.46	0.49
13:AM:93:ARG:NH1	36:BA:888:C:C5'	2.76	0.49
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.53	0.49
15:AO:6:GLU:OE2	15:AO:6:GLU:N	2.45	0.49
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.61	0.49
20:AT:72:LEU:HD21	20:AT:77:ALA:HA	1.95	0.49
29:B3:1:MET:HE2	29:B3:40:THR:HA	1.95	0.49
33:B7:8:ASN:C	33:B7:8:ASN:ND2	2.64	0.49
36:BA:99:U:C4'	36:BA:102:G:H1'	2.42	0.49
36:BA:297:C:H2'	36:BA:298:G:O4'	2.13	0.49
36:BA:314:A:O2'	36:BA:315:G:H5'	2.12	0.49
36:BA:389:G:N1	47:BP:70:GLN:HG3	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:784:A:H5'	36:BA:785:G:OP1	2.12	0.49
36:BA:1331:A:HO2'	36:BA:1332:G:H8	1.59	0.49
36:BA:1582:C:O2'	36:BA:1586:A:C8	2.64	0.49
36:BA:1591:G:H5'	36:BA:1591:G:H8	1.78	0.49
36:BA:1885:A:H2'	36:BA:1886:C:O4'	2.12	0.49
38:BC:83:ILE:HD12	38:BC:94:VAL:O	2.13	0.49
38:BC:214:VAL:C	38:BC:216:THR:N	2.63	0.49
39:BD:155:LEU:HD12	39:BD:155:LEU:N	2.28	0.49
40:BE:2:LYS:NZ	40:BE:95:ILE:O	2.40	0.49
40:BE:101:ARG:HH21	40:BE:171:GLU:HA	1.77	0.49
41:BF:46:ARG:HH11	41:BF:46:ARG:CG	2.25	0.49
43:BH:149:ARG:HD3	43:BH:164:TYR:CD1	2.48	0.49
43:BH:157:TYR:O	43:BH:158:HIS:HB2	2.12	0.49
44:BI:98:ALA:HA	44:BI:109:ILE:CB	2.43	0.49
47:BP:107:LYS:O	47:BP:107:LYS:HG3	2.13	0.49
48:BQ:4:PRO:HD3	48:BQ:70:PRO:O	2.12	0.49
49:BR:27:SER:HB3	49:BR:34:ILE:HD11	1.95	0.49
49:BR:77:ARG:C	49:BR:79:LEU:H	2.16	0.49
56:BY:26:LYS:O	56:BY:28:LYS:HE3	2.13	0.49
1:CA:404:U:H2'	1:CA:405:U:C6	2.48	0.49
1:CA:491:G:H2'	1:CA:492:G:H8	1.77	0.49
1:CA:977:A:C2'	1:CA:978:A:H5'	2.43	0.49
1:CA:1019:C:H2'	1:CA:1020:U:O4'	2.12	0.49
1:CA:1067:A:H8	1:CA:1067:A:O5'	1.95	0.49
2:CB:92:TYR:CD1	2:CB:151:GLY:HA3	2.48	0.49
2:CB:107:THR:HA	2:CB:110:GLN:CD	2.33	0.49
2:CB:107:THR:HG23	2:CB:110:GLN:HE22	1.78	0.49
2:CB:126:GLU:C	2:CB:128:GLU:N	2.66	0.49
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.95	0.49
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.12	0.49
9:CI:10:ARG:HD3	9:CI:75:ASP:CB	2.40	0.49
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.28	0.49
22:CV:43:A:C3'	22:CV:44:A:H8	2.26	0.49
26:D0:11:ARG:HB2	26:D0:11:ARG:NH1	2.27	0.49
29:D3:1:MET:CE	29:D3:41:PRO:HD3	2.43	0.49
29:D3:5:LYS:CG	29:D3:36:VAL:HG12	2.43	0.49
33:D7:47:ARG:O	33:D7:47:ARG:HD2	2.13	0.49
36:DA:604:G:H2'	36:DA:605:C:C6	2.48	0.49
36:DA:674:G:H1'	41:DF:74:ARG:CD	2.42	0.49
36:DA:1051:G:N2	36:DA:1106:A:N1	2.61	0.49
36:DA:1230:C:O2'	36:DA:1231:G:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1301:A:O2'	36:DA:1302:A:P	2.71	0.49
36:DA:1798:U:H5"	39:DD:260:ARG:HB3	1.95	0.49
37:DB:46:A:H2'	37:DB:47:C:C6	2.48	0.49
39:DD:49:ILE:CD1	39:DD:52:ARG:HA	2.41	0.49
39:DD:71:ASP:HB2	39:DD:103:ARG:NH2	2.26	0.49
39:DD:270:ILE:C	39:DD:271:ILE:HG12	2.34	0.49
40:DE:48:GLN:NE2	40:DE:78:LEU:HD13	2.28	0.49
40:DE:173:VAL:O	40:DE:174:ASP:C	2.52	0.49
40:DE:201:THR:OG1	40:DE:202:LYS:N	2.46	0.49
41:DF:107:LYS:O	41:DF:110:LEU:N	2.46	0.49
42:DG:15:VAL:HG21	42:DG:176:LEU:CD2	2.43	0.49
42:DG:122:PRO:HB3	42:DG:180:PHE:HE2	1.78	0.49
44:DI:69:LYS:O	44:DI:73:GLU:HB3	2.12	0.49
44:DI:72:LEU:HD11	44:DI:138:ILE:HD13	1.94	0.49
44:DI:98:ALA:HA	44:DI:109:ILE:CB	2.43	0.49
45:DN:119:ARG:CG	45:DN:119:ARG:HH11	2.26	0.49
47:DP:9:ASN:O	47:DP:11:GLY:N	2.46	0.49
47:DP:114:ILE:HG22	47:DP:127:ALA:CB	2.43	0.49
47:DP:147:LEU:HG	47:DP:148:LEU:N	2.27	0.49
48:DQ:16:ARG:C	48:DQ:17:LEU:HD23	2.33	0.49
49:DR:27:SER:HB3	49:DR:34:ILE:HD11	1.94	0.49
49:DR:37:THR:OG1	49:DR:40:LYS:HB2	2.13	0.49
50:DS:17:ARG:O	50:DS:19:LYS:N	2.46	0.49
53:DV:15:GLU:O	53:DV:16:PRO:O	2.31	0.49
56:DY:20:TYR:CE1	56:DY:42:VAL:HG22	2.47	0.49
57:DZ:175:VAL:HB	57:DZ:176:PRO:CD	2.41	0.49
1:AA:1314:C:H41	19:AS:4:SER:N	2.11	0.48
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.13	0.48
2:AB:67:THR:HG21	2:AB:155:LEU:HD21	1.94	0.48
2:AB:107:THR:HA	2:AB:110:GLN:OE1	2.13	0.48
2:AB:221:LEU:N	2:AB:221:LEU:HD22	2.28	0.48
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.13	0.48
4:AD:128:VAL:O	4:AD:129:ASN:C	2.50	0.48
5:AE:101:ILE:HD13	5:AE:118:ILE:O	2.13	0.48
8:AH:60:ARG:NH1	8:AH:60:ARG:CG	2.75	0.48
13:AM:91:ARG:HH11	19:AS:81:ARG:HH22	1.61	0.48
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.12	0.48
36:BA:443:A:H1'	36:BA:1201:C:O4'	2.12	0.48
36:BA:675:A:OP1	41:BF:63:LYS:HE2	2.13	0.48
36:BA:1657:C:H2'	36:BA:1658:C:H6	1.78	0.48
36:BA:1999:C:H5"	36:BA:2723:C:O2'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2206:G:N2	36:BA:2207:G:C5'	2.69	0.48
36:BA:2330:G:H2'	36:BA:2331:G:O4'	2.12	0.48
36:BA:2870:C:H2'	36:BA:2871:C:O4'	2.13	0.48
39:BD:33:LEU:O	39:BD:35:LYS:N	2.46	0.48
39:BD:155:LEU:N	39:BD:155:LEU:CD1	2.76	0.48
40:BE:110:GLY:O	49:BR:2:ARG:NE	2.46	0.48
47:BP:21:ARG:CD	47:BP:29:LYS:HE3	2.35	0.48
47:BP:23:PRO:HB2	47:BP:33:ARG:NE	2.28	0.48
48:BQ:61:GLY:O	57:BZ:178:GLU:HB2	2.13	0.48
53:BV:25:LEU:H	53:BV:92:THR:CG2	2.11	0.48
53:BV:79:VAL:O	53:BV:80:GLN:HB2	2.13	0.48
56:BY:15:VAL:CG1	56:BY:16:ALA:N	2.76	0.48
56:BY:28:LYS:NZ	56:BY:28:LYS:N	2.60	0.48
56:BY:66:PRO:O	56:BY:67:LEU:HG	2.13	0.48
1:CA:90:U:H5"	1:CA:91:C:H5'	1.95	0.48
1:CA:832:C:O2'	1:CA:833:U:P	2.71	0.48
1:CA:963:G:N2	10:CJ:55:LYS:NZ	2.59	0.48
1:CA:1346:A:N6	1:CA:1374:A:H3'	2.25	0.48
2:CB:236:TYR:HD2	2:CB:239:VAL:HB	1.78	0.48
3:CC:90:GLU:HA	3:CC:90:GLU:OE1	2.13	0.48
3:CC:139:GLN:HA	3:CC:139:GLN:OE1	2.13	0.48
3:CC:149:ALA:O	3:CC:150:LYS:HB2	2.13	0.48
4:CD:146:ILE:HD12	4:CD:146:ILE:H	1.78	0.48
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.47	0.48
8:CH:63:LEU:CB	8:CH:65:TYR:CE1	2.96	0.48
8:CH:112:LEU:C	8:CH:112:LEU:HD12	2.33	0.48
10:CJ:28:ARG:NH2	10:CJ:34:VAL:O	2.46	0.48
10:CJ:94:VAL:CG1	10:CJ:95:GLU:N	2.76	0.48
13:CM:90:LEU:O	13:CM:91:ARG:CB	2.61	0.48
14:CN:47:LEU:HA	14:CN:50:LYS:CD	2.43	0.48
16:CP:55:ARG:O	16:CP:58:TYR:N	2.46	0.48
21:CU:9:ARG:NH1	21:CU:22:ARG:HA	2.27	0.48
25:CY:53:G:P	48:DQ:56:ARG:HH12	2.35	0.48
25:CY:70:G:H2'	25:CY:71:G:OP1	2.13	0.48
31:D5:3:LYS:HG3	31:D5:4:HIS:H	1.77	0.48
36:DA:859:G:H5'	36:DA:2268:A:O2'	2.13	0.48
36:DA:1387:C:H5'	36:DA:1469:A:H4'	1.94	0.48
36:DA:2562:U:C2'	36:DA:2563:U:H5'	2.43	0.48
36:DA:2591:C:H2'	36:DA:2592:G:C8	2.48	0.48
39:DD:218:ARG:HB3	39:DD:219:PRO:HD2	1.95	0.48
39:DD:245:PRO:O	39:DD:246:PRO:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:63:LEU:HD23	40:DE:65:GLY:N	2.28	0.48
41:DF:164:ARG:HG2	41:DF:164:ARG:NH1	2.27	0.48
42:DG:37:VAL:HG21	42:DG:99:MET:HG3	1.94	0.48
43:DH:89:ILE:HG12	43:DH:129:THR:HA	1.94	0.48
44:DI:41:GLU:O	44:DI:45:LYS:HG2	2.13	0.48
44:DI:84:GLY:O	44:DI:85:GLU:CB	2.60	0.48
45:DN:43:THR:O	45:DN:46:VAL:HG12	2.12	0.48
46:DO:86:ILE:HD12	46:DO:86:ILE:H	1.77	0.48
47:DP:83:VAL:HG13	47:DP:114:ILE:HA	1.94	0.48
48:DQ:34:LEU:HD11	48:DQ:129:THR:OG1	2.12	0.48
53:DV:89:GLN:OE1	53:DV:90:PRO:HD2	2.13	0.48
1:AA:41:G:H2'	1:AA:42:G:H8	1.79	0.48
1:AA:101:A:O2'	1:AA:102:G:H5'	2.12	0.48
1:AA:221:C:O2'	1:AA:222:U:H5'	2.13	0.48
1:AA:277:C:H5"	17:AQ:68:ARG:NH2	2.28	0.48
1:AA:533:A:O2'	1:AA:534:U:H5"	2.13	0.48
1:AA:818:G:H3'	1:AA:819:A:H5"	1.95	0.48
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.46	0.48
1:AA:973:G:O4'	10:AJ:55:LYS:HB3	2.12	0.48
1:AA:977:A:C2'	1:AA:978:A:H5'	2.43	0.48
1:AA:1032:G:H2'	1:AA:1033:G:C8	2.47	0.48
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.13	0.48
1:AA:1442(B):A:N6	51:BT:118:ARG:NH2	2.61	0.48
1:AA:1527:C:O2'	1:AA:1528:U:H5'	2.13	0.48
3:AC:3:ASN:CG	3:AC:4:LYS:H	2.15	0.48
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.12	0.48
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.24	0.48
9:AI:55:ALA:HB1	9:AI:59:PHE:CE1	2.47	0.48
10:AJ:5:ARG:O	10:AJ:98:ILE:HA	2.12	0.48
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.43	0.48
12:AL:111:LYS:O	12:AL:112:ASP:HB2	2.13	0.48
13:AM:65:LYS:CA	13:AM:66:LEU:HG	2.35	0.48
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.75	0.48
29:B3:8:LEU:HD12	29:B3:31:LEU:HA	1.94	0.48
33:B7:2:LYS:HG2	36:BA:1620:G:O2'	2.13	0.48
36:BA:139:G:H2'	36:BA:140:G:N7	2.28	0.48
36:BA:144:C:O2'	36:BA:145:G:H5'	2.13	0.48
36:BA:251:A:C5'	47:BP:51:PHE:HZ	2.26	0.48
36:BA:271(U):G:H2'	36:BA:271(V):G:H8	1.77	0.48
36:BA:341:G:O2'	36:BA:342:G:H5'	2.13	0.48
36:BA:361:G:H2'	36:BA:362:U:H5"	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:433:C:H2'	36:BA:434:U:C6	2.47	0.48
36:BA:729:G:C5	39:BD:208:LYS:HB2	2.48	0.48
36:BA:1278:A:C5'	49:BR:36:THR:HG22	2.43	0.48
36:BA:1496:A:C8	36:BA:1577:C:O2'	2.65	0.48
36:BA:2306:C:H5'	36:BA:2307:G:O5'	2.13	0.48
36:BA:2873:A:N3	49:BR:6:SER:CB	2.75	0.48
37:BB:31:C:C2'	37:BB:53:A:H61	2.26	0.48
39:BD:24:ILE:HG13	39:BD:25:THR:N	2.25	0.48
39:BD:270:ILE:C	39:BD:271:ILE:HG12	2.34	0.48
44:BI:110:ASP:O	44:BI:114:LEU:HD21	2.13	0.48
44:BI:120:ILE:HD13	44:BI:126:TYR:CE1	2.48	0.48
45:BN:32:THR:HG23	45:BN:37:LYS:HB3	1.95	0.48
45:BN:107:LEU:HD12	45:BN:117:PHE:HB2	1.95	0.48
49:BR:106:GLY:O	49:BR:107:ASP:HB3	2.13	0.48
54:BW:9:TYR:N	54:BW:9:TYR:HD2	2.12	0.48
1:CA:270:A:H2'	1:CA:271:C:C6	2.48	0.48
1:CA:533:A:O2'	1:CA:534:U:H5"	2.13	0.48
1:CA:692:U:H2'	1:CA:694:A:OP2	2.13	0.48
1:CA:992:U:H3	1:CA:1044:A:N6	2.11	0.48
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.79	0.48
1:CA:1225:A:H5'	1:CA:1226:C:OP2	2.13	0.48
1:CA:1403:C:H1'	1:CA:1500:A:N1	2.28	0.48
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.78	0.48
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.78	0.48
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.78	0.48
9:CI:5:TYR:OH	9:CI:16:ARG:HG2	2.14	0.48
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HE3	2.48	0.48
11:CK:96:ARG:HA	11:CK:99:GLN:HG3	1.94	0.48
25:CY:21:A:N6	25:CY:46:G:O2'	2.47	0.48
25:CY:58:A:H4'	25:CY:58:A:OP1	2.12	0.48
29:D3:1:MET:HE2	29:D3:41:PRO:HD3	1.94	0.48
32:D6:27:LYS:O	32:D6:29:ASN:N	2.46	0.48
36:DA:614(C):A:O2'	36:DA:615:G:P	2.71	0.48
36:DA:962:G:O2'	36:DA:963:U:H5'	2.13	0.48
36:DA:1049:C:N4	36:DA:1110:G:H21	2.11	0.48
36:DA:1493:C:H2'	36:DA:1493:C:O2	2.13	0.48
36:DA:1514:U:H2'	36:DA:1515:G:C8	2.49	0.48
36:DA:2291:U:H4'	36:DA:2380:C:O2	2.14	0.48
36:DA:2562:U:H2'	36:DA:2563:U:H5'	1.95	0.48
36:DA:2762:G:C3'	36:DA:2763:G:C5'	2.90	0.48
36:DA:2801:A:H1'	36:DA:2801(A):A:N7	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DD:35:LYS:HZ2	39:DD:103:ARG:HA	1.75	0.48
39:DD:142:VAL:HG21	39:DD:191:ALA:HB1	1.95	0.48
41:DF:192:LEU:HD23	41:DF:193:VAL:N	2.28	0.48
42:DG:46:ALA:HB3	42:DG:87:PRO:CA	2.42	0.48
42:DG:173:LEU:C	42:DG:178:PHE:HB2	2.33	0.48
47:DP:32:THR:CG2	47:DP:37:GLY:HA2	2.43	0.48
49:DR:106:GLY:O	49:DR:107:ASP:HB3	2.13	0.48
49:DR:109:ALA:O	49:DR:111:LEU:HD22	2.13	0.48
51:DT:24:PRO:HD3	51:DT:52:ILE:HD12	1.95	0.48
55:DX:63:LYS:HE3	55:DX:72:LYS:CE	2.27	0.48
56:DY:42:VAL:HG12	56:DY:44:ILE:HG13	1.95	0.48
56:DY:89:PHE:O	56:DY:90:LEU:HB3	2.12	0.48
57:DZ:44:PHE:HE1	57:DZ:48:PHE:CD1	2.31	0.48
57:DZ:54:HIS:HE1	57:DZ:123:ASP:OD2	1.96	0.48
1:AA:270:A:H2'	1:AA:271:C:C6	2.48	0.48
1:AA:300:A:H1'	1:AA:565:U:O2	2.12	0.48
1:AA:645:C:H2'	1:AA:646:U:C6	2.49	0.48
1:AA:811:C:H4'	1:AA:900:A:N6	2.28	0.48
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.78	0.48
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.13	0.48
2:AB:168:THR:HA	2:AB:171:ALA:HB2	1.96	0.48
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.47	0.48
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	2.12	0.48
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.40	0.48
23:AW:57:G:H2'	23:AW:58:A:C5'	2.42	0.48
29:B3:1:MET:CE	29:B3:41:PRO:HD3	2.43	0.48
31:B5:20:ARG:HA	31:B5:23:HIS:HD1	1.78	0.48
32:B6:47:THR:HG22	32:B6:48:VAL:N	2.22	0.48
36:BA:543:C:OP1	36:BA:543:C:C6	2.66	0.48
36:BA:2267:A:H5"	36:BA:2268:A:H5'	1.96	0.48
37:BB:105:A:H2'	37:BB:106:G:O4'	2.14	0.48
40:BE:19:ARG:O	40:BE:19:ARG:HG3	2.14	0.48
40:BE:119:ARG:HD2	40:BE:120:TRP:NE1	2.28	0.48
41:BF:192:LEU:HD21	41:BF:194:MET:CE	2.42	0.48
43:BH:25:LYS:H	43:BH:25:LYS:CD	2.12	0.48
43:BH:86:GLU:N	43:BH:86:GLU:CD	2.67	0.48
45:BN:43:THR:O	45:BN:46:VAL:HG12	2.13	0.48
46:BO:77:ILE:HD11	51:BT:72:VAL:HG12	1.95	0.48
47:BP:35:HIS:O	47:BP:36:LYS:CB	2.62	0.48
50:BS:41:ASP:OD2	50:BS:44:LYS:HB3	2.13	0.48
51:BT:47:GLY:HA3	51:BT:63:VAL:HG12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:95:LEU:O	52:BU:98:LEU:HG	2.13	0.48
56:BY:3:VAL:HG12	56:BY:3:VAL:O	2.12	0.48
56:BY:42:VAL:HG12	56:BY:44:ILE:HG13	1.94	0.48
1:CA:961:U:O2'	1:CA:962:C:H5'	2.12	0.48
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.13	0.48
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.14	0.48
1:CA:1294:G:H2'	1:CA:1295:G:H8	1.78	0.48
1:CA:1409:C:H4'	36:DA:1915:U:O4	2.13	0.48
2:CB:134:GLU:HA	2:CB:137:ARG:CB	2.42	0.48
2:CB:221:LEU:N	2:CB:221:LEU:HD22	2.27	0.48
2:CB:238:LEU:O	2:CB:240:GLN:N	2.47	0.48
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.47	0.48
5:CE:45:PHE:HE2	5:CE:129:ILE:HD13	1.78	0.48
8:CH:86:ILE:O	8:CH:87:SER:C	2.50	0.48
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.13	0.48
12:CL:53:ARG:NH1	12:CL:92:ASP:HB2	2.25	0.48
23:CW:38:A:C2'	23:CW:39:U:H5"	2.43	0.48
27:D1:53:VAL:CG2	27:D1:74:VAL:HG13	2.43	0.48
33:D7:47:ARG:NH2	36:DA:1311:G:C5	2.81	0.48
36:DA:119:A:H4'	36:DA:120:U:OP1	2.12	0.48
36:DA:407:G:H2'	36:DA:408:G:C8	2.48	0.48
36:DA:528:A:C2	36:DA:2043:C:C4'	2.85	0.48
36:DA:753:C:O2'	36:DA:754:C:H5'	2.13	0.48
36:DA:1297:C:HO2'	36:DA:1302:A:N6	2.12	0.48
36:DA:1444:G:H2'	36:DA:1445(A):C:C5	2.48	0.48
36:DA:1827:C:O2'	36:DA:1828:G:H5'	2.13	0.48
36:DA:1999:C:H5"	36:DA:2723:C:O2'	2.14	0.48
36:DA:2136:C:N4	36:DA:2155:G:H1	2.11	0.48
36:DA:2236:C:C2'	36:DA:2237:G:H5'	2.44	0.48
38:DC:77:ILE:O	38:DC:77:ILE:HG23	2.13	0.48
39:DD:65:ILE:HD13	39:DD:65:ILE:O	2.13	0.48
39:DD:79:VAL:O	39:DD:79:VAL:HG12	2.12	0.48
40:DE:3:GLY:O	40:DE:4:ILE:CB	2.62	0.48
40:DE:9:VAL:HG13	40:DE:25:VAL:O	2.13	0.48
40:DE:88:GLY:O	40:DE:89:ASP:HB2	2.14	0.48
41:DF:40:GLN:HE22	41:DF:182:ASN:HB2	1.78	0.48
42:DG:8:LYS:HZ3	42:DG:96:ARG:NH1	2.10	0.48
44:DI:58:LEU:HD12	44:DI:61:ARG:CZ	2.43	0.48
44:DI:100:ALA:O	44:DI:101:LEU:HB2	2.12	0.48
45:DN:42:TRP:HA	45:DN:42:TRP:HE3	1.78	0.48
45:DN:108:PRO:O	45:DN:113:GLY:HA3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:10:LEU:HD13	49:DR:17:ARG:CZ	2.43	0.48
49:DR:80:PHE:O	49:DR:85:PRO:HD3	2.12	0.48
51:DT:27:THR:HA	51:DT:87:ASP:HB2	1.96	0.48
51:DT:108:ARG:HB2	51:DT:108:ARG:NH1	2.28	0.48
1:AA:284:G:H2'	1:AA:285:G:C8	2.49	0.48
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.13	0.48
1:AA:542:G:P	4:AD:10:ARG:HH21	2.36	0.48
1:AA:1030(B):C:C2'	1:AA:1030(C):G:H5'	2.43	0.48
2:AB:137:ARG:C	2:AB:137:ARG:HD3	2.33	0.48
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.95	0.48
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.95	0.48
5:AE:144:THR:OG1	5:AE:146:ALA:HB3	2.14	0.48
6:AF:8:ILE:CG2	6:AF:9:VAL:N	2.76	0.48
8:AH:41:ARG:NH2	8:AH:123:GLU:OE2	2.46	0.48
8:AH:84:ARG:HG3	8:AH:85:ARG:H	1.74	0.48
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.94	0.48
10:AJ:28:ARG:NH2	10:AJ:34:VAL:O	2.46	0.48
10:AJ:83:GLU:O	10:AJ:85:LEU:N	2.46	0.48
10:AJ:85:LEU:C	10:AJ:87:THR:H	2.15	0.48
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.14	0.48
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.13	0.48
23:AW:25:C:O2'	23:AW:26:A:H5'	2.13	0.48
34:B8:51:ALA:HA	34:B8:54:GLU:CD	2.34	0.48
36:BA:18:C:H5"	52:BU:24:TYR:O	2.12	0.48
36:BA:849:A:H8	36:BA:849:A:O5'	1.96	0.48
36:BA:1233:C:O2'	36:BA:1234:U:H5'	2.13	0.48
36:BA:2023:G:H4'	36:BA:2617:C:O3'	2.13	0.48
36:BA:2127:G:H2'	36:BA:2128:C:O4'	2.13	0.48
36:BA:2208:A:H1'	36:BA:2219:G:C4	2.47	0.48
36:BA:2779:U:C4'	36:BA:2780:G:H5"	2.43	0.48
37:BB:45:A:H2'	37:BB:46:A:H5'	1.96	0.48
38:BC:77:ILE:CB	38:BC:122:ALA:HA	2.44	0.48
39:BD:80:ALA:HB3	39:BD:94:LEU:HD13	1.95	0.48
39:BD:183:ARG:HH11	39:BD:183:ARG:HG2	1.78	0.48
41:BF:127:GLU:HB2	41:BF:196:LEU:HG	1.94	0.48
42:BG:114:ILE:O	42:BG:115:ARG:C	2.52	0.48
42:BG:140:ILE:O	42:BG:140:ILE:HG22	2.13	0.48
44:BI:95:LYS:HA	44:BI:98:ALA:CB	2.42	0.48
45:BN:25:ARG:HH11	45:BN:25:ARG:CG	2.27	0.48
46:BO:11:ALA:O	46:BO:99:PHE:N	2.42	0.48
47:BP:83:VAL:HG13	47:BP:114:ILE:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:29:ARG:HB3	51:BT:85:LYS:HA	1.94	0.48
54:BW:50:VAL:CG1	54:BW:51:LEU:N	2.76	0.48
55:BX:29:TRP:CE3	55:BX:78:LYS:HB3	2.49	0.48
55:BX:66:LEU:C	55:BX:66:LEU:HD23	2.33	0.48
1:CA:92:C:H2'	1:CA:93:G:C8	2.39	0.48
1:CA:243:A:H4'	1:CA:244:U:O5'	2.14	0.48
1:CA:302:G:H21	1:CA:556:C:C4'	2.27	0.48
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.47	0.48
1:CA:962:C:H2'	1:CA:963:G:H8	1.77	0.48
3:CC:18:TRP:H	3:CC:18:TRP:HE3	1.60	0.48
4:CD:57:ARG:HG3	4:CD:57:ARG:NH1	2.26	0.48
5:CE:101:ILE:HD13	5:CE:118:ILE:O	2.13	0.48
9:CI:17:VAL:HG22	9:CI:63:ILE:CD1	2.43	0.48
10:CJ:79:ARG:N	10:CJ:79:ARG:HH11	2.12	0.48
13:CM:16:ASP:HB2	13:CM:27:LYS:HZ2	1.77	0.48
13:CM:108:ARG:NH1	13:CM:111:LYS:HB2	2.29	0.48
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.48	0.48
33:D7:9:ARG:NH1	36:DA:1310:G:OP2	2.45	0.48
34:D8:33:ASN:HA	34:D8:36:LYS:HD2	1.95	0.48
36:DA:90:U:H1'	36:DA:92:A:C8	2.46	0.48
36:DA:307:G:H21	36:DA:330:A:H62	1.61	0.48
36:DA:469:G:OP1	41:DF:59:TYR:HB3	2.13	0.48
36:DA:747:U:O2	36:DA:2014:A:H1'	2.13	0.48
36:DA:845:G:N2	36:DA:933:A:H61	2.02	0.48
36:DA:1274:A:N3	36:DA:1297:C:H1'	2.29	0.48
36:DA:1327:C:H2'	36:DA:1328:G:O4'	2.13	0.48
36:DA:1329:U:H5"	36:DA:1330:C:H5	1.78	0.48
36:DA:1666:G:H2'	36:DA:1667:G:H5'	1.95	0.48
36:DA:1799:G:H5'	36:DA:1819:A:N6	2.27	0.48
36:DA:2208:A:H1'	36:DA:2219:G:C4	2.48	0.48
36:DA:2330:G:O2'	36:DA:2331:G:H5'	2.13	0.48
40:DE:33:VAL:HG13	40:DE:69:LYS:CE	2.39	0.48
40:DE:79:ARG:HG2	40:DE:79:ARG:NH1	2.28	0.48
43:DH:43:VAL:CG1	43:DH:52:VAL:HA	2.30	0.48
43:DH:73:ALA:O	43:DH:76:VAL:HB	2.14	0.48
43:DH:89:ILE:HD12	43:DH:89:ILE:C	2.33	0.48
44:DI:95:LYS:HA	44:DI:98:ALA:CB	2.43	0.48
44:DI:120:ILE:HD13	44:DI:126:TYR:CE1	2.48	0.48
46:DO:34:THR:OG1	46:DO:35:VAL:N	2.46	0.48
48:DQ:134:ARG:NH2	57:DZ:122:ARG:NH2	2.48	0.48
50:DS:34:HIS:NE2	50:DS:54:LEU:HB2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:31:SER:OG	52:DU:34:LYS:N	2.40	0.48
52:DU:69:CYS:CB	52:DU:79:PHE:CD1	2.96	0.48
52:DU:99:ALA:HB2	52:DU:106:PHE:CZ	2.49	0.48
54:DW:97:LYS:O	54:DW:99:ARG:N	2.46	0.48
57:DZ:48:PHE:O	57:DZ:50:GLN:N	2.46	0.48
57:DZ:81:ARG:O	57:DZ:82:ARG:HB2	2.13	0.48
1:AA:125:U:H2'	1:AA:126:G:H8	1.77	0.48
1:AA:421:U:OP2	1:AA:422:C:H5	1.96	0.48
1:AA:620:C:C2	4:AD:135:LEU:HG	2.49	0.48
1:AA:1188:A:H2'	1:AA:1189:C:H5'	1.95	0.48
1:AA:1260:C:OP1	1:AA:1284:C:H4'	2.13	0.48
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.93	0.48
1:AA:1370:G:H5"	9:AI:12:GLU:HG3	1.96	0.48
1:AA:1416:G:H2'	1:AA:1417:G:C5'	2.44	0.48
1:AA:1445:C:C2'	1:AA:1446:U:H5'	2.43	0.48
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.14	0.48
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.95	0.48
3:AC:18:TRP:H	3:AC:18:TRP:HE3	1.61	0.48
5:AE:64:ARG:HA	5:AE:64:ARG:HE	1.79	0.48
6:AF:22:GLU:OE1	6:AF:84:ASN:ND2	2.42	0.48
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.95	0.48
13:AM:13:LYS:O	13:AM:14:ARG:C	2.52	0.48
20:AT:72:LEU:CD2	20:AT:73:HIS:N	2.70	0.48
23:AW:41:C:H2'	23:AW:41:C:O2	2.14	0.48
23:AW:59:U:H2'	23:AW:60:U:C5'	2.43	0.48
25:AY:58:A:O2'	25:AY:61:C:C4	2.67	0.48
27:B1:69:LYS:HA	27:B1:72:GLU:HB2	1.95	0.48
34:B8:2:PRO:O	34:B8:3:LYS:C	2.51	0.48
34:B8:21:LYS:HD3	34:B8:48:PHE:CE2	2.47	0.48
36:BA:18:C:O3'	52:BU:23:GLY:HA2	2.12	0.48
36:BA:102:G:OP1	36:BA:102:G:C4'	2.61	0.48
36:BA:236:C:H2'	36:BA:237:C:H6	1.78	0.48
36:BA:605:C:O2	36:BA:657:U:O2'	2.31	0.48
36:BA:631:A:H2'	36:BA:632:A:O4'	2.13	0.48
36:BA:2159:G:N2	36:BA:2160:G:H1'	2.29	0.48
36:BA:2472:G:H3'	36:BA:2475:C:N4	2.29	0.48
37:BB:10:C:H42	37:BB:111:G:H1	1.60	0.48
44:BI:29:TYR:CE1	44:BI:33:ARG:NE	2.75	0.48
46:BO:88:ASN:O	46:BO:91:LEU:N	2.45	0.48
48:BQ:116:GLU:HA	48:BQ:116:GLU:OE1	2.13	0.48
51:BT:128:GLU:C	51:BT:128:GLU:OE1	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:27:LEU:O	52:BU:34:LYS:HB2	2.13	0.48
54:BW:68:ARG:O	54:BW:110:LYS:N	2.46	0.48
1:CA:137:C:H42	1:CA:226:G:H1	1.60	0.48
1:CA:223:U:O2'	1:CA:224:C:H5'	2.14	0.48
1:CA:1255:G:C5'	3:CC:26:LYS:HZ2	2.26	0.48
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.28	0.48
1:CA:1505:G:H5"	1:CA:1506:U:OP1	2.13	0.48
2:CB:15:VAL:HG21	2:CB:209:ARG:NH2	2.21	0.48
2:CB:17:PHE:CD2	2:CB:17:PHE:N	2.79	0.48
2:CB:80:ILE:C	2:CB:82:ARG:N	2.67	0.48
10:CJ:85:LEU:C	10:CJ:87:THR:N	2.67	0.48
12:CL:111:LYS:O	12:CL:112:ASP:HB2	2.13	0.48
19:CS:39:THR:CG2	19:CS:40:ILE:N	2.77	0.48
20:CT:22:ARG:O	20:CT:26:ASN:ND2	2.46	0.48
20:CT:61:SER:O	20:CT:63:ILE:N	2.47	0.48
27:D1:42:GLN:HB3	36:DA:396:G:H1'	1.94	0.48
33:D7:41:ARG:HB2	33:D7:41:ARG:NH1	2.28	0.48
36:DA:185:U:H2'	36:DA:186:G:H8	1.78	0.48
36:DA:402:A:H2'	36:DA:403:U:H5'	1.96	0.48
36:DA:440:G:H2'	36:DA:441:U:C6	2.48	0.48
36:DA:691:C:O2'	36:DA:692:C:H5'	2.13	0.48
36:DA:2164:C:H3'	36:DA:2165:G:H8	1.77	0.48
36:DA:2445:G:OP1	41:DF:74:ARG:NH2	2.45	0.48
36:DA:2454:G:O2'	36:DA:2455:G:H5'	2.12	0.48
36:DA:2697:G:H2'	36:DA:2698:U:O4'	2.14	0.48
38:DC:64:LEU:O	38:DC:66:HIS:N	2.46	0.48
39:DD:25:THR:O	39:DD:26:LYS:NZ	2.43	0.48
40:DE:59:VAL:CG2	40:DE:60:ASN:N	2.67	0.48
41:DF:127:GLU:HB2	41:DF:196:LEU:HG	1.96	0.48
41:DF:168:ARG:HA	41:DF:175:THR:CG2	2.40	0.48
43:DH:130:ARG:HH11	43:DH:132:ARG:HH21	1.60	0.48
44:DI:72:LEU:HD23	44:DI:107:VAL:HG21	1.95	0.48
47:DP:63:PRO:O	47:DP:65:ARG:N	2.46	0.48
48:DQ:59:ARG:HG3	48:DQ:59:ARG:HH11	1.78	0.48
50:DS:89:ARG:O	50:DS:90:GLY:O	2.32	0.48
50:DS:98:VAL:O	50:DS:98:VAL:HG13	2.13	0.48
51:DT:27:THR:O	51:DT:28:VAL:CG2	2.62	0.48
53:DV:39:LEU:HD12	53:DV:50:PRO:C	2.32	0.48
54:DW:50:VAL:CG1	54:DW:51:LEU:H	2.25	0.48
55:DX:43:VAL:HG21	55:DX:81:VAL:HG11	1.94	0.48
1:AA:97:G:O2'	1:AA:98:G:P	2.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:431:A:H2'	1:AA:432:A:O4'	2.13	0.48
1:AA:454:C:H2'	1:AA:455:C:H5'	1.96	0.48
1:AA:659:U:O2'	1:AA:660:G:H5'	2.14	0.48
1:AA:1169:A:H2'	1:AA:1170:A:H8	1.77	0.48
2:AB:126:GLU:C	2:AB:128:GLU:N	2.66	0.48
2:AB:165:VAL:O	2:AB:187:LEU:O	2.32	0.48
5:AE:20:GLN:O	5:AE:23:GLY:O	2.32	0.48
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.13	0.48
10:AJ:22:LYS:NZ	10:AJ:23:ILE:HG12	2.29	0.48
11:AK:32:ILE:HD11	11:AK:68:ALA:O	2.12	0.48
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.28	0.48
29:B3:7:LYS:C	29:B3:54:VAL:HG13	2.32	0.48
31:B5:19:ARG:NH2	36:BA:1264:G:OP1	2.41	0.48
36:BA:440:G:H2'	36:BA:441:U:C6	2.49	0.48
36:BA:614(A):U:H4'	36:BA:614(B):G:H5"	1.95	0.48
36:BA:1238:G:H2'	36:BA:1239:G:H8	1.77	0.48
36:BA:1332:G:N2	36:BA:1609:A:O2'	2.47	0.48
36:BA:1494:A:O2'	36:BA:1495:A:H5"	2.14	0.48
36:BA:1747(A):G:O2'	36:BA:1748:G:H5"	2.13	0.48
36:BA:2225:A:H1'	36:BA:2226:C:OP2	2.13	0.48
36:BA:2505:G:O2'	36:BA:2506:U:H5'	2.14	0.48
36:BA:2810:A:H2'	36:BA:2811:G:O4'	2.14	0.48
36:BA:2831:G:O4'	36:BA:2883:A:C2	2.67	0.48
38:BC:82:LYS:NZ	38:BC:149:ILE:HA	2.29	0.48
39:BD:24:ILE:O	39:BD:25:THR:O	2.31	0.48
39:BD:118:VAL:HG22	39:BD:119:ALA:N	2.29	0.48
40:BE:48:GLN:NE2	40:BE:78:LEU:HD13	2.29	0.48
41:BF:65:TRP:CH2	41:BF:75:HIS:HD2	2.32	0.48
43:BH:89:ILE:HD13	43:BH:94:TYR:HB3	1.96	0.48
43:BH:130:ARG:HH11	43:BH:132:ARG:NH2	2.12	0.48
44:BI:15:VAL:O	44:BI:17:GLN:N	2.47	0.48
47:BP:108:LYS:HD2	47:BP:108:LYS:N	2.28	0.48
48:BQ:109:VAL:CG1	48:BQ:110:THR:N	2.75	0.48
52:BU:99:ALA:HB2	52:BU:106:PHE:CZ	2.48	0.48
53:BV:2:PHE:HD1	53:BV:13:ARG:NH1	2.11	0.48
56:BY:8:LYS:CE	56:BY:72:VAL:HG23	2.44	0.48
57:BZ:151:HIS:HB2	57:BZ:168:GLU:O	2.12	0.48
1:CA:193:C:H2'	1:CA:194:C:C6	2.49	0.48
1:CA:238:G:O2'	1:CA:239:U:H5'	2.14	0.48
1:CA:259:G:H2'	1:CA:260:G:O4'	2.14	0.48
1:CA:454:C:H2'	1:CA:455:C:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:744:C:O2'	1:CA:745:C:H5'	2.13	0.48
1:CA:795:C:H1'	1:CA:1506:U:C6	2.49	0.48
1:CA:818:G:H3'	1:CA:819:A:H5"	1.94	0.48
1:CA:950:U:H4'	1:CA:971:G:C2	2.49	0.48
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.49	0.48
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.78	0.48
1:CA:1191:A:P	3:CC:3:ASN:HD21	2.37	0.48
2:CB:17:PHE:N	2:CB:17:PHE:HD2	2.12	0.48
3:CC:71:ALA:HB1	3:CC:109:PRO:HG3	1.94	0.48
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.94	0.48
7:CG:5:ARG:C	7:CG:7:ALA:H	2.16	0.48
7:CG:145:ALA:O	7:CG:147:ALA:N	2.43	0.48
8:CH:5:PRO:HB3	8:CH:32:LYS:NZ	2.29	0.48
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.95	0.48
23:CW:71:G:O2'	23:CW:72:C:H5'	2.14	0.48
25:CY:9:A:H1'	25:CY:45:U:O2	2.14	0.48
29:D3:31:LEU:C	29:D3:33:GLN:H	2.17	0.48
30:D4:40:ILE:N	30:D4:40:ILE:HD12	2.28	0.48
32:D6:37:ARG:HG3	32:D6:37:ARG:NH1	2.27	0.48
34:D8:2:PRO:O	34:D8:3:LYS:C	2.52	0.48
36:DA:207:A:H2'	36:DA:208:C:O4'	2.13	0.48
36:DA:325:G:H2'	36:DA:326:G:C8	2.48	0.48
36:DA:661:C:H2'	36:DA:662:G:C8	2.49	0.48
36:DA:1335:U:H2'	36:DA:1336:A:H8	1.78	0.48
36:DA:1885:A:H2'	36:DA:1886:C:O4'	2.13	0.48
36:DA:2036:C:H6	36:DA:2036:C:C5'	2.16	0.48
36:DA:2464:C:O2'	36:DA:2465:C:O5'	2.31	0.48
38:DC:78:ALA:C	38:DC:80:GLY:H	2.17	0.48
39:DD:74:GLY:O	39:DD:76:PRO:HD3	2.14	0.48
41:DF:158:THR:HG23	41:DF:164:ARG:HE	1.78	0.48
42:DG:57:ALA:O	42:DG:68:PRO:HG3	2.14	0.48
42:DG:139:LEU:HD22	42:DG:146:TYR:CD1	2.49	0.48
43:DH:86:GLU:N	43:DH:86:GLU:CD	2.67	0.48
43:DH:94:TYR:HE1	43:DH:108:GLY:H	1.60	0.48
43:DH:146:ALA:HB2	43:DH:164:TYR:OH	2.13	0.48
45:DN:46:VAL:O	45:DN:47:ALA:CB	2.62	0.48
47:DP:144:GLU:HG2	47:DP:144:GLU:O	2.14	0.48
52:DU:15:LYS:HA	52:DU:18:LEU:HB2	1.95	0.48
52:DU:85:LYS:CD	52:DU:117:GLN:HE22	2.26	0.48
54:DW:24:ILE:HG23	54:DW:36:LEU:HD21	1.94	0.48
56:DY:3:VAL:O	56:DY:3:VAL:HG12	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:37:VAL:O	56:DY:66:PRO:HA	2.14	0.48
56:DY:50:ARG:O	56:DY:52:SER:N	2.47	0.48
1:AA:161:A:H2'	1:AA:162:A:C8	2.49	0.48
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.48	0.48
1:AA:622:A:C8	1:AA:623:C:C6	3.01	0.48
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.95	0.48
1:AA:818:G:C3'	1:AA:819:A:C5'	2.92	0.48
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.13	0.48
2:AB:35:GLU:O	2:AB:35:GLU:HG2	2.14	0.48
5:AE:20:GLN:HG2	5:AE:21:ALA:N	2.28	0.48
5:AE:90:VAL:HG23	5:AE:121:LYS:H	1.78	0.48
10:AJ:13:HIS:O	10:AJ:17:ASP:HB2	2.13	0.48
14:AN:22:THR:O	14:AN:23:ARG:HB2	2.14	0.48
22:AV:49:G:N3	22:AV:50:U:H1'	2.29	0.48
26:B0:20:ARG:NH1	36:BA:2357:U:OP1	2.46	0.48
26:B0:54:GLY:O	26:B0:56:ASP:N	2.47	0.48
36:BA:271(D):G:O2'	36:BA:271(E):U:H5'	2.14	0.48
36:BA:534:U:H5'	52:BU:42:ALA:HB1	1.96	0.48
36:BA:610:G:H2'	36:BA:611:C:C6	2.48	0.48
36:BA:852:G:H2'	36:BA:853:G:C8	2.49	0.48
36:BA:855:G:C6	36:BA:856:C:N4	2.82	0.48
36:BA:879:G:C2	36:BA:899:A:H1'	2.49	0.48
36:BA:1387:C:H5'	36:BA:1469:A:H4'	1.95	0.48
36:BA:2164:C:H3'	36:BA:2165:G:H8	1.79	0.48
36:BA:2474:C:H2'	36:BA:2474:C:O2	2.14	0.48
36:BA:2552:U:H2'	36:BA:2554:U:OP2	2.14	0.48
36:BA:2789:C:N3	36:BA:2894:G:O6	2.47	0.48
37:BB:68:C:H2'	37:BB:69:G:H8	1.79	0.48
38:BC:182:PRO:O	38:BC:183:GLU:CB	2.61	0.48
39:BD:49:ILE:CD1	39:BD:52:ARG:HA	2.41	0.48
39:BD:197:GLY:O	39:BD:198:ASN:HB3	2.14	0.48
41:BF:124:LEU:HG	41:BF:126:VAL:CG1	2.44	0.48
42:BG:43:LEU:CB	42:BG:88:ILE:HG12	2.39	0.48
44:BI:98:ALA:C	44:BI:100:ALA:H	2.17	0.48
46:BO:7:TYR:HE1	46:BO:20:MET:HE3	1.79	0.48
46:BO:68:GLU:HG2	46:BO:68:GLU:O	2.14	0.48
47:BP:34:GLY:O	47:BP:35:HIS:CB	2.61	0.48
50:BS:17:ARG:O	50:BS:19:LYS:N	2.46	0.48
50:BS:65:VAL:O	50:BS:69:VAL:HG12	2.13	0.48
52:BU:110:VAL:O	52:BU:113:ALA:HB3	2.13	0.48
56:BY:84:ARG:HH12	56:BY:97:ARG:HD2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:28:MET:O	57:BZ:33:LEU:HG	2.13	0.48
57:BZ:93:ASP:HA	57:BZ:130:PRO:HD2	1.96	0.48
1:CA:389:A:H2'	1:CA:390:C:C5'	2.40	0.48
1:CA:689:C:P	11:CK:46:GLY:HA3	2.54	0.48
1:CA:954:G:H21	1:CA:1227:A:N6	2.11	0.48
2:CB:109:SER:C	2:CB:111:ARG:H	2.17	0.48
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.42	0.48
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.87	0.48
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.42	0.48
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.96	0.48
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.96	0.48
17:CQ:45:HIS:CG	17:CQ:65:ILE:HD13	2.49	0.48
22:CV:75:C:OP1	36:DA:2602:A:P	2.72	0.48
27:D1:84:GLY:O	27:D1:86:SER:N	2.47	0.48
33:D7:43:THR:HG23	33:D7:44:PRO:CD	2.42	0.48
36:DA:271(Q):G:O2'	36:DA:271(R):G:C8	2.61	0.48
36:DA:271(U):G:H2'	36:DA:271(V):G:H8	1.78	0.48
36:DA:634:C:H2'	36:DA:635:C:C6	2.49	0.48
36:DA:971:C:O2'	36:DA:972:G:H5'	2.13	0.48
36:DA:2831:G:H1'	36:DA:2883:A:H2'	1.95	0.48
37:DB:81:G:C6	37:DB:82:G:C5	3.01	0.48
39:DD:30:GLU:HG3	39:DD:63:ARG:CZ	2.44	0.48
39:DD:106:ILE:HG23	39:DD:106:ILE:O	2.13	0.48
39:DD:228:PRO:HD3	39:DD:235:GLY:CA	2.43	0.48
40:DE:2:LYS:HE2	40:DE:95:ILE:HG22	1.95	0.48
40:DE:101:ARG:HH21	40:DE:171:GLU:CB	2.26	0.48
42:DG:41:GLN:HB2	42:DG:90:LEU:N	2.26	0.48
42:DG:46:ALA:HB1	42:DG:87:PRO:HA	1.95	0.48
44:DI:5:LEU:HD12	44:DI:5:LEU:N	2.28	0.48
44:DI:31:LEU:HB2	44:DI:32:PRO:HD3	1.94	0.48
44:DI:82:ARG:O	44:DI:89:TYR:HD1	1.97	0.48
45:DN:134:ARG:N	45:DN:135:PRO:CD	2.76	0.48
48:DQ:32:TYR:CZ	48:DQ:111:GLU:HB2	2.49	0.48
48:DQ:111:GLU:OE2	48:DQ:133:ARG:NH2	2.46	0.48
51:DT:13:ARG:NH1	51:DT:15:VAL:CG1	2.77	0.48
57:DZ:37:VAL:O	57:DZ:38:TYR:HB3	2.13	0.48
57:DZ:58:VAL:HG13	57:DZ:67:LEU:O	2.14	0.48
1:AA:193:C:H2'	1:AA:194:C:C6	2.48	0.48
1:AA:551:U:O2'	12:AL:86:ARG:HD2	2.13	0.48
1:AA:1019:C:H2'	1:AA:1020:U:O4'	2.13	0.48
1:AA:1294:G:H2'	1:AA:1295:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1442(B):A:C2	51:BT:118:ARG:NH1	2.82	0.48
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.14	0.48
3:AC:3:ASN:CG	3:AC:4:LYS:N	2.67	0.48
4:AD:30:LYS:HA	4:AD:35:ARG:HD2	1.95	0.48
4:AD:107:ARG:HB3	4:AD:174:LEU:HD11	1.95	0.48
5:AE:136:MET:C	5:AE:138:ALA:N	2.67	0.48
7:AG:41:ARG:O	7:AG:45:ASP:N	2.39	0.48
7:AG:75:VAL:O	7:AG:75:VAL:HG23	2.14	0.48
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HE3	2.49	0.48
10:AJ:97:GLU:O	10:AJ:98:ILE:HD12	2.14	0.48
19:AS:35:SER:C	19:AS:37:ARG:H	2.16	0.48
22:AV:17:C:N3	22:AV:17(A):U:O4	2.47	0.48
25:AY:19:G:C2	36:BA:881:G:H4’	2.49	0.48
26:B0:26:TYR:H	26:B0:29:GLN:NE2	2.11	0.48
36:BA:352:G:H2’	36:BA:352:G:N3	2.28	0.48
36:BA:407:G:H2’	36:BA:408:G:C8	2.48	0.48
36:BA:1386:C:H2’	36:BA:1387:C:C6	2.48	0.48
36:BA:1406:U:H3’	36:BA:1407:C:H6	1.78	0.48
36:BA:1812:A:H2’	36:BA:1813:G:H8	1.79	0.48
36:BA:2262:U:O2’	36:BA:2263:C:H5”	2.13	0.48
37:BB:87:G:C2’	37:BB:88:C:H5”	2.44	0.48
38:BC:64:LEU:O	38:BC:66:HIS:N	2.45	0.48
39:BD:68:LYS:HB2	39:BD:70:TRP:CZ2	2.49	0.48
40:BE:197:ILE:O	40:BE:197:ILE:HG13	2.14	0.48
43:BH:88:LEU:N	43:BH:88:LEU:HD22	2.29	0.48
44:BI:12:LEU:O	44:BI:12:LEU:HG	2.13	0.48
47:BP:95:VAL:CG2	47:BP:125:VAL:HB	2.44	0.48
47:BP:98:GLU:HG3	47:BP:99:LEU:N	2.28	0.48
47:BP:148:LEU:O	47:BP:149:GLU:HB2	2.13	0.48
49:BR:109:ALA:O	49:BR:111:LEU:HD22	2.13	0.48
51:BT:42:ILE:HD12	51:BT:42:ILE:H	1.78	0.48
51:BT:68:TYR:HD2	51:BT:68:TYR:N	2.12	0.48
51:BT:96:ARG:NH1	51:BT:96:ARG:CG	2.77	0.48
52:BU:69:CYS:CB	52:BU:79:PHE:CD1	2.96	0.48
54:BW:8:ARG:HA	54:BW:102:HIS:CD2	2.48	0.48
1:CA:41:G:H2’	1:CA:42:G:H8	1.79	0.48
1:CA:116:A:H8	1:CA:116:A:O5’	1.97	0.48
1:CA:123:C:OP1	1:CA:312:C:H5’	2.14	0.48
1:CA:166:G:O2’	1:CA:167:G:H5’	2.13	0.48
1:CA:321:A:O2’	1:CA:322:C:H5’	2.14	0.48
1:CA:407:G:H5’	4:CD:3:ARG:HH12	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1113:C:H2'	1:CA:1114:C:H6	1.78	0.48
1:CA:1197:G:O2'	1:CA:1198:G:H5'	2.13	0.48
1:CA:1291:G:OP1	7:CG:37:ASN:ND2	2.47	0.48
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.14	0.48
1:CA:1476:G:O2'	1:CA:1477:C:H5'	2.14	0.48
2:CB:63:MET:C	2:CB:65:GLY:H	2.17	0.48
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	2.13	0.48
3:CC:39:ILE:C	3:CC:41:GLY:N	2.66	0.48
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.28	0.48
8:CH:63:LEU:HB3	8:CH:65:TYR:CE1	2.49	0.48
9:CI:88:TYR:O	9:CI:89:ASN:ND2	2.47	0.48
11:CK:12:ARG:HH21	11:CK:14:VAL:CG1	2.25	0.48
12:CL:126:LYS:HG3	12:CL:127:GLU:N	2.28	0.48
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.49	0.48
27:D1:58:ILE:HD12	27:D1:90:ILE:HG22	1.94	0.48
29:D3:8:LEU:HD13	29:D3:31:LEU:HD23	1.91	0.48
29:D3:31:LEU:HB2	36:DA:1158:C:C5'	2.43	0.48
32:D6:47:THR:HG22	32:D6:48:VAL:N	2.21	0.48
36:DA:271(P):C:C5'	44:DI:46:ALA:HB2	2.44	0.48
36:DA:543:C:O2	36:DA:549:G:N2	2.41	0.48
36:DA:1203:G:OP2	36:DA:1204:A:H2'	2.13	0.48
36:DA:1208:C:C4	36:DA:1209:G:N7	2.82	0.48
36:DA:1748:G:H5'	36:DA:1748:G:C8	2.41	0.48
36:DA:1797:C:O2'	39:DD:259:THR:CG2	2.61	0.48
36:DA:2189:U:H2'	36:DA:2190:G:H5"	1.96	0.48
36:DA:2700:C:O2'	36:DA:2701:C:H5'	2.12	0.48
37:DB:56:G:H4'	37:DB:57:A:O5'	2.12	0.48
39:DD:31:LYS:CE	39:DD:94:LEU:HD11	2.38	0.48
43:DH:38:SER:O	43:DH:40:GLU:N	2.45	0.48
43:DH:120:GLY:HA3	43:DH:140:LYS:HZ1	1.79	0.48
44:DI:23:PRO:HB3	44:DI:27:ARG:NH1	2.29	0.48
44:DI:92:VAL:HA	44:DI:96:ASP:OD1	2.13	0.48
44:DI:110:ASP:O	44:DI:114:LEU:HD21	2.13	0.48
45:DN:1:MET:C	45:DN:2:LYS:HD2	2.34	0.48
47:DP:35:HIS:O	47:DP:36:LYS:CB	2.61	0.48
47:DP:97:PRO:O	47:DP:98:GLU:HG3	2.14	0.48
48:DQ:76:LYS:HB3	48:DQ:91:GLU:HG3	1.94	0.48
49:DR:27:SER:HB3	49:DR:34:ILE:HD12	1.94	0.48
49:DR:28:LEU:CA	49:DR:34:ILE:HG13	2.44	0.48
50:DS:93:LYS:O	50:DS:95:HIS:N	2.47	0.48
51:DT:29:ARG:HB2	51:DT:86:ILE:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:28:LYS:NZ	56:DY:28:LYS:N	2.60	0.48
57:DZ:103:ARG:O	57:DZ:105:VAL:HG12	2.14	0.48
1:AA:420:U:H2'	1:AA:422:C:C5	2.49	0.48
1:AA:489:C:H2'	1:AA:490:G:H8	1.79	0.48
1:AA:1249:C:H4'	9:AI:36:TYR:OH	2.13	0.48
1:AA:1372:U:OP1	9:AI:71:SER:HB3	2.13	0.48
4:AD:56:VAL:HG12	4:AD:202:LEU:HD13	1.96	0.48
6:AF:3:ARG:HH11	6:AF:3:ARG:HG3	1.78	0.48
25:AY:18:G:N2	25:AY:60:U:H5	2.10	0.48
27:B1:57:GLU:O	27:B1:57:GLU:HG2	2.13	0.48
28:B2:50:ILE:O	28:B2:54:LYS:HG2	2.14	0.48
32:B6:26:ASN:O	32:B6:27:LYS:HG2	2.14	0.48
34:B8:13:ARG:CD	47:BP:61:ARG:O	2.61	0.48
36:BA:528:A:C2	36:BA:2043:C:H5'	2.48	0.48
36:BA:621:A:H2'	36:BA:622:G:H5'	1.95	0.48
36:BA:843:G:O2'	36:BA:844:C:H5'	2.14	0.48
36:BA:950:G:H2'	36:BA:951:C:C6	2.49	0.48
36:BA:1042:G:N3	36:BA:1042:G:H2'	2.28	0.48
36:BA:1232:G:H2'	36:BA:1233:C:H6	1.79	0.48
36:BA:2087:G:C2'	36:BA:2088:G:H5'	2.44	0.48
36:BA:2308:G:N7	36:BA:2310:A:O5'	2.47	0.48
36:BA:2790:A:N3	36:BA:2790:A:C2'	2.77	0.48
36:BA:2845:G:C2'	36:BA:2846:G:H5'	2.43	0.48
41:BF:28:ILE:HD12	41:BF:28:ILE:O	2.13	0.48
41:BF:184:TYR:CE2	41:BF:188:ARG:HD2	2.49	0.48
42:BG:19:LEU:HD21	42:BG:171:ALA:HB1	1.96	0.48
42:BG:82:LEU:CD2	42:BG:87:PRO:HG3	2.41	0.48
44:BI:68:LEU:HD21	44:BI:130:TYR:CD2	2.49	0.48
45:BN:99:LEU:HD12	45:BN:122:VAL:HG21	1.95	0.48
46:BO:11:ALA:O	46:BO:99:PHE:HD2	1.96	0.48
47:BP:32:THR:CG2	47:BP:37:GLY:HA2	2.43	0.48
48:BQ:35:VAL:HG23	48:BQ:100:GLY:O	2.13	0.48
48:BQ:76:LYS:HB3	48:BQ:91:GLU:HG3	1.96	0.48
52:BU:12:ARG:HA	52:BU:15:LYS:NZ	2.29	0.48
53:BV:46:VAL:CG2	53:BV:47:VAL:H	2.22	0.48
54:BW:58:ALA:O	54:BW:62:HIS:HB2	2.14	0.48
55:BX:35:THR:HG22	55:BX:36:LYS:N	2.28	0.48
56:BY:13:VAL:HA	56:BY:75:ILE:CG2	2.44	0.48
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.49	0.48
1:CA:370:C:O2'	1:CA:371:G:H5'	2.14	0.48
1:CA:664:G:H22	1:CA:741:G:H1	1.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:866:C:H4'	1:CA:919:A:H5"	1.96	0.48
1:CA:1004:A:N7	1:CA:1036:G:O6	2.46	0.48
1:CA:1006:C:H42	1:CA:1024:G:H21	1.60	0.48
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.54	0.48
1:CA:1253:G:O2'	1:CA:1254:C:H5'	2.13	0.48
1:CA:1457:G:H8	1:CA:1457:G:O5'	1.97	0.48
2:CB:157:ARG:O	2:CB:158:LEU:C	2.52	0.48
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.43	0.48
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.28	0.48
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.96	0.48
10:CJ:49:VAL:HG21	14:CN:41:ARG:O	2.14	0.48
18:CR:47:THR:HG21	18:CR:49:LYS:HE2	1.96	0.48
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.27	0.48
22:CV:49:G:C6	22:CV:50:U:C2	3.01	0.48
25:CY:55:U:O2'	25:CY:56:C:C5'	2.61	0.48
34:D8:21:LYS:HD3	34:D8:48:PHE:CZ	2.48	0.48
36:DA:251:A:H5"	47:DP:51:PHE:CZ	2.49	0.48
36:DA:967:C:O2'	36:DA:968:G:H5'	2.14	0.48
36:DA:1414:G:H1	36:DA:1588:C:H42	1.62	0.48
36:DA:2310:A:O2'	36:DA:2311:A:H5"	2.14	0.48
36:DA:2422:A:H4'	36:DA:2423:U:OP1	2.12	0.48
36:DA:2469:A:O2'	48:DQ:56:ARG:HD3	2.13	0.48
36:DA:2474:C:O2	36:DA:2474:C:H2'	2.14	0.48
37:DB:87:G:C2'	37:DB:88:C:H5"	2.43	0.48
39:DD:241:PRO:C	39:DD:242:ARG:HD2	2.34	0.48
40:DE:54:GLN:O	40:DE:75:VAL:HG23	2.13	0.48
40:DE:101:ARG:HB2	40:DE:201:THR:HG22	1.96	0.48
40:DE:119:ARG:HG2	40:DE:160:TYR:HB2	1.96	0.48
41:DF:9:ILE:HG12	41:DF:13:SER:O	2.14	0.48
44:DI:120:ILE:HG22	44:DI:122:GLU:H	1.79	0.48
45:DN:15:LEU:CD1	45:DN:16:ILE:N	2.75	0.48
45:DN:23:LEU:CD1	45:DN:98:VAL:HG12	2.44	0.48
47:DP:83:VAL:HG13	47:DP:83:VAL:O	2.14	0.48
51:DT:63:VAL:O	51:DT:73:GLU:HA	2.14	0.48
51:DT:98:LYS:HB3	51:DT:100:TYR:CE1	2.49	0.48
55:DX:59:VAL:N	55:DX:76:ARG:O	2.41	0.48
56:DY:96:ILE:CG1	56:DY:99:CYS:HB2	2.44	0.48
57:DZ:58:VAL:HG13	57:DZ:67:LEU:N	2.28	0.48
57:DZ:124:ILE:HG23	57:DZ:165:VAL:HG21	1.96	0.48
1:AA:163:C:O2'	1:AA:164:U:H5'	2.13	0.48
1:AA:343:U:O2'	1:AA:344:A:H2'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.44	0.48
1:AA:748:C:OP2	1:AA:748:C:H6	1.97	0.48
1:AA:839:U:O2	1:AA:839:U:H2'	2.12	0.48
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.44	0.48
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.72	0.48
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.14	0.48
15:AO:76:GLU:C	15:AO:78:TYR:H	2.16	0.48
18:AR:63:GLN:HA	18:AR:63:GLN:OE1	2.14	0.48
25:AY:55:U:O2'	25:AY:56:C:H5"	2.14	0.48
31:B5:40:LYS:C	31:B5:40:LYS:HD2	2.34	0.48
36:BA:66:C:C2'	36:BA:67:U:H5'	2.44	0.48
36:BA:619:G:P	36:BA:620:G:H22	2.37	0.48
36:BA:646:A:C8	36:BA:647:G:H1'	2.49	0.48
36:BA:2029:G:H2'	36:BA:2031:A:OP1	2.13	0.48
36:BA:2626:C:H2'	36:BA:2627:G:O4'	2.14	0.48
36:BA:2711:A:OP1	36:BA:2712(A):A:P	2.72	0.48
36:BA:2849:U:H1'	36:BA:2866:U:H6	1.79	0.48
36:BA:2863:C:C2'	36:BA:2864:G:C5'	2.82	0.48
40:BE:101:ARG:HB2	40:BE:201:THR:HG22	1.95	0.48
44:BI:129:THR:OG1	44:BI:130:TYR:N	2.47	0.48
47:BP:16:ARG:NH1	47:BP:16:ARG:CB	2.76	0.48
48:BQ:137:TYR:O	48:BQ:138:ASP:O	2.32	0.48
50:BS:17:ARG:C	50:BS:19:LYS:N	2.64	0.48
50:BS:22:GLY:O	50:BS:23:ARG:O	2.32	0.48
51:BT:65:LYS:HZ1	51:BT:66:VAL:N	2.08	0.48
56:BY:2:ARG:O	56:BY:3:VAL:HB	2.14	0.48
57:BZ:10:ARG:HB2	57:BZ:38:TYR:HD2	1.79	0.48
57:BZ:91:LEU:HD12	57:BZ:91:LEU:N	2.29	0.48
1:CA:437:U:OP1	4:CD:155:LEU:HD22	2.13	0.48
1:CA:718:G:H5'	11:CK:117:ASN:CG	2.34	0.48
1:CA:811:C:H4'	1:CA:900:A:N6	2.28	0.48
1:CA:857:C:H2'	1:CA:858:G:O4'	2.14	0.48
3:CC:11:ARG:HG2	3:CC:11:ARG:NH1	2.28	0.48
4:CD:107:ARG:HB3	4:CD:174:LEU:HD11	1.96	0.48
5:CE:20:GLN:O	5:CE:23:GLY:O	2.31	0.48
5:CE:64:ARG:HA	5:CE:64:ARG:HE	1.79	0.48
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	2.14	0.48
5:CE:144:THR:C	5:CE:146:ALA:N	2.67	0.48
8:CH:91:ARG:HH11	8:CH:91:ARG:CG	2.27	0.48
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.29	0.48
11:CK:46:GLY:HA2	11:CK:50:TYR:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.96	0.48
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.13	0.48
27:D1:29:GLY:C	27:D1:31:GLY:N	2.67	0.48
30:D4:37:PRO:HA	30:D4:51:TYR:HD2	1.78	0.48
36:DA:8:A:OP1	45:DN:51:PHE:HE2	1.97	0.48
36:DA:271(D):G:O2'	36:DA:271(E):U:H5'	2.14	0.48
36:DA:1141:U:H5"	36:DA:1142(A):A:O4'	2.14	0.48
36:DA:2822:G:O6	49:DR:4:LEU:HD12	2.14	0.48
39:DD:134:ARG:O	39:DD:168:ARG:NH1	2.46	0.48
42:DG:45:GLU:O	42:DG:46:ALA:HB3	2.14	0.48
42:DG:51:ARG:HH12	42:DG:53:LEU:HG	1.77	0.48
42:DG:125:PHE:CA	42:DG:130:ASN:O	2.51	0.48
42:DG:163:ALA:HB1	42:DG:169:ALA:HB2	1.96	0.48
44:DI:6:LEU:O	44:DI:8:PRO:N	2.46	0.48
47:DP:148:LEU:O	47:DP:149:GLU:HB2	2.13	0.48
52:DU:27:LEU:O	52:DU:34:LYS:HB2	2.14	0.48
55:DX:35:THR:HB	55:DX:38:GLU:H	1.79	0.48
56:DY:67:LEU:HD12	56:DY:68:HIS:O	2.14	0.48
57:DZ:54:HIS:ND1	57:DZ:101:PRO:HD3	2.29	0.48
1:AA:226:G:O2'	1:AA:227:G:H5'	2.14	0.47
1:AA:404:U:H2'	1:AA:405:U:C6	2.48	0.47
1:AA:1520:G:H2'	1:AA:1521:G:H8	1.79	0.47
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.79	0.47
2:AB:103:THR:OG1	2:AB:176:GLU:HG2	2.13	0.47
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.14	0.47
2:AB:178:ARG:O	8:AH:71:GLY:HA2	2.14	0.47
3:AC:90:GLU:HA	3:AC:90:GLU:OE1	2.14	0.47
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.14	0.47
11:AK:124:LYS:HB3	11:AK:125:PHE:CD1	2.49	0.47
27:B1:23:LYS:HE2	27:B1:28:GLY:CA	2.42	0.47
32:B6:30:THR:HG1	36:BA:2286:A:P	2.37	0.47
35:B9:35:ARG:HD3	36:BA:2742:C:OP1	2.14	0.47
36:BA:271(Q):G:O2'	36:BA:271(R):G:C8	2.61	0.47
36:BA:272:G:H1'	36:BA:272(B):G:O5'	2.14	0.47
36:BA:307:G:H21	36:BA:330:A:H62	1.60	0.47
36:BA:604:G:H2'	36:BA:605:C:C6	2.49	0.47
36:BA:952:G:C6	36:BA:953:A:N7	2.82	0.47
36:BA:1140:C:H5"	45:BN:66:LYS:HZ1	1.72	0.47
36:BA:1270:C:O2'	36:BA:1648:C:OP2	2.30	0.47
36:BA:1518:U:H2'	36:BA:1519:G:O4'	2.14	0.47
36:BA:1528(A):A:N7	36:BA:1529:G:C8	2.81	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1986:A:H3'	36:BA:1987:G:H5"	1.94	0.47
36:BA:2032:G:O2'	40:BE:145:LYS:NZ	2.45	0.47
36:BA:2167:U:O2'	36:BA:2168:G:H5'	2.13	0.47
36:BA:2189:U:H2'	36:BA:2190:G:H5"	1.95	0.47
36:BA:2408:U:O2'	36:BA:2409:G:H5'	2.13	0.47
36:BA:2522:U:C2'	36:BA:2523:G:H5"	2.43	0.47
36:BA:2680:C:H2'	36:BA:2681:C:O2	2.14	0.47
36:BA:2831:G:H1'	36:BA:2883:A:H2'	1.95	0.47
36:BA:2845:G:OP1	51:BT:56:GLY:N	2.46	0.47
40:BE:63:LEU:HD23	40:BE:65:GLY:N	2.28	0.47
41:BF:63:LYS:NZ	41:BF:67:GLN:HB3	2.28	0.47
42:BG:81:LYS:O	42:BG:82:LEU:C	2.52	0.47
43:BH:41:MET:HG2	43:BH:52:VAL:HG12	1.95	0.47
44:BI:68:LEU:HD23	44:BI:68:LEU:O	2.13	0.47
45:BN:18:ALA:O	45:BN:21:LYS:N	2.38	0.47
45:BN:108:PRO:O	45:BN:113:GLY:HA3	2.14	0.47
50:BS:93:LYS:O	50:BS:95:HIS:N	2.47	0.47
52:BU:104:GLN:CD	52:BU:104:GLN:H	2.18	0.47
54:BW:51:LEU:HD13	54:BW:52:GLU:N	2.28	0.47
56:BY:96:ILE:CG1	56:BY:99:CYS:HB2	2.44	0.47
1:CA:221:C:O2'	1:CA:222:U:H5'	2.14	0.47
1:CA:334:C:O2'	1:CA:335:C:H5'	2.14	0.47
1:CA:532:A:H2	1:CA:1207:G:C4'	2.26	0.47
1:CA:542:G:H2'	1:CA:543:C:C6	2.49	0.47
1:CA:940:C:H2'	1:CA:941:G:C8	2.49	0.47
1:CA:942:G:H2'	1:CA:943:U:C6	2.49	0.47
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.96	0.47
1:CA:1368:G:O2'	1:CA:1369:C:H5'	2.13	0.47
1:CA:1522:U:O2'	1:CA:1523:G:H5'	2.14	0.47
2:CB:35:GLU:HG2	2:CB:35:GLU:O	2.13	0.47
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.96	0.47
6:CF:22:GLU:OE1	6:CF:84:ASN:ND2	2.45	0.47
7:CG:76:ARG:HG2	7:CG:76:ARG:NH1	2.26	0.47
11:CK:111:ASP:HA	18:CR:84:LYS:CG	2.29	0.47
12:CL:59:ARG:HA	12:CL:65:GLU:HA	1.95	0.47
13:CM:65:LYS:CA	13:CM:66:LEU:HG	2.37	0.47
20:CT:13:LEU:HD12	20:CT:13:LEU:O	2.14	0.47
28:D2:47:ASN:OD1	36:DA:61:G:H1'	2.14	0.47
33:D7:8:ASN:C	33:D7:8:ASN:ND2	2.65	0.47
34:D8:49:VAL:C	34:D8:53:PRO:HG3	2.34	0.47
36:DA:333:G:H2'	36:DA:333:G:N3	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:407:G:H2'	36:DA:408:G:H8	1.79	0.47
36:DA:528:A:C8	36:DA:528:A:C3'	2.97	0.47
36:DA:834:C:O2'	36:DA:835:A:H5'	2.14	0.47
36:DA:919:G:H4'	37:DB:81:G:C4'	2.44	0.47
36:DA:952:G:C6	36:DA:953:A:N7	2.82	0.47
36:DA:1019:U:H3	36:DA:1142(A):A:N6	2.07	0.47
36:DA:1286:A:O2'	36:DA:1288:U:OP2	2.30	0.47
36:DA:1751:C:H2'	36:DA:1752:C:H6	1.79	0.47
36:DA:2692:C:H2'	36:DA:2693:A:C8	2.49	0.47
36:DA:2892:A:H2'	36:DA:2893:G:C4'	2.40	0.47
37:DB:33:G:H5'	42:DG:3:LEU:HD21	1.95	0.47
37:DB:45:A:H2'	37:DB:46:A:H5'	1.96	0.47
37:DB:60:C:H2'	37:DB:61:G:C8	2.39	0.47
39:DD:33:LEU:O	39:DD:35:LYS:N	2.46	0.47
39:DD:77:ALA:HB2	39:DD:97:TYR:CD2	2.49	0.47
40:DE:35:GLN:HG2	40:DE:36:ARG:N	2.28	0.47
40:DE:110:GLY:O	49:DR:2:ARG:NE	2.47	0.47
42:DG:16:ARG:N	42:DG:17:PRO:HD2	2.29	0.47
42:DG:64:THR:C	42:DG:66:GLN:H	2.16	0.47
42:DG:102:PHE:HA	42:DG:105:LYS:CG	2.43	0.47
43:DH:32:GLU:O	43:DH:33:LEU:HD23	2.14	0.47
44:DI:5:LEU:O	44:DI:6:LEU:HD23	2.14	0.47
44:DI:68:LEU:O	44:DI:72:LEU:HB3	2.14	0.47
46:DO:77:ILE:HD11	51:DT:72:VAL:HG12	1.96	0.47
46:DO:119:PRO:O	46:DO:120:GLU:CB	2.61	0.47
47:DP:34:GLY:O	47:DP:35:HIS:CB	2.62	0.47
50:DS:35:ILE:CG2	50:DS:53:SER:HB2	2.44	0.47
50:DS:77:ALA:O	50:DS:80:LEU:HD13	2.14	0.47
56:DY:26:LYS:CG	56:DY:27:VAL:H	2.07	0.47
57:DZ:116:VAL:O	57:DZ:174:VAL:HA	2.14	0.47
1:AA:110:C:H2'	1:AA:111:G:O4'	2.14	0.47
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.79	0.47
1:AA:1313:U:O4	19:AS:4:SER:N	2.47	0.47
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.15	0.47
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.14	0.47
7:AG:5:ARG:C	7:AG:7:ALA:H	2.16	0.47
9:AI:16:ARG:HB2	9:AI:64:THR:HG23	1.96	0.47
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.13	0.47
13:AM:117:VAL:CG1	13:AM:118:ALA:N	2.76	0.47
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.14	0.47
22:AV:19:G:C2	22:AV:57:A:N3	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B0:3:HIS:CD2	26:B0:3:HIS:H	2.30	0.47
36:BA:185:U:H2'	36:BA:186:G:C8	2.50	0.47
36:BA:965:C:H6	36:BA:965:C:H5"	1.79	0.47
37:BB:38:C:O4'	50:BS:95:HIS:NE2	2.47	0.47
38:BC:76:ALA:C	38:BC:78:ALA:N	2.66	0.47
39:BD:168:ARG:O	39:BD:169:GLU:HB2	2.15	0.47
42:BG:128:ARG:O	42:BG:130:ASN:N	2.47	0.47
43:BH:32:GLU:O	43:BH:33:LEU:HD23	2.14	0.47
44:BI:37:VAL:HG12	44:BI:38:LEU:N	2.29	0.47
44:BI:77:LEU:O	44:BI:140:LEU:HD12	2.13	0.47
46:BO:21:CYS:O	46:BO:22:ILE:HD13	2.14	0.47
46:BO:34:THR:OG1	46:BO:35:VAL:N	2.47	0.47
48:BQ:51:ARG:HH11	48:BQ:51:ARG:CG	2.26	0.47
51:BT:62:THR:CG2	51:BT:75:ILE:HG23	2.43	0.47
51:BT:65:LYS:HZ1	51:BT:66:VAL:HB	1.79	0.47
52:BU:90:VAL:HG21	53:BV:47:VAL:HG21	1.96	0.47
52:BU:104:GLN:HB2	53:BV:44:LYS:HZ1	1.79	0.47
57:BZ:120:ILE:HB	57:BZ:172:ALA:N	2.28	0.47
1:CA:599:C:O2'	1:CA:600:C:H5'	2.14	0.47
1:CA:882:C:O2'	1:CA:883:C:H5'	2.14	0.47
1:CA:1313:U:O4	19:CS:4:SER:N	2.47	0.47
1:CA:1442(A):G:C3'	1:CA:1442(B):A:C5'	2.88	0.47
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.96	0.47
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.14	0.47
11:CK:58:PRO:HA	11:CK:90:GLY:HA3	1.95	0.47
12:CL:79:GLU:HG2	12:CL:79:GLU:O	2.12	0.47
14:CN:8:GLU:HG3	14:CN:12:ARG:NH1	2.29	0.47
14:CN:36:PHE:C	14:CN:36:PHE:CD1	2.87	0.47
16:CP:81:ARG:C	16:CP:82:GLN:HE21	2.16	0.47
19:CS:36:ARG:HB2	19:CS:72:GLY:HA2	1.96	0.47
22:CV:41:C:H2'	22:CV:42:G:C8	2.49	0.47
22:CV:42:G:H2'	22:CV:43:A:C8	2.43	0.47
26:D0:20:ARG:NH1	36:DA:2357:U:OP1	2.47	0.47
29:D3:31:LEU:HB2	36:DA:1158:C:H5"	1.95	0.47
31:D5:2:ALA:N	36:DA:747:U:N3	2.62	0.47
36:DA:1657:C:O2'	36:DA:1658:C:H5'	2.13	0.47
36:DA:1742:G:N7	36:DA:1743:C:C4	2.83	0.47
36:DA:1847:A:H3'	36:DA:1848:A:C5'	2.44	0.47
36:DA:2127:G:H2'	36:DA:2128:C:O4'	2.13	0.47
39:DD:40:THR:HG22	39:DD:41:GLY:O	2.14	0.47
39:DD:168:ARG:O	39:DD:169:GLU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:19:ARG:O	40:DE:19:ARG:HG3	2.13	0.47
40:DE:117:MET:CE	40:DE:124:GLY:HA3	2.44	0.47
41:DF:155:LEU:CD2	41:DF:186:ILE:HD13	2.44	0.47
42:DG:19:LEU:HD22	42:DG:25:TYR:HE2	1.80	0.47
42:DG:60:LEU:CD2	42:DG:92:VAL:HG11	2.44	0.47
42:DG:144:ILE:HG23	42:DG:148:MET:CE	2.44	0.47
43:DH:121:ILE:HG22	43:DH:133:VAL:CG1	2.45	0.47
47:DP:50:ARG:HG2	47:DP:50:ARG:HH21	1.79	0.47
49:DR:38:VAL:HB	49:DR:39:PRO:CD	2.39	0.47
51:DT:92:GLY:O	51:DT:93:ARG:HB3	2.13	0.47
52:DU:12:ARG:HA	52:DU:15:LYS:NZ	2.28	0.47
52:DU:15:LYS:HD3	52:DU:15:LYS:N	2.29	0.47
52:DU:25:TRP:CG	52:DU:26:GLY:N	2.78	0.47
57:DZ:14:LYS:HZ3	57:DZ:17:ALA:HB3	1.79	0.47
1:AA:302:G:H21	1:AA:556:C:C4’	2.28	0.47
1:AA:389:A:H2’	1:AA:390:C:C5’	2.42	0.47
1:AA:437:U:OP1	4:AD:155:LEU:HD22	2.14	0.47
1:AA:1117:G:N2	1:AA:1180:A:H1’	2.29	0.47
1:AA:1137:C:H4’	1:AA:1138:G:N2	2.29	0.47
1:AA:1279:A:H61	3:AC:26:LYS:HZ3	1.61	0.47
1:AA:1466:C:H2’	1:AA:1467:G:H5’	1.96	0.47
2:AB:8:LYS:NZ	2:AB:217:ARG:HH12	2.11	0.47
2:AB:63:MET:C	2:AB:65:GLY:H	2.17	0.47
3:AC:33:LEU:O	3:AC:37:GLN:HG2	2.14	0.47
3:AC:126:ARG:HG2	3:AC:126:ARG:NH1	2.30	0.47
5:AE:90:VAL:HG21	5:AE:121:LYS:HB3	1.96	0.47
7:AG:16:LEU:HD12	9:AI:42:ARG:HA	1.96	0.47
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	2.14	0.47
7:AG:155:ARG:O	7:AG:156:TRP:O	2.32	0.47
8:AH:103:VAL:CG1	8:AH:108:GLY:HA3	2.44	0.47
9:AI:24:GLY:O	9:AI:25:LYS:C	2.51	0.47
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.26	0.47
11:AK:20:TYR:HB2	11:AK:31:THR:O	2.15	0.47
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.49	0.47
19:AS:31:ILE:CG2	19:AS:49:ILE:HA	2.43	0.47
25:AY:55:U:H6	25:AY:56:C:C6	2.33	0.47
36:BA:29:U:H2’	36:BA:30:G:C8	2.49	0.47
36:BA:198:C:H5’	36:BA:2244:U:OP1	2.14	0.47
36:BA:554:U:O2’	36:BA:555:U:H5’	2.14	0.47
36:BA:1112:G:O2’	36:BA:1113:U:O5’	2.26	0.47
36:BA:1176:G:O2’	36:BA:1177:A:H5’	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1592:C:H2'	36:BA:1593:G:C8	2.49	0.47
36:BA:1798:U:H5"	39:BD:260:ARG:HB3	1.96	0.47
36:BA:2600:A:H2'	36:BA:2601:C:C6	2.48	0.47
39:BD:75:ILE:HD13	39:BD:99:ASP:OD1	2.13	0.47
41:BF:133:ASN:O	41:BF:135:LYS:N	2.46	0.47
43:BH:84:SER:O	43:BH:85:LYS:CB	2.62	0.47
44:BI:84:GLY:O	44:BI:85:GLU:CB	2.60	0.47
51:BT:27:THR:HA	51:BT:87:ASP:HB2	1.95	0.47
51:BT:108:ARG:HB2	51:BT:108:ARG:NH1	2.27	0.47
57:BZ:166:SER:HB2	57:BZ:168:GLU:HB2	1.96	0.47
1:CA:161:A:H2'	1:CA:162:A:C8	2.49	0.47
1:CA:203:U:OP2	1:CA:203:U:H6	1.98	0.47
1:CA:245:C:O2	1:CA:283:C:N3	2.46	0.47
1:CA:300:A:H2'	1:CA:301:G:O4'	2.14	0.47
1:CA:414:A:H2'	1:CA:415:A:O4'	2.14	0.47
1:CA:839:U:H2'	1:CA:839:U:O2	2.13	0.47
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.14	0.47
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.15	0.47
2:CB:30:ARG:HH21	2:CB:194:PRO:HB2	1.80	0.47
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.79	0.47
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.25	0.47
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.44	0.47
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.15	0.47
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.47	0.47
11:CK:38:ASN:N	11:CK:38:ASN:ND2	2.53	0.47
13:CM:9:ILE:HD12	13:CM:9:ILE:N	2.29	0.47
21:CU:2:GLY:C	21:CU:4:GLY:N	2.66	0.47
22:CV:8:U:H1'	22:CV:48:C:O2	2.14	0.47
26:D0:12:ASN:O	26:D0:13:GLY:C	2.52	0.47
36:DA:94(A):G:H2'	36:DA:95:G:H5"	1.95	0.47
36:DA:572:A:H5"	36:DA:573:G:OP2	2.14	0.47
36:DA:879:G:C2	36:DA:899:A:H1'	2.49	0.47
36:DA:1175:U:H4'	36:DA:1176:G:C2'	2.43	0.47
36:DA:2350:C:H2'	36:DA:2351:G:O4'	2.14	0.47
36:DA:2373:G:H2'	36:DA:2374:C:C6	2.49	0.47
38:DC:41:VAL:HG12	38:DC:213:TYR:HA	1.96	0.47
39:DD:241:PRO:O	39:DD:242:ARG:HB2	2.15	0.47
42:DG:103:LEU:O	42:DG:107:LEU:HG	2.13	0.47
43:DH:87:LEU:HD23	43:DH:164:TYR:HA	1.95	0.47
44:DI:62:LYS:O	44:DI:62:LYS:HD3	2.14	0.47
44:DI:107:VAL:O	44:DI:109:ILE:HD12	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DI:118:LYS:HD2	44:DI:119:PRO:HD2	1.95	0.47
45:DN:91:LEU:CD2	45:DN:98:VAL:HG21	2.45	0.47
46:DO:18:LYS:HD2	46:DO:45:GLU:CD	2.34	0.47
46:DO:119:PRO:O	46:DO:120:GLU:HB2	2.13	0.47
47:DP:41:ARG:HE	47:DP:41:ARG:CA	2.28	0.47
47:DP:61:ARG:HD2	47:DP:61:ARG:N	2.29	0.47
48:DQ:1:MET:HE2	48:DQ:2:LEU:CB	2.44	0.47
54:DW:8:ARG:HG3	54:DW:8:ARG:NH1	2.29	0.47
57:DZ:22:GLY:O	57:DZ:23:LYS:CG	2.60	0.47
57:DZ:150:LEU:C	57:DZ:150:LEU:HD22	2.34	0.47
1:AA:523:A:C2	12:AL:91:LYS:HB3	2.50	0.47
1:AA:767:A:H2'	1:AA:768:A:O4'	2.14	0.47
1:AA:1001(A):G:O2'	1:AA:1002:G:H5'	2.14	0.47
1:AA:1035:A:H2'	1:AA:1036:G:C8	2.49	0.47
1:AA:1242:C:P	21:AU:10:ARG:HH22	2.37	0.47
1:AA:1500:A:H5"	1:AA:1508:G:H5"	1.97	0.47
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.96	0.47
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.14	0.47
6:AF:63:TYR:CD2	6:AF:63:TYR:N	2.82	0.47
8:AH:67:PRO:O	8:AH:68:ARG:O	2.32	0.47
11:AK:46:GLY:HA2	11:AK:50:TYR:O	2.14	0.47
12:AL:41:ARG:CG	12:AL:42:THR:N	2.70	0.47
12:AL:53:ARG:NH1	12:AL:92:ASP:HB2	2.22	0.47
13:AM:69:GLU:CA	13:AM:70:LEU:N	2.75	0.47
19:AS:39:THR:HG22	19:AS:40:ILE:H	1.80	0.47
20:AT:61:SER:O	20:AT:63:ILE:N	2.47	0.47
27:B1:29:GLY:HA3	36:BA:2396:G:O2'	2.15	0.47
29:B3:38:GLU:O	29:B3:40:THR:HG23	2.14	0.47
36:BA:271(R):G:H2'	36:BA:271(S):G:H8	1.79	0.47
36:BA:708:C:H42	36:BA:723:G:H1	1.62	0.47
36:BA:962:G:O2'	36:BA:963:U:H5'	2.14	0.47
36:BA:1657:C:H2'	36:BA:1658:C:C6	2.49	0.47
36:BA:2175:C:H1'	38:BC:215:THR:H	1.79	0.47
36:BA:2792:G:O2'	36:BA:2793:G:H5'	2.14	0.47
37:BB:56:G:H4'	37:BB:57:A:O5'	2.15	0.47
39:BD:245:PRO:O	39:BD:246:PRO:C	2.51	0.47
39:BD:267:SER:C	39:BD:269:PHE:N	2.68	0.47
42:BG:172:LEU:HG	42:BG:176:LEU:HD12	1.96	0.47
43:BH:18:GLU:HB3	43:BH:25:LYS:HZ2	1.77	0.47
46:BO:87:ILE:HG21	46:BO:91:LEU:CD1	2.44	0.47
47:BP:58:THR:O	47:BP:61:ARG:NH2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:27:SER:HB3	49:BR:34:ILE:HD12	1.96	0.47
50:BS:56:LEU:C	50:BS:56:LEU:HD23	2.34	0.47
50:BS:95:HIS:CG	50:BS:96:GLY:N	2.82	0.47
51:BT:42:ILE:H	51:BT:42:ILE:CD1	2.28	0.47
54:BW:92:ARG:HG2	54:BW:92:ARG:NH1	2.27	0.47
56:BY:50:ARG:O	56:BY:52:SER:N	2.48	0.47
57:BZ:103:ARG:HB2	57:BZ:136:PHE:CE1	2.50	0.47
1:CA:359:U:H2'	1:CA:360:A:C8	2.49	0.47
1:CA:557:G:H2'	1:CA:558:G:C8	2.49	0.47
1:CA:620:C:C2	4:CD:135:LEU:HG	2.49	0.47
1:CA:1001(A):G:O2'	1:CA:1002:G:H5'	2.14	0.47
1:CA:1113:C:O5'	1:CA:1113:C:H6	1.97	0.47
1:CA:1234:C:H4'	1:CA:1364:U:H1'	1.96	0.47
1:CA:1242:C:P	21:CU:10:ARG:HH22	2.38	0.47
1:CA:1305:G:N2	1:CA:1331:G:H1'	2.30	0.47
2:CB:137:ARG:HH11	2:CB:137:ARG:HG2	1.79	0.47
4:CD:96:LEU:HG	4:CD:139:ARG:NH1	2.29	0.47
5:CE:28:PHE:N	5:CE:28:PHE:HD1	2.12	0.47
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.14	0.47
9:CI:11:LYS:H	9:CI:104:ARG:HH21	1.62	0.47
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.96	0.47
9:CI:79:LEU:HD21	9:CI:102:LEU:HA	1.97	0.47
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.95	0.47
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.96	0.47
19:CS:66:MET:HG3	19:CS:66:MET:O	2.15	0.47
22:CV:76:A:O2'	25:CY:77:PHA:N	2.48	0.47
25:CY:56:C:C3'	25:CY:57:G:H5"	2.24	0.47
33:D7:47:ARG:NH2	55:DX:60:ARG:NH2	2.61	0.47
34:D8:32:LEU:HB3	34:D8:36:LYS:NZ	2.29	0.47
35:D9:7:VAL:HG13	35:D9:34:GLN:CB	2.44	0.47
35:D9:19:ARG:NH1	36:DA:2755:C:C4	2.82	0.47
36:DA:633:A:C2'	36:DA:634:C:H5'	2.44	0.47
36:DA:676:A:H2	36:DA:802:A:N6	2.12	0.47
36:DA:760:G:O2'	36:DA:761:A:H5'	2.15	0.47
36:DA:1268:A:C2	36:DA:2013:A:C4	3.02	0.47
36:DA:1317:A:H2'	36:DA:1318:C:H6	1.80	0.47
36:DA:1386:C:H2'	36:DA:1387:C:C6	2.49	0.47
36:DA:1406:U:H3'	36:DA:1407:C:H6	1.79	0.47
36:DA:2312:U:C3'	36:DA:2313:C:H5"	2.44	0.47
36:DA:2455:G:H2'	36:DA:2456:C:C6	2.49	0.47
36:DA:2792:G:O2'	36:DA:2793:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DF:57:VAL:CG1	41:DF:59:TYR:CD1	2.97	0.47
42:DG:101:ILE:HD12	42:DG:102:PHE:H	1.75	0.47
42:DG:171:ALA:O	42:DG:172:LEU:C	2.51	0.47
43:DH:85:LYS:HD3	43:DH:133:VAL:CB	2.38	0.47
43:DH:100:GLY:C	43:DH:102:ALA:H	2.16	0.47
46:DO:86:ILE:HD12	46:DO:86:ILE:N	2.29	0.47
51:DT:24:PRO:HD3	51:DT:52:ILE:CD1	2.44	0.47
52:DU:90:VAL:HG21	53:DV:47:VAL:HG21	1.97	0.47
52:DU:110:VAL:O	52:DU:113:ALA:HB3	2.15	0.47
53:DV:2:PHE:HB3	53:DV:42:GLY:N	2.29	0.47
57:DZ:14:LYS:O	57:DZ:16:SER:N	2.48	0.47
1:AA:38:G:C2	1:AA:397:A:C2	3.02	0.47
1:AA:423:G:O2'	1:AA:424:G:H5'	2.15	0.47
1:AA:556:C:O2'	1:AA:557:G:H5'	2.14	0.47
1:AA:931:C:H2'	1:AA:932:C:H6	1.78	0.47
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.14	0.47
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.79	0.47
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.15	0.47
1:AA:1348:U:H2'	1:AA:1349:A:H8	1.79	0.47
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.49	0.47
2:AB:109:SER:C	2:AB:111:ARG:H	2.18	0.47
2:AB:165:VAL:CG2	2:AB:166:ASP:N	2.77	0.47
3:AC:112:SER:O	3:AC:114:PRO:HD2	2.14	0.47
4:AD:25:ARG:C	4:AD:27:TYR:N	2.67	0.47
4:AD:108:LEU:O	4:AD:110:PHE:HD1	1.97	0.47
8:AH:5:PRO:HB3	8:AH:32:LYS:NZ	2.30	0.47
8:AH:82:HIS:C	8:AH:82:HIS:HD2	2.16	0.47
11:AK:34:ASP:C	11:AK:34:ASP:OD2	2.53	0.47
16:AP:43:LYS:HD2	16:AP:43:LYS:N	2.30	0.47
19:AS:44:MET:HA	19:AS:47:HIS:HD2	1.79	0.47
19:AS:66:MET:O	19:AS:66:MET:HG3	2.13	0.47
20:AT:59:ALA:C	20:AT:61:SER:H	2.18	0.47
22:AV:52:G:O2'	22:AV:53:G:O5'	2.32	0.47
27:B1:52:ARG:HG3	27:B1:52:ARG:NH2	2.28	0.47
27:B1:86:SER:O	27:B1:90:ILE:HG12	2.15	0.47
28:B2:25:VAL:O	28:B2:29:LYS:HG2	2.13	0.47
30:B4:52:SER:HB3	42:BG:105:LYS:CE	2.44	0.47
32:B6:32:ASN:CG	32:B6:33:LYS:N	2.66	0.47
33:B7:16:HIS:HA	33:B7:21:ARG:NH1	2.30	0.47
36:BA:18:C:H4'	52:BU:23:GLY:O	2.15	0.47
36:BA:1472:A:H2'	36:BA:1473:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1493:C:O2	36:BA:1493:C:C2'	2.63	0.47
36:BA:1514:U:H2'	36:BA:1515:G:C8	2.48	0.47
36:BA:1958:C:O2'	36:BA:1959:G:H5'	2.15	0.47
36:BA:2341:G:H2'	36:BA:2342:C:C6	2.49	0.47
36:BA:2803:C:H5'	36:BA:2804:C:OP1	2.15	0.47
39:BD:31:LYS:HB3	39:BD:35:LYS:HG3	1.97	0.47
40:BE:88:GLY:O	40:BE:89:ASP:HB2	2.13	0.47
41:BF:52:LYS:O	41:BF:88:VAL:HG12	2.14	0.47
44:BI:40:THR:O	44:BI:44:LEU:HB2	2.15	0.47
44:BI:60:GLU:O	44:BI:64:GLU:HG2	2.14	0.47
45:BN:15:LEU:CD1	45:BN:16:ILE:N	2.76	0.47
46:BO:86:ILE:HD12	46:BO:86:ILE:N	2.28	0.47
48:BQ:58:PHE:HD1	48:BQ:58:PHE:O	1.97	0.47
52:BU:104:GLN:HE21	52:BU:105:VAL:N	2.12	0.47
55:BX:35:THR:HB	55:BX:38:GLU:H	1.79	0.47
57:BZ:102:LEU:HB2	57:BZ:122:ARG:O	2.14	0.47
57:BZ:166:SER:CB	57:BZ:168:GLU:HB2	2.44	0.47
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.49	0.47
1:CA:192:U:H4'	20:CT:57:ARG:CD	2.44	0.47
1:CA:410:G:OP2	4:CD:25:ARG:HG3	2.15	0.47
1:CA:556:C:O2'	1:CA:557:G:H5'	2.14	0.47
1:CA:778:G:O2'	1:CA:779:C:H5'	2.15	0.47
1:CA:964:A:OP1	1:CA:1199:U:OP1	2.32	0.47
2:CB:187:LEU:HD11	2:CB:204:ASN:O	2.15	0.47
3:CC:35:GLU:HA	3:CC:38:ARG:CD	2.42	0.47
6:CF:21:LEU:HA	6:CF:24:GLU:HG2	1.96	0.47
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.82	0.47
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.30	0.47
9:CI:16:ARG:HB2	9:CI:64:THR:HG22	1.96	0.47
9:CI:55:ALA:HB1	9:CI:59:PHE:CE1	2.49	0.47
11:CK:34:ASP:C	11:CK:34:ASP:OD2	2.52	0.47
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.54	0.47
25:CY:51:U:H3	25:CY:63:G:H1	1.61	0.47
35:D9:35:ARG:HD3	36:DA:2742:C:OP1	2.14	0.47
36:DA:250:G:H2'	36:DA:251:A:C8	2.50	0.47
36:DA:320:A:H3'	41:DF:136:THR:CG2	2.44	0.47
36:DA:534:U:O2'	52:DU:49:HIS:CD2	2.68	0.47
36:DA:764:A:C6	39:DD:209:ALA:HB1	2.50	0.47
36:DA:1042:G:H2'	36:DA:1042:G:N3	2.29	0.47
36:DA:1719:G:C2'	36:DA:1720:U:H5'	2.44	0.47
36:DA:2376:A:H2'	36:DA:2377:A:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2817:G:H21	36:DA:2836:U:H1'	1.79	0.47
36:DA:2840:C:H5"	49:DR:53:HIS:CD2	2.49	0.47
38:DC:155:GLU:O	38:DC:156:ILE:CB	2.63	0.47
39:DD:181:GLU:CA	39:DD:272:ALA:HB3	2.35	0.47
41:DF:53:THR:HG22	41:DF:56:GLU:CG	2.44	0.47
42:DG:46:ALA:HB3	42:DG:87:PRO:HA	1.96	0.47
42:DG:133:LEU:CD2	42:DG:158:ALA:HA	2.44	0.47
43:DH:64:LEU:C	43:DH:66:GLY:N	2.67	0.47
45:DN:43:THR:C	45:DN:45:ASN:H	2.17	0.47
47:DP:5:ASP:OD2	47:DP:6:LEU:HD23	2.15	0.47
49:DR:104:ARG:NH1	49:DR:109:ALA:HB3	2.29	0.47
56:DY:28:LYS:C	56:DY:38:ILE:HB	2.35	0.47
56:DY:90:LEU:C	56:DY:90:LEU:HD12	2.34	0.47
57:DZ:28:MET:HB2	57:DZ:90:VAL:CG2	2.43	0.47
57:DZ:73:GLN:N	57:DZ:87:ASP:OD2	2.46	0.47
57:DZ:103:ARG:CG	57:DZ:138:GLU:HG2	2.45	0.47
1:AA:778:G:O2'	1:AA:779:C:H5'	2.14	0.47
1:AA:961:U:O2'	1:AA:962:C:H5'	2.14	0.47
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.79	0.47
1:AA:1234:C:H4'	1:AA:1364:U:H1'	1.97	0.47
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.29	0.47
1:AA:1432:G:OP1	51:BT:107:ASP:HB2	2.15	0.47
2:AB:178:ARG:HH11	2:AB:178:ARG:CG	2.28	0.47
4:AD:29:PRO:C	4:AD:30:LYS:HG2	2.34	0.47
7:AG:85:TYR:CE1	7:AG:154:TYR:HE1	2.33	0.47
7:AG:145:ALA:O	7:AG:147:ALA:N	2.41	0.47
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.42	0.47
12:AL:22:SER:C	12:AL:24:VAL:H	2.17	0.47
13:AM:10:PRO:HB2	13:AM:18:ALA:CB	2.38	0.47
14:AN:34:TYR:N	14:AN:34:TYR:CD1	2.83	0.47
18:AR:59:SER:H	18:AR:62:GLU:HB2	1.80	0.47
22:AV:51:C:H2'	22:AV:52:G:H5'	1.94	0.47
30:B4:51:TYR:CZ	42:BG:2:PRO:HG2	2.49	0.47
36:BA:236:C:H2'	36:BA:237:C:C6	2.50	0.47
36:BA:451:C:C5	36:BA:453:C:H5"	2.50	0.47
36:BA:566:U:O2'	36:BA:567:A:H5'	2.14	0.47
36:BA:624:C:O2'	36:BA:625:G:H5'	2.14	0.47
36:BA:845:G:N2	36:BA:933:A:H61	2.02	0.47
36:BA:1141:U:H5"	36:BA:1142(A):A:O4'	2.14	0.47
36:BA:1239:G:H2'	36:BA:1240:U:O4'	2.15	0.47
36:BA:1329:U:H5"	36:BA:1330:C:C5	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1751:C:H2'	36:BA:1752:C:H6	1.79	0.47
36:BA:2186:G:H3'	36:BA:2187:G:H5"	1.95	0.47
36:BA:2590:A:O2'	36:BA:2591:C:H5'	2.14	0.47
36:BA:2762:G:C3'	36:BA:2763:G:C5'	2.92	0.47
37:BB:29:A:H2'	37:BB:30:C:C6	2.50	0.47
38:BC:78:ALA:C	38:BC:80:GLY:H	2.16	0.47
40:BE:2:LYS:HE2	40:BE:95:ILE:HG22	1.95	0.47
40:BE:51:PHE:HE1	40:BE:52:LEU:HD22	1.80	0.47
40:BE:101:ARG:HA	40:BE:101:ARG:HE	1.79	0.47
41:BF:40:GLN:HE22	41:BF:182:ASN:HB2	1.80	0.47
42:BG:47:LYS:N	42:BG:51:ARG:HG3	2.29	0.47
43:BH:107:VAL:HG21	43:BH:152:ARG:CG	2.44	0.47
45:BN:46:VAL:O	45:BN:47:ALA:CB	2.63	0.47
47:BP:80:TYR:CD1	47:BP:111:ARG:HB3	2.49	0.47
48:BQ:12:GLN:HE21	48:BQ:73:PRO:CD	2.28	0.47
51:BT:27:THR:O	51:BT:28:VAL:CG2	2.63	0.47
51:BT:28:VAL:O	51:BT:28:VAL:HG12	2.13	0.47
52:BU:85:LYS:CD	52:BU:117:GLN:HE22	2.27	0.47
54:BW:9:TYR:H	54:BW:102:HIS:CD2	2.33	0.47
1:CA:859:A:H2'	1:CA:860:A:O4'	2.14	0.47
1:CA:1053:G:C4'	1:CA:1054:C:H5'	2.45	0.47
1:CA:1095:U:H2'	1:CA:1096:C:H6	1.80	0.47
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.29	0.47
1:CA:1227:A:H2'	1:CA:1228:C:O5'	2.14	0.47
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.14	0.47
2:CB:19:HIS:O	2:CB:39:ILE:HG23	2.13	0.47
3:CC:3:ASN:CG	3:CC:4:LYS:H	2.16	0.47
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.15	0.47
7:CG:148:ASN:O	7:CG:150:ALA:N	2.48	0.47
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	2.14	0.47
15:CO:76:GLU:C	15:CO:78:TYR:H	2.17	0.47
20:CT:84:LEU:C	20:CT:86:ARG:H	2.18	0.47
23:CW:41:C:O2	23:CW:41:C:H2'	2.15	0.47
25:CY:18:G:N2	25:CY:57:G:C8	2.82	0.47
34:D8:32:LEU:HD22	36:DA:2392:A:OP1	2.13	0.47
36:DA:879:G:N2	36:DA:899:A:H1'	2.29	0.47
36:DA:1024:G:H8	36:DA:1024:G:O5'	1.97	0.47
36:DA:1313:U:H2'	36:DA:1610:A:C2	2.49	0.47
36:DA:2023:G:H4'	36:DA:2617:C:O3'	2.14	0.47
36:DA:2040:C:H2'	36:DA:2041:U:H6	1.79	0.47
36:DA:2061:G:H5"	36:DA:2503:A:C2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2134:A:H2	36:DA:2159:G:H1'	1.73	0.47
36:DA:2177:C:H1'	38:DC:44:HIS:CD2	2.49	0.47
36:DA:2186:G:H3'	36:DA:2187:G:H5"	1.96	0.47
36:DA:2481:G:O2'	36:DA:2482:G:O5'	2.32	0.47
36:DA:2590:A:O2'	36:DA:2591:C:H5'	2.15	0.47
36:DA:2679:A:H2'	36:DA:2680:C:H6	1.79	0.47
36:DA:2687:U:H2'	36:DA:2688:U:O4'	2.15	0.47
36:DA:2847:U:OP1	51:DT:98:LYS:HD3	2.15	0.47
36:DA:2870:C:H2'	36:DA:2871:C:O4'	2.14	0.47
37:DB:79:C:O2'	37:DB:80:U:H5'	2.14	0.47
40:DE:116:VAL:CG2	40:DE:122:PHE:CG	2.97	0.47
42:DG:135:LEU:HD21	42:DG:157:ILE:CG2	2.44	0.47
43:DH:128:PRO:HG2	43:DH:129:THR:HG23	1.96	0.47
44:DI:72:LEU:CD1	44:DI:138:ILE:HG21	2.44	0.47
44:DI:72:LEU:O	44:DI:138:ILE:HG23	2.15	0.47
44:DI:120:ILE:HG22	44:DI:122:GLU:N	2.30	0.47
47:DP:21:ARG:O	47:DP:23:PRO:HD3	2.15	0.47
47:DP:57:THR:HG1	47:DP:58:THR:H	1.61	0.47
53:DV:2:PHE:CE2	53:DV:4:ILE:HG13	2.49	0.47
53:DV:16:PRO:O	53:DV:96:ILE:O	2.33	0.47
1:AA:159:G:N1	1:AA:163:C:N4	2.63	0.47
1:AA:177:C:H2'	1:AA:178:C:H6	1.78	0.47
1:AA:409:G:H5'	4:AD:25:ARG:HB2	1.96	0.47
1:AA:443:C:H2'	1:AA:444:C:C6	2.49	0.47
1:AA:532:A:C2	1:AA:1207:G:H4'	2.49	0.47
1:AA:586:C:H1'	1:AA:878:G:O2'	2.15	0.47
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.14	0.47
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.15	0.47
1:AA:1109:C:OP2	3:AC:176:HIS:ND1	2.46	0.47
1:AA:1221:G:H4'	19:AS:53:ASN:O	2.15	0.47
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.14	0.47
2:AB:26:PRO:O	2:AB:29:ALA:HB2	2.15	0.47
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.14	0.47
2:AB:208:ILE:HG22	2:AB:208:ILE:O	2.15	0.47
3:AC:124:ILE:HG12	3:AC:130:VAL:HG22	1.95	0.47
3:AC:159:GLY:HA2	3:AC:193:TYR:CG	2.50	0.47
3:AC:189:ALA:O	3:AC:191:THR:N	2.48	0.47
4:AD:149:ALA:O	4:AD:153:ARG:HG3	2.15	0.47
5:AE:136:MET:C	5:AE:138:ALA:H	2.18	0.47
6:AF:21:LEU:HA	6:AF:24:GLU:HG2	1.96	0.47
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:51:VAL:HG11	8:AH:60:ARG:CG	2.44	0.47
9:AI:11:LYS:H	9:AI:104:ARG:HH21	1.63	0.47
10:AJ:57:LYS:HE3	10:AJ:60:ARG:NH2	2.30	0.47
11:AK:96:ARG:HA	11:AK:99:GLN:HG3	1.97	0.47
12:AL:40:VAL:HG12	12:AL:40:VAL:O	2.15	0.47
12:AL:126:LYS:C	12:AL:128:ALA:H	2.18	0.47
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.96	0.47
20:AT:14:LYS:CB	20:AT:17:ARG:HH21	2.27	0.47
22:AV:76:A:H4'	22:AV:76:A:OP1	2.14	0.47
23:AW:48:C:C5	23:AW:59:U:H5'	2.49	0.47
25:AY:19:G:H5'	25:AY:60:U:O2	2.14	0.47
25:AY:59:U:O2	25:AY:59:U:C2'	2.61	0.47
27:B1:3:LYS:CG	27:B1:4:VAL:N	2.71	0.47
27:B1:48:LYS:HA	27:B1:60:PHE:O	2.15	0.47
27:B1:72:GLU:O	27:B1:76:ARG:HG2	2.14	0.47
28:B2:50:ILE:C	28:B2:52:ASP:H	2.17	0.47
29:B3:31:LEU:HB2	36:BA:1158:C:H5"	1.97	0.47
31:B5:56:LYS:HB3	31:B5:56:LYS:NZ	2.30	0.47
32:B6:46:HIS:CB	32:B6:47:THR:N	2.77	0.47
33:B7:47:ARG:NH2	36:BA:1311:G:C5	2.82	0.47
34:B8:32:LEU:HD22	36:BA:2392:A:OP1	2.15	0.47
34:B8:50:LEU:CD1	34:B8:54:GLU:OE2	2.62	0.47
36:BA:150:C:H2'	36:BA:151:C:C6	2.50	0.47
36:BA:492:A:C2	36:BA:493:G:H1'	2.50	0.47
36:BA:607:U:H5	36:BA:619:G:C5	2.33	0.47
36:BA:747:U:O2	36:BA:2014:A:H1'	2.15	0.47
36:BA:752:A:H4'	36:BA:753:C:O5'	2.14	0.47
36:BA:1114:G:C2'	36:BA:1115:G:H5"	2.44	0.47
36:BA:1175:U:C4'	36:BA:1176:G:H2'	2.44	0.47
36:BA:1331:A:O2'	36:BA:1332:G:H8	1.97	0.47
36:BA:2349:G:H5'	36:BA:2349:G:C8	2.50	0.47
36:BA:2476:A:N1	36:BA:2477:C:C5	2.83	0.47
36:BA:2692:C:H2'	36:BA:2693:A:C8	2.49	0.47
36:BA:2746:U:O4'	43:BH:139:GLN:HB2	2.14	0.47
36:BA:2823:A:OP1	40:BE:113:PHE:HB2	2.15	0.47
39:BD:31:LYS:CE	39:BD:94:LEU:HD11	2.40	0.47
39:BD:33:LEU:O	39:BD:34:VAL:C	2.52	0.47
39:BD:266:SER:O	39:BD:267:SER:O	2.33	0.47
41:BF:11:VAL:C	41:BF:13:SER:N	2.68	0.47
42:BG:27:ASN:O	42:BG:29:TRP:N	2.43	0.47
42:BG:117:PHE:HD1	42:BG:118:ARG:H	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:17:VAL:CG1	43:BH:50:VAL:HG21	2.44	0.47
43:BH:41:MET:HG3	43:BH:53:GLU:C	2.35	0.47
43:BH:87:LEU:N	43:BH:131:VAL:O	2.47	0.47
43:BH:103:LEU:HD23	43:BH:115:VAL:HB	1.96	0.47
43:BH:121:ILE:HG22	43:BH:133:VAL:CG1	2.43	0.47
44:BI:41:GLU:O	44:BI:45:LYS:HG2	2.14	0.47
44:BI:72:LEU:HD21	44:BI:107:VAL:HG21	1.97	0.47
45:BN:42:TRP:HA	45:BN:42:TRP:HE3	1.79	0.47
45:BN:43:THR:HB	45:BN:46:VAL:CG1	2.45	0.47
47:BP:83:VAL:HG13	47:BP:83:VAL:O	2.14	0.47
49:BR:12:ARG:HG3	49:BR:12:ARG:HH11	1.78	0.47
49:BR:63:ARG:O	49:BR:67:LEU:HB2	2.14	0.47
50:BS:98:VAL:O	50:BS:98:VAL:HG13	2.15	0.47
53:BV:2:PHE:HB3	53:BV:42:GLY:N	2.29	0.47
53:BV:40:LEU:CD2	53:BV:40:LEU:N	2.77	0.47
54:BW:2:GLU:HA	54:BW:64:MET:HE1	1.96	0.47
54:BW:8:ARG:NH1	54:BW:8:ARG:HG3	2.30	0.47
54:BW:12:ILE:O	54:BW:12:ILE:HG23	2.15	0.47
55:BX:43:VAL:HG21	55:BX:81:VAL:HG11	1.96	0.47
56:BY:90:LEU:C	56:BY:90:LEU:HD12	2.35	0.47
56:BY:95:LYS:HG2	56:BY:100:ALA:HB2	1.96	0.47
57:BZ:125:LEU:O	57:BZ:164:ALA:HB3	2.14	0.47
1:CA:163:C:O2'	1:CA:164:U:H5'	2.15	0.47
1:CA:523:A:C2	12:CL:91:LYS:HB3	2.50	0.47
1:CA:606:G:H5"	1:CA:607:A:H5'	1.96	0.47
1:CA:848:C:H2'	1:CA:849:C:C6	2.50	0.47
1:CA:1142:G:C8	1:CA:1143:G:C8	3.02	0.47
1:CA:1221:G:H4'	19:CS:53:ASN:O	2.15	0.47
1:CA:1477:C:O2'	1:CA:1478:C:H5'	2.14	0.47
2:CB:27:LYS:C	2:CB:29:ALA:H	2.18	0.47
2:CB:31:TYR:CD2	2:CB:31:TYR:N	2.82	0.47
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.15	0.47
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.14	0.47
2:CB:165:VAL:CG2	2:CB:166:ASP:N	2.77	0.47
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.94	0.47
4:CD:30:LYS:CA	4:CD:35:ARG:HD2	2.44	0.47
4:CD:96:LEU:HD12	4:CD:96:LEU:N	2.30	0.47
5:CE:90:VAL:O	5:CE:91:LEU:HD12	2.14	0.47
7:CG:59:LEU:HD23	7:CG:60:LYS:HZ3	1.79	0.47
8:CH:116:LYS:O	8:CH:119:LEU:HD21	2.14	0.47
9:CI:24:GLY:O	9:CI:25:LYS:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:88:TYR:O	9:CI:89:ASN:CB	2.62	0.47
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.96	0.47
10:CJ:67:THR:O	10:CJ:67:THR:CG2	2.63	0.47
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.45	0.47
12:CL:122:THR:HG22	12:CL:123:LYS:O	2.15	0.47
17:CQ:50:LYS:HG3	17:CQ:51:TYR:CD1	2.49	0.47
19:CS:35:SER:C	19:CS:37:ARG:H	2.17	0.47
22:CV:75:C:H5'	22:CV:75:C:C6	2.49	0.47
23:CW:50:U:H2'	23:CW:51:U:H6	1.79	0.47
26:D0:10:THR:HG22	26:D0:12:ASN:N	2.28	0.47
27:D1:20:ARG:HH11	27:D1:20:ARG:HG2	1.80	0.47
28:D2:64:LEU:C	28:D2:64:LEU:HD23	2.35	0.47
32:D6:36:LEU:N	32:D6:36:LEU:HD23	2.30	0.47
36:DA:110:G:O2'	36:DA:111:A:H5'	2.15	0.47
36:DA:176:G:C2'	36:DA:177:G:H5'	2.45	0.47
36:DA:198:C:O5'	36:DA:198:C:H6	1.97	0.47
36:DA:236:C:H2'	36:DA:237:C:C6	2.50	0.47
36:DA:272:G:H1'	36:DA:272(B):G:O5'	2.15	0.47
36:DA:327:G:H2'	36:DA:328:U:H6	1.80	0.47
36:DA:389:G:N1	47:DP:71:VAL:CG1	2.74	0.47
36:DA:661:C:H2'	36:DA:662:G:H8	1.79	0.47
36:DA:760:G:H2'	36:DA:761:A:H5'	1.96	0.47
36:DA:971:C:C2'	36:DA:972:G:H5'	2.45	0.47
36:DA:1106:A:N3	36:DA:1107:G:N7	2.63	0.47
36:DA:1396:U:O2	36:DA:1396:U:C2'	2.63	0.47
36:DA:1472:A:H2'	36:DA:1473:G:C8	2.50	0.47
36:DA:1500:G:C6	36:DA:1501:C:N3	2.83	0.47
36:DA:2133:G:H2'	36:DA:2157:G:N2	2.30	0.47
36:DA:2199:A:H2'	36:DA:2199:A:N3	2.29	0.47
36:DA:2266:A:H4'	36:DA:2267:A:N3	2.29	0.47
36:DA:2273:A:O2'	36:DA:2274:A:H5'	2.15	0.47
41:DF:116:ASP:OD2	47:DP:5:ASP:N	2.47	0.47
41:DF:139:PHE:CB	41:DF:166:ALA:HB1	2.43	0.47
42:DG:34:LEU:O	42:DG:99:MET:SD	2.72	0.47
42:DG:39:ILE:HD12	42:DG:157:ILE:CB	2.30	0.47
42:DG:102:PHE:HZ	42:DG:141:PHE:HE1	1.63	0.47
43:DH:87:LEU:N	43:DH:131:VAL:O	2.47	0.47
43:DH:103:LEU:HD23	43:DH:115:VAL:HB	1.97	0.47
44:DI:114:LEU:O	44:DI:115:ALA:CB	2.62	0.47
45:DN:32:THR:HG23	45:DN:37:LYS:HB3	1.97	0.47
46:DO:104:ARG:CZ	51:DT:33:LYS:HD2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:98:GLU:HG3	47:DP:99:LEU:N	2.29	0.47
52:DU:55:ARG:HA	52:DU:58:ARG:CG	2.44	0.47
52:DU:88:ILE:O	52:DU:88:ILE:CG1	2.53	0.47
52:DU:92:ARG:HD3	52:DU:92:ARG:N	2.29	0.47
54:DW:12:ILE:HG23	54:DW:12:ILE:O	2.14	0.47
57:DZ:169:GLU:HG2	57:DZ:170:THR:H	1.79	0.47
1:AA:491:G:H2'	1:AA:492:G:H8	1.80	0.47
1:AA:923:A:O2'	1:AA:1399:C:OP2	2.33	0.47
1:AA:946:A:H2'	1:AA:947:G:C8	2.50	0.47
1:AA:1067:A:H8	1:AA:1067:A:O5'	1.97	0.47
1:AA:1320:C:H5'	19:AS:70:LYS:CG	2.45	0.47
3:AC:17:ASP:OD1	3:AC:21:ARG:NH1	2.48	0.47
4:AD:13:ARG:O	4:AD:14:ARG:C	2.54	0.47
4:AD:206:PHE:CD2	4:AD:207:TYR:CE2	3.03	0.47
6:AF:62:TRP:C	6:AF:63:TYR:CD2	2.88	0.47
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.97	0.47
7:AG:78:ARG:CD	7:AG:79:ARG:H	2.26	0.47
7:AG:91:VAL:HG12	7:AG:96:GLN:HB2	1.95	0.47
10:AJ:8:LEU:HB3	10:AJ:16:LEU:CD2	2.44	0.47
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.77	0.47
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.97	0.47
17:AQ:77:VAL:O	17:AQ:78:GLU:HG2	2.15	0.47
22:AV:1:C:O2'	22:AV:2:G:H5'	2.15	0.47
22:AV:39:C:H2'	22:AV:40:C:H6	1.80	0.47
23:AW:39:U:O2'	23:AW:40:C:H5'	2.15	0.47
25:AY:8:U:H2'	25:AY:13:C:H42	1.80	0.47
26:B0:72:ARG:CB	26:B0:75:LEU:HB3	2.45	0.47
31:B5:48:GLU:HA	31:B5:57:VAL:HG22	1.96	0.47
33:B7:41:ARG:CD	33:B7:45:ALA:HB2	2.41	0.47
36:BA:1484:G:C2'	36:BA:1485:G:H5"	2.45	0.47
36:BA:2376:A:H2'	36:BA:2377:A:O4'	2.15	0.47
36:BA:2445:G:OP1	41:BF:74:ARG:NH2	2.47	0.47
36:BA:2838:G:H1'	49:BR:45:ARG:HH11	1.79	0.47
36:BA:2881:C:C2	36:BA:2882:A:N7	2.83	0.47
37:BB:81:G:C6	37:BB:82:G:C5	3.03	0.47
39:BD:213:ARG:HD2	39:BD:213:ARG:HA	1.53	0.47
40:BE:52:LEU:HA	40:BE:53:PRO:HD3	1.74	0.47
40:BE:201:THR:OG1	40:BE:202:LYS:N	2.47	0.47
41:BF:3:GLU:HG3	41:BF:19:GLU:HG3	1.97	0.47
42:BG:130:ASN:HB3	42:BG:160:VAL:HA	1.97	0.47
43:BH:72:ILE:O	43:BH:76:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BI:14:ASP:O	44:BI:15:VAL:O	2.32	0.47
45:BN:1:MET:C	45:BN:2:LYS:HD2	2.34	0.47
46:BO:47:ILE:CG2	46:BO:48:PRO:N	2.77	0.47
47:BP:83:VAL:HG21	47:BP:105:LEU:HD12	1.97	0.47
49:BR:2:ARG:CZ	49:BR:5:LYS:CE	2.92	0.47
49:BR:59:ASP:N	49:BR:59:ASP:OD2	2.47	0.47
50:BS:36:TYR:CD1	50:BS:36:TYR:N	2.83	0.47
51:BT:68:TYR:N	51:BT:68:TYR:CD2	2.83	0.47
52:BU:31:SER:C	52:BU:33:ARG:N	2.68	0.47
52:BU:90:VAL:CG1	52:BU:91:ASP:H	2.10	0.47
53:BV:15:GLU:O	53:BV:16:PRO:O	2.32	0.47
1:CA:409:G:H5'	4:CD:25:ARG:HB2	1.96	0.47
1:CA:489:C:H2'	1:CA:490:G:H8	1.80	0.47
1:CA:542:G:H5'	4:CD:41:GLY:CA	2.45	0.47
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.14	0.47
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.15	0.47
1:CA:1439:C:H5'	20:CT:38:LYS:HZ1	1.80	0.47
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.78	0.47
3:CC:159:GLY:HA2	3:CC:193:TYR:CG	2.50	0.47
6:CF:62:TRP:C	6:CF:63:TYR:CD2	2.88	0.47
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.16	0.47
9:CI:114:TYR:CE1	10:CJ:60:ARG:N	2.83	0.47
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.53	0.47
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.46	0.47
27:D1:83:GLU:O	27:D1:84:GLY:O	2.33	0.47
29:D3:9:VAL:HG23	29:D3:10:LYS:N	2.30	0.47
34:D8:63:PRO:HB2	34:D8:64:TYR:HD1	1.78	0.47
36:DA:103:A:H2'	36:DA:104:U:H5'	1.96	0.47
36:DA:572:A:C2	36:DA:2033:A:C2	3.02	0.47
36:DA:1114:G:H2'	36:DA:1115:G:H5"	1.96	0.47
36:DA:1339:G:H21	36:DA:1603:A:H1'	1.78	0.47
36:DA:1400:G:H2'	36:DA:1401:G:C8	2.50	0.47
36:DA:1529:G:H2'	36:DA:1530:C:H5	1.80	0.47
36:DA:2788:C:H2'	36:DA:2789:C:O4'	2.15	0.47
36:DA:2838:G:H1'	49:DR:45:ARG:HH11	1.80	0.47
36:DA:2881:C:C2	36:DA:2882:A:N7	2.82	0.47
40:DE:119:ARG:O	40:DE:120:TRP:CD2	2.68	0.47
41:DF:63:LYS:NZ	41:DF:67:GLN:HB3	2.29	0.47
42:DG:40:ASN:HA	42:DG:90:LEU:O	2.15	0.47
42:DG:41:GLN:HB3	42:DG:43:LEU:HD21	1.97	0.47
42:DG:167:GLU:C	42:DG:169:ALA:N	2.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:158:HIS:ND1	43:DH:168:PRO:HB2	2.30	0.47
53:DV:2:PHE:HD1	53:DV:13:ARG:NH1	2.12	0.47
57:DZ:98:MET:O	57:DZ:98:MET:HG3	2.15	0.47
1:AA:146:G:N2	1:AA:147:G:H1'	2.30	0.47
1:AA:243:A:C2	1:AA:246:A:C8	3.03	0.47
1:AA:449:C:O2	16:AP:42:ARG:HD2	2.15	0.47
1:AA:728:A:H2'	1:AA:729:A:C8	2.49	0.47
1:AA:848:C:H2'	1:AA:849:C:C6	2.49	0.47
1:AA:1489:G:O2'	1:AA:1490:C:H5'	2.14	0.47
2:AB:17:PHE:N	2:AB:17:PHE:HD2	2.13	0.47
2:AB:137:ARG:HH11	2:AB:137:ARG:HG2	1.80	0.47
4:AD:79:PHE:C	4:AD:79:PHE:CD2	2.88	0.47
7:AG:16:LEU:HD11	9:AI:42:ARG:HG3	1.95	0.47
13:AM:48:LEU:HA	13:AM:52:GLU:OE1	2.14	0.47
22:AV:1:C:H2'	22:AV:2:G:H5'	1.95	0.47
22:AV:66:C:H2'	22:AV:67:C:O4'	2.15	0.47
25:AY:26:A:C2'	25:AY:27:G:H5'	2.45	0.47
26:B0:51:VAL:CG2	26:B0:81:VAL:HG23	2.44	0.47
32:B6:27:LYS:HE3	36:BA:2285:C:C5	2.47	0.47
32:B6:36:LEU:HD23	32:B6:36:LEU:N	2.30	0.47
33:B7:16:HIS:HA	33:B7:21:ARG:HH12	1.78	0.47
36:BA:89:G:H3'	36:BA:90:U:H5"	1.96	0.47
36:BA:271(P):C:OP1	44:BI:45:LYS:HE3	2.15	0.47
36:BA:2011:U:C2'	36:BA:2012:G:H5'	2.45	0.47
36:BA:2040:C:H2'	36:BA:2041:U:H6	1.79	0.47
36:BA:2052:G:O4'	40:BE:142:GLY:HA3	2.15	0.47
36:BA:2261:C:O2'	36:BA:2262:U:H5'	2.14	0.47
38:BC:41:VAL:HG12	38:BC:213:TYR:HA	1.97	0.47
39:BD:111:LEU:HD13	39:BD:112:GLN:N	2.30	0.47
40:BE:116:VAL:CG2	40:BE:122:PHE:CG	2.98	0.47
42:BG:43:LEU:CD2	42:BG:88:ILE:HD11	2.38	0.47
43:BH:23:ARG:NE	43:BH:36:PRO:HB3	2.30	0.47
47:BP:41:ARG:CZ	47:BP:45:LEU:HD12	2.45	0.47
47:BP:143:GLY:C	47:BP:145:PRO:HD3	2.35	0.47
49:BR:87:TYR:HE1	49:BR:117:VAL:O	1.97	0.47
50:BS:29:PHE:C	50:BS:29:PHE:CD2	2.88	0.47
51:BT:85:LYS:NZ	51:BT:85:LYS:HB3	2.28	0.47
56:BY:31:LEU:HD23	56:BY:36:ALA:O	2.14	0.47
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.15	0.47
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.29	0.47
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.79	0.47
1:CA:1494:G:N7	59:CA:1817:PAR:N32	2.62	0.47
2:CB:110:GLN:HE21	2:CB:110:GLN:HB2	1.52	0.47
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.50	0.47
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.80	0.47
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.28	0.47
7:CG:75:VAL:HG12	7:CG:88:PRO:HB3	1.97	0.47
8:CH:1:MET:HE2	8:CH:2:LEU:N	2.29	0.47
10:CJ:85:LEU:C	10:CJ:87:THR:H	2.16	0.47
12:CL:51:ALA:O	12:CL:52:LEU:HD22	2.14	0.47
13:CM:3:ARG:HB2	30:D4:60:GLU:HG2	1.97	0.47
13:CM:49:THR:N	13:CM:52:GLU:OE1	2.47	0.47
28:D2:10:LEU:HD22	28:D2:14:ARG:NH2	2.30	0.47
28:D2:64:LEU:HD23	28:D2:64:LEU:O	2.15	0.47
29:D3:38:GLU:O	29:D3:40:THR:HG23	2.15	0.47
31:D5:6:VAL:HG23	36:DA:2015:A:C4	2.50	0.47
34:D8:26:LYS:CE	34:D8:47:LYS:HD3	2.45	0.47
36:DA:271(R):G:H2'	36:DA:271(S):G:H8	1.80	0.47
36:DA:850:C:O2'	36:DA:851:U:H5'	2.15	0.47
36:DA:977:G:HO2'	36:DA:1001:A:H2	1.62	0.47
36:DA:1354:A:H2'	36:DA:1355:G:O4'	2.14	0.47
36:DA:1686:C:C2'	36:DA:1687:G:H5'	2.44	0.47
36:DA:2626:C:O2'	36:DA:2627:G:H5'	2.15	0.47
36:DA:2626:C:H2'	36:DA:2627:G:O4'	2.14	0.47
36:DA:2787:C:O2	40:DE:61:ARG:NH1	2.45	0.47
36:DA:2810:A:H2'	40:DE:61:ARG:NH2	2.29	0.47
37:DB:10:C:H42	37:DB:111:G:H1	1.61	0.47
39:DD:142:VAL:HG22	39:DD:143:HIS:N	2.30	0.47
39:DD:206:LEU:HD23	39:DD:206:LEU:HA	1.51	0.47
40:DE:111:ARG:CD	40:DE:160:TYR:HE1	2.27	0.47
42:DG:60:LEU:HD13	42:DG:68:PRO:CB	2.44	0.47
43:DH:17:VAL:CG1	43:DH:50:VAL:HG21	2.45	0.47
44:DI:87:LYS:N	44:DI:122:GLU:HG2	2.29	0.47
45:DN:62:VAL:O	45:DN:62:VAL:HG13	2.15	0.47
46:DO:87:ILE:HG21	46:DO:91:LEU:HA	1.91	0.47
47:DP:126:VAL:HG22	47:DP:145:PRO:HB2	1.97	0.47
50:DS:73:LEU:O	50:DS:73:LEU:HD23	2.15	0.47
51:DT:68:TYR:N	51:DT:68:TYR:HD2	2.12	0.47
51:DT:96:ARG:NH1	51:DT:96:ARG:CG	2.77	0.47
52:DU:79:PHE:C	52:DU:79:PHE:CD2	2.88	0.47
52:DU:112:ARG:HH11	52:DU:112:ARG:HG2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DX:35:THR:HG22	55:DX:36:LYS:N	2.30	0.47
57:DZ:59:LEU:HG	57:DZ:69:THR:HG21	1.96	0.47
1:AA:90:U:H5"	1:AA:91:C:H5'	1.96	0.47
1:AA:683:G:C6	1:AA:684:A:C6	3.03	0.47
1:AA:954:G:H2'	1:AA:955:U:C6	2.50	0.47
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.80	0.47
1:AA:1311:G:N2	1:AA:1327:C:C2	2.83	0.47
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.80	0.47
2:AB:95:GLN:HE21	2:AB:147:LYS:CG	2.23	0.47
3:AC:5:ILE:C	3:AC:5:ILE:CD1	2.82	0.47
3:AC:73:PRO:CA	3:AC:76:VAL:HG22	2.45	0.47
3:AC:129:ALA:HB3	3:AC:132:ARG:HB3	1.96	0.47
3:AC:139:GLN:OE1	3:AC:139:GLN:HA	2.15	0.47
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.83	0.47
4:AD:146:ILE:N	4:AD:146:ILE:CD1	2.73	0.47
5:AE:6:PHE:HD1	5:AE:63:ARG:NH1	2.13	0.47
7:AG:57:GLU:O	7:AG:57:GLU:HG3	2.15	0.47
7:AG:105:VAL:HG12	7:AG:109:ASN:ND2	2.30	0.47
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.97	0.47
22:AV:13:C:O2'	36:BA:1924:C:H4'	2.15	0.47
26:B0:10:THR:HG22	26:B0:12:ASN:HB2	1.96	0.47
32:B6:30:THR:HB	36:BA:2286:A:OP1	2.14	0.47
32:B6:52:VAL:HG12	32:B6:53:LYS:N	2.30	0.47
33:B7:47:ARG:HH21	55:BX:60:ARG:HH22	1.61	0.47
36:BA:103:A:H2'	36:BA:104:U:H5'	1.97	0.47
36:BA:910:A:C6	36:BA:911:A:C6	3.03	0.47
36:BA:953:A:C2'	36:BA:954:G:H5'	2.45	0.47
36:BA:2177:C:H1'	38:BC:44:HIS:CD2	2.50	0.47
36:BA:2872:G:C2	36:BA:2873:A:N6	2.83	0.47
36:BA:2886:G:H2'	36:BA:2887:U:C6	2.50	0.47
39:BD:31:LYS:O	39:BD:32:SER:C	2.52	0.47
39:BD:206:LEU:HD23	39:BD:206:LEU:HA	1.56	0.47
41:BF:17:ARG:HH11	41:BF:17:ARG:CG	2.27	0.47
41:BF:67:GLN:O	41:BF:68:LYS:CB	2.63	0.47
42:BG:76:SER:CB	42:BG:84:LYS:HG3	2.44	0.47
42:BG:95:ARG:HH11	42:BG:95:ARG:HG2	1.78	0.47
42:BG:175:LEU:CD1	42:BG:175:LEU:N	2.78	0.47
43:BH:94:TYR:HE1	43:BH:108:GLY:H	1.61	0.47
43:BH:156:ALA:N	43:BH:158:HIS:H	2.12	0.47
44:BI:26:ALA:O	44:BI:31:LEU:HD13	2.14	0.47
44:BI:104:GLN:O	44:BI:105:HIS:CD2	2.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:48:MET:HE3	45:BN:48:MET:N	2.28	0.47
47:BP:10:PRO:O	47:BP:11:GLY:C	2.53	0.47
47:BP:97:PRO:O	47:BP:98:GLU:HG3	2.14	0.47
57:BZ:14:LYS:N	57:BZ:15:PRO:HD3	2.30	0.47
57:BZ:120:ILE:HG21	57:BZ:170:THR:OG1	2.14	0.47
57:BZ:163:LEU:H	57:BZ:163:LEU:CD1	2.20	0.47
1:CA:20:U:O2'	1:CA:21:G:H5'	2.15	0.47
1:CA:748:C:H6	1:CA:748:C:OP2	1.97	0.47
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.50	0.47
3:CC:129:ALA:HB3	3:CC:132:ARG:HB3	1.97	0.47
4:CD:206:PHE:CD2	4:CD:207:TYR:CE2	3.04	0.47
7:CG:70:LYS:HB3	7:CG:96:GLN:OE1	2.14	0.47
7:CG:75:VAL:HG23	7:CG:75:VAL:O	2.15	0.47
12:CL:22:SER:C	12:CL:24:VAL:H	2.19	0.47
13:CM:90:LEU:O	13:CM:92:HIS:N	2.45	0.47
14:CN:22:THR:O	14:CN:23:ARG:HB2	2.14	0.47
18:CR:44:LEU:CD2	18:CR:50:ILE:HD13	2.44	0.47
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.34	0.47
20:CT:48:LYS:HD2	20:CT:51:GLU:OE2	2.15	0.47
20:CT:58:LYS:O	20:CT:61:SER:HB3	2.15	0.47
23:CW:28:G:O2'	23:CW:29:G:H5'	2.15	0.47
26:D0:25:ARG:HH11	26:D0:25:ARG:HG2	1.80	0.47
32:D6:46:HIS:CB	32:D6:47:THR:N	2.77	0.47
36:DA:30:G:O2'	36:DA:31:C:H5'	2.14	0.47
36:DA:1040:C:O2'	36:DA:1041:C:P	2.72	0.47
36:DA:1766:U:O2'	36:DA:1767:C:H5'	2.15	0.47
36:DA:1937:A:C8	36:DA:1939:U:H2'	2.50	0.47
36:DA:2068:U:H3	36:DA:2430:A:H2	0.72	0.47
36:DA:2175:C:H1'	38:DC:215:THR:H	1.80	0.47
36:DA:2707:G:H5"	49:DR:68:ARG:NH2	2.30	0.47
36:DA:2789:C:N3	36:DA:2894:G:O6	2.47	0.47
36:DA:2897:U:O2	36:DA:2897:U:C2'	2.62	0.47
39:DD:31:LYS:O	39:DD:32:SER:C	2.53	0.47
39:DD:172:TYR:CE2	39:DD:269:PHE:CE1	3.00	0.47
42:DG:36:LYS:HG2	42:DG:38:VAL:HG23	1.97	0.47
42:DG:63:ILE:HG22	42:DG:144:ILE:CG1	2.45	0.47
44:DI:101:LEU:HA	44:DI:104:GLN:HB3	1.97	0.47
45:DN:55:VAL:HG22	45:DN:126:PRO:CA	2.44	0.47
45:DN:91:LEU:O	45:DN:95:PRO:HB3	2.15	0.47
48:DQ:16:ARG:CG	48:DQ:17:LEU:H	2.23	0.47
48:DQ:116:GLU:HA	48:DQ:116:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:106:SER:CA	51:DT:110:ILE:HG13	2.29	0.47
52:DU:110:VAL:O	52:DU:114:LYS:HG2	2.15	0.47
53:DV:40:LEU:N	53:DV:40:LEU:CD2	2.78	0.47
53:DV:46:VAL:CG2	53:DV:47:VAL:H	2.22	0.47
55:DX:27:THR:HA	55:DX:80:ILE:HA	1.97	0.47
57:DZ:158:PRO:O	57:DZ:160:GLY:N	2.48	0.47
1:AA:82:U:H2'	1:AA:83:U:H5	1.80	0.46
1:AA:300:A:H2'	1:AA:301:G:O4'	2.15	0.46
1:AA:484:G:O2'	1:AA:485:G:OP2	2.31	0.46
1:AA:648:A:H2'	1:AA:649:G:H8	1.81	0.46
1:AA:859:A:H2'	1:AA:860:A:O4'	2.16	0.46
1:AA:942:G:N2	9:AI:124:GLN:NE2	2.52	0.46
1:AA:1223:C:P	1:AA:1224:G:H2'	2.55	0.46
1:AA:1227:A:H2'	1:AA:1228:C:O5'	2.15	0.46
1:AA:1265:G:N2	1:AA:1271:G:H1'	2.30	0.46
1:AA:1476:G:C6	1:AA:1477:C:N4	2.83	0.46
2:AB:101:MET:HA	2:AB:108:ILE:HG21	1.96	0.46
5:AE:144:THR:C	5:AE:146:ALA:N	2.68	0.46
7:AG:68:ASN:ND2	7:AG:128:ALA:HA	2.29	0.46
9:AI:5:TYR:OH	9:AI:16:ARG:HG2	2.15	0.46
9:AI:17:VAL:HG22	9:AI:63:ILE:CD1	2.44	0.46
10:AJ:17:ASP:OD1	10:AJ:70:ARG:NH1	2.48	0.46
14:AN:34:TYR:H	14:AN:34:TYR:HD1	1.62	0.46
20:AT:93:GLU:OE1	20:AT:94:ALA:N	2.48	0.46
23:AW:52:G:H2'	23:AW:53:G:C8	2.50	0.46
25:AY:74:C:H2'	25:AY:75:C:O4'	2.15	0.46
33:B7:8:ASN:HB3	33:B7:11:LYS:HB3	1.97	0.46
33:B7:43:THR:HG23	33:B7:44:PRO:CD	2.43	0.46
35:B9:36:GLN:OE1	36:BA:1124:C:H1'	2.15	0.46
36:BA:1484:G:H2'	36:BA:1485:G:H5"	1.97	0.46
36:BA:1801:G:OP2	39:BD:154:LYS:HE2	2.15	0.46
36:BA:1811:G:O2'	36:BA:1812:A:H5'	2.15	0.46
36:BA:2591:C:OP2	39:BD:239:ARG:HB3	2.14	0.46
36:BA:2697:G:H2'	36:BA:2698:U:O4'	2.15	0.46
36:BA:2707:G:H5"	49:BR:68:ARG:NH2	2.30	0.46
36:BA:2736:G:O2'	36:BA:2737:G:H5'	2.15	0.46
36:BA:2884:U:H2'	36:BA:2885:C:C5'	2.44	0.46
39:BD:26:LYS:NZ	39:BD:82:ILE:N	2.55	0.46
39:BD:40:THR:HG22	39:BD:41:GLY:O	2.15	0.46
40:BE:46:ALA:HA	40:BE:82:ARG:O	2.15	0.46
40:BE:117:MET:CE	40:BE:124:GLY:HA3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BF:125:LEU:N	41:BF:125:LEU:HD22	2.29	0.46
41:BF:168:ARG:HA	41:BF:175:THR:CG2	2.42	0.46
42:BG:44:GLY:N	42:BG:88:ILE:HG12	2.31	0.46
42:BG:46:ALA:CA	42:BG:51:ARG:HG3	2.45	0.46
44:BI:10:GLU:O	44:BI:12:LEU:HD23	2.15	0.46
48:BQ:1:MET:O	48:BQ:2:LEU:HB2	2.15	0.46
50:BS:35:ILE:CG2	50:BS:53:SER:HB2	2.44	0.46
52:BU:112:ARG:HE	53:BV:46:VAL:HG21	1.78	0.46
53:BV:53:GLU:C	53:BV:55:ALA:H	2.18	0.46
56:BY:40:GLU:HA	56:BY:40:GLU:OE2	2.15	0.46
57:BZ:17:ALA:HA	57:BZ:20:ARG:HD2	1.97	0.46
57:BZ:129:SER:C	57:BZ:131:ARG:H	2.19	0.46
57:BZ:151:HIS:CA	57:BZ:170:THR:HA	2.45	0.46
1:CA:541:G:H2'	1:CA:542:G:H8	1.80	0.46
1:CA:554:C:H2'	1:CA:555:C:H6	1.78	0.46
1:CA:807:A:H2'	1:CA:808:C:C6	2.49	0.46
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.15	0.46
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.14	0.46
1:CA:1146:A:H2'	1:CA:1147:C:O4'	2.15	0.46
1:CA:1305:G:C2	1:CA:1331:G:N3	2.83	0.46
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.13	0.46
3:CC:15:THR:HG22	3:CC:16:ARG:H	1.80	0.46
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.78	0.46
6:CF:76:ALA:O	6:CF:80:ARG:HG2	2.15	0.46
10:CJ:33:GLN:HB2	10:CJ:75:ILE:CD1	2.44	0.46
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.61	0.46
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.84	0.46
24:CX:13:A:H2'	24:CX:14:A:O4'	2.16	0.46
26:D0:23:VAL:HG11	26:D0:69:PHE:HZ	1.80	0.46
29:D3:11:SER:OG	29:D3:12:PRO:HD2	2.14	0.46
31:D5:40:LYS:HD2	31:D5:40:LYS:C	2.34	0.46
34:D8:23:VAL:HA	34:D8:47:LYS:O	2.15	0.46
34:D8:59:LYS:CD	47:DP:50:ARG:HB3	2.38	0.46
34:D8:61:LEU:H	34:D8:61:LEU:HD12	1.79	0.46
36:DA:336:C:H5"	56:DY:7:VAL:CG1	2.45	0.46
36:DA:579:G:H2'	36:DA:580:C:C6	2.51	0.46
36:DA:631:A:H2'	36:DA:632:A:O4'	2.13	0.46
36:DA:651:G:N3	36:DA:651:G:H2'	2.30	0.46
36:DA:1176:G:O2'	36:DA:1177:A:H5'	2.14	0.46
36:DA:1455:G:C8	49:DR:60:LEU:HD11	2.50	0.46
36:DA:1697:G:H3'	36:DA:1698:A:C5'	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2308:G:N7	36:DA:2310:A:O5'	2.47	0.46
36:DA:2314:C:H2'	36:DA:2315:G:C8	2.46	0.46
36:DA:2790:A:N3	36:DA:2790:A:C2'	2.78	0.46
38:DC:64:LEU:HD13	38:DC:189:ILE:CB	2.45	0.46
38:DC:82:LYS:NZ	38:DC:149:ILE:HA	2.29	0.46
39:DD:30:GLU:CD	39:DD:63:ARG:HH21	2.18	0.46
39:DD:134:ARG:HD3	39:DD:135:PHE:CZ	2.49	0.46
40:DE:8:LYS:HE2	40:DE:192:ASN:HD22	1.80	0.46
40:DE:188:VAL:O	40:DE:188:VAL:HG13	2.15	0.46
40:DE:200:GLU:OE2	40:DE:200:GLU:N	2.38	0.46
41:DF:28:ILE:O	41:DF:28:ILE:HD12	2.15	0.46
42:DG:41:GLN:HA	42:DG:155:MET:CB	2.43	0.46
42:DG:41:GLN:CB	42:DG:90:LEU:HB2	2.43	0.46
42:DG:58:GLN:O	42:DG:62:LEU:N	2.48	0.46
43:DH:88:LEU:HD22	43:DH:88:LEU:N	2.30	0.46
47:DP:38:GLN:CG	47:DP:39:LYS:H	2.09	0.46
50:DS:93:LYS:O	50:DS:93:LYS:CG	2.59	0.46
51:DT:36:GLU:C	51:DT:38:ASN:H	2.19	0.46
52:DU:97:ASP:OD2	52:DU:101:ARG:NH2	2.33	0.46
56:DY:38:ILE:O	56:DY:39:VAL:CB	2.63	0.46
1:AA:729:A:H2'	1:AA:730:G:C8	2.47	0.46
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.36	0.46
2:AB:61:LEU:HD11	2:AB:66:GLY:HA3	1.97	0.46
2:AB:213:LEU:C	2:AB:213:LEU:CD2	2.84	0.46
4:AD:100:ARG:HH22	4:AD:137:SER:HB3	1.80	0.46
7:AG:78:ARG:HD2	7:AG:79:ARG:N	2.24	0.46
10:AJ:24:VAL:HG12	10:AJ:24:VAL:O	2.15	0.46
11:AK:37:GLY:C	11:AK:38:ASN:HD22	2.18	0.46
12:AL:38:THR:HG21	12:AL:65:GLU:OE2	2.16	0.46
13:AM:93:ARG:HH11	36:BA:888:C:H5'	1.79	0.46
16:AP:58:TYR:O	16:AP:61:SER:N	2.48	0.46
19:AS:28:LYS:HD2	19:AS:29:ARG:NE	2.30	0.46
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	1.96	0.46
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.97	0.46
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.15	0.46
26:B0:23:VAL:HG11	26:B0:69:PHE:HZ	1.81	0.46
28:B2:16:LEU:O	28:B2:17:SER:O	2.33	0.46
32:B6:15:GLU:O	32:B6:15:GLU:CG	2.60	0.46
34:B8:61:LEU:HD12	34:B8:61:LEU:N	2.30	0.46
36:BA:88:G:N3	36:BA:88:G:H2'	2.30	0.46
36:BA:543:C:N4	36:BA:551:G:N1	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:904:C:H1'	57:BZ:169:GLU:OE2	2.15	0.46
36:BA:1024:G:H8	36:BA:1024:G:O5'	1.98	0.46
36:BA:1344:G:H4'	36:BA:1384:A:N7	2.30	0.46
36:BA:1354:A:H2'	36:BA:1355:G:O4'	2.15	0.46
36:BA:1490:A:N6	39:BD:98:VAL:HG11	2.30	0.46
36:BA:1987:G:C8	36:BA:1987:G:C5'	2.97	0.46
36:BA:2263:C:HO2'	36:BA:2264:C:H5'	1.81	0.46
36:BA:2870:C:H2'	36:BA:2871:C:H5'	1.96	0.46
36:BA:2875:C:C4'	51:BT:5:ALA:HB2	2.43	0.46
40:BE:79:ARG:HG2	40:BE:79:ARG:NH1	2.29	0.46
42:BG:6:ALA:HB3	42:BG:104:GLU:CD	2.35	0.46
43:BH:98:LEU:HD22	43:BH:125:VAL:CG2	2.44	0.46
44:BI:123:LEU:HD23	44:BI:142:VAL:HG12	1.96	0.46
45:BN:3:THR:O	45:BN:5:VAL:N	2.49	0.46
45:BN:32:THR:HG22	45:BN:37:LYS:HB3	1.97	0.46
45:BN:91:LEU:CD2	45:BN:98:VAL:HG21	2.45	0.46
46:BO:18:LYS:HD2	46:BO:45:GLU:CD	2.36	0.46
47:BP:85:LEU:HD12	47:BP:120:ALA:HB2	1.97	0.46
50:BS:58:LEU:HD23	50:BS:65:VAL:CG1	2.45	0.46
51:BT:29:ARG:HB2	51:BT:86:ILE:O	2.16	0.46
51:BT:96:ARG:NH1	51:BT:96:ARG:HG2	2.27	0.46
51:BT:120:ARG:HA	51:BT:123:GLN:HG2	1.97	0.46
53:BV:19:LYS:CG	53:BV:20:LEU:N	2.78	0.46
53:BV:39:LEU:HD13	53:BV:39:LEU:N	2.29	0.46
1:CA:335:C:H2'	1:CA:336:C:C6	2.51	0.46
1:CA:668:G:O4'	15:CO:49:ASP:HB2	2.15	0.46
1:CA:992:U:H3	1:CA:1044:A:H62	1.63	0.46
1:CA:1038:C:H2'	1:CA:1039:C:C5	2.51	0.46
1:CA:1280:A:H5"	10:CJ:40:LEU:HD12	1.96	0.46
1:CA:1293:G:O2'	1:CA:1294:G:P	2.72	0.46
4:CD:13:ARG:O	4:CD:14:ARG:C	2.54	0.46
7:CG:155:ARG:O	7:CG:156:TRP:O	2.33	0.46
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.97	0.46
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.50	0.46
12:CL:6:THR:HG23	12:CL:9:GLN:CG	2.45	0.46
14:CN:23:ARG:HA	14:CN:29:ARG:O	2.16	0.46
16:CP:58:TYR:O	16:CP:61:SER:N	2.48	0.46
23:CW:56:C:H3'	23:CW:57:G:H5"	1.97	0.46
25:CY:29:G:N3	25:CY:29:G:H2'	2.29	0.46
31:D5:56:LYS:HB3	31:D5:56:LYS:NZ	2.30	0.46
36:DA:709:U:H2'	36:DA:710:G:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:849:A:H8	36:DA:849:A:O5'	1.96	0.46
36:DA:910:A:C6	36:DA:911:A:C6	3.03	0.46
36:DA:1188:U:C5'	53:DV:79:VAL:HG22	2.45	0.46
36:DA:1221(A):C:O2'	36:DA:1222:C:H5'	2.15	0.46
36:DA:1708:C:O2'	36:DA:1709:U:H5'	2.16	0.46
36:DA:1812:A:H2'	36:DA:1813:G:H8	1.81	0.46
36:DA:2409:G:H2'	36:DA:2410:G:O4'	2.15	0.46
36:DA:2444:G:OP2	41:DF:68:LYS:HE2	2.15	0.46
36:DA:2682:U:H5'	36:DA:2682:U:H6	1.80	0.46
39:DD:168:ARG:HA	39:DD:173:VAL:HA	1.98	0.46
42:DG:50:ALA:O	42:DG:52:ILE:N	2.40	0.46
42:DG:102:PHE:HA	42:DG:105:LYS:HG2	1.96	0.46
45:DN:78:TYR:N	45:DN:78:TYR:HD1	2.12	0.46
49:DR:111:LEU:HD22	49:DR:111:LEU:N	2.30	0.46
50:DS:66:ALA:HA	50:DS:69:VAL:HG12	1.97	0.46
51:DT:121:ILE:O	51:DT:124:ASP:HB2	2.14	0.46
53:DV:22:VAL:O	53:DV:23:GLU:HB2	2.14	0.46
53:DV:25:LEU:HB2	53:DV:92:THR:HG21	1.98	0.46
54:DW:46:PHE:O	54:DW:50:VAL:HG12	2.15	0.46
56:DY:2:ARG:O	56:DY:3:VAL:HB	2.15	0.46
1:AA:777:A:O2'	1:AA:778:G:H5'	2.14	0.46
1:AA:857:C:H2'	1:AA:858:G:O4'	2.15	0.46
1:AA:992:U:H3	1:AA:1044:A:N6	2.13	0.46
2:AB:21:ARG:C	2:AB:23:ARG:H	2.18	0.46
2:AB:238:LEU:O	2:AB:240:GLN:N	2.47	0.46
3:AC:186:PHE:HA	3:AC:198:VAL:O	2.15	0.46
5:AE:26:PHE:N	5:AE:26:PHE:CD1	2.83	0.46
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.15	0.46
20:AT:84:LEU:C	20:AT:86:ARG:H	2.17	0.46
22:AV:4:G:O2'	22:AV:5:G:H8	1.99	0.46
24:AX:14:A:H2'	24:AX:15:A:H5'	1.98	0.46
25:AY:5:G:H2'	25:AY:6:G:H8	1.79	0.46
25:AY:56:C:H2'	25:AY:57:G:H5"	1.97	0.46
26:B0:7:LEU:HD21	48:BQ:81:VAL:HG23	1.97	0.46
26:B0:29:GLN:O	26:B0:31:VAL:HG13	2.15	0.46
28:B2:12:GLU:O	28:B2:16:LEU:HG	2.16	0.46
28:B2:21:LEU:O	28:B2:24:LEU:HB3	2.16	0.46
36:BA:247:G:H4'	36:BA:386:G:C5	2.50	0.46
36:BA:402:A:C2'	36:BA:403:U:H5'	2.45	0.46
36:BA:674:G:H1'	41:BF:74:ARG:CD	2.46	0.46
36:BA:709:U:H2'	36:BA:710:G:H8	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1051:G:N2	36:BA:1106:A:N1	2.63	0.46
36:BA:1188:U:C5'	53:BV:79:VAL:HG22	2.45	0.46
36:BA:1414:G:H1	36:BA:1588:C:H42	1.62	0.46
36:BA:1670:C:O2	40:BE:129:HIS:HE1	1.97	0.46
36:BA:1742:G:N7	36:BA:1743:C:C4	2.84	0.46
36:BA:1925:C:C2'	36:BA:1926:U:H5'	2.46	0.46
36:BA:2839:G:H1	36:BA:2878:U:H3	1.63	0.46
36:BA:2840:C:H4'	49:BR:53:HIS:CD2	2.51	0.46
37:BB:48:A:H4'	50:BS:95:HIS:CD2	2.45	0.46
38:BC:83:ILE:HA	38:BC:94:VAL:CG2	2.45	0.46
40:BE:54:GLN:O	40:BE:75:VAL:HG23	2.15	0.46
41:BF:42:ALA:O	41:BF:45:ARG:HB2	2.15	0.46
42:BG:96:ARG:O	42:BG:97:ASP:C	2.54	0.46
45:BN:26:LEU:CG	45:BN:30:ILE:HD11	2.45	0.46
46:BO:119:PRO:O	46:BO:120:GLU:HB2	2.15	0.46
47:BP:9:ASN:ND2	47:BP:10:PRO:HD3	2.30	0.46
47:BP:101:VAL:HG12	47:BP:107:LYS:H	1.80	0.46
50:BS:66:ALA:HA	50:BS:69:VAL:HG12	1.97	0.46
52:BU:72:HIS:HE1	52:BU:107:ALA:HB2	1.80	0.46
52:BU:92:ARG:CG	52:BU:92:ARG:NH1	2.78	0.46
53:BV:25:LEU:HD11	53:BV:94:LEU:HD11	1.97	0.46
54:BW:24:ILE:HG23	54:BW:36:LEU:HD21	1.97	0.46
54:BW:55:ALA:HA	54:BW:107:LEU:CD2	2.44	0.46
56:BY:28:LYS:NZ	56:BY:28:LYS:H	2.03	0.46
57:BZ:74:VAL:HG13	57:BZ:86:VAL:HG13	1.97	0.46
57:BZ:141:VAL:HG22	57:BZ:141:VAL:O	2.16	0.46
57:BZ:150:LEU:O	57:BZ:171:ILE:HG12	2.15	0.46
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.12	0.46
1:CA:159:G:N1	1:CA:163:C:N4	2.63	0.46
1:CA:1041:A:H2'	1:CA:1042:G:O4'	2.16	0.46
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.15	0.46
5:CE:90:VAL:HG23	5:CE:121:LYS:H	1.79	0.46
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.16	0.46
8:CH:83:ILE:HG23	8:CH:83:ILE:O	2.15	0.46
13:CM:117:VAL:CG1	13:CM:118:ALA:N	2.78	0.46
28:D2:13:ALA:HA	28:D2:16:LEU:CD1	2.44	0.46
28:D2:28:LYS:HB3	28:D2:57:ILE:CD1	2.46	0.46
28:D2:35:LEU:CD2	28:D2:49:LYS:HB3	2.43	0.46
36:DA:542:C:C4	36:DA:543:C:N4	2.83	0.46
36:DA:633:A:N3	36:DA:2403:C:H4'	2.30	0.46
36:DA:886:C:H2'	36:DA:887:A:H4'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1173:G:H3'	36:DA:1174:A:C5'	2.45	0.46
36:DA:1175:U:C4'	36:DA:1176:G:H2'	2.45	0.46
36:DA:1352:U:O2	36:DA:1570:A:H2	1.98	0.46
36:DA:1478:G:O2'	36:DA:1479:G:H5'	2.16	0.46
36:DA:2225:A:H1'	36:DA:2226:C:OP2	2.15	0.46
36:DA:2266:A:C2	36:DA:2272:U:C5	3.03	0.46
36:DA:2591:C:OP2	39:DD:239:ARG:HB3	2.15	0.46
39:DD:96:HIS:CE1	39:DD:102:LYS:HE2	2.50	0.46
39:DD:136:ILE:HG22	39:DD:140:THR:OG1	2.15	0.46
44:DI:58:LEU:C	44:DI:60:GLU:H	2.18	0.46
49:DR:7:GLY:O	49:DR:8:ARG:O	2.32	0.46
50:DS:22:GLY:O	50:DS:23:ARG:O	2.33	0.46
54:DW:65:LEU:HD22	54:DW:68:ARG:N	2.23	0.46
1:AA:359:U:H2'	1:AA:360:A:C8	2.51	0.46
1:AA:606:G:H5"	1:AA:607:A:H5'	1.97	0.46
1:AA:860:A:H2'	1:AA:861:G:O4'	2.15	0.46
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.16	0.46
1:AA:1197:G:O2'	1:AA:1198:G:H5'	2.15	0.46
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.16	0.46
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.51	0.46
1:AA:1343:G:C1'	9:AI:121:ARG:HH12	2.29	0.46
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.14	0.46
5:AE:45:PHE:HE2	5:AE:129:ILE:HD13	1.79	0.46
6:AF:4:TYR:HD1	6:AF:92:LYS:HA	1.80	0.46
8:AH:83:ILE:O	8:AH:83:ILE:HG23	2.15	0.46
16:AP:55:ARG:O	16:AP:58:TYR:N	2.49	0.46
28:B2:38:GLN:HA	28:B2:41:ILE:HD11	1.97	0.46
36:BA:176:G:C2'	36:BA:177:G:H5'	2.45	0.46
36:BA:325:G:H2'	36:BA:326:G:C8	2.48	0.46
36:BA:696:G:O2'	36:BA:697:C:H5'	2.14	0.46
36:BA:760:G:O2'	36:BA:761:A:H5'	2.16	0.46
36:BA:910:A:N7	48:BQ:13:GLN:HG3	2.29	0.46
36:BA:1040:C:O2'	36:BA:1041:C:P	2.73	0.46
36:BA:1331:A:O2'	36:BA:1332:G:C8	2.69	0.46
36:BA:2039:C:O2'	36:BA:2040:C:H5'	2.15	0.46
36:BA:2302:G:N2	42:BG:128:ARG:HD2	2.29	0.46
36:BA:2308:G:O6	36:BA:2310:A:H2'	2.14	0.46
36:BA:2863:C:H2'	36:BA:2864:G:H5'	1.96	0.46
37:BB:60:C:H2'	37:BB:61:G:C8	2.42	0.46
38:BC:36:LYS:NZ	38:BC:36:LYS:CB	2.79	0.46
43:BH:158:HIS:ND1	43:BH:168:PRO:HB2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:158:HIS:NE2	43:BH:169:VAL:O	2.47	0.46
45:BN:91:LEU:O	45:BN:95:PRO:HB3	2.15	0.46
45:BN:111:PRO:HA	45:BN:114:ARG:CZ	2.45	0.46
45:BN:119:ARG:HH11	45:BN:119:ARG:CG	2.29	0.46
45:BN:131:GLN:O	45:BN:132:ALA:HB2	2.15	0.46
49:BR:7:GLY:O	49:BR:8:ARG:O	2.33	0.46
51:BT:28:VAL:HG22	51:BT:46:GLU:HG3	1.97	0.46
52:BU:15:LYS:N	52:BU:15:LYS:HD3	2.28	0.46
55:BX:32:PRO:HA	55:BX:77:LYS:HB2	1.95	0.46
1:CA:97:G:O2'	1:CA:98:G:P	2.74	0.46
1:CA:431:A:H2'	1:CA:432:A:O4'	2.15	0.46
1:CA:979:C:OP1	1:CA:1223:C:N4	2.48	0.46
1:CA:1074:G:O3'	2:CB:103:THR:HG21	2.15	0.46
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.15	0.46
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.50	0.46
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.29	0.46
1:CA:1437:C:O2'	1:CA:1438:G:H5'	2.15	0.46
3:CC:188:LEU:HB3	3:CC:189:ALA:H	1.55	0.46
4:CD:11:LEU:C	4:CD:13:ARG:N	2.63	0.46
4:CD:150:GLU:O	4:CD:153:ARG:HG3	2.16	0.46
5:CE:136:MET:C	5:CE:138:ALA:H	2.18	0.46
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.36	0.46
7:CG:25:ALA:HA	7:CG:28:ASN:HD22	1.80	0.46
11:CK:108:ILE:O	18:CR:86:VAL:HG13	2.15	0.46
13:CM:76:ALA:HA	13:CM:79:LYS:HB2	1.97	0.46
17:CQ:18:THR:O	17:CQ:19:VAL:HG13	2.14	0.46
27:D1:41:ARG:HH22	36:DA:1365:A:H5"	1.79	0.46
30:D4:51:TYR:HE1	42:DG:5:VAL:HG13	1.80	0.46
36:DA:271(Q):G:O2'	36:DA:271(R):G:P	2.74	0.46
36:DA:297:C:H2'	36:DA:298:G:O4'	2.15	0.46
36:DA:1373:A:H2'	36:DA:1374:G:O4'	2.16	0.46
36:DA:1412:A:H2'	36:DA:1413:G:C8	2.50	0.46
36:DA:1518:U:H2'	36:DA:1519:G:O4'	2.15	0.46
36:DA:1568:G:H21	39:DD:58:HIS:CE1	2.33	0.46
36:DA:1889:A:N1	36:DA:2234:G:H1'	2.31	0.46
36:DA:2262:U:H2'	36:DA:2263:C:H5'	1.97	0.46
36:DA:2564:A:OP1	36:DA:2648:C:H4'	2.15	0.46
38:DC:74:VAL:HG23	38:DC:91:ALA:HB2	1.96	0.46
38:DC:83:ILE:HG23	38:DC:94:VAL:HG23	1.98	0.46
40:DE:119:ARG:HG2	40:DE:160:TYR:CD2	2.51	0.46
42:DG:126:ASP:N	42:DG:126:ASP:OD2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:41:MET:HG3	43:DH:53:GLU:C	2.35	0.46
49:DR:60:LEU:O	49:DR:63:ARG:HB3	2.14	0.46
50:DS:19:LYS:C	50:DS:20:ARG:NH1	2.66	0.46
50:DS:101:LEU:H	50:DS:101:LEU:HD13	1.79	0.46
51:DT:29:ARG:HD3	51:DT:29:ARG:HA	1.58	0.46
51:DT:65:LYS:HZ1	51:DT:66:VAL:H	1.54	0.46
51:DT:65:LYS:O	51:DT:72:VAL:N	2.39	0.46
51:DT:68:TYR:N	51:DT:68:TYR:CD2	2.83	0.46
52:DU:104:GLN:HE21	52:DU:105:VAL:N	2.13	0.46
55:DX:26:TYR:HD2	55:DX:92:LEU:HD12	1.81	0.46
56:DY:26:LYS:O	56:DY:28:LYS:HE3	2.15	0.46
57:DZ:10:ARG:HB2	57:DZ:38:TYR:HD2	1.80	0.46
57:DZ:58:VAL:O	57:DZ:59:LEU:HD23	2.15	0.46
57:DZ:111:VAL:HG13	57:DZ:111:VAL:O	2.15	0.46
57:DZ:163:LEU:CD2	57:DZ:167:PRO:HD3	2.45	0.46
1:AA:334:C:O2'	1:AA:335:C:H5'	2.15	0.46
1:AA:501:C:O2'	1:AA:502:G:H5'	2.16	0.46
1:AA:557:G:H2'	1:AA:558:G:C8	2.51	0.46
1:AA:1043:C:H2'	1:AA:1044:A:C8	2.50	0.46
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.46	0.46
2:AB:105:PHE:O	2:AB:106:LYS:C	2.54	0.46
2:AB:219:VAL:HG13	2:AB:222:ILE:HD12	1.98	0.46
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.36	0.46
3:AC:149:ALA:O	3:AC:150:LYS:HB2	2.15	0.46
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	1.96	0.46
7:AG:154:TYR:O	7:AG:156:TRP:N	2.48	0.46
10:AJ:79:ARG:N	10:AJ:79:ARG:HH11	2.12	0.46
12:AL:43:VAL:CG2	12:AL:93:LEU:HD22	2.45	0.46
14:AN:8:GLU:HG3	14:AN:12:ARG:NH1	2.29	0.46
26:B0:10:THR:CG2	26:B0:12:ASN:HB2	2.45	0.46
36:BA:196:A:N3	36:BA:196:A:H2'	2.31	0.46
36:BA:445:C:H2'	36:BA:446:G:O4'	2.15	0.46
36:BA:572:A:C2	36:BA:2033:A:C2	3.04	0.46
36:BA:1022:G:O6	45:BN:66:LYS:HE3	2.16	0.46
36:BA:1049:C:H2'	36:BA:1050:A:C8	2.50	0.46
36:BA:1313:U:H2'	36:BA:1610:A:C2	2.50	0.46
36:BA:1344:G:H4'	36:BA:1384:A:C5	2.50	0.46
36:BA:1657:C:O2'	36:BA:1658:C:H5'	2.16	0.46
36:BA:2186:G:C3'	36:BA:2187:G:H5"	2.46	0.46
36:BA:2199:A:H2'	36:BA:2199:A:N3	2.30	0.46
36:BA:2208:A:H1'	36:BA:2219:G:N3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2672:G:H3'	36:BA:2673:G:H5"	1.97	0.46
36:BA:2783:G:H2'	36:BA:2784:C:H6	1.80	0.46
36:BA:2788:C:H2'	36:BA:2789:C:O4'	2.15	0.46
39:BD:172:TYR:CE2	39:BD:269:PHE:CE1	3.02	0.46
43:BH:30:LYS:CE	43:BH:81:GLU:HG2	2.46	0.46
44:BI:10:GLU:OE1	44:BI:11:ASN:HB2	2.15	0.46
45:BN:39:ARG:HE	45:BN:41:ASP:CG	2.19	0.46
45:BN:134:ARG:N	45:BN:135:PRO:CD	2.77	0.46
46:BO:47:ILE:HG23	46:BO:48:PRO:N	2.29	0.46
48:BQ:34:LEU:HD11	48:BQ:129:THR:OG1	2.16	0.46
49:BR:10:LEU:HD13	49:BR:17:ARG:CZ	2.45	0.46
49:BR:28:LEU:C	49:BR:28:LEU:CD1	2.82	0.46
49:BR:28:LEU:HA	49:BR:34:ILE:HG12	1.96	0.46
1:CA:114:U:H2'	1:CA:115:G:C8	2.51	0.46
1:CA:622:A:C8	1:CA:623:C:C6	3.04	0.46
1:CA:1074:G:O3'	2:CB:103:THR:CG2	2.64	0.46
1:CA:1099:G:H5'	1:CA:1100:C:OP2	2.16	0.46
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.35	0.46
2:CB:213:LEU:C	2:CB:213:LEU:CD2	2.84	0.46
3:CC:27:LYS:NZ	3:CC:27:LYS:HB3	2.30	0.46
3:CC:73:PRO:CA	3:CC:76:VAL:HG22	2.46	0.46
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	1.96	0.46
4:CD:194:LEU:HD22	4:CD:194:LEU:N	2.31	0.46
9:CI:28:VAL:CA	9:CI:63:ILE:O	2.60	0.46
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.76	0.46
10:CJ:24:VAL:HG12	10:CJ:24:VAL:O	2.16	0.46
10:CJ:54:PHE:CG	10:CJ:55:LYS:HE3	2.50	0.46
13:CM:13:LYS:O	13:CM:14:ARG:C	2.54	0.46
19:CS:28:LYS:HB3	19:CS:29:ARG:H	1.47	0.46
22:CV:9:G:H21	22:CV:45:G:H3'	1.80	0.46
30:D4:51:TYR:CD1	42:DG:5:VAL:HG22	2.51	0.46
34:D8:61:LEU:HD12	34:D8:61:LEU:N	2.29	0.46
36:DA:271(T):C:H6	36:DA:271(T):C:C5'	2.17	0.46
36:DA:302:C:O2'	36:DA:303:U:H5'	2.16	0.46
36:DA:1290:C:C2	36:DA:1291:C:C5	3.04	0.46
36:DA:1484:G:C2'	36:DA:1485:G:H5"	2.45	0.46
36:DA:1603:A:H8	36:DA:1603:A:H5'	1.81	0.46
36:DA:2159:G:N2	36:DA:2160:G:H1'	2.30	0.46
36:DA:2637:U:C2'	36:DA:2638:G:H5'	2.45	0.46
36:DA:2736:G:O2'	36:DA:2737:G:H5'	2.16	0.46
36:DA:2751:G:N3	36:DA:2751:G:H2'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2810:A:H2'	36:DA:2811:G:O4'	2.15	0.46
39:DD:172:TYR:CD1	39:DD:186:HIS:CA	2.92	0.46
41:DF:31:HIS:HB2	47:DP:13:ASN:HB3	1.98	0.46
41:DF:125:LEU:HD11	41:DF:199:TRP:CD1	2.51	0.46
42:DG:180:PHE:CB	42:DG:182:LYS:HE3	2.44	0.46
44:DI:88:ILE:H	44:DI:122:GLU:HA	1.81	0.46
45:DN:3:THR:HG22	45:DN:5:VAL:HG12	1.97	0.46
45:DN:72:TYR:N	45:DN:72:TYR:CD1	2.84	0.46
46:DO:49:ARG:NH1	46:DO:49:ARG:CG	2.79	0.46
47:DP:97:PRO:O	47:DP:99:LEU:N	2.44	0.46
48:DQ:108:GLY:HA3	57:DZ:116:VAL:HG13	1.97	0.46
49:DR:21:TYR:OH	49:DR:43:GLU:HG2	2.16	0.46
52:DU:85:LYS:HD3	52:DU:117:GLN:HE22	1.81	0.46
52:DU:112:ARG:HE	53:DV:46:VAL:HG21	1.79	0.46
54:DW:10:VAL:O	54:DW:11:ARG:CB	2.63	0.46
55:DX:3:THR:O	55:DX:4:ALA:CB	2.63	0.46
56:DY:20:TYR:CZ	56:DY:42:VAL:HA	2.51	0.46
56:DY:90:LEU:O	56:DY:91:GLU:HG2	2.16	0.46
57:DZ:17:ALA:HA	57:DZ:20:ARG:HG3	1.96	0.46
57:DZ:80:ARG:O	57:DZ:81:ARG:C	2.53	0.46
1:AA:544:G:H2'	1:AA:545:C:C6	2.50	0.46
1:AA:952:U:C5	13:AM:104:ARG:NH2	2.83	0.46
1:AA:964:A:OP1	1:AA:1199:U:OP1	2.34	0.46
1:AA:983:A:H5'	1:AA:984:C:OP2	2.15	0.46
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.15	0.46
1:AA:1229:A:OP2	13:AM:114:ARG:HD2	2.16	0.46
1:AA:1253:G:O2'	1:AA:1254:C:H5'	2.15	0.46
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.51	0.46
2:AB:107:THR:HA	2:AB:110:GLN:CD	2.36	0.46
2:AB:109:SER:C	2:AB:111:ARG:N	2.69	0.46
8:AH:91:ARG:HH11	8:AH:91:ARG:CG	2.28	0.46
9:AI:114:TYR:CE1	10:AJ:60:ARG:N	2.84	0.46
14:AN:33:VAL:HG12	14:AN:39:LEU:O	2.15	0.46
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.45	0.46
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.15	0.46
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.83	0.46
20:AT:44:ALA:HB1	20:AT:92:LEU:HG	1.96	0.46
22:AV:40:C:H2'	22:AV:41:C:H6	1.80	0.46
25:AY:24:G:H3'	25:AY:25:C:C6	2.50	0.46
28:B2:53:LEU:O	28:B2:54:LYS:C	2.54	0.46
36:BA:536:A:H2'	36:BA:537:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1051:G:N2	36:BA:1052:C:C5	2.83	0.46
36:BA:1203:G:H4'	47:BP:7:ARG:HG2	1.96	0.46
36:BA:1766:U:O2'	36:BA:1767:C:H5'	2.15	0.46
36:BA:1935:G:H1'	36:BA:1964:G:N2	2.30	0.46
36:BA:1953:A:C2	36:BA:2549:G:N3	2.84	0.46
36:BA:2183:C:O2'	36:BA:2184:G:H5'	2.15	0.46
36:BA:2701:C:H2'	36:BA:2702:U:H6	1.81	0.46
36:BA:2801:A:H1'	36:BA:2801(A):A:N7	2.29	0.46
38:BC:58:VAL:HG22	38:BC:167:LYS:N	2.31	0.46
39:BD:25:THR:O	39:BD:26:LYS:NZ	2.42	0.46
39:BD:158:ALA:HB3	39:BD:161:THR:CG2	2.45	0.46
40:BE:119:ARG:O	40:BE:120:TRP:CD2	2.68	0.46
40:BE:173:VAL:O	40:BE:174:ASP:C	2.53	0.46
41:BF:136:THR:HG23	41:BF:137:LYS:H	1.79	0.46
44:BI:131:LYS:HG3	44:BI:132:PRO:HD2	1.97	0.46
45:BN:119:ARG:NH1	45:BN:119:ARG:HG3	2.30	0.46
46:BO:1:MET:HE3	46:BO:67:LYS:HG2	1.97	0.46
49:BR:80:PHE:O	49:BR:85:PRO:HD3	2.15	0.46
52:BU:110:VAL:O	52:BU:114:LYS:HG2	2.16	0.46
1:CA:15:G:H4'	5:CE:24:ARG:NH2	2.31	0.46
1:CA:579:G:H2'	1:CA:580:U:C6	2.51	0.46
2:CB:21:ARG:C	2:CB:23:ARG:H	2.18	0.46
3:CC:3:ASN:CG	3:CC:4:LYS:N	2.69	0.46
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.35	0.46
4:CD:9:CYS:SG	4:CD:31:CYS:C	2.94	0.46
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.74	0.46
4:CD:38:TYR:CZ	4:CD:45:GLN:NE2	2.84	0.46
5:CE:12:LEU:O	5:CE:13:ILE:HG13	2.16	0.46
26:D0:63:VAL:O	26:D0:65:GLY:N	2.48	0.46
27:D1:63:ALA:O	27:D1:66:HIS:N	2.48	0.46
30:D4:57:ILE:HG23	42:DG:142:PRO:HB2	1.98	0.46
36:DA:271(P):C:OP1	44:DI:45:LYS:HE3	2.15	0.46
36:DA:341:G:O2'	36:DA:342:G:H5'	2.16	0.46
36:DA:365:C:H2'	36:DA:366:C:O4'	2.15	0.46
36:DA:536:A:H2'	36:DA:537:C:H6	1.80	0.46
36:DA:965:C:H6	36:DA:965:C:H5"	1.80	0.46
36:DA:1344:G:H4'	36:DA:1384:A:C5	2.50	0.46
36:DA:1490:A:N6	39:DD:98:VAL:HG11	2.30	0.46
36:DA:1496:A:C8	36:DA:1577:C:O2'	2.69	0.46
40:DE:149:ARG:HG3	40:DE:149:ARG:NH1	2.30	0.46
41:DF:103:LYS:HA	41:DF:106:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:51:ARG:NH2	42:DG:53:LEU:CD2	2.78	0.46
42:DG:67:LYS:HD2	42:DG:67:LYS:N	2.30	0.46
42:DG:102:PHE:CZ	42:DG:141:PHE:HE1	2.34	0.46
42:DG:133:LEU:HD11	42:DG:157:ILE:CG2	2.46	0.46
47:DP:10:PRO:O	47:DP:11:GLY:C	2.53	0.46
50:DS:17:ARG:O	50:DS:18:ILE:C	2.54	0.46
50:DS:66:ALA:HA	50:DS:69:VAL:CG1	2.45	0.46
50:DS:93:LYS:O	50:DS:94:TYR:C	2.53	0.46
53:DV:39:LEU:CB	53:DV:47:VAL:HG11	2.31	0.46
54:DW:9:TYR:N	54:DW:9:TYR:HD2	2.12	0.46
57:DZ:99:TYR:HB3	57:DZ:123:ASP:OD1	2.15	0.46
57:DZ:109:ALA:HB3	57:DZ:145:GLU:HB2	1.97	0.46
1:AA:640:A:H2'	1:AA:641:U:H5'	1.98	0.46
1:AA:718:G:H5'	11:AK:117:ASN:CG	2.37	0.46
1:AA:942:G:N2	1:AA:943:U:C2	2.84	0.46
2:AB:24:TRP:HB3	2:AB:40:HIS:CE1	2.50	0.46
2:AB:95:GLN:NE2	2:AB:147:LYS:HG2	2.26	0.46
3:AC:52:LEU:H	3:AC:52:LEU:CD2	2.25	0.46
3:AC:188:LEU:HB3	3:AC:189:ALA:H	1.53	0.46
7:AG:22:LEU:HG	7:AG:62:PHE:HE2	1.80	0.46
7:AG:44:TYR:C	7:AG:46:ALA:N	2.69	0.46
7:AG:44:TYR:O	7:AG:47:CYS:N	2.49	0.46
8:AH:63:LEU:CB	8:AH:65:TYR:CE1	2.98	0.46
8:AH:86:ILE:CG2	8:AH:87:SER:H	2.21	0.46
8:AH:112:LEU:HD12	8:AH:112:LEU:C	2.35	0.46
9:AI:118:LYS:HZ2	9:AI:118:LYS:CB	2.27	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.97	0.46
19:AS:45:VAL:O	19:AS:47:HIS:N	2.49	0.46
25:AY:24:G:C8	25:AY:25:C:C5	3.04	0.46
26:B0:10:THR:HG22	26:B0:12:ASN:N	2.27	0.46
28:B2:30:ARG:HH22	55:BX:48:LYS:HZ3	1.64	0.46
29:B3:48:GLU:O	29:B3:51:ALA:HB2	2.16	0.46
31:B5:36:CYS:HB2	31:B5:49:CYS:SG	2.55	0.46
36:BA:118:A:H1'	36:BA:178:G:O4'	2.15	0.46
36:BA:634:C:H2'	36:BA:635:C:C6	2.50	0.46
36:BA:925:C:C3'	36:BA:926:A:H5"	2.46	0.46
36:BA:1106:A:N3	36:BA:1107:G:N7	2.63	0.46
36:BA:1270:C:H5"	36:BA:1271:G:C5'	2.45	0.46
36:BA:1396:U:O2	36:BA:1396:U:C2'	2.63	0.46
36:BA:1889:A:N1	36:BA:2234:G:H1'	2.31	0.46
36:BA:2283:C:H2'	36:BA:2284:C:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2287:A:N1	36:BA:2346:A:C2	2.81	0.46
37:BB:79:C:O2'	37:BB:80:U:H5'	2.16	0.46
39:BD:33:LEU:H	39:BD:33:LEU:CD1	2.18	0.46
39:BD:228:PRO:HD3	39:BD:235:GLY:CA	2.45	0.46
40:BE:101:ARG:HH21	40:BE:171:GLU:CB	2.25	0.46
41:BF:3:GLU:CB	41:BF:19:GLU:HB2	2.46	0.46
41:BF:53:THR:HG22	41:BF:56:GLU:CG	2.45	0.46
41:BF:119:ARG:HH11	41:BF:119:ARG:HG2	1.79	0.46
42:BG:43:LEU:HB2	42:BG:88:ILE:HD11	1.97	0.46
42:BG:76:SER:HB3	42:BG:84:LYS:CA	2.46	0.46
42:BG:123:ASN:C	42:BG:125:PHE:H	2.19	0.46
44:BI:65:ALA:CA	44:BI:131:LYS:HE2	2.46	0.46
44:BI:120:ILE:HG21	44:BI:126:TYR:HE1	1.80	0.46
47:BP:108:LYS:C	47:BP:110:TYR:N	2.69	0.46
51:BT:35:LYS:C	51:BT:37:GLY:H	2.19	0.46
51:BT:133:GLU:OE2	51:BT:137:LYS:HB2	2.14	0.46
56:BY:68:HIS:HB3	56:BY:71:LYS:HG3	1.97	0.46
56:BY:90:LEU:O	56:BY:91:GLU:HG2	2.15	0.46
57:BZ:19:ARG:NH1	57:BZ:82:ARG:NH2	2.63	0.46
1:CA:1239:A:N6	1:CA:1299:A:H62	1.91	0.46
5:CE:6:PHE:HD1	5:CE:63:ARG:NH1	2.13	0.46
5:CE:87:SER:HB3	5:CE:131:ILE:CD1	2.45	0.46
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.98	0.46
9:CI:88:TYR:O	9:CI:89:ASN:HB2	2.15	0.46
9:CI:96:LEU:O	9:CI:101:PHE:N	2.43	0.46
10:CJ:83:GLU:O	10:CJ:85:LEU:N	2.49	0.46
18:CR:53:ARG:NE	18:CR:58:LEU:O	2.43	0.46
22:CV:4:G:O2'	22:CV:5:G:P	2.72	0.46
28:D2:5:GLU:HB3	28:D2:9:GLN:HE22	1.80	0.46
31:D5:41:PRO:HG2	31:D5:44:THR:CG2	2.44	0.46
32:D6:30:THR:HB	32:D6:31:PRO:CD	2.45	0.46
34:D8:13:ARG:CD	47:DP:61:ARG:O	2.64	0.46
36:DA:389:G:N1	47:DP:70:GLN:HG3	2.31	0.46
36:DA:455:C:N3	36:DA:472:A:H2'	2.31	0.46
36:DA:646:A:C8	36:DA:647:G:H1'	2.50	0.46
36:DA:697:C:H2'	36:DA:698:C:C6	2.51	0.46
36:DA:803:U:O2'	36:DA:804:A:H5'	2.15	0.46
36:DA:925:C:O2'	36:DA:926:A:H5"	2.13	0.46
36:DA:1045:A:N3	36:DA:1045:A:C2'	2.77	0.46
36:DA:1345:C:O2'	36:DA:1346:G:H5'	2.15	0.46
36:DA:1488:G:C2	36:DA:1489:U:O2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1813:G:H1'	39:DD:50:THR:OG1	2.15	0.46
36:DA:1884:A:C3'	36:DA:1885:A:H5"	2.43	0.46
36:DA:2167:U:O2	36:DA:2171:A:N7	2.49	0.46
36:DA:2330:G:H2'	36:DA:2331:G:O4'	2.16	0.46
36:DA:2580:U:H5'	40:DE:131:ALA:H	1.81	0.46
37:DB:42:C:C4'	42:DG:67:LYS:O	2.63	0.46
37:DB:73:A:H2'	37:DB:74:U:C5'	2.45	0.46
39:DD:130:ALA:C	39:DD:131:LEU:HD12	2.36	0.46
40:DE:65:GLY:HA2	40:DE:70:ALA:CB	2.46	0.46
45:DN:56:ASN:CA	45:DN:125:GLY:H	2.06	0.46
45:DN:57:ALA:O	45:DN:58:ASP:C	2.54	0.46
46:DO:24:VAL:HG22	46:DO:24:VAL:O	2.15	0.46
47:DP:7:ARG:HA	47:DP:7:ARG:HE	1.81	0.46
47:DP:10:PRO:O	47:DP:11:GLY:O	2.34	0.46
50:DS:89:ARG:HH11	50:DS:92:TYR:HA	1.81	0.46
51:DT:26:ASP:HB3	51:DT:89:VAL:O	2.16	0.46
52:DU:83:LEU:HD12	52:DU:113:ALA:HB2	1.98	0.46
53:DV:23:GLU:O	53:DV:24:LYS:C	2.53	0.46
54:DW:28:SER:OG	54:DW:31:GLU:HB2	2.16	0.46
55:DX:44:GLU:O	55:DX:46:ALA:N	2.45	0.46
57:DZ:38:TYR:HD1	57:DZ:39:VAL:O	1.97	0.46
1:AA:39:G:O2'	1:AA:40:C:H5'	2.15	0.46
1:AA:80:G:N2	1:AA:90:U:H4'	2.29	0.46
1:AA:227:G:H2'	1:AA:228:A:H8	1.81	0.46
1:AA:243:A:H4'	1:AA:244:U:O5'	2.15	0.46
1:AA:972:C:O3'	10:AJ:57:LYS:HG2	2.16	0.46
1:AA:1074:G:O3'	2:AB:103:THR:HG21	2.16	0.46
1:AA:1178:G:O5'	9:AI:97:LYS:HE3	2.16	0.46
1:AA:1360:A:O2'	1:AA:1361:G:H5'	2.15	0.46
1:AA:1477:C:H2'	1:AA:1478:C:C6	2.49	0.46
1:AA:1502:A:H2	1:AA:1505:G:H22	1.64	0.46
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.81	0.46
4:AD:110:PHE:HD1	4:AD:110:PHE:N	2.13	0.46
4:AD:127:THR:HB	4:AD:130:GLY:O	2.15	0.46
6:AF:82:ARG:HB3	6:AF:82:ARG:NH1	2.26	0.46
7:AG:79:ARG:HG3	7:AG:79:ARG:NH1	2.26	0.46
11:AK:19:ALA:HB3	11:AK:82:VAL:CG2	2.45	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.46	0.46
19:AS:64:GLU:HG3	19:AS:65:ASN:N	2.31	0.46
22:AV:71:C:H5'	22:AV:71:C:H6	1.79	0.46
25:AY:55:U:H6	25:AY:56:C:C5	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B3:31:LEU:HB2	36:BA:1158:C:C5'	2.46	0.46
34:B8:61:LEU:H	34:B8:61:LEU:HD12	1.81	0.46
35:B9:15:LYS:NZ	36:BA:2753:A:H1'	2.31	0.46
36:BA:271(K):U:H3'	36:BA:271(L):U:C5'	2.46	0.46
36:BA:365:C:H2'	36:BA:366:C:O4'	2.15	0.46
36:BA:523:C:O2'	36:BA:524:U:H5'	2.16	0.46
36:BA:1400:G:H2'	36:BA:1401:G:C8	2.51	0.46
36:BA:1469:A:O2'	36:BA:1470:G:H5'	2.15	0.46
36:BA:1697:G:H3'	36:BA:1698:A:C5'	2.31	0.46
36:BA:2184:G:H2'	36:BA:2185:C:C6	2.51	0.46
36:BA:2291:U:H4'	36:BA:2380:C:O2	2.16	0.46
36:BA:2571:C:H5'	36:BA:2572:A:H5"	1.97	0.46
36:BA:2620:C:OP1	40:BE:152:LYS:O	2.34	0.46
37:BB:46:A:H2'	37:BB:47:C:C6	2.51	0.46
39:BD:106:ILE:HD11	39:BD:157:ARG:O	2.16	0.46
40:BE:119:ARG:HG2	40:BE:160:TYR:HB2	1.96	0.46
43:BH:18:GLU:CB	43:BH:25:LYS:HG2	2.41	0.46
43:BH:89:ILE:HD13	43:BH:94:TYR:CB	2.45	0.46
45:BN:23:LEU:HD23	45:BN:23:LEU:H	1.81	0.46
46:BO:98:VAL:HG11	46:BO:117:LEU:HB3	1.98	0.46
50:BS:34:HIS:CE1	50:BS:55:ALA:HB2	2.51	0.46
52:BU:95:LEU:C	52:BU:97:ASP:N	2.69	0.46
54:BW:8:ARG:HG3	54:BW:8:ARG:HH11	1.78	0.46
56:BY:26:LYS:CG	56:BY:27:VAL:H	2.09	0.46
57:BZ:21:ALA:HB3	57:BZ:23:LYS:HD3	1.98	0.46
1:CA:76:C:N4	1:CA:93:G:H1	2.09	0.46
1:CA:396:G:O2'	1:CA:398:C:OP1	2.31	0.46
1:CA:777:A:O2'	1:CA:778:G:H5'	2.16	0.46
1:CA:950:U:H2'	1:CA:951:G:C8	2.51	0.46
1:CA:978:A:H1'	1:CA:1322:C:O2	2.16	0.46
1:CA:1048:G:OP1	14:CN:4:LYS:HB2	2.15	0.46
1:CA:1255:G:H3'	3:CC:26:LYS:NZ	2.31	0.46
1:CA:1265:G:N2	1:CA:1271:G:H1'	2.31	0.46
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.51	0.46
2:CB:164:VAL:HB	2:CB:186:ALA:HB2	1.96	0.46
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.97	0.46
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.98	0.46
4:CD:158:ILE:HG22	4:CD:181:MET:CE	2.45	0.46
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.46
8:CH:60:ARG:NH1	8:CH:60:ARG:CG	2.79	0.46
9:CI:118:LYS:O	9:CI:120:ARG:N	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:126:LYS:C	12:CL:128:ALA:H	2.19	0.46
13:CM:79:LYS:O	13:CM:82:MET:N	2.49	0.46
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.16	0.46
19:CS:37:ARG:H	19:CS:37:ARG:HG3	1.58	0.46
23:CW:16:U:H6	23:CW:17:C:H5'	1.81	0.46
25:CY:26:A:H2'	25:CY:27:G:H5'	1.97	0.46
27:D1:41:ARG:HD3	27:D1:43:TYR:CE2	2.50	0.46
28:D2:13:ALA:O	28:D2:15:LYS:N	2.48	0.46
28:D2:14:ARG:HG3	28:D2:14:ARG:NH1	2.31	0.46
36:DA:196:A:H2'	36:DA:196:A:N3	2.31	0.46
36:DA:271(K):U:H3'	36:DA:271(L):U:C5'	2.46	0.46
36:DA:445:C:H2'	36:DA:446:G:O4'	2.16	0.46
36:DA:1117:G:H2'	36:DA:1118:C:C6	2.51	0.46
36:DA:1331:A:O2'	36:DA:1332:G:C8	2.68	0.46
36:DA:1570:A:H2'	36:DA:1571:A:C8	2.50	0.46
36:DA:2873:A:N3	49:DR:6:SER:CB	2.75	0.46
37:DB:43:C:C5'	42:DG:66:GLN:HE22	2.28	0.46
38:DC:77:ILE:CB	38:DC:122:ALA:HA	2.45	0.46
41:DF:3:GLU:HG3	41:DF:19:GLU:HG3	1.98	0.46
41:DF:168:ARG:O	41:DF:170:LEU:N	2.48	0.46
43:DH:13:LYS:O	43:DH:15:VAL:N	2.46	0.46
44:DI:60:GLU:O	44:DI:64:GLU:HG2	2.15	0.46
44:DI:92:VAL:HG11	44:DI:120:ILE:CG1	2.46	0.46
45:DN:9:VAL:HG11	45:DN:39:ARG:NH2	2.31	0.46
49:DR:103:ARG:HH11	54:DW:40:ASN:HD22	1.64	0.46
50:DS:95:HIS:CG	50:DS:96:GLY:N	2.84	0.46
52:DU:79:PHE:HD2	52:DU:79:PHE:C	2.18	0.46
56:DY:39:VAL:HG12	56:DY:40:GLU:N	2.31	0.46
57:DZ:134:PRO:CG	57:DZ:158:PRO:HG3	2.46	0.46
1:AA:92:C:H2'	1:AA:93:G:C8	2.38	0.46
1:AA:685:G:H5'	11:AK:39:PRO:O	2.16	0.46
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.31	0.46
1:AA:1427:U:H2'	1:AA:1428:A:H8	1.81	0.46
2:AB:41:ILE:HG22	2:AB:41:ILE:O	2.16	0.46
3:AC:27:LYS:HB3	3:AC:27:LYS:NZ	2.31	0.46
5:AE:91:LEU:HA	5:AE:120:THR:HG22	1.98	0.46
6:AF:52:ILE:CD1	6:AF:87:ARG:NH2	2.79	0.46
8:AH:63:LEU:HB3	8:AH:65:TYR:CE1	2.51	0.46
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.63	0.46
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.51	0.46
12:AL:32:PHE:HB3	12:AL:84:LEU:HD11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:43:VAL:HG21	12:AL:93:LEU:HD22	1.96	0.46
12:AL:86:ARG:HB2	12:AL:101:VAL:HG23	1.98	0.46
13:AM:10:PRO:HB3	13:AM:18:ALA:O	2.16	0.46
22:AV:71:C:C6	22:AV:71:C:H5'	2.51	0.46
23:AW:14:A:C6	23:AW:15:G:H1'	2.51	0.46
23:AW:40:C:H2'	23:AW:41:C:C6	2.51	0.46
34:B8:51:ALA:HA	34:B8:54:GLU:OE1	2.16	0.46
34:B8:52:LYS:O	34:B8:55:ALA:HB3	2.16	0.46
35:B9:19:ARG:NH1	36:BA:2755:C:C4	2.83	0.46
36:BA:282:A:C2'	36:BA:283:A:H5"	2.46	0.46
36:BA:491:G:O2'	36:BA:492:A:H5'	2.16	0.46
36:BA:1022:G:HO2'	36:BA:1023:U:P	2.38	0.46
36:BA:1453:U:O4	49:BR:67:LEU:HD21	2.16	0.46
36:BA:1639:U:H2'	36:BA:1640:C:C5'	2.42	0.46
36:BA:2205:C:O2	36:BA:2220:G:C2	2.69	0.46
36:BA:2266:A:C2	36:BA:2272:U:C5	3.04	0.46
36:BA:2562:U:H2'	36:BA:2563:U:H5'	1.97	0.46
36:BA:2683:C:P	51:BT:53:ARG:HH22	2.39	0.46
37:BB:66:A:C2	37:BB:109:C:C2	3.03	0.46
38:BC:155:GLU:O	38:BC:156:ILE:CB	2.63	0.46
39:BD:96:HIS:CE1	39:BD:102:LYS:HE2	2.51	0.46
40:BE:28:ALA:O	40:BE:29:GLY:C	2.54	0.46
41:BF:9:ILE:HG12	41:BF:13:SER:O	2.15	0.46
41:BF:34:TRP:CE2	47:BP:12:ALA:HB2	2.51	0.46
41:BF:187:VAL:HG12	47:BP:7:ARG:HH21	1.80	0.46
42:BG:101:ILE:HG12	42:BG:105:LYS:NZ	2.30	0.46
42:BG:138:GLN:HB3	42:BG:153:ARG:O	2.16	0.46
43:BH:64:LEU:C	43:BH:66:GLY:N	2.69	0.46
44:BI:58:LEU:C	44:BI:60:GLU:H	2.20	0.46
44:BI:87:LYS:N	44:BI:122:GLU:HG2	2.31	0.46
45:BN:27:ALA:HA	45:BN:30:ILE:HB	1.98	0.46
45:BN:43:THR:C	45:BN:45:ASN:H	2.19	0.46
46:BO:119:PRO:O	46:BO:120:GLU:CB	2.64	0.46
50:BS:66:ALA:HA	50:BS:69:VAL:CG1	2.46	0.46
52:BU:15:LYS:HA	52:BU:18:LEU:HB2	1.98	0.46
53:BV:3:ALA:O	53:BV:13:ARG:HA	2.16	0.46
53:BV:23:GLU:O	53:BV:24:LYS:C	2.55	0.46
57:BZ:96:VAL:CG1	57:BZ:97:GLU:N	2.79	0.46
1:CA:146:G:N2	1:CA:147:G:H1'	2.31	0.46
1:CA:343:U:O2'	1:CA:344:A:H2'	2.16	0.46
1:CA:731:G:H5'	1:CA:766:A:H4'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1221:G:O2'	1:CA:1222:G:H5'	2.16	0.46
2:CB:204:ASN:HD21	2:CB:206:ASP:H	1.63	0.46
4:CD:127:THR:HB	4:CD:130:GLY:O	2.16	0.46
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.46	0.46
13:CM:70:LEU:C	13:CM:70:LEU:HD23	2.36	0.46
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.98	0.46
20:CT:59:ALA:C	20:CT:61:SER:N	2.69	0.46
25:CY:26:A:H62	25:CY:27:G:N2	2.14	0.46
27:D1:80:LEU:HB3	27:D1:82:LEU:HD21	1.98	0.46
29:D3:8:LEU:HD12	29:D3:31:LEU:HA	1.97	0.46
32:D6:32:ASN:CG	32:D6:33:LYS:N	2.66	0.46
35:D9:30:PRO:HB2	36:DA:2527:C:H5'	1.98	0.46
36:DA:66:C:C2'	36:DA:67:U:H5'	2.45	0.46
36:DA:118:A:H1'	36:DA:178:G:O4'	2.16	0.46
36:DA:251:A:C5'	47:DP:51:PHE:HZ	2.29	0.46
36:DA:624:C:C2'	36:DA:625:G:H5'	2.46	0.46
36:DA:784:A:N7	39:DD:229:VAL:HG21	2.31	0.46
36:DA:1022:G:O2'	36:DA:1023:U:P	2.74	0.46
36:DA:1240:U:O2'	36:DA:1241:A:H5'	2.15	0.46
36:DA:1435:G:H2'	36:DA:1436:G:O4'	2.16	0.46
36:DA:1844:C:O2'	36:DA:1845:G:H5'	2.16	0.46
36:DA:2124:G:H2'	36:DA:2125:G:O4'	2.16	0.46
36:DA:2186:G:C3'	36:DA:2187:G:H5"	2.46	0.46
36:DA:2476:A:N1	36:DA:2477:C:C5	2.83	0.46
37:DB:41:U:N3	42:DG:70:VAL:O	2.44	0.46
39:DD:33:LEU:O	39:DD:34:VAL:C	2.53	0.46
42:DG:104:GLU:C	42:DG:106:LEU:N	2.66	0.46
42:DG:106:LEU:C	42:DG:108:ASN:H	2.18	0.46
43:DH:26:VAL:O	43:DH:32:GLU:HA	2.15	0.46
44:DI:113:ARG:H	44:DI:113:ARG:HD2	1.81	0.46
45:DN:3:THR:O	45:DN:5:VAL:N	2.48	0.46
46:DO:47:ILE:HG23	46:DO:48:PRO:N	2.31	0.46
47:DP:8:PRO:O	47:DP:9:ASN:HB3	2.16	0.46
51:DT:47:GLY:HA3	51:DT:63:VAL:HG12	1.98	0.46
54:DW:52:GLU:HA	54:DW:52:GLU:OE2	2.16	0.46
56:DY:28:LYS:HB2	56:DY:38:ILE:N	2.21	0.46
57:DZ:108:PRO:HB2	57:DZ:144:LEU:O	2.16	0.46
57:DZ:128:VAL:CG2	57:DZ:132:ASN:HB3	2.45	0.46
57:DZ:150:LEU:CD2	57:DZ:171:ILE:HB	2.46	0.46
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.50	0.46
1:AA:393:A:C2'	1:AA:394:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:522:C:H2'	1:AA:523:A:O4'	2.16	0.46
1:AA:538:G:OP2	12:AL:115:LYS:HB2	2.16	0.46
1:AA:983:A:HO2'	1:AA:1049:U:HO2'	1.64	0.46
1:AA:1002:G:N3	1:AA:1002:G:H2'	2.31	0.46
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.15	0.46
1:AA:1146:A:H2'	1:AA:1147:C:O4'	2.16	0.46
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.16	0.46
1:AA:1255:G:H3'	3:AC:26:LYS:NZ	2.30	0.46
1:AA:1402:C:C2'	1:AA:1403:C:H5'	2.46	0.46
1:AA:1477:C:O2'	1:AA:1478:C:H5'	2.16	0.46
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.37	0.46
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.46	0.46
9:AI:16:ARG:HB2	9:AI:64:THR:HG22	1.96	0.46
12:AL:122:THR:HG22	12:AL:123:LYS:O	2.16	0.46
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	1.97	0.46
25:AY:52:G:C5	25:AY:63:G:N1	2.84	0.46
25:AY:56:C:H3'	25:AY:57:G:C5'	2.39	0.46
29:B3:1:MET:CE	29:B3:44:ARG:HH22	2.28	0.46
29:B3:9:VAL:HG23	29:B3:10:LYS:N	2.31	0.46
34:B8:21:LYS:HD3	34:B8:48:PHE:CZ	2.51	0.46
36:BA:30:G:O2'	36:BA:31:C:H5'	2.15	0.46
36:BA:1142:U:H3'	36:BA:1142:U:H6	1.80	0.46
36:BA:1435:G:H2'	36:BA:1436:G:O4'	2.15	0.46
36:BA:1748:G:H2'	36:BA:1749:A:O4'	2.16	0.46
36:BA:1865:G:H5'	36:BA:1866:C:OP2	2.16	0.46
36:BA:1865:G:H5'	36:BA:1866:C:P	2.56	0.46
36:BA:2001:A:H2'	36:BA:2002:G:C8	2.51	0.46
36:BA:2124:G:H2'	36:BA:2125:G:O4'	2.16	0.46
36:BA:2134:A:N3	36:BA:2159:G:H1'	2.31	0.46
36:BA:2747:G:O6	36:BA:2755:C:H5"	2.16	0.46
37:BB:41:U:O2	42:BG:70:VAL:HG23	2.16	0.46
37:BB:73:A:H2'	37:BB:74:U:C5'	2.46	0.46
38:BC:64:LEU:HD13	38:BC:189:ILE:CB	2.46	0.46
40:BE:72:VAL:O	40:BE:73:GLU:C	2.54	0.46
40:BE:117:MET:HE1	40:BE:124:GLY:HA3	1.98	0.46
41:BF:28:ILE:CG2	41:BF:116:ASP:HB2	2.41	0.46
41:BF:68:LYS:HB3	41:BF:69:HIS:H	1.43	0.46
41:BF:139:PHE:HB2	41:BF:166:ALA:HB1	1.96	0.46
41:BF:170:LEU:HD23	41:BF:173:VAL:HG21	1.98	0.46
42:BG:33:ARG:HB2	42:BG:162:THR:CG2	2.46	0.46
45:BN:23:LEU:H	45:BN:23:LEU:CD2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:18:LEU:HD13	49:BR:19:ALA:N	2.31	0.46
49:BR:103:ARG:HH11	54:BW:40:ASN:HD22	1.64	0.46
50:BS:49:VAL:CG1	50:BS:50:SER:H	2.25	0.46
51:BT:13:ARG:HH12	51:BT:15:VAL:HG11	1.81	0.46
51:BT:35:LYS:HZ1	51:BT:41:ARG:HH21	1.62	0.46
52:BU:102:GLU:OE2	53:BV:2:PHE:CD1	2.69	0.46
1:CA:184:G:O2'	1:CA:185:A:H5'	2.16	0.46
1:CA:423:G:O2'	1:CA:424:G:H5'	2.16	0.46
1:CA:795:C:H1'	1:CA:1506:U:C5	2.51	0.46
1:CA:930:C:O2'	1:CA:931:C:H5'	2.15	0.46
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.74	0.46
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.16	0.46
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.46	0.46
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.16	0.46
1:CA:1320:C:H5'	19:CS:70:LYS:CG	2.45	0.46
1:CA:1360:A:O2'	1:CA:1361:G:H5'	2.15	0.46
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.16	0.46
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.27	0.46
3:CC:30:ARG:HD3	14:CN:38:GLY:HA3	1.98	0.46
6:CF:21:LEU:HD13	6:CF:24:GLU:CD	2.37	0.46
7:CG:85:TYR:CE1	7:CG:154:TYR:HE1	2.33	0.46
7:CG:105:VAL:HG12	7:CG:109:ASN:ND2	2.31	0.46
11:CK:65:ALA:HB1	11:CK:98:LEU:CD2	2.46	0.46
13:CM:8:GLU:OE2	13:CM:22:ILE:HA	2.16	0.46
18:CR:86:VAL:O	18:CR:87:ARG:O	2.34	0.46
20:CT:38:LYS:C	20:CT:40:ALA:N	2.70	0.46
23:CW:5:G:N2	23:CW:6:G:H1'	2.31	0.46
36:DA:271(M):G:O2'	36:DA:271(N):U:H3'	2.16	0.46
36:DA:2068:U:N3	36:DA:2430:A:C2	2.47	0.46
36:DA:2308:G:O6	36:DA:2310:A:H2'	2.16	0.46
36:DA:2849:U:H1'	36:DA:2866:U:H6	1.81	0.46
36:DA:2870:C:H2'	36:DA:2871:C:C5'	2.46	0.46
39:DD:210:GLY:C	39:DD:212:SER:H	2.19	0.46
39:DD:243:GLY:O	39:DD:244:ARG:HB3	2.16	0.46
40:DE:144:ARG:HB3	40:DE:145:LYS:H	1.48	0.46
42:DG:41:GLN:N	42:DG:155:MET:HG2	2.30	0.46
42:DG:64:THR:CG2	42:DG:66:GLN:HB2	2.45	0.46
42:DG:177:GLY:O	42:DG:179:PRO:HD3	2.16	0.46
43:DH:18:GLU:HB3	43:DH:25:LYS:HZ3	1.81	0.46
44:DI:10:GLU:O	44:DI:12:LEU:HD23	2.16	0.46
44:DI:92:VAL:O	44:DI:92:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DN:111:PRO:HA	45:DN:114:ARG:CZ	2.45	0.46
46:DO:18:LYS:HD2	46:DO:45:GLU:OE1	2.15	0.46
47:DP:9:ASN:ND2	47:DP:10:PRO:HD3	2.31	0.46
49:DR:34:ILE:HG22	49:DR:35:THR:N	2.31	0.46
50:DS:36:TYR:N	50:DS:36:TYR:CD1	2.84	0.46
50:DS:53:SER:O	50:DS:56:LEU:HB3	2.16	0.46
51:DT:78:LEU:O	51:DT:78:LEU:CD2	2.63	0.46
1:AA:177:C:O2'	1:AA:178:C:H5'	2.15	0.45
1:AA:245:C:O2	1:AA:283:C:N3	2.49	0.45
1:AA:259:G:H2'	1:AA:260:G:O4'	2.16	0.45
1:AA:690:G:O2'	1:AA:691:G:H5'	2.16	0.45
1:AA:1228:C:H4'	13:AM:116:THR:HA	1.97	0.45
1:AA:1280:A:H5"	10:AJ:40:LEU:HD12	1.98	0.45
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.89	0.45
3:AC:30:ARG:HD3	14:AN:38:GLY:CA	2.46	0.45
6:AF:71:ARG:HG3	6:AF:71:ARG:NH1	2.31	0.45
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.31	0.45
9:AI:79:LEU:HD21	9:AI:102:LEU:HA	1.97	0.45
10:AJ:45:ARG:NH1	10:AJ:45:ARG:CG	2.77	0.45
10:AJ:98:ILE:HG22	10:AJ:98:ILE:O	2.16	0.45
13:AM:91:ARG:HH22	13:AM:103:THR:HG21	1.81	0.45
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.16	0.45
17:AQ:5:VAL:C	17:AQ:6:LEU:HD12	2.37	0.45
20:AT:44:ALA:HA	20:AT:92:LEU:CD2	2.41	0.45
22:AV:19:G:N2	22:AV:57:A:H1'	2.31	0.45
31:B5:7:PRO:HG2	36:BA:2016:U:O2	2.16	0.45
31:B5:7:PRO:HA	36:BA:2615:U:C2	2.51	0.45
36:BA:8:A:H2'	36:BA:9:U:H6	1.80	0.45
36:BA:94:C:O2	36:BA:94:C:H2'	2.14	0.45
36:BA:99:U:C6	36:BA:102:G:C2	3.04	0.45
36:BA:320:A:H3'	41:BF:136:THR:CG2	2.45	0.45
36:BA:336:C:H5"	56:BY:7:VAL:CG1	2.46	0.45
36:BA:419:C:O2'	36:BA:420:C:H5'	2.17	0.45
36:BA:558:G:OP1	45:BN:111:PRO:HD2	2.17	0.45
36:BA:661:C:H2'	36:BA:662:G:C8	2.51	0.45
36:BA:827:U:H5'	36:BA:828:U:O5'	2.16	0.45
36:BA:1013:C:H42	36:BA:1149:G:H1	1.64	0.45
36:BA:1173:G:H3'	36:BA:1174:A:C5'	2.46	0.45
36:BA:1317:A:H2'	36:BA:1318:C:C6	2.51	0.45
36:BA:1529:G:H2'	36:BA:1530:C:H5	1.81	0.45
36:BA:1557:C:H5"	36:BA:1558:A:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1668:A:N3	36:BA:1670:C:C4	2.84	0.45
36:BA:1884:A:C3'	36:BA:1885:A:H5"	2.45	0.45
36:BA:2273:A:O2'	36:BA:2274:A:H5'	2.16	0.45
36:BA:2282:G:O2'	36:BA:2283:C:OP2	2.28	0.45
36:BA:2310:A:O2'	36:BA:2311:A:H5"	2.13	0.45
36:BA:2312:U:C3'	36:BA:2313:C:H5"	2.46	0.45
36:BA:2364:C:O2'	36:BA:2365:G:H5'	2.16	0.45
36:BA:2562:U:C2'	36:BA:2563:U:H5'	2.46	0.45
37:BB:106:G:H5"	57:BZ:31:ARG:HE	1.80	0.45
39:BD:77:ALA:HB2	39:BD:97:TYR:CD2	2.52	0.45
39:BD:224:ALA:O	39:BD:225:ALA:HB2	2.16	0.45
41:BF:31:HIS:HB2	47:BP:13:ASN:HB3	1.97	0.45
41:BF:117:ARG:HH21	41:BF:187:VAL:HA	1.81	0.45
42:BG:16:ARG:N	42:BG:17:PRO:HD2	2.31	0.45
42:BG:16:ARG:NH1	42:BG:16:ARG:HG3	2.31	0.45
48:BQ:37:LEU:HD21	48:BQ:130:LYS:CB	2.45	0.45
50:BS:42:ASP:C	50:BS:44:LYS:H	2.20	0.45
50:BS:48:LEU:HD12	50:BS:48:LEU:H	1.81	0.45
56:BY:86:ARG:NH1	56:BY:95:LYS:HZ1	2.14	0.45
1:CA:109:A:C6	1:CA:326:G:C6	3.04	0.45
1:CA:177:C:H2'	1:CA:178:C:H6	1.81	0.45
1:CA:954:G:H21	1:CA:1227:A:H62	1.64	0.45
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.17	0.45
1:CA:1117:G:N2	1:CA:1180:A:H1'	2.31	0.45
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.16	0.45
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.16	0.45
2:CB:119:GLU:O	2:CB:122:PHE:HB3	2.16	0.45
2:CB:121:LEU:O	2:CB:127:ILE:HD11	2.16	0.45
2:CB:194:PRO:HG2	2:CB:195:ASP:H	1.80	0.45
3:CC:29:TYR:CD1	14:CN:36:PHE:CZ	3.04	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG2	2.16	0.45
4:CD:80:GLU:OE2	4:CD:80:GLU:HA	2.16	0.45
7:CG:84:ASN:HD22	23:CW:33:U:C4'	2.23	0.45
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.37	0.45
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.41	0.45
10:CJ:76:ASN:ND2	10:CJ:78:ASN:OD1	2.49	0.45
12:CL:28:LYS:HG3	12:CL:33:ARG:HH12	1.81	0.45
12:CL:75:HIS:CD2	12:CL:77:LEU:HB2	2.51	0.45
13:CM:17:VAL:O	13:CM:20:THR:HB	2.16	0.45
20:CT:39:LYS:O	20:CT:43:LEU:HG	2.15	0.45
20:CT:59:ALA:C	20:CT:61:SER:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:4:C:H2'	23:CW:5:G:C8	2.51	0.45
23:CW:39:U:H2'	23:CW:40:C:C5'	2.45	0.45
26:D0:10:THR:HG21	36:DA:2277:G:OP2	2.16	0.45
29:D3:26:LEU:HD21	29:D3:46:ASN:HB2	1.97	0.45
36:DA:102:G:OP1	36:DA:102:G:C4'	2.64	0.45
36:DA:319:C:OP2	41:DF:137:LYS:NZ	2.49	0.45
36:DA:320:A:H2'	41:DF:136:THR:HG21	1.98	0.45
36:DA:570:G:H2'	36:DA:2030:A:C5	2.51	0.45
36:DA:827:U:H5'	36:DA:828:U:O5'	2.16	0.45
36:DA:1014:U:H2'	36:DA:1015:G:H8	1.81	0.45
36:DA:1368:G:C2	36:DA:1369:G:C8	3.04	0.45
36:DA:1748:G:H2'	36:DA:1749:A:O4'	2.16	0.45
36:DA:1863:G:H2'	36:DA:1864:U:O4'	2.16	0.45
36:DA:2001:A:H2'	36:DA:2002:G:C8	2.50	0.45
36:DA:2086:U:H2'	36:DA:2087:G:C8	2.51	0.45
36:DA:2469:A:C2	36:DA:2470:G:H1'	2.50	0.45
36:DA:2788:C:O2'	36:DA:2809:A:N3	2.45	0.45
36:DA:2803:C:H5'	36:DA:2804:C:OP1	2.16	0.45
36:DA:2831:G:P	40:DE:58:ARG:HH22	2.39	0.45
41:DF:187:VAL:HG12	47:DP:7:ARG:HH21	1.81	0.45
41:DF:197:ASP:O	41:DF:200:GLU:N	2.37	0.45
42:DG:82:LEU:HD12	42:DG:83:ARG:N	2.31	0.45
42:DG:114:ILE:HD12	42:DG:117:PHE:CD1	2.51	0.45
44:DI:15:VAL:O	44:DI:17:GLN:N	2.50	0.45
44:DI:72:LEU:HD21	44:DI:107:VAL:HG21	1.98	0.45
49:DR:9:LYS:HE2	49:DR:43:GLU:OE2	2.16	0.45
51:DT:62:THR:CG2	51:DT:75:ILE:HG23	2.46	0.45
53:DV:34:GLU:O	53:DV:36:PRO:CD	2.64	0.45
53:DV:65:GLY:O	53:DV:90:PRO:HA	2.16	0.45
55:DX:47:PHE:N	55:DX:47:PHE:CD1	2.81	0.45
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.51	0.45
1:AA:223:U:O2'	1:AA:224:C:H5'	2.17	0.45
1:AA:619:U:N3	4:AD:135:LEU:HD11	2.32	0.45
1:AA:1237:C:C4'	1:AA:1334:G:N2	2.80	0.45
1:AA:1270:C:OP2	21:AU:24:ARG:NH2	2.49	0.45
3:AC:30:ARG:HD3	14:AN:38:GLY:HA3	1.98	0.45
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.44	0.45
5:AE:51:VAL:CB	5:AE:52:PRO:HD3	2.45	0.45
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.15	0.45
6:AF:76:ALA:O	6:AF:80:ARG:HG2	2.15	0.45
7:AG:76:ARG:HG2	7:AG:76:ARG:NH1	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.97	0.45
12:AL:22:SER:O	12:AL:24:VAL:N	2.49	0.45
12:AL:28:LYS:HG3	12:AL:33:ARG:HH12	1.81	0.45
17:AQ:17:LYS:HA	17:AQ:49:GLU:HG2	1.97	0.45
20:AT:59:ALA:C	20:AT:61:SER:N	2.67	0.45
28:B2:8:LYS:O	28:B2:9:GLN:C	2.55	0.45
36:BA:71:A:C8	36:BA:71:A:H5'	2.50	0.45
36:BA:262:A:H2'	36:BA:263:C:O4'	2.16	0.45
36:BA:542:C:C4	36:BA:543:C:N4	2.84	0.45
36:BA:1373:A:H2'	36:BA:1374:G:O4'	2.16	0.45
36:BA:1472:A:H2'	36:BA:1473:G:C8	2.51	0.45
36:BA:1503:U:C4	36:BA:1504:C:N4	2.83	0.45
36:BA:2454:G:O2'	36:BA:2455:G:H5'	2.15	0.45
36:BA:2590:A:OP2	39:BD:238:GLY:HA2	2.16	0.45
36:BA:2678:C:C2	36:BA:2679:A:C8	3.05	0.45
36:BA:2753:A:C2	36:BA:2754:U:C2	3.04	0.45
36:BA:2821:A:OP2	49:BR:2:ARG:NH2	2.50	0.45
38:BC:83:ILE:HA	38:BC:94:VAL:HG21	1.98	0.45
38:BC:221:SER:O	38:BC:222:VAL:O	2.35	0.45
40:BE:65:GLY:HA2	40:BE:70:ALA:CB	2.47	0.45
41:BF:168:ARG:O	41:BF:170:LEU:N	2.47	0.45
42:BG:26:GLN:C	42:BG:28:VAL:H	2.19	0.45
42:BG:133:LEU:HG	42:BG:157:ILE:HG13	1.96	0.45
43:BH:24:VAL:HG21	43:BH:72:ILE:CD1	2.47	0.45
43:BH:122:THR:O	43:BH:133:VAL:HG13	2.16	0.45
44:BI:83:ALA:HB1	44:BI:88:ILE:HD12	1.95	0.45
44:BI:107:VAL:O	44:BI:109:ILE:HD12	2.16	0.45
48:BQ:1:MET:HE2	48:BQ:2:LEU:CB	2.46	0.45
49:BR:51:LEU:CD2	49:BR:66:VAL:HG13	2.38	0.45
50:BS:89:ARG:HH11	50:BS:92:TYR:HA	1.80	0.45
51:BT:36:GLU:C	51:BT:38:ASN:H	2.19	0.45
52:BU:98:LEU:O	52:BU:100:VAL:N	2.49	0.45
54:BW:28:SER:OG	54:BW:31:GLU:HB2	2.16	0.45
55:BX:70:LEU:HD23	55:BX:71:GLY:N	2.32	0.45
56:BY:31:LEU:CD2	56:BY:36:ALA:O	2.64	0.45
57:BZ:54:HIS:HE1	57:BZ:123:ASP:OD2	1.99	0.45
1:CA:177:C:O2'	1:CA:178:C:H5'	2.16	0.45
1:CA:640:A:C2'	1:CA:641:U:H5'	2.45	0.45
1:CA:942:G:N2	1:CA:943:U:C2	2.84	0.45
1:CA:1043:C:H2'	1:CA:1044:A:C8	2.51	0.45
1:CA:1223:C:P	1:CA:1224:G:H2'	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1237:C:C4'	1:CA:1334:G:H21	2.29	0.45
3:CC:17:ASP:OD1	3:CC:21:ARG:NH1	2.49	0.45
5:CE:20:GLN:HG2	5:CE:21:ALA:N	2.30	0.45
7:CG:62:PHE:HA	7:CG:124:LEU:HD23	1.95	0.45
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.17	0.45
8:CH:36:LEU:HA	8:CH:39:LEU:HB2	1.98	0.45
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.16	0.45
15:CO:30:ALA:CA	15:CO:85:LEU:HD11	2.46	0.45
18:CR:26:LEU:HD21	18:CR:42:ARG:CZ	2.47	0.45
19:CS:36:ARG:HB2	19:CS:72:GLY:CA	2.46	0.45
22:CV:23:C:C2	22:CV:24:U:C5	3.04	0.45
25:CY:9:A:N6	25:CY:22:G:C8	2.84	0.45
26:D0:70:GLN:OE1	26:D0:72:ARG:HD3	2.16	0.45
31:D5:36:CYS:HB2	31:D5:49:CYS:SG	2.57	0.45
36:DA:8:A:H2'	36:DA:9:U:H6	1.81	0.45
36:DA:36:G:H4'	36:DA:451:C:C2	2.52	0.45
36:DA:99:U:C6	36:DA:102:G:C2	3.04	0.45
36:DA:917:A:H2'	36:DA:918:A:C8	2.51	0.45
36:DA:1358:G:O2'	36:DA:1359:A:H5"	2.16	0.45
36:DA:2150:U:H2'	36:DA:2151:G:H8	1.77	0.45
36:DA:2264:C:O2'	36:DA:2265:U:H5'	2.16	0.45
36:DA:2701:C:H2'	36:DA:2702:U:H6	1.81	0.45
36:DA:2886:G:H2'	36:DA:2887:U:C6	2.51	0.45
38:DC:41:VAL:HG23	38:DC:178:ALA:CB	2.43	0.45
39:DD:206:LEU:HD22	39:DD:211:ARG:CG	2.47	0.45
42:DG:32:PRO:HB2	42:DG:172:LEU:CD1	2.43	0.45
50:DS:15:ARG:C	50:DS:17:ARG:N	2.68	0.45
51:DT:28:VAL:O	51:DT:28:VAL:HG12	2.15	0.45
52:DU:92:ARG:C	52:DU:94:ASN:N	2.70	0.45
53:DV:21:ARG:HB3	53:DV:91:TYR:CB	2.34	0.45
53:DV:98:GLU:OE1	53:DV:100:ARG:HD3	2.15	0.45
54:DW:55:ALA:HA	54:DW:107:LEU:HD23	1.97	0.45
56:DY:13:VAL:HA	56:DY:75:ILE:CG2	2.44	0.45
57:DZ:14:LYS:NZ	57:DZ:14:LYS:HB2	2.31	0.45
57:DZ:149:SER:HB3	57:DZ:173:ALA:HA	1.98	0.45
1:AA:1030(A):G:C1'	1:AA:1031:G:H22	2.26	0.45
1:AA:1074:G:O3'	2:AB:103:THR:CG2	2.64	0.45
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.16	0.45
5:AE:12:LEU:O	5:AE:13:ILE:HG13	2.16	0.45
7:AG:52:GLU:C	7:AG:54:THR:H	2.19	0.45
9:AI:19:LEU:CD2	9:AI:61:ALA:HB2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:96:LEU:O	9:AI:101:PHE:N	2.43	0.45
27:B1:29:GLY:C	27:B1:31:GLY:H	2.18	0.45
29:B3:2:PRO:O	29:B3:39:ASP:HB3	2.16	0.45
29:B3:35:ARG:HG3	29:B3:35:ARG:NH1	2.31	0.45
33:B7:10:ARG:HG3	36:BA:125:G:C6	2.51	0.45
36:BA:142(A):C:O2'	36:BA:143:G:H5'	2.16	0.45
36:BA:271(Q):G:O2'	36:BA:271(R):G:P	2.75	0.45
36:BA:893:C:H2'	36:BA:894:C:C6	2.52	0.45
36:BA:1339:G:H21	36:BA:1603:A:H1'	1.79	0.45
36:BA:2464:C:O2'	36:BA:2465:C:O5'	2.29	0.45
39:BD:30:GLU:HG3	39:BD:63:ARG:NE	2.31	0.45
39:BD:218:ARG:HB3	39:BD:219:PRO:HD2	1.98	0.45
41:BF:161:GLU:HG2	41:BF:164:ARG:NH2	2.32	0.45
41:BF:187:VAL:CG1	47:BP:7:ARG:HH21	2.30	0.45
43:BH:13:LYS:O	43:BH:15:VAL:N	2.46	0.45
44:BI:23:PRO:HB3	44:BI:27:ARG:HH12	1.81	0.45
51:BT:65:LYS:HG3	51:BT:66:VAL:N	2.32	0.45
53:BV:34:GLU:O	53:BV:36:PRO:CD	2.63	0.45
57:BZ:137:ILE:HD11	57:BZ:158:PRO:HD2	1.98	0.45
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.98	0.45
1:CA:341:C:O2'	1:CA:342:C:H5'	2.16	0.45
1:CA:814:A:H2'	1:CA:816:A:H5"	1.97	0.45
1:CA:1186:G:N2	1:CA:1187:G:H1'	2.31	0.45
1:CA:1321:C:C5'	1:CA:1322:C:H5'	2.47	0.45
1:CA:1516:G:N1	1:CA:1519:A:OP2	2.48	0.45
2:CB:18:GLY:HA2	2:CB:40:HIS:O	2.16	0.45
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.16	0.45
2:CB:109:SER:C	2:CB:111:ARG:N	2.68	0.45
5:CE:126:ARG:NH1	5:CE:126:ARG:CG	2.75	0.45
6:CF:52:ILE:CD1	6:CF:87:ARG:NH2	2.80	0.45
6:CF:71:ARG:HG3	6:CF:71:ARG:NH1	2.31	0.45
7:CG:12:LEU:CD1	7:CG:25:ALA:HB2	2.47	0.45
8:CH:103:VAL:CG1	8:CH:108:GLY:HA3	2.46	0.45
9:CI:48:GLU:HA	9:CI:51:ARG:HH11	1.81	0.45
9:CI:96:LEU:HD12	9:CI:101:PHE:CB	2.47	0.45
12:CL:75:HIS:HD2	12:CL:77:LEU:HB2	1.80	0.45
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.62	0.45
15:CO:78:TYR:OH	15:CO:88:ARG:HD2	2.16	0.45
17:CQ:50:LYS:HG3	17:CQ:51:TYR:H	1.81	0.45
23:CW:4:C:H2'	23:CW:5:G:H8	1.80	0.45
26:D0:53:MET:HA	26:D0:58:THR:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D3:2:PRO:O	29:D3:39:ASP:HB3	2.15	0.45
31:D5:19:ARG:NH1	36:DA:1266:G:P	2.89	0.45
36:DA:29:U:H2'	36:DA:30:G:C8	2.51	0.45
36:DA:478:A:C6	36:DA:480:A:C6	3.04	0.45
36:DA:984:A:H5"	36:DA:985:C:C5	2.47	0.45
36:DA:1048:A:H4'	36:DA:1049:C:C5	2.51	0.45
36:DA:1193:G:H2'	36:DA:1194:A:O4'	2.17	0.45
36:DA:1301:A:O2'	36:DA:1302:A:C2'	2.54	0.45
36:DA:1453:U:C5	36:DA:2702:U:O4	2.69	0.45
36:DA:2127:G:N2	36:DA:2173:A:H1'	2.31	0.45
36:DA:2184:G:H2'	36:DA:2185:C:C6	2.52	0.45
36:DA:2248:C:C2'	36:DA:2249:U:H5'	2.47	0.45
36:DA:2629:A:C8	36:DA:2895:U:N3	2.80	0.45
40:DE:176:ILE:HB	40:DE:181:LEU:HB2	1.98	0.45
42:DG:73:ALA:HB2	42:DG:82:LEU:CD1	2.34	0.45
42:DG:103:LEU:HD23	42:DG:103:LEU:H	1.81	0.45
43:DH:130:ARG:HH11	43:DH:132:ARG:NH2	2.15	0.45
46:DO:7:TYR:HE1	46:DO:20:MET:CE	2.28	0.45
49:DR:78:LYS:O	49:DR:78:LYS:HG2	2.16	0.45
49:DR:99:LYS:HB2	49:DR:99:LYS:NZ	2.32	0.45
51:DT:36:GLU:HG2	51:DT:38:ASN:OD1	2.17	0.45
53:DV:53:GLU:C	53:DV:55:ALA:H	2.18	0.45
57:DZ:156:LYS:O	57:DZ:157:LEU:C	2.54	0.45
1:AA:15:G:H4'	5:AE:24:ARG:NH2	2.32	0.45
1:AA:370:C:O2'	1:AA:371:G:H5'	2.17	0.45
1:AA:940:C:H2'	1:AA:941:G:C8	2.51	0.45
2:AB:19:HIS:CG	2:AB:189:ASP:OD2	2.70	0.45
2:AB:19:HIS:O	2:AB:39:ILE:HG23	2.17	0.45
3:AC:157:ILE:HD12	3:AC:164:ARG:NH1	2.31	0.45
7:AG:59:LEU:HD23	7:AG:60:LYS:HZ3	1.80	0.45
8:AH:40:ALA:O	8:AH:42:GLU:N	2.50	0.45
9:AI:95:LYS:N	9:AI:98:PRO:HD2	2.31	0.45
10:AJ:40:LEU:CG	10:AJ:69:ASN:HB3	2.45	0.45
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.81	0.45
17:AQ:76:LEU:HD11	17:AQ:78:GLU:C	2.37	0.45
22:AV:1:C:C2'	22:AV:2:G:H5'	2.47	0.45
27:B1:27:GLU:O	27:B1:28:GLY:C	2.55	0.45
28:B2:18:PRO:HG2	28:B2:19:VAL:N	2.30	0.45
36:BA:26:G:C6	36:BA:27:G:N1	2.84	0.45
36:BA:392:C:H5"	36:BA:409:C:H5"	1.99	0.45
36:BA:651:G:H2'	36:BA:651:G:N3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:875:G:H2'	36:BA:876:C:O4'	2.17	0.45
36:BA:1812:A:H2'	36:BA:1813:G:C8	2.52	0.45
36:BA:1863:G:H2'	36:BA:1864:U:O4'	2.16	0.45
36:BA:2128:C:OP1	38:BC:35:ALA:HB1	2.17	0.45
36:BA:2808:U:H5'	36:BA:2891:G:O6	2.16	0.45
36:BA:2850:A:C2'	36:BA:2851:A:H8	2.22	0.45
38:BC:39:GLU:HG2	38:BC:180:PHE:CB	2.47	0.45
38:BC:191:ALA:O	38:BC:195:ALA:HB3	2.17	0.45
39:BD:227:ASN:O	39:BD:228:PRO:C	2.55	0.45
40:BE:11:MET:H	51:BT:8:LYS:NZ	2.15	0.45
41:BF:57:VAL:HG13	41:BF:59:TYR:CE1	2.51	0.45
41:BF:127:GLU:HB2	41:BF:196:LEU:CD2	2.47	0.45
42:BG:19:LEU:CD2	42:BG:171:ALA:HB1	2.47	0.45
42:BG:61:ALA:HA	42:BG:64:THR:HG22	1.97	0.45
42:BG:165:THR:OG1	42:BG:168:GLU:HG3	2.16	0.45
45:BN:9:VAL:HG11	45:BN:39:ARG:NH2	2.32	0.45
50:BS:67:ARG:NH1	50:BS:98:VAL:HG13	2.31	0.45
50:BS:77:ALA:O	50:BS:80:LEU:HD13	2.17	0.45
56:BY:28:LYS:O	56:BY:38:ILE:HB	2.17	0.45
57:BZ:33:LEU:HD11	57:BZ:35:ARG:CB	2.45	0.45
57:BZ:124:ILE:HG12	57:BZ:125:LEU:O	2.17	0.45
1:CA:189(B):C:H2'	1:CA:189(C):C:C6	2.50	0.45
1:CA:501:C:O2'	1:CA:502:G:H5'	2.16	0.45
1:CA:749:C:O2'	1:CA:750:G:H5'	2.16	0.45
1:CA:1311:G:N2	1:CA:1327:C:C2	2.84	0.45
1:CA:1372:U:OP1	9:CI:71:SER:HB3	2.17	0.45
2:CB:109:SER:O	2:CB:111:ARG:N	2.49	0.45
3:CC:29:TYR:HD1	14:CN:36:PHE:CZ	2.35	0.45
3:CC:113:ALA:CB	3:CC:114:PRO:HD3	2.41	0.45
7:CG:79:ARG:HH11	7:CG:79:ARG:CG	2.26	0.45
8:CH:84:ARG:HG2	8:CH:84:ARG:NH1	2.30	0.45
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.20	0.45
16:CP:28:ARG:HG2	16:CP:28:ARG:HH11	1.80	0.45
19:CS:64:GLU:HG3	19:CS:65:ASN:N	2.31	0.45
20:CT:72:LEU:CD2	20:CT:73:HIS:N	2.72	0.45
22:CV:65:C:H2'	22:CV:66:C:C5'	2.41	0.45
25:CY:16:U:O2	25:CY:16:U:O4'	2.33	0.45
25:CY:28:G:H2'	25:CY:29:G:H8	1.82	0.45
25:CY:48:C:H2'	25:CY:59:U:O2'	2.16	0.45
26:D0:9:SER:OG	26:D0:10:THR:N	2.45	0.45
34:D8:6:THR:CG2	36:DA:243:U:OP1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:D8:62:LEU:HD13	36:DA:242:G:C5'	2.20	0.45
36:DA:671:C:O2'	36:DA:672:C:H5'	2.16	0.45
36:DA:752:A:H4'	36:DA:753:C:O5'	2.16	0.45
36:DA:950:G:O2'	36:DA:951:C:H5'	2.17	0.45
36:DA:1049:C:H2'	36:DA:1050:A:C8	2.52	0.45
36:DA:1270:C:O2'	36:DA:1648:C:OP2	2.33	0.45
36:DA:1300:U:O2	36:DA:1626:G:H2'	2.16	0.45
36:DA:1451:C:N3	36:DA:1459:G:O6	2.49	0.45
36:DA:1865:G:H5'	36:DA:1866:C:P	2.57	0.45
36:DA:2314:C:H1'	42:DG:132:ASN:ND2	2.29	0.45
36:DA:2720:U:H2'	36:DA:2720:U:O2	2.16	0.45
36:DA:2735:G:H2'	36:DA:2736:G:C8	2.51	0.45
38:DC:19:VAL:O	38:DC:20:TYR:HB3	2.16	0.45
39:DD:43:ARG:HH11	39:DD:44:ASN:ND2	2.14	0.45
39:DD:260:ARG:HD3	39:DD:261:LYS:O	2.16	0.45
42:DG:59:GLU:HA	42:DG:62:LEU:CB	2.45	0.45
43:DH:65:HIS:CE1	43:DH:69:ARG:HD2	2.50	0.45
44:DI:136:VAL:HG22	44:DI:136:VAL:O	2.15	0.45
45:DN:43:THR:HB	45:DN:46:VAL:CG1	2.46	0.45
49:DR:81:ASP:OD2	49:DR:81:ASP:N	2.50	0.45
52:DU:95:LEU:C	52:DU:97:ASP:N	2.70	0.45
54:DW:1:MET:CE	54:DW:2:GLU:H	2.30	0.45
57:DZ:86:VAL:HG12	57:DZ:87:ASP:N	2.31	0.45
57:DZ:96:VAL:HG22	57:DZ:97:GLU:N	2.31	0.45
1:AA:189(B):C:H2'	1:AA:189(C):C:C6	2.51	0.45
1:AA:335:C:H2'	1:AA:336:C:C6	2.51	0.45
1:AA:414:A:H2'	1:AA:415:A:O4'	2.15	0.45
1:AA:579:G:H2'	1:AA:580:U:C6	2.51	0.45
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.32	0.45
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.82	0.45
1:AA:1186:G:N2	1:AA:1187:G:H1'	2.32	0.45
1:AA:1291:G:OP1	7:AG:37:ASN:ND2	2.50	0.45
2:AB:18:GLY:HA2	2:AB:40:HIS:O	2.17	0.45
2:AB:63:MET:C	2:AB:65:GLY:N	2.69	0.45
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.99	0.45
3:AC:87:LEU:C	3:AC:89:GLU:N	2.69	0.45
4:AD:96:LEU:HD12	4:AD:96:LEU:N	2.32	0.45
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.79	0.45
5:AE:131:ILE:O	5:AE:134:ALA:HB3	2.15	0.45
6:AF:7:ASN:N	6:AF:7:ASN:HD22	2.12	0.45
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:76:ALA:HA	13:AM:79:LYS:HB2	1.97	0.45
25:AY:55:U:O2'	25:AY:56:C:H5'	2.16	0.45
27:B1:29:GLY:O	27:B1:31:GLY:N	2.50	0.45
31:B5:6:VAL:HG23	36:BA:2015:A:C4	2.51	0.45
33:B7:24:THR:HG23	33:B7:27:GLY:H	1.82	0.45
35:B9:30:PRO:HB2	36:BA:2527:C:H5'	1.99	0.45
36:BA:185:U:H2'	36:BA:186:G:H8	1.81	0.45
36:BA:908:C:O2'	36:BA:909:A:H5'	2.16	0.45
36:BA:1193:G:H2'	36:BA:1194:A:O4'	2.16	0.45
36:BA:1357:U:H2'	36:BA:1358:G:O4'	2.17	0.45
36:BA:1425:G:H2'	36:BA:1426:G:C8	2.51	0.45
36:BA:2133:G:H2'	36:BA:2157:G:N2	2.32	0.45
36:BA:2173:A:C2'	36:BA:2174:C:H5'	2.46	0.45
36:BA:2468:G:H5'	48:BQ:120:ILE:HD12	1.98	0.45
36:BA:2638:G:OP2	40:BE:82:ARG:NH2	2.50	0.45
38:BC:19:VAL:O	38:BC:20:TYR:HB3	2.16	0.45
41:BF:11:VAL:O	41:BF:13:SER:N	2.49	0.45
41:BF:103:LYS:HA	41:BF:106:ARG:HG3	1.99	0.45
46:BO:14:THR:HG22	46:BO:52:VAL:CG1	2.46	0.45
52:BU:79:PHE:CD2	52:BU:79:PHE:C	2.90	0.45
52:BU:98:LEU:HD21	53:BV:2:PHE:HZ	1.80	0.45
56:BY:38:ILE:O	56:BY:39:VAL:CB	2.65	0.45
57:BZ:118:GLN:N	57:BZ:173:ALA:O	2.49	0.45
57:BZ:136:PHE:O	57:BZ:137:ILE:HG13	2.17	0.45
1:CA:254:G:HO2'	1:CA:255:G:H5'	1.79	0.45
1:CA:339:C:O2'	1:CA:340:U:H5'	2.17	0.45
1:CA:393:A:C2'	1:CA:394:G:H5'	2.46	0.45
1:CA:444:C:H2'	1:CA:445:G:H8	1.82	0.45
1:CA:769:G:O2'	1:CA:770:C:H5'	2.16	0.45
1:CA:983:A:H5'	1:CA:984:C:OP2	2.17	0.45
1:CA:1229:A:OP2	13:CM:114:ARG:HD2	2.16	0.45
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.51	0.45
1:CA:1447:A:N3	1:CA:1447:A:H2'	2.31	0.45
3:CC:30:ARG:HD3	14:CN:38:GLY:CA	2.46	0.45
3:CC:119:ARG:HG3	3:CC:119:ARG:HH11	1.81	0.45
3:CC:172:ARG:O	3:CC:173:VAL:CG2	2.64	0.45
5:CE:90:VAL:HG21	5:CE:121:LYS:HB3	1.97	0.45
6:CF:79:LEU:O	6:CF:85:VAL:HG21	2.17	0.45
8:CH:66:GLY:O	8:CH:76:PRO:HB2	2.16	0.45
15:CO:82:ILE:HD13	15:CO:82:ILE:C	2.37	0.45
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CY:26:A:O2'	25:CY:27:G:H5'	2.17	0.45
25:CY:28:G:H1	25:CY:42:C:H42	1.64	0.45
29:D3:49:LYS:C	29:D3:51:ALA:H	2.20	0.45
30:D4:40:ILE:HA	30:D4:57:ILE:HB	1.98	0.45
33:D7:10:ARG:HG3	36:DA:125:G:C6	2.52	0.45
33:D7:41:ARG:CD	33:D7:45:ALA:HB2	2.42	0.45
36:DA:228:A:H2'	36:DA:230:U:O4'	2.16	0.45
36:DA:337:C:H2'	36:DA:338:G:O5'	2.16	0.45
36:DA:479:A:H4'	36:DA:480:A:H5'	1.99	0.45
36:DA:1131:G:HO2'	36:DA:1132:A:H8	1.63	0.45
36:DA:1142:U:H6	36:DA:1142:U:H3'	1.81	0.45
36:DA:1332:G:N2	36:DA:1609:A:O2'	2.50	0.45
36:DA:1357:U:H2'	36:DA:1358:G:O4'	2.17	0.45
36:DA:2580:U:H4'	40:DE:130:GLY:CA	2.46	0.45
36:DA:2683:C:P	51:DT:53:ARG:HH22	2.38	0.45
36:DA:2761:G:H2'	36:DA:2761:G:N3	2.31	0.45
36:DA:2773:C:O2'	36:DA:2774:C:H5'	2.17	0.45
37:DB:75:G:H1	57:DZ:73:GLN:HE22	1.65	0.45
38:DC:83:ILE:HA	38:DC:94:VAL:CG2	2.47	0.45
41:DF:3:GLU:CB	41:DF:19:GLU:HB2	2.46	0.45
42:DG:18:GLU:OE1	42:DG:22:ARG:HG2	2.16	0.45
42:DG:19:LEU:HD13	42:DG:31:VAL:CG1	2.38	0.45
43:DH:24:VAL:HG21	43:DH:72:ILE:CD1	2.46	0.45
43:DH:72:ILE:O	43:DH:76:VAL:HG23	2.16	0.45
43:DH:121:ILE:HD13	43:DH:141:VAL:HG22	1.98	0.45
43:DH:158:HIS:NE2	43:DH:169:VAL:O	2.49	0.45
44:DI:83:ALA:HA	44:DI:89:TYR:CD1	2.51	0.45
47:DP:21:ARG:CD	47:DP:29:LYS:HE3	2.40	0.45
47:DP:83:VAL:HG21	47:DP:105:LEU:HD12	1.97	0.45
47:DP:108:LYS:C	47:DP:110:TYR:N	2.70	0.45
48:DQ:12:GLN:HE21	48:DQ:73:PRO:HD3	1.80	0.45
48:DQ:37:LEU:HD21	48:DQ:130:LYS:CB	2.44	0.45
52:DU:90:VAL:O	52:DU:92:ARG:N	2.41	0.45
53:DV:75:PHE:CD1	53:DV:75:PHE:C	2.90	0.45
55:DX:64:LYS:CD	55:DX:73:ARG:CZ	2.95	0.45
57:DZ:128:VAL:HG21	57:DZ:132:ASN:ND2	2.31	0.45
1:AA:398:C:H2'	1:AA:399:G:H8	1.80	0.45
1:AA:788:U:C5	1:AA:789:U:C5	3.05	0.45
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.52	0.45
1:AA:1113:C:H6	1:AA:1113:C:O5'	1.99	0.45
1:AA:1142:G:C8	1:AA:1143:G:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1328:C:O2'	1:AA:1329:A:H5'	2.16	0.45
2:AB:109:SER:O	2:AB:111:ARG:N	2.49	0.45
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.17	0.45
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.98	0.45
8:AH:116:LYS:O	8:AH:119:LEU:HD21	2.17	0.45
9:AI:48:GLU:HA	9:AI:51:ARG:HH11	1.81	0.45
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	1.98	0.45
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.55	0.45
12:AL:79:GLU:O	12:AL:79:GLU:HG2	2.17	0.45
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.36	0.45
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.17	0.45
18:AR:86:VAL:O	18:AR:87:ARG:O	2.34	0.45
19:AS:36:ARG:CZ	19:AS:72:GLY:HA2	2.46	0.45
20:AT:38:LYS:C	20:AT:40:ALA:N	2.70	0.45
23:AW:38:A:H2'	23:AW:39:U:C5'	2.21	0.45
36:BA:250:G:H2'	36:BA:251:A:C8	2.52	0.45
36:BA:633:A:C2'	36:BA:634:C:H5'	2.46	0.45
36:BA:1328:G:H2'	36:BA:1330:C:C5	2.52	0.45
36:BA:1529:G:H2'	36:BA:1530:C:C5	2.52	0.45
36:BA:1693:U:O2'	39:BD:14:ARG:NH2	2.50	0.45
36:BA:1708:C:O2'	36:BA:1709:U:H5'	2.16	0.45
36:BA:2068:U:N3	36:BA:2430:A:C2	2.44	0.45
36:BA:2134:A:H2	36:BA:2159:G:H1'	1.72	0.45
36:BA:2236:C:H2'	36:BA:2237:G:H5'	1.98	0.45
36:BA:2314:C:H2'	36:BA:2315:G:C8	2.46	0.45
36:BA:2773:C:O2'	36:BA:2774:C:H5'	2.16	0.45
36:BA:2855:C:O2'	36:BA:2856:C:H5'	2.17	0.45
39:BD:33:LEU:HD21	39:BD:102:LYS:HZ2	1.81	0.45
40:BE:128:SER:O	40:BE:130:GLY:N	2.50	0.45
42:BG:28:VAL:O	42:BG:31:VAL:CG1	2.63	0.45
42:BG:42:GLY:O	42:BG:43:LEU:HB2	2.17	0.45
42:BG:117:PHE:HE1	42:BG:119:GLY:O	1.99	0.45
45:BN:56:ASN:CA	45:BN:125:GLY:H	2.08	0.45
47:BP:144:GLU:O	47:BP:144:GLU:HG2	2.15	0.45
48:BQ:140:ALA:HB1	57:BZ:99:TYR:HB2	1.98	0.45
51:BT:56:GLY:O	51:BT:59:THR:CG2	2.65	0.45
52:BU:45:TYR:O	52:BU:46:ALA:C	2.55	0.45
53:BV:98:GLU:OE1	53:BV:100:ARG:HD3	2.16	0.45
1:CA:405:U:H5"	1:CA:406:G:O4'	2.17	0.45
1:CA:544:G:H2'	1:CA:545:C:H6	1.81	0.45
1:CA:757:U:OP1	1:CA:822:C:O2'	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:957:U:H2'	1:CA:959:A:OP2	2.16	0.45
1:CA:1423:G:H5'	46:DO:49:ARG:HH22	1.80	0.45
2:CB:63:MET:C	2:CB:65:GLY:N	2.69	0.45
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.16	0.45
3:CC:33:LEU:O	3:CC:37:GLN:HG2	2.16	0.45
5:CE:40:ARG:HG2	5:CE:40:ARG:NH1	2.31	0.45
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.24	0.45
8:CH:118:VAL:O	8:CH:119:LEU:HD23	2.16	0.45
9:CI:92:TYR:HD1	9:CI:92:TYR:H	1.65	0.45
10:CJ:81:THR:O	10:CJ:83:GLU:N	2.50	0.45
12:CL:38:THR:HG21	12:CL:65:GLU:OE2	2.17	0.45
12:CL:40:VAL:HG12	12:CL:40:VAL:O	2.16	0.45
13:CM:97:PRO:O	13:CM:98:VAL:HA	2.17	0.45
17:CQ:40:LYS:HG2	17:CQ:42:TYR:CE1	2.52	0.45
17:CQ:77:VAL:O	17:CQ:78:GLU:HG2	2.16	0.45
18:CR:66:LEU:CD1	18:CR:70:ILE:HD11	2.37	0.45
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.99	0.45
20:CT:53:LEU:O	20:CT:54:LYS:C	2.54	0.45
25:CY:28:G:H2'	25:CY:29:G:C8	2.51	0.45
28:D2:28:LYS:HB3	28:D2:57:ILE:HD13	1.97	0.45
34:D8:29:LYS:HE2	34:D8:44:LYS:HB3	1.98	0.45
36:DA:88:G:H2'	36:DA:88:G:N3	2.31	0.45
36:DA:94:C:H2'	36:DA:94:C:O2	2.16	0.45
36:DA:448:U:O4	36:DA:583:G:H1'	2.16	0.45
36:DA:1529:G:H2'	36:DA:1530:C:C5	2.52	0.45
36:DA:1882:C:H3'	36:DA:1883:G:H8	1.82	0.45
36:DA:1987:G:C8	36:DA:1987:G:C5'	2.99	0.45
36:DA:2032:G:O2'	40:DE:145:LYS:NZ	2.49	0.45
36:DA:2607:G:H2'	36:DA:2608:G:O4'	2.15	0.45
36:DA:2635:C:H5"	40:DE:78:LEU:O	2.16	0.45
36:DA:2672:G:H3'	36:DA:2673:G:H5"	1.96	0.45
38:DC:36:LYS:NZ	38:DC:36:LYS:CB	2.79	0.45
38:DC:58:VAL:HG22	38:DC:167:LYS:N	2.31	0.45
38:DC:221:SER:O	38:DC:222:VAL:O	2.35	0.45
41:DF:138:GLU:O	41:DF:139:PHE:C	2.55	0.45
41:DF:144:LYS:C	41:DF:146:ALA:H	2.20	0.45
42:DG:88:ILE:CG1	42:DG:89:GLY:N	2.69	0.45
42:DG:138:GLN:HE22	42:DG:149:VAL:HB	1.82	0.45
43:DH:122:THR:O	43:DH:133:VAL:HG13	2.17	0.45
45:DN:23:LEU:H	45:DN:23:LEU:CD2	2.30	0.45
46:DO:47:ILE:CG2	46:DO:48:PRO:N	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:87:TYR:CE1	49:DR:117:VAL:O	2.69	0.45
52:DU:92:ARG:HG2	52:DU:92:ARG:NH1	2.27	0.45
57:DZ:102:LEU:HD22	57:DZ:139:VAL:CG2	2.39	0.45
1:AA:166:G:O2'	1:AA:167:G:H5'	2.16	0.45
1:AA:192:U:H4'	20:AT:57:ARG:CD	2.46	0.45
1:AA:381:C:H2'	1:AA:382:A:C8	2.51	0.45
1:AA:624:C:H4'	16:AP:10:GLY:C	2.37	0.45
1:AA:706:A:C5	1:AA:707:C:C5	3.04	0.45
1:AA:979:C:OP1	1:AA:1223:C:N4	2.49	0.45
1:AA:1080:A:H5"	5:AE:16:THR:HG21	1.99	0.45
1:AA:1498:U:C5	24:AX:17:U:H5'	2.51	0.45
3:AC:20:SER:OG	3:AC:36:ASP:OD1	2.32	0.45
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.99	0.45
7:AG:153:HIS:HE1	11:AK:57:THR:HG23	1.82	0.45
8:AH:68:ARG:HG2	8:AH:69:ARG:H	1.82	0.45
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.32	0.45
15:AO:39:LEU:HD23	15:AO:39:LEU:HA	1.82	0.45
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.99	0.45
19:AS:18:LYS:HD2	19:AS:22:LEU:HD21	1.99	0.45
19:AS:31:ILE:HG23	19:AS:31:ILE:O	2.17	0.45
26:B0:10:THR:HG21	36:BA:2277:G:OP2	2.17	0.45
34:B8:13:ARG:HD2	47:BP:61:ARG:O	2.17	0.45
36:BA:110:G:O2'	36:BA:111:A:H5'	2.17	0.45
36:BA:773:U:H4'	39:BD:47:GLY:CA	2.47	0.45
36:BA:886:C:H2'	36:BA:887:A:H4'	1.97	0.45
36:BA:919:G:H5'	37:BB:81:G:C1'	2.47	0.45
36:BA:1187:G:H8	36:BA:1187:G:O5'	2.00	0.45
36:BA:1478:G:O2'	36:BA:1479:G:H5'	2.16	0.45
36:BA:2164:C:C2'	36:BA:2165:G:H5'	2.47	0.45
36:BA:2467:C:O2	48:BQ:124:LYS:NZ	2.49	0.45
36:BA:2469:A:C2	36:BA:2470:G:H1'	2.51	0.45
36:BA:2820:A:H4'	49:BR:2:ARG:HH12	1.82	0.45
39:BD:133:LEU:HB3	39:BD:173:VAL:HG11	1.99	0.45
42:BG:103:LEU:HA	42:BG:106:LEU:HB3	1.97	0.45
42:BG:111:LEU:HA	42:BG:114:ILE:HD11	1.98	0.45
42:BG:152:LEU:HG	42:BG:153:ARG:H	1.82	0.45
44:BI:115:ALA:HB1	44:BI:129:THR:HG23	1.98	0.45
44:BI:133:HIS:H	44:BI:133:HIS:CD2	2.35	0.45
46:BO:105:GLU:HA	46:BO:108:GLU:CD	2.37	0.45
47:BP:61:ARG:N	47:BP:61:ARG:HD2	2.32	0.45
47:BP:105:LEU:N	47:BP:105:LEU:CD2	2.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:114:ILE:CG2	47:BP:127:ALA:HB2	2.44	0.45
49:BR:99:LYS:HB2	49:BR:99:LYS:NZ	2.32	0.45
50:BS:17:ARG:O	50:BS:18:ILE:C	2.55	0.45
50:BS:89:ARG:O	50:BS:90:GLY:O	2.35	0.45
50:BS:93:LYS:O	50:BS:94:TYR:C	2.54	0.45
50:BS:95:HIS:CG	50:BS:96:GLY:H	2.35	0.45
52:BU:85:LYS:HD3	52:BU:117:GLN:HE22	1.81	0.45
57:BZ:75:ASN:O	57:BZ:84:GLU:HB2	2.17	0.45
1:CA:35:G:H2'	1:CA:36:C:C6	2.51	0.45
1:CA:437:U:H5"	4:CD:155:LEU:HD13	1.97	0.45
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.16	0.45
1:CA:626:U:H5"	16:CP:38:TYR:CD2	2.52	0.45
1:CA:836:G:OP1	18:CR:61:LYS:NZ	2.48	0.45
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.52	0.45
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.17	0.45
1:CA:1328:C:O2'	1:CA:1329:A:H5'	2.17	0.45
1:CA:1358:U:H3'	1:CA:1359:C:C6	2.52	0.45
5:CE:11:ILE:HD12	5:CE:31:LEU:HD12	1.97	0.45
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.32	0.45
7:CG:151:TYR:O	7:CG:154:TYR:HB2	2.16	0.45
8:CH:40:ALA:O	8:CH:42:GLU:N	2.50	0.45
8:CH:68:ARG:HG2	8:CH:69:ARG:H	1.81	0.45
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.98	0.45
9:CI:83:ARG:O	9:CI:86:VAL:HG12	2.15	0.45
11:CK:29:ILE:HD11	11:CK:42:TRP:HE3	1.81	0.45
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.16	0.45
20:CT:23:ARG:O	20:CT:27:LYS:HB2	2.17	0.45
23:CW:14:A:H3'	23:CW:15:G:C8	2.47	0.45
28:D2:37:PHE:O	28:D2:41:ILE:HG12	2.17	0.45
31:D5:56:LYS:HD2	31:D5:56:LYS:N	2.30	0.45
36:DA:272(B):G:O2'	36:DA:272(C):G:C5'	2.65	0.45
36:DA:363(F):A:HO2'	36:DA:364:C:H5	1.64	0.45
36:DA:536:A:OP1	52:DU:53:ARG:NH1	2.47	0.45
36:DA:674:G:H1'	41:DF:74:ARG:HD2	1.98	0.45
36:DA:778:G:H2'	36:DA:779:U:C6	2.52	0.45
36:DA:1248:G:OP1	52:DU:2:PRO:HD2	2.16	0.45
36:DA:1344:G:H4'	36:DA:1384:A:N7	2.31	0.45
36:DA:1892:C:O2'	36:DA:1893:C:H5'	2.16	0.45
36:DA:2283:C:C2'	36:DA:2284:C:H5'	2.47	0.45
36:DA:2287:A:C2	36:DA:2346:A:C2	3.05	0.45
37:DB:7:G:H4'	50:DS:29:PHE:CD1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DB:73:A:C2'	37:DB:74:U:H5'	2.46	0.45
39:DD:148:GLU:CB	39:DD:151:LYS:HD2	2.44	0.45
40:DE:134:ILE:O	40:DE:134:ILE:CG1	2.63	0.45
41:DF:64:ILE:HG22	41:DF:76:GLY:O	2.17	0.45
41:DF:68:LYS:HB3	41:DF:69:HIS:H	1.39	0.45
41:DF:124:LEU:HG	41:DF:126:VAL:CG1	2.45	0.45
42:DG:173:LEU:HD22	42:DG:173:LEU:H	1.82	0.45
43:DH:23:ARG:NE	43:DH:36:PRO:HB3	2.32	0.45
44:DI:78:THR:O	44:DI:79:ILE:HD13	2.17	0.45
45:DN:42:TRP:CE3	45:DN:48:MET:HE1	2.51	0.45
45:DN:133:GLN:O	45:DN:134:ARG:HG3	2.16	0.45
47:DP:23:PRO:CB	47:DP:33:ARG:HG3	2.47	0.45
47:DP:143:GLY:C	47:DP:145:PRO:HD3	2.37	0.45
51:DT:89:VAL:HG12	51:DT:91:ARG:CG	2.46	0.45
54:DW:17:VAL:O	54:DW:20:VAL:N	2.44	0.45
1:AA:340:U:O2'	1:AA:341:C:H5'	2.17	0.45
1:AA:376:G:H5"	16:AP:5:ARG:HB2	1.99	0.45
1:AA:692:U:H2'	1:AA:694:A:OP2	2.17	0.45
1:AA:820:U:H4'	1:AA:821:G:OP2	2.17	0.45
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.16	0.45
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.52	0.45
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.30	0.45
2:AB:112:VAL:CG2	2:AB:149:LEU:HD13	2.47	0.45
2:AB:157:ARG:O	2:AB:158:LEU:C	2.55	0.45
3:AC:64:VAL:HG22	3:AC:99:VAL:HA	1.99	0.45
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.20	0.45
9:AI:88:TYR:O	9:AI:89:ASN:ND2	2.50	0.45
10:AJ:7:LYS:CD	10:AJ:71:LEU:HD13	2.42	0.45
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB3	2.47	0.45
18:AR:44:LEU:CD2	18:AR:50:ILE:HD13	2.46	0.45
20:AT:53:LEU:HA	20:AT:56:MET:HE2	1.97	0.45
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.70	0.45
23:AW:7:A:O2'	23:AW:49:C:H5'	2.17	0.45
30:B4:40:ILE:HA	30:B4:57:ILE:HB	1.99	0.45
36:BA:251:A:C5'	47:BP:51:PHE:CZ	3.00	0.45
36:BA:333:G:H2'	36:BA:333:G:N3	2.31	0.45
36:BA:389:G:H1	47:BP:71:VAL:CG1	2.16	0.45
36:BA:711:G:O2'	36:BA:712:G:H5'	2.17	0.45
36:BA:1021:A:OP2	45:BN:65:LYS:NZ	2.49	0.45
36:BA:1151:G:H5"	52:BU:81:HIS:CE1	2.52	0.45
36:BA:1203:G:OP2	36:BA:1204:A:H2'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1248:G:OP1	52:BU:2:PRO:HD2	2.17	0.45
36:BA:1291:C:H2'	36:BA:1292:U:C6	2.52	0.45
36:BA:1368:G:O2'	36:BA:1369:G:H5'	2.17	0.45
36:BA:1666:G:H2'	36:BA:1667:G:H5'	1.98	0.45
36:BA:1899:G:C2'	36:BA:1900:A:OP2	2.65	0.45
36:BA:2146:C:H4'	36:BA:2147:G:C8	2.52	0.45
36:BA:2167:U:O2	36:BA:2171:A:N7	2.50	0.45
36:BA:2455:G:H2'	36:BA:2456:C:C6	2.52	0.45
36:BA:2481:G:O2'	36:BA:2482:G:O5'	2.34	0.45
38:BC:83:ILE:HG23	38:BC:94:VAL:HG23	1.97	0.45
39:BD:25:THR:CG2	39:BD:26:LYS:H	2.20	0.45
39:BD:31:LYS:HZ1	39:BD:102:LYS:NZ	2.14	0.45
39:BD:117:VAL:HG22	39:BD:118:VAL:N	2.32	0.45
39:BD:166:GLN:HE21	39:BD:166:GLN:HA	1.78	0.45
39:BD:231:HIS:ND1	39:BD:232:PRO:HD2	2.31	0.45
42:BG:83:ARG:NH1	42:BG:84:LYS:HD2	2.32	0.45
42:BG:117:PHE:CD1	42:BG:118:ARG:N	2.85	0.45
44:BI:4:ILE:HD11	44:BI:44:LEU:HD12	1.98	0.45
49:BR:37:THR:OG1	49:BR:40:LYS:HB2	2.16	0.45
50:BS:34:HIS:HD2	50:BS:54:LEU:HD23	1.82	0.45
51:BT:12:SER:O	51:BT:15:VAL:HG12	2.17	0.45
54:BW:10:VAL:HG23	54:BW:101:SER:O	2.17	0.45
55:BX:3:THR:O	55:BX:4:ALA:CB	2.64	0.45
55:BX:12:VAL:CG1	55:BX:27:THR:O	2.64	0.45
56:BY:96:ILE:HG13	56:BY:100:ALA:H	1.82	0.45
57:BZ:7:ALA:C	57:BZ:8:TYR:CD1	2.90	0.45
57:BZ:110:GLY:CA	57:BZ:115:GLY:HA3	2.47	0.45
1:CA:243:A:C2	1:CA:246:A:C8	3.05	0.45
1:CA:337:C:H2'	1:CA:338:A:H8	1.82	0.45
1:CA:398:C:H2'	1:CA:399:G:H8	1.82	0.45
1:CA:420:U:H2'	1:CA:422:C:C5	2.51	0.45
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.52	0.45
2:CB:21:ARG:O	2:CB:23:ARG:N	2.50	0.45
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.98	0.45
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.03	0.45
4:CD:187:ARG:HG2	4:CD:187:ARG:NH1	2.30	0.45
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	1.97	0.45
8:CH:56:LYS:HB2	8:CH:58:TYR:HE1	1.81	0.45
8:CH:109:ILE:HD11	8:CH:120:THR:HG22	1.98	0.45
9:CI:4:TYR:N	9:CI:4:TYR:HD1	2.10	0.45
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:126:ARG:C	11:CK:128:ALA:N	2.70	0.45
13:CM:10:PRO:HB3	13:CM:18:ALA:O	2.16	0.45
13:CM:34:LEU:HD13	13:CM:41:PRO:CA	2.47	0.45
13:CM:116:THR:O	13:CM:117:VAL:HB	2.17	0.45
14:CN:23:ARG:O	14:CN:24:CYS:C	2.54	0.45
14:CN:26:ARG:CD	14:CN:43:CYS:SG	2.97	0.45
16:CP:43:LYS:N	16:CP:43:LYS:HD2	2.31	0.45
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.47	0.45
19:CS:43:GLU:O	19:CS:43:GLU:OE1	2.35	0.45
25:CY:62:C:H2'	25:CY:63:G:C8	2.51	0.45
29:D3:46:ASN:OD1	36:DA:851:U:O4'	2.34	0.45
36:DA:773:U:H4'	39:DD:47:GLY:CA	2.47	0.45
36:DA:2330:G:C2'	36:DA:2331:G:H5'	2.47	0.45
36:DA:2753:A:C2	36:DA:2754:U:C2	3.05	0.45
39:DD:26:LYS:HD2	39:DD:113:VAL:HG11	1.99	0.45
40:DE:47:VAL:HG23	40:DE:84:PHE:O	2.16	0.45
40:DE:47:VAL:HG21	40:DE:86:PRO:HD3	1.99	0.45
40:DE:201:THR:HG21	40:DE:203:LYS:HG2	1.99	0.45
41:DF:119:ARG:HH11	41:DF:119:ARG:HG2	1.82	0.45
41:DF:170:LEU:HD23	41:DF:173:VAL:HG21	1.97	0.45
43:DH:47:GLU:CG	43:DH:48:GLY:H	2.22	0.45
45:DN:78:TYR:HD1	45:DN:78:TYR:H	1.64	0.45
47:DP:101:VAL:C	47:DP:103:ALA:N	2.70	0.45
49:DR:33:ARG:HD2	49:DR:33:ARG:N	2.31	0.45
50:DS:51:ALA:HB3	50:DS:73:LEU:HB2	1.98	0.45
56:DY:49:VAL:O	56:DY:50:ARG:HB2	2.17	0.45
1:AA:519:C:O2'	1:AA:520:A:H5'	2.17	0.45
1:AA:568:G:C6	1:AA:569:C:N4	2.85	0.45
1:AA:814:A:H2'	1:AA:816:A:H5"	1.97	0.45
1:AA:1316:G:C2'	1:AA:1317:C:H5"	2.47	0.45
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.47	0.45
2:AB:193:ASP:OD2	2:AB:193:ASP:O	2.35	0.45
3:AC:119:ARG:HH11	3:AC:119:ARG:HG3	1.82	0.45
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.31	0.45
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.17	0.45
10:AJ:78:ASN:HD21	10:AJ:80:LYS:HB2	1.80	0.45
12:AL:8:ASN:ND2	17:AQ:34:LYS:HE2	2.32	0.45
13:AM:92:HIS:CD2	13:AM:98:VAL:HG23	2.52	0.45
13:AM:100:GLY:O	13:AM:101:GLN:HG3	2.17	0.45
23:AW:68:C:O2'	23:AW:69:G:H5'	2.15	0.45
25:AY:9:A:N6	25:AY:46:G:H22	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:15:G:H8	25:AY:15:G:OP2	2.00	0.45
25:AY:72:C:H42	25:AY:73:A:N6	2.15	0.45
30:B4:52:SER:OG	30:B4:53:THR:N	2.50	0.45
31:B5:41:PRO:HG2	31:B5:44:THR:CG2	2.46	0.45
36:BA:703:U:C2'	36:BA:704:G:H5'	2.47	0.45
36:BA:1163:G:O2'	36:BA:1164:G:H5'	2.16	0.45
36:BA:1358:G:O2'	36:BA:1359:A:H5"	2.16	0.45
36:BA:2287:A:C2	36:BA:2289:G:C8	3.05	0.45
36:BA:2350:C:H2'	36:BA:2351:G:O4'	2.17	0.45
36:BA:2351:G:HO2'	36:BA:2352:A:H8	1.65	0.45
36:BA:2703:C:H2'	36:BA:2704:C:H6	1.82	0.45
36:BA:2822:G:O6	49:BR:4:LEU:HD12	2.17	0.45
42:BG:31:VAL:CG2	42:BG:32:PRO:CD	2.94	0.45
47:BP:30:THR:HG22	47:BP:31:ALA:N	2.27	0.45
47:BP:41:ARG:HE	47:BP:41:ARG:CA	2.28	0.45
47:BP:112:LEU:H	47:BP:128:HIS:CD2	2.35	0.45
50:BS:17:ARG:NH2	50:BS:90:GLY:N	2.64	0.45
55:BX:27:THR:HA	55:BX:80:ILE:HA	1.99	0.45
1:CA:180:U:H2'	1:CA:181:G:H5'	1.98	0.45
1:CA:965:A:OP1	1:CA:1198:G:H5"	2.16	0.45
1:CA:972:C:O3'	10:CJ:57:LYS:HG2	2.17	0.45
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.51	0.45
1:CA:1372:U:H2'	1:CA:1373:G:H5'	1.99	0.45
3:CC:58:GLU:HB2	3:CC:65:ALA:HB2	1.99	0.45
5:CE:87:SER:HB3	5:CE:131:ILE:HD13	1.99	0.45
7:CG:52:GLU:C	7:CG:54:THR:H	2.20	0.45
10:CJ:13:HIS:O	10:CJ:17:ASP:HB2	2.17	0.45
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.99	0.45
13:CM:90:LEU:HA	13:CM:93:ARG:HB3	1.99	0.45
18:CR:58:LEU:HD12	18:CR:58:LEU:N	2.32	0.45
19:CS:35:SER:C	19:CS:37:ARG:N	2.71	0.45
20:CT:14:LYS:CB	20:CT:17:ARG:HH21	2.30	0.45
20:CT:44:ALA:HB1	20:CT:92:LEU:HG	1.99	0.45
25:CY:26:A:H62	25:CY:27:G:H21	1.62	0.45
30:D4:48:ILE:HD12	30:D4:48:ILE:N	2.24	0.45
32:D6:42:TRP:CE3	32:D6:42:TRP:HA	2.51	0.45
36:DA:481:G:C2'	36:DA:482:A:OP2	2.65	0.45
36:DA:523:C:O2'	36:DA:524:U:H5'	2.17	0.45
36:DA:1493:C:O2	36:DA:1493:C:C2'	2.64	0.45
36:DA:2629:A:H8	36:DA:2895:U:H3	1.60	0.45
39:DD:24:ILE:HD12	39:DD:84:TYR:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DD:261:LYS:HZ1	39:DD:263:ARG:NH1	2.15	0.45
41:DF:11:VAL:C	41:DF:13:SER:N	2.68	0.45
41:DF:72:ARG:HH11	41:DF:72:ARG:HA	1.81	0.45
41:DF:117:ARG:HH21	41:DF:187:VAL:HA	1.82	0.45
41:DF:192:LEU:HD21	41:DF:194:MET:HE2	1.99	0.45
42:DG:47:LYS:N	42:DG:51:ARG:HG3	2.32	0.45
42:DG:115:ARG:HD2	42:DG:116:ASP:CB	2.46	0.45
43:DH:17:VAL:HB	43:DH:45:VAL:CG2	2.47	0.45
44:DI:26:ALA:O	44:DI:31:LEU:HD13	2.17	0.45
46:DO:7:TYR:CZ	46:DO:44:LYS:HG3	2.52	0.45
46:DO:105:GLU:HA	46:DO:108:GLU:CD	2.37	0.45
47:DP:55:ARG:HB3	47:DP:56:SER:H	1.53	0.45
50:DS:42:ASP:C	50:DS:44:LYS:H	2.20	0.45
50:DS:67:ARG:NH1	50:DS:98:VAL:HG13	2.32	0.45
56:DY:14:LEU:HD12	56:DY:15:VAL:N	2.26	0.45
56:DY:47:LYS:N	56:DY:47:LYS:CD	2.75	0.45
1:AA:711:G:O2'	1:AA:712:A:H5'	2.17	0.45
1:AA:757:U:OP1	1:AA:822:C:O2'	2.35	0.45
1:AA:1443:G:H22	1:AA:1460:A:H1'	1.82	0.45
1:AA:1480:G:H2'	1:AA:1481:U:H6	1.82	0.45
3:AC:148:GLY:N	3:AC:203:PHE:HB3	2.31	0.45
3:AC:188:LEU:HD12	3:AC:195:VAL:CG1	2.47	0.45
4:AD:80:GLU:OE2	4:AD:80:GLU:HA	2.17	0.45
4:AD:187:ARG:HG2	4:AD:187:ARG:NH1	2.31	0.45
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.32	0.45
5:AE:15:ARG:O	5:AE:16:THR:O	2.35	0.45
5:AE:40:ARG:HG2	5:AE:40:ARG:NH1	2.30	0.45
5:AE:68:GLU:O	5:AE:68:GLU:HG3	2.17	0.45
19:AS:72:GLY:C	19:AS:74:PHE:H	2.21	0.45
23:AW:8:U:O2	23:AW:21:A:C2	2.70	0.45
26:B0:12:ASN:O	26:B0:13:GLY:C	2.53	0.45
28:B2:63:VAL:CA	28:B2:66:GLU:HG2	2.46	0.45
29:B3:49:LYS:C	29:B3:51:ALA:H	2.19	0.45
32:B6:13:CYS:HB2	32:B6:22:ALA:HB3	1.99	0.45
34:B8:4:MET:O	34:B8:62:LEU:HD12	2.17	0.45
36:BA:481:G:C2'	36:BA:482:A:OP2	2.64	0.45
36:BA:587:C:C5	47:BP:33:ARG:HD3	2.52	0.45
36:BA:764:A:C6	39:BD:209:ALA:HB1	2.51	0.45
36:BA:845:G:O2'	36:BA:846:C:H5	2.00	0.45
36:BA:1412:A:H2'	36:BA:1413:G:C8	2.52	0.45
36:BA:2127:G:N2	36:BA:2173:A:H1'	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2195:C:C2'	36:BA:2196:C:H5'	2.47	0.45
36:BA:2248:C:C2'	36:BA:2249:U:H5'	2.47	0.45
36:BA:2392:A:N3	36:BA:2392:A:H5'	2.32	0.45
36:BA:2869:G:H2'	36:BA:2870:C:C6	2.52	0.45
39:BD:35:LYS:HA	39:BD:35:LYS:HD3	1.70	0.45
41:BF:64:ILE:HG22	41:BF:76:GLY:O	2.17	0.45
41:BF:78:ILE:H	41:BF:78:ILE:CD1	2.24	0.45
48:BQ:24:GLY:HA2	48:BQ:67:ARG:HH22	1.81	0.45
48:BQ:69:PHE:HD1	48:BQ:70:PRO:HD2	1.81	0.45
50:BS:18:ILE:O	50:BS:18:ILE:HD13	2.17	0.45
51:BT:107:ASP:C	51:BT:109:GLU:N	2.70	0.45
51:BT:120:ARG:O	51:BT:124:ASP:OD1	2.35	0.45
1:CA:231:G:O2'	1:CA:232:G:H5'	2.17	0.45
1:CA:784:C:H4'	36:DA:1837:C:OP1	2.16	0.45
1:CA:1002:G:H2'	1:CA:1002:G:N3	2.32	0.45
1:CA:1117:G:H5'	1:CA:1117:G:H8	1.82	0.45
1:CA:1219:U:H2'	1:CA:1220:G:H8	1.81	0.45
1:CA:1512:U:H3	1:CA:1523:G:H1	1.65	0.45
2:CB:208:ILE:HG22	2:CB:208:ILE:O	2.14	0.45
5:CE:26:PHE:CD1	5:CE:26:PHE:N	2.84	0.45
6:CF:27:GLN:HA	6:CF:27:GLN:NE2	2.32	0.45
7:CG:49:ILE:CG2	7:CG:53:LYS:HD2	2.45	0.45
10:CJ:61:GLU:OE2	14:CN:45:ARG:NH1	2.50	0.45
10:CJ:97:GLU:O	10:CJ:98:ILE:HD12	2.16	0.45
11:CK:29:ILE:CD1	11:CK:44:SER:HB3	2.44	0.45
25:CY:55:U:O2	25:CY:55:U:C2'	2.63	0.45
27:D1:23:LYS:NZ	27:D1:28:GLY:HA3	2.32	0.45
27:D1:78:LYS:C	27:D1:80:LEU:H	2.20	0.45
34:D8:50:LEU:CD1	34:D8:54:GLU:OE2	2.65	0.45
36:DA:271(F):C:H2'	36:DA:271(G):C:C6	2.49	0.45
36:DA:711:G:O2'	36:DA:712:G:H5'	2.17	0.45
36:DA:927:G:N3	36:DA:927:G:H2'	2.30	0.45
36:DA:978:G:H2'	36:DA:979:G:O4'	2.17	0.45
36:DA:1651:G:O2'	36:DA:1652:A:H5'	2.16	0.45
36:DA:2302:G:C6	36:DA:2315:G:C6	3.05	0.45
36:DA:2305:A:N3	42:DG:136:ARG:NH1	2.64	0.45
36:DA:2840:C:H4'	49:DR:53:HIS:CD2	2.52	0.45
36:DA:2846:G:H2'	36:DA:2847:U:O4'	2.17	0.45
39:DD:132:PRO:HG3	39:DD:190:TYR:CE1	2.52	0.45
40:DE:176:ILE:CG2	40:DE:178:GLU:HB3	2.46	0.45
41:DF:177:ALA:HB1	41:DF:178:PRO:CD	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DH:54:ARG:HH11	43:DH:54:ARG:HG2	1.82	0.45
43:DH:89:ILE:O	43:DH:161:GLY:O	2.35	0.45
43:DH:107:VAL:HG21	43:DH:152:ARG:CG	2.46	0.45
43:DH:147:ASN:N	43:DH:147:ASN:HD22	2.13	0.45
44:DI:98:ALA:C	44:DI:100:ALA:H	2.20	0.45
45:DN:93:THR:O	45:DN:94:HIS:HB2	2.17	0.45
47:DP:7:ARG:HB3	47:DP:8:PRO:CD	2.46	0.45
47:DP:91:PHE:H	47:DP:91:PHE:HD1	1.60	0.45
48:DQ:47:ILE:O	48:DQ:49:ALA:N	2.50	0.45
48:DQ:137:TYR:O	48:DQ:138:ASP:O	2.34	0.45
49:DR:10:LEU:HB3	49:DR:17:ARG:HD2	1.98	0.45
50:DS:56:LEU:O	50:DS:57:LYS:CB	2.64	0.45
51:DT:130:ALA:O	51:DT:131:ALA:C	2.55	0.45
52:DU:52:ARG:HD3	52:DU:55:ARG:NE	2.24	0.45
53:DV:2:PHE:O	53:DV:3:ALA:CB	2.65	0.45
53:DV:3:ALA:O	53:DV:13:ARG:HA	2.17	0.45
53:DV:15:GLU:CB	53:DV:16:PRO:CD	2.91	0.45
57:DZ:58:VAL:CG1	57:DZ:66:SER:HB3	2.47	0.45
57:DZ:128:VAL:CG2	57:DZ:129:SER:N	2.80	0.45
1:AA:93:G:C2'	1:AA:96:U:H5'	2.45	0.44
1:AA:505:G:C6	1:AA:535:A:C2	3.04	0.44
1:AA:644:G:C2'	1:AA:645:C:H5'	2.47	0.44
1:AA:950:U:H2'	1:AA:951:G:C8	2.52	0.44
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.32	0.44
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.52	0.44
1:AA:1236:A:OP1	21:AU:2:GLY:HA3	2.17	0.44
1:AA:1346:A:N6	1:AA:1374:A:H3'	2.26	0.44
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.39	0.44
2:AB:132:LYS:CA	2:AB:135:GLN:HE21	2.30	0.44
5:AE:112:LEU:N	5:AE:112:LEU:HD23	2.33	0.44
9:AI:96:LEU:HD12	9:AI:101:PHE:CB	2.46	0.44
12:AL:32:PHE:HB3	12:AL:84:LEU:CD1	2.46	0.44
12:AL:85:ILE:HD13	12:AL:100:ILE:HA	1.99	0.44
16:AP:64:ALA:O	16:AP:65:GLN:C	2.55	0.44
22:AV:68:C:H2'	22:AV:69:C:O4'	2.17	0.44
23:AW:18:G:N2	23:AW:55:U:H6	2.15	0.44
23:AW:19:G:H4'	23:AW:20:U:OP2	2.16	0.44
32:B6:12:GLU:HA	32:B6:23:THR:HA	1.99	0.44
34:B8:41:ILE:O	34:B8:44:LYS:HB2	2.17	0.44
36:BA:448:U:O4	36:BA:583:G:H1'	2.16	0.44
36:BA:637:A:H4'	36:BA:638:G:O5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:834:C:O2'	36:BA:835:A:H5'	2.17	0.44
36:BA:1114:G:H2'	36:BA:1115:G:H5"	1.98	0.44
36:BA:1117:G:H2'	36:BA:1118:C:C6	2.52	0.44
36:BA:1885:A:H5'	36:BA:1885:A:C8	2.52	0.44
39:BD:243:GLY:O	39:BD:244:ARG:HB3	2.17	0.44
40:BE:11:MET:CB	40:BE:24:THR:HA	2.47	0.44
40:BE:93:VAL:O	40:BE:95:ILE:N	2.50	0.44
42:BG:9:ARG:O	42:BG:12:TYR:N	2.49	0.44
42:BG:97:ASP:O	42:BG:101:ILE:HG23	2.17	0.44
42:BG:101:ILE:O	42:BG:105:LYS:HG3	2.18	0.44
43:BH:142:GLY:O	43:BH:145:ALA:HB3	2.16	0.44
43:BH:155:SER:OG	43:BH:156:ALA:N	2.50	0.44
44:BI:98:ALA:C	44:BI:100:ALA:N	2.70	0.44
45:BN:62:VAL:HG13	45:BN:62:VAL:O	2.17	0.44
45:BN:78:TYR:N	45:BN:78:TYR:HD1	2.15	0.44
47:BP:38:GLN:CG	47:BP:39:LYS:N	2.76	0.44
51:BT:57:PHE:O	51:BT:59:THR:N	2.49	0.44
53:BV:39:LEU:HD12	53:BV:50:PRO:C	2.37	0.44
53:BV:65:GLY:O	53:BV:90:PRO:HA	2.16	0.44
54:BW:65:LEU:HD22	54:BW:68:ARG:N	2.25	0.44
57:BZ:114:GLY:CA	57:BZ:177:PRO:HD3	2.47	0.44
1:CA:1178:G:O5'	9:CI:97:LYS:HE3	2.17	0.44
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.16	0.44
1:CA:1220:G:H1'	19:CS:52:TYR:CD2	2.53	0.44
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.81	0.44
1:CA:1480:G:C6	1:CA:1481:U:C4	3.05	0.44
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	2.00	0.44
2:CB:132:LYS:CA	2:CB:135:GLN:HE21	2.30	0.44
2:CB:208:ILE:HG22	2:CB:212:GLN:HB2	2.00	0.44
4:CD:25:ARG:C	4:CD:27:TYR:N	2.67	0.44
4:CD:29:PRO:C	4:CD:30:LYS:HG2	2.38	0.44
7:CG:78:ARG:CD	7:CG:79:ARG:H	2.25	0.44
26:D0:49:LYS:HB2	26:D0:80:HIS:HB3	1.99	0.44
26:D0:74:ARG:HG2	37:DB:13:A:OP2	2.17	0.44
26:D0:77:ARG:NH2	36:DA:857:C:H5'	2.28	0.44
27:D1:7:ILE:HD12	27:D1:7:ILE:N	2.32	0.44
34:D8:51:ALA:HA	34:D8:54:GLU:CD	2.37	0.44
36:DA:558:G:OP1	45:DN:111:PRO:HD2	2.17	0.44
36:DA:747:U:H3'	36:DA:2612:C:H41	1.82	0.44
36:DA:839:U:H1'	36:DA:1191:G:H1'	1.99	0.44
36:DA:1022:G:H4'	36:DA:1023:U:O5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1050:A:C2	36:DA:2751:G:C4	3.05	0.44
36:DA:1151:G:H5"	52:DU:81:HIS:CE1	2.52	0.44
36:DA:1484:G:H2'	36:DA:1485:G:H5"	1.97	0.44
36:DA:1526:G:H2'	36:DA:1527:G:O4'	2.18	0.44
36:DA:2593:U:H2'	36:DA:2594:C:H6	1.79	0.44
39:DD:58:HIS:CD2	39:DD:59:LYS:N	2.85	0.44
39:DD:72:LYS:HB3	39:DD:75:ILE:HB	1.98	0.44
39:DD:77:ALA:HB2	39:DD:97:TYR:CG	2.52	0.44
39:DD:111:LEU:HD13	39:DD:112:GLN:N	2.32	0.44
39:DD:227:ASN:HB3	39:DD:228:PRO:HD2	1.99	0.44
40:DE:72:VAL:O	40:DE:73:GLU:C	2.55	0.44
41:DF:11:VAL:O	41:DF:13:SER:N	2.49	0.44
41:DF:39:TRP:CD1	41:DF:101:LEU:HB2	2.52	0.44
42:DG:19:LEU:HD22	42:DG:25:TYR:CE2	2.52	0.44
42:DG:136:ARG:O	42:DG:137:GLU:O	2.35	0.44
43:DH:91:GLY:CA	43:DH:160:LYS:HA	2.46	0.44
44:DI:78:THR:HA	44:DI:141:LYS:HB2	1.98	0.44
44:DI:109:ILE:HD12	44:DI:109:ILE:N	2.32	0.44
44:DI:117:GLU:O	44:DI:118:LYS:C	2.55	0.44
46:DO:87:ILE:HG23	46:DO:91:LEU:C	2.38	0.44
47:DP:61:ARG:H	47:DP:61:ARG:CD	2.30	0.44
48:DQ:2:LEU:O	48:DQ:2:LEU:HG	2.17	0.44
51:DT:42:ILE:HD12	51:DT:42:ILE:H	1.81	0.44
52:DU:12:ARG:CA	52:DU:15:LYS:NZ	2.80	0.44
56:DY:8:LYS:CE	56:DY:72:VAL:HG23	2.47	0.44
56:DY:68:HIS:HB3	56:DY:71:LYS:HG2	1.99	0.44
1:AA:386:C:C2'	1:AA:387:U:H5'	2.47	0.44
1:AA:674:G:HO2'	18:AR:81:PHE:HD2	1.62	0.44
1:AA:683:G:H2'	1:AA:684:A:H8	1.78	0.44
1:AA:744:C:O2'	1:AA:745:C:H5'	2.17	0.44
1:AA:749:C:O2'	1:AA:750:G:H5'	2.17	0.44
1:AA:965:A:C2	1:AA:969:A:C2	3.06	0.44
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.16	0.44
1:AA:1293:G:HO2'	1:AA:1294:G:P	2.41	0.44
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.90	0.44
1:AA:1358:U:H3'	1:AA:1359:C:C6	2.52	0.44
2:AB:167:PRO:O	2:AB:171:ALA:N	2.50	0.44
3:AC:172:ARG:O	3:AC:173:VAL:CG2	2.65	0.44
5:AE:150:ARG:HB2	5:AE:150:ARG:NH1	2.32	0.44
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.99	0.44
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.54	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:23:C:H2'	22:AV:24:U:H6	1.83	0.44
25:AY:74:C:H2'	25:AY:75:C:H5'	1.98	0.44
27:B1:86:SER:O	27:B1:89:GLU:N	2.50	0.44
28:B2:14:ARG:HG3	28:B2:14:ARG:NH1	2.26	0.44
30:B4:43:GLY:N	30:B4:59:VAL:O	2.50	0.44
36:BA:221:A:O2'	36:BA:222:A:OP2	2.32	0.44
36:BA:292:C:O2	36:BA:292:C:H2'	2.18	0.44
36:BA:995:C:OP2	52:BU:54:LYS:NZ	2.43	0.44
36:BA:1029:A:H8	36:BA:1029:A:O5'	2.00	0.44
36:BA:1485:G:H1'	36:BA:1505:C:N4	2.32	0.44
36:BA:2444:G:OP2	41:BF:68:LYS:HE2	2.17	0.44
36:BA:2566:A:N1	46:BO:28:SER:HB2	2.33	0.44
36:BA:2743:C:H2'	36:BA:2744:G:O4'	2.17	0.44
39:BD:71:ASP:HB2	39:BD:103:ARG:NH2	2.26	0.44
39:BD:132:PRO:HG3	39:BD:190:TYR:CE1	2.52	0.44
40:BE:110:GLY:CA	40:BE:162:ALA:H	2.30	0.44
42:BG:16:ARG:HG3	42:BG:16:ARG:HH11	1.82	0.44
42:BG:39:ILE:HD11	42:BG:155:MET:CB	2.40	0.44
44:BI:51:ILE:HD13	44:BI:51:ILE:HA	1.90	0.44
44:BI:58:LEU:HD12	44:BI:61:ARG:CZ	2.46	0.44
44:BI:133:HIS:O	44:BI:134:PRO:C	2.55	0.44
47:BP:99:LEU:HD23	47:BP:99:LEU:C	2.38	0.44
47:BP:140:ALA:O	47:BP:141:ALA:CB	2.66	0.44
49:BR:9:LYS:HE2	49:BR:43:GLU:OE2	2.16	0.44
51:BT:46:GLU:OE1	51:BT:88:ILE:HD11	2.18	0.44
52:BU:111:GLU:O	52:BU:113:ALA:N	2.50	0.44
57:BZ:52:SER:OG	57:BZ:53:ILE:HG13	2.16	0.44
57:BZ:109:ALA:O	57:BZ:111:VAL:HG12	2.16	0.44
1:CA:484:G:H4'	1:CA:485:G:O5'	2.18	0.44
1:CA:648:A:H2'	1:CA:649:G:C8	2.52	0.44
1:CA:1060:C:H4'	10:CJ:52:GLY:N	2.33	0.44
1:CA:1080:A:C5'	5:CE:16:THR:HG21	2.47	0.44
2:CB:236:TYR:N	2:CB:236:TYR:CD1	2.85	0.44
3:CC:95:THR:O	3:CC:97:LYS:N	2.50	0.44
3:CC:126:ARG:HG2	3:CC:126:ARG:NH1	2.32	0.44
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.85	0.44
7:CG:69:VAL:HG12	7:CG:100:ALA:HA	1.99	0.44
9:CI:17:VAL:HG22	9:CI:63:ILE:HD13	1.99	0.44
12:CL:22:SER:O	12:CL:24:VAL:N	2.50	0.44
12:CL:32:PHE:HB3	12:CL:84:LEU:HD11	1.99	0.44
13:CM:80:ARG:C	13:CM:82:MET:H	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:25:THR:O	15:CO:26:GLU:C	2.55	0.44
20:CT:25:ARG:HH11	20:CT:25:ARG:HG3	1.82	0.44
25:CY:26:A:N6	25:CY:27:G:N2	2.65	0.44
25:CY:33:U:C3'	25:CY:34:G:H5"	2.47	0.44
32:D6:52:VAL:HG12	32:D6:53:LYS:N	2.32	0.44
33:D7:6:GLN:HA	33:D7:7:PRO:HD2	1.81	0.44
34:D8:49:VAL:CG2	34:D8:53:PRO:HB3	2.47	0.44
36:DA:28:A:H61	36:DA:512:G:H1'	1.80	0.44
36:DA:94:C:H5'	36:DA:94(A):G:OP2	2.16	0.44
36:DA:203:C:C3'	36:DA:204:A:H5"	2.46	0.44
36:DA:528:A:C2	36:DA:2043:C:H5'	2.49	0.44
36:DA:888:C:O2'	36:DA:889:C:H5'	2.17	0.44
36:DA:920:G:O2'	36:DA:921:G:H5'	2.17	0.44
36:DA:1245:G:OP1	47:DP:16:ARG:NE	2.50	0.44
36:DA:1811:G:O2'	36:DA:1812:A:H5'	2.17	0.44
36:DA:2260:C:O2'	36:DA:2261:C:H5'	2.17	0.44
36:DA:2473:U:O2	36:DA:2473:U:H2'	2.18	0.44
36:DA:2732:G:C3'	36:DA:2733:A:H5'	2.47	0.44
36:DA:2855:C:O2'	36:DA:2856:C:H5'	2.17	0.44
39:DD:44:ASN:HB3	39:DD:49:ILE:CA	2.40	0.44
39:DD:133:LEU:HB3	39:DD:173:VAL:HG11	2.00	0.44
39:DD:161:THR:HG1	39:DD:196:VAL:HG21	1.81	0.44
40:DE:46:ALA:HA	40:DE:82:ARG:O	2.17	0.44
45:DN:126:PRO:O	45:DN:127:ASP:CB	2.65	0.44
46:DO:87:ILE:HG21	46:DO:91:LEU:CD1	2.45	0.44
47:DP:75:ILE:N	47:DP:75:ILE:CD1	2.80	0.44
47:DP:83:VAL:HG23	47:DP:105:LEU:HD12	2.00	0.44
49:DR:24:GLN:NE2	49:DR:36:THR:HG21	2.32	0.44
50:DS:18:ILE:O	50:DS:18:ILE:HD13	2.18	0.44
50:DS:106:ARG:HD2	50:DS:106:ARG:O	2.17	0.44
52:DU:104:GLN:CD	52:DU:104:GLN:H	2.18	0.44
53:DV:1:MET:HE2	53:DV:43:GLU:OE2	2.17	0.44
54:DW:50:VAL:CG1	54:DW:51:LEU:N	2.80	0.44
56:DY:91:GLU:HB3	56:DY:92:ASN:H	1.50	0.44
57:DZ:58:VAL:HG11	57:DZ:66:SER:HB3	1.98	0.44
57:DZ:68:PRO:O	57:DZ:90:VAL:HA	2.17	0.44
1:AA:20:U:O2'	1:AA:21:G:H5'	2.17	0.44
1:AA:293:G:H5'	1:AA:610:G:N2	2.33	0.44
1:AA:339:C:O2'	1:AA:340:U:H5'	2.18	0.44
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.51	0.44
1:AA:1117:G:H21	1:AA:1180:A:H1'	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.53	0.44
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.17	0.44
1:AA:1300:G:HO2'	1:AA:1301:U:H6	1.61	0.44
1:AA:1365:G:H2'	1:AA:1366:C:O4'	2.18	0.44
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.16	0.44
3:AC:69:HIS:CD2	3:AC:69:HIS:N	2.85	0.44
6:AF:52:ILE:O	6:AF:53:ALA:CB	2.65	0.44
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.82	0.44
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.98	0.44
9:AI:17:VAL:HG22	9:AI:63:ILE:HD13	1.99	0.44
10:AJ:13:HIS:ND1	10:AJ:14:LYS:HG3	2.33	0.44
11:AK:65:ALA:HB1	11:AK:98:LEU:CD2	2.47	0.44
13:AM:46:LYS:HG3	13:AM:47:ASP:OD1	2.17	0.44
13:AM:49:THR:N	13:AM:52:GLU:OE1	2.48	0.44
13:AM:116:THR:O	13:AM:117:VAL:HB	2.17	0.44
14:AN:23:ARG:HA	14:AN:29:ARG:O	2.16	0.44
26:B0:70:GLN:OE1	26:B0:72:ARG:HD3	2.17	0.44
27:B1:75:GLU:C	27:B1:77:ALA:H	2.21	0.44
28:B2:63:VAL:O	28:B2:66:GLU:CG	2.62	0.44
34:B8:29:LYS:HE2	34:B8:44:LYS:HB3	1.99	0.44
34:B8:64:TYR:CD1	34:B8:64:TYR:N	2.86	0.44
36:BA:125:G:H4'	36:BA:126:A:OP2	2.18	0.44
36:BA:228:A:H2'	36:BA:230:U:O4'	2.18	0.44
36:BA:271(M):G:O2'	36:BA:271(N):U:H3'	2.18	0.44
36:BA:320:A:H2'	41:BF:136:THR:HG21	1.98	0.44
36:BA:839:U:H1'	36:BA:1191:G:H1'	1.99	0.44
36:BA:1192:G:C2'	36:BA:1193:G:H5'	2.48	0.44
36:BA:2061:G:H5"	36:BA:2503:A:C2	2.52	0.44
36:BA:2126:A:O2'	36:BA:2127:G:OP2	2.36	0.44
36:BA:2223:G:H2'	36:BA:2224:G:C5'	2.48	0.44
36:BA:2262:U:H2'	36:BA:2263:C:H5'	2.00	0.44
36:BA:2682:U:H5'	36:BA:2682:U:H6	1.83	0.44
36:BA:2732:G:C3'	36:BA:2733:A:H5'	2.47	0.44
36:BA:2761:G:H2'	36:BA:2761:G:N3	2.32	0.44
36:BA:2846:G:H2'	36:BA:2847:U:C6	2.53	0.44
36:BA:2893:G:H5'	36:BA:2893:G:H8	1.83	0.44
39:BD:23:GLU:OE2	39:BD:23:GLU:HA	2.18	0.44
42:BG:39:ILE:HB	42:BG:157:ILE:HG22	2.00	0.44
42:BG:56:ALA:O	42:BG:60:LEU:HB2	2.18	0.44
42:BG:165:THR:OG1	42:BG:168:GLU:CB	2.66	0.44
43:BH:43:VAL:CG1	43:BH:52:VAL:HA	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:94:TYR:CG	43:BH:107:VAL:HG12	2.53	0.44
43:BH:97:ARG:O	43:BH:125:VAL:HG11	2.18	0.44
43:BH:128:PRO:HG2	43:BH:129:THR:HG23	1.99	0.44
47:BP:7:ARG:HB3	47:BP:8:PRO:CD	2.47	0.44
54:BW:22:ASP:HA	54:BW:25:ARG:NH1	2.28	0.44
56:BY:47:LYS:N	56:BY:47:LYS:CD	2.76	0.44
57:BZ:85:HIS:ND1	57:BZ:85:HIS:C	2.70	0.44
1:CA:82:U:H2'	1:CA:83:U:H5	1.81	0.44
1:CA:340:U:O2'	1:CA:341:C:H5'	2.17	0.44
1:CA:470:C:O2'	1:CA:471:G:H5'	2.18	0.44
1:CA:532:A:C2	1:CA:1207:G:C1'	3.01	0.44
1:CA:902:G:O2'	1:CA:903:G:H5'	2.17	0.44
1:CA:1029:C:HO2'	1:CA:1032:G:H1	1.65	0.44
1:CA:1139:G:N3	1:CA:1141:C:N4	2.64	0.44
1:CA:1412:C:OP1	12:CL:57:LYS:HE2	2.18	0.44
2:CB:39:ILE:CG2	2:CB:40:HIS:N	2.81	0.44
2:CB:95:GLN:HE21	2:CB:147:LYS:CG	2.25	0.44
2:CB:223:ILE:O	2:CB:227:GLY:N	2.51	0.44
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.99	0.44
3:CC:157:ILE:HD12	3:CC:164:ARG:NH1	2.32	0.44
4:CD:25:ARG:O	4:CD:27:TYR:N	2.50	0.44
5:CE:68:GLU:O	5:CE:68:GLU:HG3	2.17	0.44
6:CF:68:PRO:HG3	6:CF:71:ARG:HH22	1.82	0.44
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.17	0.44
7:CG:154:TYR:O	7:CG:156:TRP:N	2.50	0.44
9:CI:19:LEU:CD2	9:CI:61:ALA:HB2	2.46	0.44
10:CJ:51:ARG:NE	10:CJ:61:GLU:HB2	2.32	0.44
13:CM:91:ARG:HH11	19:CS:81:ARG:HH22	1.65	0.44
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.47	0.44
19:CS:31:ILE:HG23	19:CS:31:ILE:O	2.17	0.44
20:CT:53:LEU:HA	20:CT:56:MET:HE2	2.00	0.44
23:CW:14:A:C2	23:CW:15:G:H1'	2.52	0.44
23:CW:58:A:H2	23:CW:60:U:O2'	2.01	0.44
27:D1:70:VAL:O	27:D1:74:VAL:HG23	2.16	0.44
28:D2:13:ALA:C	28:D2:15:LYS:N	2.70	0.44
33:D7:16:HIS:HA	33:D7:21:ARG:HH12	1.82	0.44
36:DA:225:A:H2'	36:DA:226:G:C5'	2.47	0.44
36:DA:320:A:H3'	41:DF:136:THR:HG22	1.99	0.44
36:DA:587:C:C4	47:DP:33:ARG:HG2	2.52	0.44
36:DA:1337:G:H2'	36:DA:1338:G:H8	1.82	0.44
36:DA:1827:C:H2'	36:DA:1828:G:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1862:G:O2'	36:DA:1863:G:H5'	2.17	0.44
36:DA:1972:A:H2'	36:DA:1973:G:H8	1.82	0.44
36:DA:2262:U:C2'	36:DA:2263:C:C5'	2.95	0.44
36:DA:2287:A:C2	36:DA:2289:G:C8	3.05	0.44
36:DA:2481:G:H4'	36:DA:2482:G:H5'	1.99	0.44
36:DA:2820:A:H4'	49:DR:2:ARG:HH12	1.82	0.44
38:DC:95:GLY:HA3	38:DC:99:ILE:CD1	2.48	0.44
39:DD:18:VAL:CG1	39:DD:211:ARG:HH12	2.29	0.44
40:DE:37:ARG:O	40:DE:45:THR:N	2.49	0.44
41:DF:20:LEU:C	41:DF:24:LEU:HD23	2.37	0.44
42:DG:76:SER:OG	42:DG:83:ARG:HA	2.17	0.44
42:DG:93:THR:HG21	42:DG:95:ARG:NH2	2.32	0.44
42:DG:125:PHE:CG	42:DG:166:ASP:HB2	2.53	0.44
42:DG:144:ILE:HG23	42:DG:148:MET:HE1	1.98	0.44
43:DH:127:GLU:HB3	43:DH:128:PRO:HD2	2.00	0.44
44:DI:101:LEU:CB	44:DI:109:ILE:HD11	2.42	0.44
46:DO:71:ARG:NH1	51:DT:74:ARG:NH2	2.65	0.44
47:DP:85:LEU:HD12	47:DP:120:ALA:HB2	1.98	0.44
47:DP:95:VAL:CG2	47:DP:125:VAL:HB	2.47	0.44
47:DP:97:PRO:C	47:DP:99:LEU:N	2.71	0.44
48:DQ:27:VAL:O	48:DQ:29:PHE:N	2.51	0.44
49:DR:13:HIS:O	49:DR:14:SER:C	2.56	0.44
51:DT:39:ARG:O	51:DT:40:THR:C	2.55	0.44
52:DU:111:GLU:O	52:DU:112:ARG:C	2.56	0.44
57:DZ:14:LYS:O	57:DZ:17:ALA:N	2.46	0.44
57:DZ:23:LYS:C	57:DZ:41:LEU:HD21	2.37	0.44
1:AA:152:A:H3'	1:AA:153:C:C6	2.53	0.44
1:AA:470:C:O2'	1:AA:471:G:H5'	2.18	0.44
1:AA:801:U:H2'	1:AA:802:A:H8	1.81	0.44
1:AA:839:U:O2	1:AA:839:U:C2'	2.65	0.44
1:AA:971:G:C8	1:AA:1365:G:H4'	2.53	0.44
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.16	0.44
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.80	0.44
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.26	0.44
8:AH:36:LEU:HA	8:AH:39:LEU:HB2	1.98	0.44
8:AH:56:LYS:HB2	8:AH:58:TYR:HE1	1.82	0.44
8:AH:109:ILE:HG22	8:AH:137:VAL:HB	1.99	0.44
10:AJ:61:GLU:HG3	14:AN:58:LYS:HZ3	1.82	0.44
11:AK:96:ARG:HA	11:AK:99:GLN:CG	2.47	0.44
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.21	0.44
13:AM:90:LEU:HA	13:AM:93:ARG:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:23:ARG:O	14:AN:24:CYS:C	2.56	0.44
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.44
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.36	0.44
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.81	0.44
19:AS:35:SER:C	19:AS:37:ARG:N	2.70	0.44
20:AT:25:ARG:HH11	20:AT:25:ARG:HG3	1.81	0.44
22:AV:21:A:N6	22:AV:46:G:H2'	2.31	0.44
25:AY:20:U:O5'	25:AY:20:U:H6	2.01	0.44
26:B0:24:LYS:N	26:B0:37:LEU:O	2.49	0.44
35:B9:4:ARG:O	35:B9:36:GLN:HA	2.18	0.44
36:BA:271(F):C:H2'	36:BA:271(G):C:C6	2.49	0.44
36:BA:384:U:H2'	36:BA:385:C:C6	2.53	0.44
36:BA:886:C:H2'	36:BA:887:A:C4'	2.47	0.44
36:BA:1309:G:C2'	36:BA:1310:G:H5'	2.48	0.44
36:BA:1685:C:C3'	36:BA:1686:C:H5"	2.47	0.44
36:BA:2073:C:O2'	36:BA:2074:U:H5'	2.18	0.44
36:BA:2409:G:H2'	36:BA:2410:G:O4'	2.18	0.44
36:BA:2584:U:O5'	36:BA:2584:U:H6	2.00	0.44
36:BA:2626:C:O2'	36:BA:2627:G:H5'	2.18	0.44
36:BA:2801:A:H8	36:BA:2801(A):A:H62	1.66	0.44
40:BE:34:VAL:O	40:BE:35:GLN:CB	2.58	0.44
40:BE:81:ILE:O	40:BE:81:ILE:CG2	2.56	0.44
41:BF:80:ALA:O	41:BF:83:PHE:HB2	2.18	0.44
41:BF:139:PHE:HB3	41:BF:166:ALA:HB1	1.98	0.44
42:BG:137:GLU:HB3	42:BG:139:LEU:HD23	1.98	0.44
47:BP:8:PRO:O	47:BP:9:ASN:HB3	2.17	0.44
47:BP:120:ALA:HB1	47:BP:138:LEU:HD12	1.99	0.44
47:BP:136:GLU:O	47:BP:139:LYS:HB3	2.17	0.44
49:BR:34:ILE:HG22	49:BR:35:THR:N	2.31	0.44
50:BS:85:VAL:C	50:BS:106:ARG:HG3	2.38	0.44
52:BU:79:PHE:HD2	52:BU:79:PHE:C	2.20	0.44
54:BW:68:ARG:HD2	54:BW:110:LYS:HB2	1.97	0.44
1:CA:568:G:C6	1:CA:569:C:N4	2.85	0.44
1:CA:671:G:O2'	1:CA:672:U:H5'	2.17	0.44
1:CA:782:A:H4'	1:CA:1514:C:O2'	2.17	0.44
5:CE:20:GLN:O	5:CE:21:ALA:C	2.55	0.44
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.17	0.44
8:CH:41:ARG:NH2	8:CH:123:GLU:OE2	2.50	0.44
11:CK:27:ASN:HA	11:CK:55:LYS:O	2.17	0.44
11:CK:41:THR:HG21	11:CK:71:LYS:CB	2.48	0.44
13:CM:4:ILE:CD1	13:CM:22:ILE:HD11	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.85	0.44
19:CS:72:GLY:C	19:CS:74:PHE:H	2.21	0.44
21:CU:12:LYS:HB3	21:CU:22:ARG:HD2	2.00	0.44
29:D3:23:LEU:HD12	29:D3:50:VAL:HG11	1.98	0.44
33:D7:9:ARG:HD2	36:DA:1309:G:P	2.58	0.44
35:D9:19:ARG:O	35:D9:20:HIS:HB2	2.18	0.44
36:DA:9:U:O2'	36:DA:10:G:P	2.76	0.44
36:DA:144:C:O2'	36:DA:145:G:H5'	2.17	0.44
36:DA:292:C:H2'	36:DA:292:C:O2	2.17	0.44
36:DA:419:C:O2'	36:DA:420:C:H5'	2.17	0.44
36:DA:481:G:OP2	56:DY:47:LYS:HE3	2.17	0.44
36:DA:1550:C:H2'	36:DA:1551:C:H6	1.82	0.44
36:DA:1717:G:C2'	36:DA:1718:G:H5"	2.47	0.44
36:DA:2287:A:N1	36:DA:2346:A:C2	2.81	0.44
36:DA:2557:G:H2'	36:DA:2558:C:C6	2.53	0.44
36:DA:2646:C:OP2	36:DA:2732:G:O2'	2.36	0.44
36:DA:2726:U:O2'	36:DA:2727:G:H5'	2.16	0.44
36:DA:2743:C:H2'	36:DA:2744:G:O4'	2.17	0.44
37:DB:6:C:C2	37:DB:116:G:N2	2.85	0.44
37:DB:45:A:H1'	42:DG:95:ARG:CZ	2.47	0.44
37:DB:75:G:H22	57:DZ:73:GLN:HE21	1.62	0.44
40:DE:4:ILE:HG12	40:DE:28:ALA:CB	2.43	0.44
40:DE:11:MET:N	51:DT:8:LYS:HZ2	2.15	0.44
40:DE:51:PHE:HE1	40:DE:52:LEU:HD22	1.83	0.44
42:DG:46:ALA:HA	42:DG:51:ARG:HD3	1.98	0.44
44:DI:13:GLY:O	44:DI:17:GLN:OE1	2.35	0.44
44:DI:77:LEU:CD2	44:DI:104:GLN:OE1	2.64	0.44
45:DN:60:ILE:H	45:DN:60:ILE:HG13	1.61	0.44
46:DO:77:ILE:HD11	51:DT:72:VAL:HG11	2.00	0.44
48:DQ:1:MET:O	48:DQ:2:LEU:HB2	2.17	0.44
51:DT:57:PHE:O	51:DT:59:THR:N	2.50	0.44
51:DT:106:SER:CB	51:DT:110:ILE:HD11	2.47	0.44
51:DT:120:ARG:O	51:DT:124:ASP:OD1	2.36	0.44
51:DT:129:ARG:NH1	51:DT:131:ALA:O	2.51	0.44
52:DU:103:PRO:O	52:DU:106:PHE:N	2.50	0.44
57:DZ:86:VAL:HG12	57:DZ:87:ASP:O	2.17	0.44
1:AA:175:C:H4'	20:AT:25:ARG:NH1	2.33	0.44
1:AA:345:C:H5'	51:BT:36:GLU:HG3	1.99	0.44
1:AA:473:G:OP2	16:AP:75:ARG:NH1	2.50	0.44
1:AA:708:C:H2'	1:AA:709:G:C8	2.51	0.44
1:AA:930:C:O2'	1:AA:931:C:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1478:C:H2'	1:AA:1479:C:H6	1.82	0.44
2:AB:27:LYS:C	2:AB:29:ALA:H	2.20	0.44
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.47	0.44
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.99	0.44
4:AD:25:ARG:O	4:AD:27:TYR:N	2.51	0.44
7:AG:25:ALA:HA	7:AG:28:ASN:HD22	1.81	0.44
9:AI:59:PHE:N	9:AI:59:PHE:CD1	2.86	0.44
9:AI:89:ASN:C	9:AI:91:ASP:H	2.21	0.44
11:AK:31:THR:O	11:AK:31:THR:HG23	2.17	0.44
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.18	0.44
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.32	0.44
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.17	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.33	0.44
19:AS:15:LEU:N	19:AS:15:LEU:HD22	2.33	0.44
20:AT:24:LEU:HD13	20:AT:24:LEU:O	2.18	0.44
25:AY:28:G:H1	25:AY:42:C:N4	2.14	0.44
27:B1:62:VAL:HG22	27:B1:63:ALA:N	2.32	0.44
28:B2:7:ARG:CG	28:B2:7:ARG:NH1	2.77	0.44
28:B2:8:LYS:O	28:B2:11:GLU:N	2.50	0.44
33:B7:48:LYS:HD2	36:BA:125:G:N2	2.32	0.44
34:B8:7:HIS:CD2	34:B8:59:LYS:NZ	2.86	0.44
36:BA:272(B):G:O2'	36:BA:272(C):G:C5'	2.65	0.44
36:BA:1208:C:C4	36:BA:1209:G:N7	2.86	0.44
36:BA:1603:A:H5'	36:BA:1603:A:H8	1.83	0.44
36:BA:1771:C:H1'	36:BA:1786:A:C8	2.52	0.44
36:BA:2305:A:C2	42:BG:154:GLY:N	2.85	0.44
36:BA:2564:A:OP1	36:BA:2648:C:H4'	2.16	0.44
36:BA:2637:U:C2'	36:BA:2638:G:H5'	2.47	0.44
36:BA:2897:U:O2	36:BA:2897:U:C2'	2.64	0.44
39:BD:13:ARG:HA	39:BD:16:MET:HB2	1.97	0.44
40:BE:51:PHE:CD1	40:BE:52:LEU:HB2	2.53	0.44
41:BF:132:VAL:CG2	41:BF:133:ASN:N	2.66	0.44
42:BG:46:ALA:HB3	42:BG:82:LEU:HD11	1.99	0.44
47:BP:112:LEU:HD13	47:BP:112:LEU:C	2.38	0.44
49:BR:104:ARG:NH1	49:BR:109:ALA:HB3	2.33	0.44
50:BS:26:LEU:HA	50:BS:38:GLN:O	2.18	0.44
50:BS:53:SER:O	50:BS:55:ALA:N	2.50	0.44
52:BU:57:PHE:O	52:BU:59:ARG:N	2.51	0.44
54:BW:27:LYS:CE	54:BW:31:GLU:HG2	2.48	0.44
55:BX:57:LEU:HD21	55:BX:78:LYS:HE2	1.99	0.44
56:BY:42:VAL:CG1	56:BY:65:ALA:HB3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:14:LYS:C	57:BZ:16:SER:N	2.71	0.44
57:BZ:33:LEU:HG	57:BZ:34:ASN:N	2.31	0.44
57:BZ:44:PHE:CD1	57:BZ:44:PHE:C	2.90	0.44
57:BZ:151:HIS:HB3	57:BZ:170:THR:CG2	2.37	0.44
1:CA:149:A:O2'	1:CA:150:C:P	2.76	0.44
1:CA:644:G:C2'	1:CA:645:C:H5'	2.47	0.44
1:CA:662:G:H2'	1:CA:663:A:H8	1.83	0.44
1:CA:827:U:H2'	1:CA:870:U:O4	2.18	0.44
1:CA:949:A:H1'	1:CA:1364:U:N3	2.33	0.44
1:CA:962:C:H2'	1:CA:963:G:C8	2.52	0.44
1:CA:1014:A:H5"	19:CS:14:HIS:HB2	1.98	0.44
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.82	0.44
1:CA:1406:U:O2'	1:CA:1407:C:H5'	2.17	0.44
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.53	0.44
2:CB:26:PRO:O	2:CB:29:ALA:HB2	2.17	0.44
2:CB:121:LEU:HD11	2:CB:130:ARG:HD2	1.99	0.44
4:CD:110:PHE:HD1	4:CD:110:PHE:N	2.15	0.44
4:CD:127:THR:HG23	4:CD:149:ALA:HB2	2.00	0.44
8:CH:77:GLU:HG2	8:CH:78:GLN:N	2.31	0.44
9:CI:8:GLY:HA2	9:CI:79:LEU:HB3	1.99	0.44
9:CI:92:TYR:N	9:CI:92:TYR:HD1	2.14	0.44
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.21	0.44
13:CM:9:ILE:HD13	42:DG:146:TYR:CE2	2.53	0.44
13:CM:108:ARG:NH1	13:CM:108:ARG:HG3	2.32	0.44
16:CP:9:PHE:HB2	16:CP:16:HIS:O	2.17	0.44
23:CW:9:A:H1'	23:CW:45:U:O2	2.16	0.44
23:CW:50:U:O2'	23:CW:51:U:H5'	2.17	0.44
24:CX:17:U:O2'	24:CX:18:G:H5'	2.18	0.44
25:CY:72:C:OP2	25:CY:72:C:H6	2.00	0.44
26:D0:44:ARG:HH12	36:DA:2330:G:H4'	1.83	0.44
32:D6:19:ARG:CD	32:D6:19:ARG:H	2.30	0.44
32:D6:25:LYS:HZ3	34:D8:34:TRP:HZ2	1.62	0.44
33:D7:2:LYS:HG2	36:DA:1620:G:O2'	2.16	0.44
36:DA:142(A):C:O2'	36:DA:143:G:H5'	2.17	0.44
36:DA:402:A:C2'	36:DA:403:U:H5'	2.47	0.44
36:DA:811:U:OP1	47:DP:30:THR:HG22	2.17	0.44
36:DA:1140:C:C5'	45:DN:66:LYS:HZ3	2.20	0.44
36:DA:2128:C:OP1	38:DC:35:ALA:HB1	2.18	0.44
36:DA:2770:G:H5'	36:DA:2771:C:OP2	2.17	0.44
40:DE:24:THR:HG23	40:DE:24:THR:O	2.18	0.44
42:DG:52:ILE:O	42:DG:54:GLU:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:98:ARG:NH1	42:DG:98:ARG:CG	2.74	0.44
42:DG:106:LEU:CD1	42:DG:111:LEU:HD12	2.47	0.44
42:DG:131:TYR:C	42:DG:131:TYR:CD2	2.90	0.44
47:DP:23:PRO:HD2	47:DP:33:ARG:HE	1.83	0.44
48:DQ:103:MET:HE1	48:DQ:125:LEU:HD13	1.99	0.44
50:DS:29:PHE:CD2	50:DS:29:PHE:C	2.90	0.44
52:DU:62:ILE:HD12	52:DU:76:TYR:OH	2.17	0.44
54:DW:58:ALA:O	54:DW:62:HIS:HB2	2.17	0.44
56:DY:26:LYS:CG	56:DY:27:VAL:N	2.73	0.44
56:DY:50:ARG:HG3	56:DY:58:GLY:HA2	1.99	0.44
57:DZ:13:GLU:HB3	57:DZ:14:LYS:HZ1	1.82	0.44
1:AA:21:G:H2'	1:AA:22:G:C8	2.52	0.44
1:AA:664:G:H22	1:AA:741:G:H1	1.64	0.44
1:AA:855:G:C6	1:AA:856:C:C4	3.05	0.44
1:AA:911:U:OP1	12:AL:95:GLY:HA2	2.17	0.44
1:AA:1191:A:H5"	3:AC:4:LYS:HZ3	1.83	0.44
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.17	0.44
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.17	0.44
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.50	0.44
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.83	0.44
1:AA:1442:G:C4	1:AA:1442(B):A:N1	2.86	0.44
1:AA:1473:A:O2'	1:AA:1474:G:H5'	2.17	0.44
2:AB:25:ASN:OD1	2:AB:27:LYS:HB2	2.18	0.44
2:AB:40:HIS:HB2	2:AB:190:THR:HG21	1.99	0.44
2:AB:114:ARG:HG3	2:AB:114:ARG:NH1	2.30	0.44
4:AD:150:GLU:O	4:AD:153:ARG:HG3	2.18	0.44
5:AE:105:VAL:N	5:AE:106:PRO:HD2	2.32	0.44
10:AJ:51:ARG:NE	10:AJ:61:GLU:HB2	2.33	0.44
11:AK:19:ALA:HB3	11:AK:82:VAL:HG23	1.99	0.44
14:AN:27:CYS:O	14:AN:29:ARG:N	2.51	0.44
18:AR:26:LEU:HD21	18:AR:42:ARG:CZ	2.47	0.44
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.99	0.44
23:AW:39:U:H2'	23:AW:40:C:O4'	2.17	0.44
25:AY:74:C:H2'	25:AY:75:C:C5'	2.48	0.44
27:B1:44:PRO:O	27:B1:46:LEU:N	2.50	0.44
36:BA:919:G:H5'	37:BB:81:G:H1'	1.99	0.44
36:BA:1221(A):C:O2'	36:BA:1222:C:H5'	2.18	0.44
36:BA:1301:A:O2'	36:BA:1302:A:P	2.75	0.44
36:BA:1507:A:H2'	36:BA:1508:A:H8	1.82	0.44
36:BA:2687:U:H2'	36:BA:2688:U:O4'	2.17	0.44
36:BA:2801(A):A:C2	36:BA:2803:C:O2	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:6:C:C2	37:BB:116:G:N2	2.85	0.44
38:BC:214:VAL:O	38:BC:216:THR:N	2.51	0.44
39:BD:166:GLN:HE21	39:BD:166:GLN:N	2.15	0.44
40:BE:70:ALA:O	40:BE:71:GLY:O	2.35	0.44
40:BE:111:ARG:CD	40:BE:160:TYR:HE1	2.31	0.44
41:BF:22:ALA:CA	41:BF:26:ALA:HB2	2.47	0.44
41:BF:138:GLU:O	41:BF:139:PHE:C	2.55	0.44
43:BH:27:LYS:HE3	43:BH:32:GLU:HB2	2.00	0.44
43:BH:91:GLY:O	43:BH:92:ILE:O	2.35	0.44
43:BH:121:ILE:HD13	43:BH:141:VAL:HG22	1.99	0.44
43:BH:141:VAL:C	43:BH:143:GLN:N	2.70	0.44
44:BI:13:GLY:O	44:BI:17:GLN:OE1	2.36	0.44
44:BI:81:VAL:CG2	44:BI:142:VAL:HG13	2.41	0.44
47:BP:111:ARG:NH1	47:BP:149:GLU:HG3	2.32	0.44
49:BR:33:ARG:N	49:BR:33:ARG:HD2	2.33	0.44
51:BT:35:LYS:C	51:BT:37:GLY:N	2.70	0.44
52:BU:31:SER:CB	52:BU:34:LYS:HB2	2.44	0.44
52:BU:92:ARG:C	52:BU:94:ASN:N	2.70	0.44
57:BZ:28:MET:HA	57:BZ:88:PHE:O	2.18	0.44
1:CA:708:C:H2'	1:CA:709:G:C8	2.50	0.44
1:CA:760:G:H2'	1:CA:761:G:H5'	2.00	0.44
1:CA:1151:A:H5"	10:CJ:42:THR:OG1	2.18	0.44
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.52	0.44
3:CC:148:GLY:N	3:CC:203:PHE:HB3	2.33	0.44
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.83	0.44
7:CG:95:ARG:HH11	7:CG:95:ARG:HG3	1.82	0.44
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.46	0.44
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.18	0.44
23:CW:14:A:H5"	23:CW:15:G:C8	2.52	0.44
23:CW:55:U:O2	23:CW:55:U:O5'	2.35	0.44
25:CY:53:G:H5"	48:DQ:55:VAL:HG21	2.00	0.44
26:D0:10:THR:HG22	26:D0:12:ASN:HB2	2.00	0.44
27:D1:23:LYS:HE2	27:D1:28:GLY:N	2.13	0.44
36:DA:607:U:H5	36:DA:619:G:C5	2.34	0.44
36:DA:886:C:C2	36:DA:889:C:N4	2.85	0.44
36:DA:919:G:H5'	37:DB:81:G:O4'	2.18	0.44
36:DA:950:G:H2'	36:DA:951:C:H6	1.83	0.44
36:DA:1048:A:P	36:DA:1048:A:N3	2.90	0.44
36:DA:1187:G:H8	36:DA:1187:G:O5'	2.01	0.44
36:DA:1233:C:O2'	36:DA:1234:U:H5'	2.18	0.44
36:DA:1693:U:O2'	39:DD:14:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1935:G:H1'	36:DA:1964:G:N2	2.33	0.44
36:DA:1958:C:O2'	36:DA:1959:G:H5'	2.18	0.44
36:DA:2029:G:H2'	36:DA:2031:A:OP1	2.17	0.44
36:DA:2556:C:H2'	36:DA:2557:G:O4'	2.18	0.44
37:DB:75:G:H1	37:DB:103:G:N2	2.16	0.44
38:DC:47:LEU:HB2	38:DC:207:THR:CB	2.46	0.44
40:DE:110:GLY:CA	40:DE:162:ALA:H	2.29	0.44
41:DF:7:TYR:CE2	41:DF:10:PRO:HG3	2.53	0.44
41:DF:52:LYS:O	41:DF:88:VAL:HG12	2.18	0.44
41:DF:139:PHE:HB2	41:DF:166:ALA:HB1	2.00	0.44
44:DI:5:LEU:C	44:DI:6:LEU:HD23	2.38	0.44
46:DO:98:VAL:HG11	46:DO:117:LEU:HB3	1.99	0.44
48:DQ:51:ARG:HH11	48:DQ:51:ARG:CB	2.31	0.44
51:DT:13:ARG:HH12	51:DT:15:VAL:HG11	1.82	0.44
51:DT:107:ASP:C	51:DT:109:GLU:N	2.69	0.44
54:DW:22:ASP:HA	54:DW:25:ARG:NH1	2.29	0.44
57:DZ:96:VAL:HG22	57:DZ:97:GLU:H	1.81	0.44
57:DZ:125:LEU:HD12	57:DZ:126:VAL:H	1.81	0.44
1:AA:80:G:N7	1:AA:81:U:H5	2.15	0.44
1:AA:203:U:H6	1:AA:203:U:OP2	2.00	0.44
1:AA:321:A:C2	1:AA:333:G:C2	3.06	0.44
1:AA:1004:A:N6	1:AA:1035:A:N7	2.66	0.44
1:AA:1060:C:H4'	10:AJ:52:GLY:N	2.32	0.44
1:AA:1080:A:C5'	5:AE:16:THR:HG21	2.47	0.44
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.53	0.44
1:AA:1293:G:O2'	1:AA:1294:G:P	2.76	0.44
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.51	0.44
1:AA:1418:A:H2	36:BA:1948:G:N3	2.14	0.44
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.35	0.44
2:AB:119:GLU:O	2:AB:122:PHE:HB3	2.16	0.44
2:AB:121:LEU:HD11	2:AB:130:ARG:HD2	1.99	0.44
2:AB:167:PRO:O	2:AB:168:THR:C	2.56	0.44
5:AE:20:GLN:O	5:AE:21:ALA:C	2.56	0.44
6:AF:79:LEU:O	6:AF:85:VAL:HG21	2.18	0.44
13:AM:17:VAL:O	13:AM:20:THR:HB	2.17	0.44
13:AM:79:LYS:O	13:AM:82:MET:N	2.50	0.44
17:AQ:65:ILE:HD11	17:AQ:72:ARG:HG2	1.99	0.44
25:AY:39:U:H2'	25:AY:40:C:C6	2.52	0.44
29:B3:23:LEU:HD12	29:B3:50:VAL:HG11	1.99	0.44
32:B6:30:THR:HB	32:B6:31:PRO:CD	2.46	0.44
36:BA:83:G:C2	36:BA:102:G:H2'	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:237:C:O2'	36:BA:238:C:H5'	2.18	0.44
36:BA:315:G:H2'	36:BA:316:C:C6	2.52	0.44
36:BA:320:A:H3'	41:BF:136:THR:HG22	1.99	0.44
36:BA:579:G:H2'	36:BA:580:C:C6	2.53	0.44
36:BA:878:A:N6	36:BA:899:A:O2'	2.51	0.44
36:BA:971:C:O2'	36:BA:972:G:H5'	2.18	0.44
36:BA:1037:G:H1	36:BA:1118:C:H42	1.64	0.44
36:BA:1550:C:H2'	36:BA:1551:C:H6	1.82	0.44
36:BA:2169:A:O2'	36:BA:2170:A:H5'	2.18	0.44
36:BA:2283:C:C2'	36:BA:2284:C:H5'	2.47	0.44
36:BA:2373:G:H2'	36:BA:2374:C:C6	2.52	0.44
36:BA:2425:A:H5"	36:BA:2427:C:O4'	2.18	0.44
36:BA:2441:C:H4'	36:BA:2441:C:OP1	2.18	0.44
36:BA:2870:C:H2'	36:BA:2871:C:C5'	2.48	0.44
37:BB:73:A:C2'	37:BB:74:U:H5'	2.47	0.44
42:BG:76:SER:HB3	42:BG:84:LYS:H	1.76	0.44
42:BG:161:THR:CG2	42:BG:162:THR:N	2.79	0.44
43:BH:41:MET:CA	43:BH:53:GLU:HB2	2.48	0.44
44:BI:114:LEU:O	44:BI:115:ALA:CB	2.65	0.44
49:BR:76:VAL:O	49:BR:79:LEU:HB3	2.18	0.44
51:BT:129:ARG:NH1	51:BT:131:ALA:O	2.50	0.44
51:BT:130:ALA:O	51:BT:131:ALA:C	2.55	0.44
52:BU:111:GLU:OE2	52:BU:111:GLU:HA	2.18	0.44
54:BW:17:VAL:O	54:BW:20:VAL:N	2.49	0.44
57:BZ:77:ASP:OD2	57:BZ:79:ARG:O	2.36	0.44
57:BZ:96:VAL:HG12	57:BZ:97:GLU:N	2.32	0.44
1:CA:381:C:H2'	1:CA:382:A:C8	2.53	0.44
1:CA:522:C:H2'	1:CA:523:A:O4'	2.18	0.44
1:CA:540:G:H2'	1:CA:541:G:O4'	2.18	0.44
1:CA:721:G:H4'	1:CA:722:A:O4'	2.18	0.44
1:CA:818:G:O2'	1:CA:819:A:H5"	2.17	0.44
1:CA:851:G:H2'	1:CA:852:G:H8	1.82	0.44
1:CA:1004:A:N6	1:CA:1035:A:N7	2.66	0.44
1:CA:1155:G:C2'	1:CA:1156:G:H5'	2.47	0.44
1:CA:1511:G:H8	1:CA:1511:G:O5'	2.01	0.44
2:CB:167:PRO:O	2:CB:171:ALA:N	2.50	0.44
6:CF:7:ASN:N	6:CF:7:ASN:HD22	2.15	0.44
6:CF:42:GLU:C	6:CF:44:GLY:N	2.70	0.44
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.48	0.44
9:CI:33:PHE:CZ	9:CI:47:LEU:HD13	2.53	0.44
12:CL:42:THR:HG23	12:CL:42:THR:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:74:ASP:C	15:CO:76:GLU:N	2.70	0.44
20:CT:93:GLU:OE1	20:CT:94:ALA:N	2.50	0.44
25:CY:26:A:H2'	25:CY:27:G:C5'	2.47	0.44
26:D0:43:THR:CG2	36:DA:2336:A:H61	2.30	0.44
29:D3:1:MET:CE	29:D3:44:ARG:HH22	2.29	0.44
36:DA:1216:G:OP2	52:DU:12:ARG:NH2	2.49	0.44
36:DA:1507:A:H2'	36:DA:1508:A:H8	1.83	0.44
36:DA:1925:C:C2'	36:DA:1926:U:H5'	2.47	0.44
36:DA:1993:U:H4'	40:DE:128:SER:OG	2.16	0.44
36:DA:2164:C:H3'	36:DA:2165:G:C8	2.53	0.44
36:DA:2316:C:C1'	42:DG:128:ARG:HG3	2.29	0.44
36:DA:2414:G:H21	47:DP:67:MET:HE1	1.82	0.44
36:DA:2441:C:OP1	36:DA:2441:C:H4'	2.18	0.44
36:DA:2801(A):A:C2	36:DA:2803:C:O2	2.70	0.44
38:DC:39:GLU:HG2	38:DC:180:PHE:CB	2.47	0.44
38:DC:41:VAL:CA	38:DC:213:TYR:HA	2.42	0.44
39:DD:33:LEU:H	39:DD:33:LEU:CD1	2.16	0.44
39:DD:108:PRO:HB3	39:DD:143:HIS:HE1	1.74	0.44
39:DD:176:ARG:HH11	39:DD:176:ARG:CG	2.25	0.44
42:DG:78:SER:O	42:DG:80:PHE:N	2.51	0.44
42:DG:166:ASP:O	42:DG:170:ARG:HB2	2.18	0.44
43:DH:132:ARG:HH11	43:DH:132:ARG:HG2	1.82	0.44
45:DN:59:LYS:O	45:DN:60:ILE:C	2.56	0.44
46:DO:25:LEU:O	46:DO:26:LYS:HG3	2.18	0.44
47:DP:23:PRO:O	47:DP:33:ARG:NH1	2.50	0.44
47:DP:47:ASP:HB2	47:DP:51:PHE:HB2	2.00	0.44
47:DP:111:ARG:NH1	47:DP:149:GLU:HG3	2.32	0.44
48:DQ:35:VAL:HG23	48:DQ:100:GLY:O	2.18	0.44
50:DS:17:ARG:NH2	50:DS:90:GLY:H	2.15	0.44
53:DV:38:LEU:HD23	53:DV:39:LEU:N	2.33	0.44
56:DY:37:VAL:O	56:DY:38:ILE:HG12	2.18	0.44
56:DY:68:HIS:HB3	56:DY:71:LYS:HG3	1.98	0.44
57:DZ:119:GLU:O	57:DZ:119:GLU:HG3	2.18	0.44
1:AA:1117:G:H8	1:AA:1117:G:H5'	1.82	0.44
1:AA:1178:G:OP2	9:AI:97:LYS:CD	2.65	0.44
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.82	0.44
2:AB:44:LEU:H	2:AB:44:LEU:CD1	2.24	0.44
2:AB:112:VAL:CG1	2:AB:153:ARG:HA	2.47	0.44
2:AB:236:TYR:N	2:AB:236:TYR:CD1	2.85	0.44
3:AC:73:PRO:HA	3:AC:76:VAL:HG22	2.00	0.44
4:AD:68:TYR:O	4:AD:69:GLY:C	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.32	0.44
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.47	0.44
9:AI:88:TYR:O	9:AI:89:ASN:HB2	2.17	0.44
9:AI:92:TYR:H	9:AI:92:TYR:HD1	1.65	0.44
13:AM:14:ARG:HB2	13:AM:16:ASP:OD2	2.18	0.44
16:AP:82:GLN:O	16:AP:83:GLU:HB2	2.18	0.44
17:AQ:68:ARG:HH11	17:AQ:68:ARG:HG2	1.83	0.44
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.32	0.44
25:AY:27:G:N3	25:AY:43:C:N4	2.66	0.44
27:B1:68:PRO:HG2	27:B1:69:LYS:N	2.31	0.44
29:B3:30:ARG:NH2	36:BA:1159:U:OP2	2.50	0.44
34:B8:7:HIS:CD2	47:BP:50:ARG:HD3	2.53	0.44
36:BA:94:C:H5'	36:BA:94(A):G:OP2	2.17	0.44
36:BA:248:G:C2	36:BA:2431:U:H4'	2.53	0.44
36:BA:384:U:H2'	36:BA:385:C:H6	1.83	0.44
36:BA:569:U:C4	36:BA:570:G:C6	3.05	0.44
36:BA:570:G:H2'	36:BA:2030:A:C5	2.53	0.44
36:BA:971:C:C2'	36:BA:972:G:H5'	2.47	0.44
36:BA:1022:G:N2	36:BA:1142(A):A:C2	2.84	0.44
36:BA:1155:A:OP1	52:BU:55:ARG:HD2	2.18	0.44
36:BA:1275:A:C8	49:BR:16:HIS:CD2	3.05	0.44
36:BA:1352:U:O2	36:BA:1570:A:H2	2.00	0.44
36:BA:1378:A:O2'	36:BA:1379:A:C5'	2.61	0.44
36:BA:1451:C:N3	36:BA:1459:G:O6	2.50	0.44
36:BA:1710:C:O2'	36:BA:1711:C:H5'	2.18	0.44
36:BA:2291:U:H5"	36:BA:2380:C:O2'	2.18	0.44
36:BA:2393:A:H4'	47:BP:60:MET:O	2.17	0.44
36:BA:2479:G:OP1	36:BA:2537:U:H1'	2.18	0.44
36:BA:2692:C:H1'	36:BA:2847:U:O2'	2.18	0.44
38:BC:41:VAL:CA	38:BC:213:TYR:HA	2.42	0.44
40:BE:108:SER:HB3	40:BE:165:VAL:HG21	1.99	0.44
40:BE:119:ARG:HG2	40:BE:160:TYR:CD2	2.53	0.44
41:BF:17:ARG:HG3	41:BF:17:ARG:NH1	2.31	0.44
41:BF:72:ARG:HA	41:BF:72:ARG:HH11	1.82	0.44
41:BF:192:LEU:HD21	41:BF:194:MET:HE3	1.99	0.44
42:BG:18:GLU:OE2	42:BG:21:ARG:NH1	2.51	0.44
42:BG:152:LEU:HG	42:BG:153:ARG:N	2.33	0.44
43:BH:73:ALA:O	43:BH:76:VAL:HB	2.18	0.44
47:BP:81:GLN:HE21	47:BP:81:GLN:HB2	1.54	0.44
47:BP:120:ALA:CB	47:BP:138:LEU:HA	2.48	0.44
49:BR:28:LEU:CA	49:BR:34:ILE:HG13	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:36:TYR:H	50:BS:36:TYR:HD1	1.65	0.44
51:BT:121:ILE:HD13	51:BT:121:ILE:HA	1.90	0.44
57:BZ:114:GLY:O	57:BZ:146:ILE:HD13	2.18	0.44
1:CA:189(K):U:H2'	1:CA:189(L):G:H8	1.83	0.44
1:CA:376:G:H5"	16:CP:5:ARG:HB2	1.98	0.44
1:CA:484:G:O2'	1:CA:485:G:OP2	2.30	0.44
1:CA:519:C:O2'	1:CA:520:A:H5'	2.18	0.44
1:CA:537:G:H2'	1:CA:538:G:C8	2.53	0.44
1:CA:625:G:C4	1:CA:626:U:C5	3.06	0.44
1:CA:778:G:H2'	1:CA:779:C:O4'	2.18	0.44
1:CA:801:U:H2'	1:CA:802:A:H8	1.81	0.44
1:CA:925:G:H4'	1:CA:1502:A:C2	2.53	0.44
1:CA:1040:U:H2'	1:CA:1041:A:H8	1.79	0.44
1:CA:1270:C:OP2	21:CU:24:ARG:NH2	2.50	0.44
1:CA:1346:A:C8	7:CG:10:ARG:NH2	2.86	0.44
1:CA:1406:U:C2'	1:CA:1407:C:H5'	2.48	0.44
2:CB:134:GLU:CA	2:CB:137:ARG:HB3	2.47	0.44
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.53	0.44
7:CG:44:TYR:C	7:CG:46:ALA:N	2.70	0.44
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.32	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
11:CK:107:SER:OG	11:CK:108:ILE:N	2.51	0.44
13:CM:100:GLY:O	13:CM:101:GLN:HG3	2.17	0.44
15:CO:24:SER:OG	15:CO:25:THR:N	2.51	0.44
15:CO:54:ARG:HG3	15:CO:58:MET:HE2	2.00	0.44
23:CW:76:A:O2'	36:DA:2394:C:N3	2.45	0.44
27:D1:64:ALA:C	27:D1:66:HIS:N	2.71	0.44
27:D1:91:LYS:O	27:D1:94:LEU:N	2.45	0.44
34:D8:64:TYR:CD1	34:D8:64:TYR:N	2.85	0.44
36:DA:30:G:H2'	36:DA:31:C:C6	2.53	0.44
36:DA:286:C:C2'	36:DA:287:C:C5'	2.84	0.44
36:DA:637:A:H4'	36:DA:638:G:O5'	2.18	0.44
36:DA:818:G:H5'	36:DA:839:U:OP1	2.18	0.44
36:DA:886:C:H2'	36:DA:887:A:C4'	2.48	0.44
36:DA:995:C:OP2	52:DU:54:LYS:NZ	2.41	0.44
36:DA:1275:A:H3'	36:DA:1645:G:O2'	2.18	0.44
36:DA:1508:A:H2'	36:DA:1508:A:N3	2.33	0.44
36:DA:2283:C:H2'	36:DA:2284:C:H5'	1.99	0.44
36:DA:2408:U:O5'	36:DA:2408:U:H6	2.01	0.44
36:DA:2702:U:O2	36:DA:2703:C:N4	2.51	0.44
36:DA:2784:C:H1'	40:DE:37:ARG:NH1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DD:158:ALA:O	39:DD:159:ALA:C	2.57	0.44
39:DD:267:SER:C	39:DD:269:PHE:N	2.71	0.44
40:DE:26:ILE:HG22	40:DE:27:LEU:N	2.33	0.44
42:DG:102:PHE:HD2	42:DG:105:LYS:HG3	1.83	0.44
45:DN:17:ASP:C	45:DN:19:GLU:N	2.71	0.44
45:DN:62:VAL:HG22	45:DN:66:LYS:HD2	1.99	0.44
47:DP:16:ARG:NH1	47:DP:16:ARG:CB	2.76	0.44
47:DP:101:VAL:HG23	47:DP:102:ARG:N	2.33	0.44
47:DP:120:ALA:CB	47:DP:138:LEU:HA	2.48	0.44
49:DR:118:GLU:HA	49:DR:118:GLU:OE1	2.17	0.44
50:DS:98:VAL:HG22	50:DS:100:ALA:H	1.82	0.44
51:DT:85:LYS:NZ	51:DT:85:LYS:CB	2.79	0.44
52:DU:97:ASP:O	52:DU:100:VAL:HB	2.17	0.44
53:DV:39:LEU:HD13	53:DV:39:LEU:N	2.33	0.44
56:DY:40:GLU:OE2	56:DY:40:GLU:HA	2.17	0.44
56:DY:96:ILE:HG13	56:DY:100:ALA:H	1.83	0.44
1:AA:18:C:H4'	1:AA:1078:U:O2	2.18	0.44
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.82	0.44
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.52	0.44
1:AA:1300:G:O2'	1:AA:1301:U:P	2.76	0.44
1:AA:1376:U:O2'	1:AA:1377:A:H5'	2.18	0.44
2:AB:80:ILE:CD1	2:AB:212:GLN:HA	2.47	0.44
3:AC:120:VAL:O	3:AC:121:ALA:C	2.55	0.44
6:AF:27:GLN:HA	6:AF:27:GLN:NE2	2.32	0.44
7:AG:148:ASN:N	7:AG:148:ASN:ND2	2.57	0.44
10:AJ:81:THR:O	10:AJ:83:GLU:N	2.51	0.44
12:AL:53:ARG:HH12	12:AL:92:ASP:CB	2.24	0.44
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.18	0.44
20:AT:50:GLU:N	20:AT:100:ILE:HG12	2.33	0.44
23:AW:63:G:O2'	23:AW:64:A:H5'	2.18	0.44
26:B0:43:THR:HG23	26:B0:43:THR:O	2.18	0.44
35:B9:19:ARG:O	35:B9:20:HIS:HB2	2.16	0.44
36:BA:106:C:H2'	36:BA:107:C:C6	2.52	0.44
36:BA:188:G:C2'	36:BA:189:G:H5'	2.48	0.44
36:BA:207:A:H2'	36:BA:208:C:O4'	2.17	0.44
36:BA:225:A:H2'	36:BA:226:G:C5'	2.47	0.44
36:BA:271(P):C:C5'	44:BI:46:ALA:HB2	2.45	0.44
36:BA:319:C:OP2	41:BF:137:LYS:NZ	2.51	0.44
36:BA:587:C:C4	47:BP:33:ARG:HG2	2.53	0.44
36:BA:747:U:H3'	36:BA:2612:C:H41	1.83	0.44
36:BA:859:G:H5'	36:BA:2268:A:O2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:957:A:N1	36:BA:2458:G:H4'	2.33	0.44
36:BA:978:G:H2'	36:BA:979:G:O4'	2.17	0.44
36:BA:995:C:C2	52:BU:57:PHE:CE1	3.05	0.44
36:BA:1337:G:H2'	36:BA:1338:G:H8	1.82	0.44
36:BA:1444:G:H2'	36:BA:1445(A):C:C5	2.52	0.44
36:BA:2199:A:H5'	36:BA:2200:C:OP2	2.18	0.44
37:BB:81:G:O6	37:BB:97:G:C6	2.71	0.44
42:BG:14:GLU:O	42:BG:17:PRO:HG2	2.18	0.44
42:BG:35:GLU:HB2	42:BG:160:VAL:HG12	1.99	0.44
43:BH:91:GLY:CA	43:BH:160:LYS:HA	2.48	0.44
44:BI:109:ILE:HD12	44:BI:109:ILE:N	2.33	0.44
47:BP:66:GLY:O	47:BP:67:MET:CB	2.65	0.44
50:BS:17:ARG:H	50:BS:17:ARG:HG2	1.65	0.44
51:BT:12:SER:O	51:BT:13:ARG:CZ	2.66	0.44
53:BV:16:PRO:O	53:BV:96:ILE:O	2.34	0.44
56:BY:14:LEU:HD12	56:BY:15:VAL:N	2.31	0.44
57:BZ:4:ARG:CD	57:BZ:58:VAL:HB	2.48	0.44
1:CA:9:G:H2'	1:CA:10:A:H8	1.83	0.44
1:CA:113:G:H2'	1:CA:114:U:C6	2.53	0.44
1:CA:839:U:O2	1:CA:839:U:C2'	2.66	0.44
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	2.00	0.44
2:CB:77:ALA:CB	2:CB:211:ILE:CD1	2.96	0.44
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.18	0.44
3:CC:120:VAL:O	3:CC:121:ALA:C	2.54	0.44
3:CC:142:MET:C	3:CC:144:SER:H	2.21	0.44
6:CF:63:TYR:O	6:CF:65:VAL:HG13	2.17	0.44
7:CG:41:ARG:O	7:CG:45:ASP:N	2.38	0.44
7:CG:59:LEU:HD23	7:CG:59:LEU:C	2.39	0.44
7:CG:79:ARG:HG3	7:CG:79:ARG:NH1	2.28	0.44
7:CG:148:ASN:N	7:CG:148:ASN:ND2	2.60	0.44
9:CI:35:GLU:O	9:CI:38:GLN:HB2	2.17	0.44
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.18	0.44
18:CR:63:GLN:HA	18:CR:63:GLN:OE1	2.17	0.44
22:CV:18:G:O6	22:CV:55:U:H1'	2.17	0.44
23:CW:58:A:O3'	23:CW:60:U:H5	2.00	0.44
28:D2:20:GLU:O	28:D2:23:LYS:N	2.45	0.44
33:D7:10:ARG:NH2	36:DA:1378:A:OP1	2.51	0.44
36:DA:246:C:C2'	36:DA:247:G:H5'	2.47	0.44
36:DA:492:A:C2	36:DA:493:G:H1'	2.53	0.44
36:DA:498:G:O2'	36:DA:499:U:H5'	2.18	0.44
36:DA:542:C:C2'	36:DA:543:C:OP1	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:855:G:C6	36:DA:856:C:N4	2.86	0.44
36:DA:878:A:N6	36:DA:899:A:O2'	2.51	0.44
36:DA:1289:C:H2'	36:DA:1290:C:C6	2.53	0.44
36:DA:1469:A:O2'	36:DA:1470:G:H5'	2.18	0.44
36:DA:1966:A:N3	36:DA:2592:G:O2'	2.47	0.44
36:DA:2169:A:O2'	36:DA:2170:A:H5'	2.18	0.44
39:DD:221:VAL:HG22	39:DD:226:MET:HE3	1.99	0.44
39:DD:266:SER:O	39:DD:267:SER:O	2.36	0.44
40:DE:101:ARG:HH21	40:DE:171:GLU:N	2.16	0.44
41:DF:132:VAL:HG13	41:DF:133:ASN:H	1.82	0.44
42:DG:82:LEU:HD12	42:DG:83:ARG:H	1.83	0.44
42:DG:130:ASN:OD1	42:DG:160:VAL:HG13	2.18	0.44
44:DI:93:THR:O	44:DI:96:ASP:HB2	2.18	0.44
47:DP:112:LEU:H	47:DP:128:HIS:CD2	2.36	0.44
47:DP:123:LEU:C	47:DP:123:LEU:HD12	2.38	0.44
49:DR:42:LYS:O	49:DR:45:ARG:HG2	2.17	0.44
54:DW:69:LEU:HD23	54:DW:108:GLY:O	2.18	0.44
1:AA:437:U:H5"	4:AD:155:LEU:HD13	1.99	0.43
1:AA:957:U:H2'	1:AA:959:A:OP2	2.17	0.43
1:AA:1509:C:H2'	1:AA:1510:U:O4'	2.18	0.43
2:AB:7:VAL:O	2:AB:7:VAL:HG12	2.18	0.43
2:AB:69:LEU:HB2	2:AB:159:PRO:CG	2.48	0.43
9:AI:53:VAL:C	9:AI:54:ASP:N	2.71	0.43
9:AI:92:TYR:N	9:AI:92:TYR:HD1	2.15	0.43
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.48	0.43
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.32	0.43
23:AW:32:U:C2'	23:AW:33:U:H5'	2.48	0.43
23:AW:59:U:O2'	23:AW:60:U:H5'	2.18	0.43
23:AW:74:C:C4	23:AW:75:C:N3	2.85	0.43
32:B6:19:ARG:CD	32:B6:19:ARG:H	2.30	0.43
36:BA:558:G:OP2	45:BN:111:PRO:HD2	2.18	0.43
36:BA:674:G:H1'	41:BF:74:ARG:HD2	2.00	0.43
36:BA:691:C:O2'	36:BA:692:C:H5'	2.18	0.43
36:BA:2751:G:H2'	36:BA:2751:G:N3	2.32	0.43
36:BA:2773:C:OP1	40:BE:166:THR:OG1	2.34	0.43
37:BB:41:U:C5	42:BG:69:ALA:HB1	2.53	0.43
39:BD:211:ARG:HA	39:BD:214:TRP:CG	2.53	0.43
39:BD:270:ILE:O	39:BD:270:ILE:HD12	2.18	0.43
41:BF:19:GLU:O	41:BF:20:LEU:HB2	2.18	0.43
41:BF:36:VAL:HG12	41:BF:183:VAL:HG21	1.99	0.43
41:BF:46:ARG:NH1	41:BF:46:ARG:CG	2.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BF:131:GLY:O	41:BF:132:VAL:O	2.37	0.43
41:BF:144:LYS:C	41:BF:146:ALA:H	2.21	0.43
44:BI:101:LEU:HB3	44:BI:109:ILE:CD1	2.43	0.43
45:BN:133:GLN:O	45:BN:134:ARG:HG3	2.18	0.43
49:BR:118:GLU:HA	49:BR:118:GLU:OE1	2.18	0.43
51:BT:39:ARG:O	51:BT:40:THR:C	2.56	0.43
52:BU:72:HIS:HE1	52:BU:107:ALA:CB	2.30	0.43
1:CA:589:C:O2'	1:CA:590:C:H5'	2.18	0.43
1:CA:624:C:H2'	1:CA:625:G:C8	2.51	0.43
1:CA:840:C:H4'	1:CA:848:C:C2	2.53	0.43
1:CA:928:G:C2	1:CA:1390:U:O2	2.72	0.43
1:CA:1184:G:H2'	1:CA:1185:G:H8	1.82	0.43
1:CA:1352:C:P	21:CU:3:LYS:HZ1	2.41	0.43
2:CB:96:ARG:O	2:CB:97:TRP:C	2.56	0.43
2:CB:235:SER:OG	2:CB:236:TYR:CD1	2.66	0.43
6:CF:7:ASN:O	6:CF:8:ILE:HG13	2.18	0.43
6:CF:22:GLU:OE2	6:CF:22:GLU:HA	2.17	0.43
6:CF:39:LYS:CG	6:CF:40:VAL:H	2.29	0.43
6:CF:69:GLU:CD	6:CF:69:GLU:H	2.21	0.43
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.53	0.43
9:CI:43:ALA:C	9:CI:45:ALA:H	2.22	0.43
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.33	0.43
17:CQ:29:HIS:CE1	17:CQ:31:LEU:H	2.33	0.43
17:CQ:65:ILE:HD11	17:CQ:72:ARG:HG2	2.00	0.43
19:CS:15:LEU:N	19:CS:15:LEU:HD22	2.33	0.43
19:CS:44:MET:HA	19:CS:47:HIS:HD2	1.82	0.43
20:CT:72:LEU:HD21	20:CT:77:ALA:HA	2.00	0.43
22:CV:18:G:H1'	22:CV:58:A:C2	2.53	0.43
29:D3:35:ARG:HG3	29:D3:35:ARG:NH1	2.32	0.43
32:D6:10:LEU:HD22	32:D6:10:LEU:N	2.30	0.43
36:DA:104:U:C6	36:DA:105:C:C6	3.06	0.43
36:DA:703:U:C2'	36:DA:704:G:H5'	2.48	0.43
36:DA:1109:C:C5	36:DA:1110:G:C5	3.06	0.43
36:DA:1232:G:H2'	36:DA:1233:C:C6	2.53	0.43
36:DA:1270:C:H5"	36:DA:1271:G:H5'	2.00	0.43
36:DA:1309:G:C2'	36:DA:1310:G:H5'	2.48	0.43
36:DA:1407:C:H42	36:DA:1595:G:H1	1.65	0.43
36:DA:1485:G:H1'	36:DA:1505:C:N4	2.33	0.43
36:DA:1961:C:C2'	36:DA:1962:C:H5'	2.47	0.43
36:DA:2206:G:H3'	36:DA:2206:G:N3	2.33	0.43
36:DA:2450:A:O2'	36:DA:2451:A:H5'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2739:U:O2'	36:DA:2740:A:H5'	2.18	0.43
39:DD:68:LYS:HB2	39:DD:70:TRP:CZ2	2.53	0.43
39:DD:117:VAL:CG2	39:DD:128:GLY:O	2.66	0.43
39:DD:232:PRO:HD2	39:DD:249:PRO:HA	1.99	0.43
41:DF:74:ARG:O	41:DF:74:ARG:HG3	2.17	0.43
43:DH:91:GLY:O	43:DH:92:ILE:O	2.37	0.43
43:DH:156:ALA:N	43:DH:158:HIS:H	2.11	0.43
46:DO:24:VAL:HG21	46:DO:32:TYR:O	2.18	0.43
47:DP:16:ARG:HD3	47:DP:16:ARG:C	2.37	0.43
48:DQ:51:ARG:CG	48:DQ:51:ARG:NH1	2.81	0.43
48:DQ:72:LYS:HA	48:DQ:73:PRO:HD3	1.85	0.43
49:DR:24:GLN:O	49:DR:25:ALA:C	2.56	0.43
50:DS:89:ARG:HB3	50:DS:92:TYR:CB	2.37	0.43
51:DT:85:LYS:HE3	51:DT:85:LYS:HB3	1.88	0.43
53:DV:61:VAL:HA	53:DV:94:LEU:HD23	2.00	0.43
57:DZ:163:LEU:HD21	57:DZ:167:PRO:HD3	1.99	0.43
1:AA:19:C:O2'	1:AA:20:U:H5'	2.17	0.43
1:AA:59:A:H2'	1:AA:59:A:N3	2.34	0.43
1:AA:149:A:O2'	1:AA:150:C:P	2.76	0.43
1:AA:410:G:OP2	4:AD:25:ARG:HG3	2.18	0.43
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.50	0.43
1:AA:949:A:H1'	1:AA:1364:U:N3	2.34	0.43
1:AA:992:U:H3	1:AA:1044:A:H62	1.65	0.43
1:AA:1038:C:H2'	1:AA:1039:C:C5	2.51	0.43
1:AA:1054:C:C2'	1:AA:1055:A:H5"	2.47	0.43
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.83	0.43
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.17	0.43
1:AA:1220:G:H1'	19:AS:52:TYR:CD2	2.53	0.43
1:AA:1389:C:O2'	1:AA:1390:U:H5'	2.19	0.43
2:AB:19:HIS:ND1	2:AB:191:ASP:HB2	2.34	0.43
2:AB:39:ILE:CG2	2:AB:40:HIS:N	2.80	0.43
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.17	0.43
4:AD:30:LYS:O	4:AD:32:ALA:N	2.52	0.43
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.48	0.43
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.48	0.43
9:AI:31:GLN:HE21	9:AI:31:GLN:HB2	1.49	0.43
9:AI:43:ALA:C	9:AI:45:ALA:H	2.22	0.43
13:AM:118:ALA:HB2	22:AV:29:G:C5'	2.46	0.43
15:AO:78:TYR:OH	15:AO:88:ARG:HD2	2.18	0.43
20:AT:14:LYS:CA	20:AT:17:ARG:HH21	2.31	0.43
20:AT:32:ALA:O	20:AT:33:ILE:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B2:10:LEU:HD23	28:B2:10:LEU:HA	1.91	0.43
28:B2:37:PHE:CE2	55:BX:47:PHE:HZ	2.36	0.43
28:B2:64:LEU:O	28:B2:64:LEU:HD22	2.18	0.43
32:B6:42:TRP:HA	32:B6:42:TRP:CE3	2.52	0.43
36:BA:269:U:O2	36:BA:269:U:H2'	2.18	0.43
36:BA:478:A:C6	36:BA:480:A:C6	3.06	0.43
36:BA:1453:U:C5	36:BA:2702:U:O4	2.71	0.43
36:BA:1600:C:O2'	36:BA:1601:G:H5'	2.18	0.43
36:BA:1721:G:O6	36:BA:1739:U:H5'	2.15	0.43
36:BA:1797:C:O2'	39:BD:259:THR:CG2	2.66	0.43
36:BA:2236:C:H2'	36:BA:2237:G:O4'	2.18	0.43
36:BA:2330:G:C2'	36:BA:2331:G:H5'	2.48	0.43
36:BA:2481:G:H4'	36:BA:2482:G:H5'	2.00	0.43
38:BC:127:LEU:O	38:BC:129:ARG:N	2.51	0.43
39:BD:72:LYS:HB3	39:BD:75:ILE:HB	1.99	0.43
40:BE:149:ARG:HG3	40:BE:149:ARG:NH1	2.32	0.43
43:BH:54:ARG:HH11	43:BH:54:ARG:HG2	1.82	0.43
43:BH:65:HIS:CE1	43:BH:69:ARG:HD2	2.53	0.43
44:BI:15:VAL:C	44:BI:17:GLN:H	2.21	0.43
44:BI:94:ALA:O	44:BI:96:ASP:N	2.50	0.43
46:BO:75:SER:HB2	51:BT:75:ILE:O	2.18	0.43
48:BQ:12:GLN:HE21	48:BQ:73:PRO:HD3	1.83	0.43
48:BQ:141:GLN:HB2	57:BZ:99:TYR:HD2	1.83	0.43
51:BT:28:VAL:CG1	51:BT:46:GLU:HA	2.31	0.43
53:BV:28:GLU:O	53:BV:29:PRO:O	2.36	0.43
53:BV:75:PHE:CD1	53:BV:75:PHE:C	2.90	0.43
57:BZ:56:VAL:HG12	57:BZ:57:ILE:O	2.18	0.43
57:BZ:132:ASN:HB3	57:BZ:159:PRO:O	2.19	0.43
57:BZ:157:LEU:HA	57:BZ:158:PRO:HD2	1.80	0.43
1:CA:38:G:C2	1:CA:397:A:C2	3.06	0.43
1:CA:777:A:H2'	1:CA:778:G:C8	2.54	0.43
1:CA:865:A:C2	1:CA:918:A:H4'	2.53	0.43
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.53	0.43
1:CA:1160:G:O6	1:CA:1181:G:C6	2.71	0.43
2:CB:40:HIS:HB2	2:CB:190:THR:HG21	1.99	0.43
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	2.00	0.43
4:CD:100:ARG:HH22	4:CD:137:SER:HB3	1.83	0.43
5:CE:91:LEU:HA	5:CE:120:THR:HG22	1.99	0.43
5:CE:101:ILE:H	5:CE:101:ILE:CD1	2.18	0.43
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.18	0.43
9:CI:47:LEU:N	9:CI:47:LEU:CD1	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:17:LYS:HA	17:CQ:49:GLU:HG2	1.99	0.43
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.17	0.43
23:CW:32:U:O5'	23:CW:32:U:H6	2.02	0.43
23:CW:56:C:C4	23:CW:57:G:N7	2.86	0.43
25:CY:48:C:C6	25:CY:59:U:H1'	2.53	0.43
26:D0:54:GLY:O	26:D0:56:ASP:N	2.51	0.43
26:D0:70:GLN:HE21	26:D0:70:GLN:HB3	1.56	0.43
26:D0:72:ARG:CZ	26:D0:75:LEU:HD13	2.48	0.43
29:D3:46:ASN:O	29:D3:50:VAL:HG22	2.18	0.43
35:D9:4:ARG:O	35:D9:36:GLN:HA	2.17	0.43
36:DA:269:U:O2	36:DA:269:U:H2'	2.18	0.43
36:DA:274:G:HO2'	36:DA:275:G:P	2.41	0.43
36:DA:893:C:H2'	36:DA:894:C:C6	2.52	0.43
36:DA:1163:G:O2'	36:DA:1164:G:H5'	2.18	0.43
36:DA:1192:G:C2'	36:DA:1193:G:H5'	2.48	0.43
36:DA:1771:C:H1'	36:DA:1786:A:C8	2.53	0.43
36:DA:1841:U:H2'	36:DA:1842:G:C8	2.53	0.43
36:DA:2349:G:H5'	36:DA:2349:G:C8	2.52	0.43
36:DA:2808:U:H5'	36:DA:2891:G:O6	2.17	0.43
39:DD:231:HIS:ND1	39:DD:232:PRO:HD2	2.33	0.43
40:DE:11:MET:N	51:DT:8:LYS:NZ	2.65	0.43
40:DE:176:ILE:HG22	40:DE:176:ILE:O	2.16	0.43
42:DG:60:LEU:C	42:DG:60:LEU:HD23	2.38	0.43
42:DG:62:LEU:HD12	42:DG:143:GLU:O	2.18	0.43
43:DH:65:HIS:HD1	43:DH:69:ARG:HD3	1.83	0.43
43:DH:97:ARG:O	43:DH:125:VAL:HG11	2.18	0.43
44:DI:94:ALA:O	44:DI:96:ASP:N	2.50	0.43
45:DN:62:VAL:HG22	45:DN:66:LYS:HB2	2.00	0.43
47:DP:106:LEU:HD13	47:DP:112:LEU:HD23	2.00	0.43
48:DQ:10:ARG:HG3	48:DQ:10:ARG:NH1	2.32	0.43
49:DR:48:VAL:HA	49:DR:51:LEU:CD1	2.49	0.43
49:DR:63:ARG:HG3	49:DR:80:PHE:HE2	1.83	0.43
50:DS:58:LEU:HD23	50:DS:65:VAL:CG1	2.46	0.43
50:DS:79:ALA:C	50:DS:80:LEU:HD12	2.38	0.43
51:DT:129:ARG:HD2	51:DT:131:ALA:HB3	2.01	0.43
52:DU:111:GLU:O	52:DU:113:ALA:N	2.51	0.43
57:DZ:67:LEU:HD12	57:DZ:67:LEU:N	2.33	0.43
1:AA:180:U:H2'	1:AA:181:G:H5'	2.00	0.43
1:AA:541:G:H2'	1:AA:542:G:H8	1.82	0.43
1:AA:906:G:H8	1:AA:906:G:O5'	2.01	0.43
1:AA:1131:G:C2	1:AA:1132:C:N4	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1312:G:O2'	1:AA:1313:U:H5'	2.19	0.43
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.99	0.43
2:AB:194:PRO:HG2	2:AB:195:ASP:H	1.83	0.43
3:AC:84:ILE:HA	3:AC:87:LEU:HD12	2.00	0.43
4:AD:29:PRO:O	4:AD:30:LYS:CB	2.65	0.43
6:AF:24:GLU:HB2	6:AF:28:ARG:HH12	1.83	0.43
7:AG:50:ILE:HG21	7:AG:58:PRO:CA	2.41	0.43
9:AI:11:LYS:O	9:AI:12:GLU:C	2.57	0.43
10:AJ:48:THR:CB	10:AJ:62:HIS:HB3	2.48	0.43
10:AJ:63:PHE:CD2	10:AJ:63:PHE:N	2.87	0.43
12:AL:84:LEU:HD23	12:AL:105:TYR:HE1	1.83	0.43
13:AM:80:ARG:C	13:AM:82:MET:H	2.22	0.43
14:AN:26:ARG:CG	14:AN:27:CYS:H	2.06	0.43
18:AR:56:THR:CB	18:AR:58:LEU:CD1	2.96	0.43
23:AW:40:C:H2'	23:AW:41:C:H6	1.83	0.43
29:B3:46:ASN:O	29:B3:50:VAL:HG22	2.17	0.43
31:B5:2:ALA:N	36:BA:747:U:C2	2.86	0.43
33:B7:43:THR:CG2	33:B7:44:PRO:N	2.81	0.43
34:B8:7:HIS:CG	34:B8:59:LYS:HZ1	2.36	0.43
36:BA:1025:G:OP1	36:BA:1025:G:H8	2.00	0.43
36:BA:2832:U:O4	36:BA:2883:A:H5"	2.18	0.43
38:BC:66:HIS:CE1	38:BC:68:LEU:HD21	2.53	0.43
40:BE:117:MET:O	40:BE:118:LYS:HB2	2.19	0.43
40:BE:181:LEU:HD21	51:BT:7:ILE:CG2	2.48	0.43
42:BG:125:PHE:HB2	42:BG:166:ASP:OD2	2.18	0.43
43:BH:54:ARG:HG2	43:BH:54:ARG:NH1	2.33	0.43
47:BP:101:VAL:C	47:BP:103:ALA:N	2.69	0.43
50:BS:48:LEU:H	50:BS:48:LEU:CD1	2.31	0.43
50:BS:82:ILE:HG22	50:BS:83:LYS:N	2.33	0.43
51:BT:112:ARG:NH1	51:BT:112:ARG:HB2	2.33	0.43
52:BU:78:THR:HG22	52:BU:79:PHE:N	2.33	0.43
52:BU:103:PRO:O	52:BU:106:PHE:N	2.52	0.43
52:BU:111:GLU:O	52:BU:112:ARG:C	2.55	0.43
53:BV:61:VAL:HA	53:BV:94:LEU:HD23	1.99	0.43
54:BW:27:LYS:O	54:BW:70:TYR:HB2	2.17	0.43
56:BY:31:LEU:CB	56:BY:32:PRO:CA	2.95	0.43
56:BY:49:VAL:O	56:BY:50:ARG:HB2	2.18	0.43
56:BY:66:PRO:O	56:BY:67:LEU:O	2.37	0.43
57:BZ:104:PHE:CD1	57:BZ:139:VAL:HB	2.52	0.43
1:CA:123:C:O5'	1:CA:123:C:H6	2.01	0.43
1:CA:152:A:H3'	1:CA:153:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:260:G:H2'	1:CA:261:U:C6	2.53	0.43
1:CA:493:G:HO2'	1:CA:494:U:H6	1.65	0.43
1:CA:820:U:H4'	1:CA:821:G:OP2	2.18	0.43
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.53	0.43
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.18	0.43
1:CA:1357:A:H8	1:CA:1357:A:O5'	2.01	0.43
2:CB:19:HIS:CG	2:CB:189:ASP:OD2	2.72	0.43
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.35	0.43
2:CB:187:LEU:O	2:CB:187:LEU:HD13	2.18	0.43
2:CB:219:VAL:HG13	2:CB:222:ILE:HD12	1.99	0.43
7:CG:59:LEU:HD23	7:CG:60:LYS:N	2.33	0.43
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.91	0.43
17:CQ:12:SER:OG	17:CQ:14:LYS:NZ	2.51	0.43
23:CW:14:A:N3	23:CW:14:A:H2'	2.33	0.43
35:D9:19:ARG:HA	36:DA:2757:A:OP1	2.18	0.43
36:DA:35:G:O2'	36:DA:36:G:H5'	2.18	0.43
36:DA:626:U:H5'	36:DA:627:A:O5'	2.18	0.43
36:DA:860:U:C2	36:DA:2268:A:C8	3.06	0.43
36:DA:1022:G:C6	36:DA:1140:C:C4	3.06	0.43
36:DA:1037:G:H1	36:DA:1118:C:H42	1.66	0.43
36:DA:1710:C:O2'	36:DA:1711:C:H5'	2.18	0.43
36:DA:1899:G:C2'	36:DA:1900:A:OP2	2.67	0.43
36:DA:2164:C:C2'	36:DA:2165:G:H5'	2.48	0.43
36:DA:2208:A:H1'	36:DA:2219:G:N3	2.32	0.43
36:DA:2521:C:H42	36:DA:2544:G:H1	1.65	0.43
36:DA:2637:U:O2'	36:DA:2638:G:H5'	2.19	0.43
36:DA:2854:G:O2'	36:DA:2855:C:H5'	2.18	0.43
39:DD:13:ARG:HA	39:DD:16:MET:HB2	1.99	0.43
39:DD:24:ILE:HG13	39:DD:25:THR:N	2.28	0.43
41:DF:127:GLU:HB2	41:DF:196:LEU:CD2	2.48	0.43
42:DG:114:ILE:CG2	42:DG:117:PHE:HB2	2.49	0.43
43:DH:141:VAL:C	43:DH:143:GLN:N	2.69	0.43
47:DP:80:TYR:CE1	47:DP:111:ARG:HB3	2.53	0.43
50:DS:26:LEU:HA	50:DS:38:GLN:O	2.18	0.43
50:DS:70:GLY:C	50:DS:72:ALA:N	2.68	0.43
52:DU:12:ARG:C	52:DU:14:HIS:N	2.72	0.43
53:DV:29:PRO:O	53:DV:61:VAL:CG2	2.61	0.43
56:DY:67:LEU:HD12	56:DY:67:LEU:C	2.38	0.43
57:DZ:112:ARG:N	57:DZ:112:ARG:HD2	2.34	0.43
57:DZ:166:SER:CB	57:DZ:168:GLU:HB2	2.49	0.43
1:AA:337:C:O2'	1:AA:338:A:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:939:G:H2'	1:AA:940:C:H6	1.83	0.43
1:AA:962:C:H2'	1:AA:963:G:C8	2.53	0.43
1:AA:990:C:H2'	1:AA:991:U:C6	2.54	0.43
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.83	0.43
1:AA:1217:C:H2'	1:AA:1218:C:O4'	2.18	0.43
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.18	0.43
1:AA:1305:G:C2	1:AA:1331:G:N3	2.87	0.43
1:AA:1372:U:C2'	1:AA:1373:G:H5'	2.48	0.43
3:AC:95:THR:O	3:AC:97:LYS:N	2.51	0.43
3:AC:113:ALA:CB	3:AC:114:PRO:HD3	2.43	0.43
3:AC:142:MET:C	3:AC:144:SER:H	2.22	0.43
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	2.00	0.43
6:AF:63:TYR:O	6:AF:65:VAL:HG13	2.18	0.43
10:AJ:24:VAL:CG2	10:AJ:72:VAL:HG11	2.48	0.43
10:AJ:48:THR:CG2	10:AJ:62:HIS:HB3	2.47	0.43
15:AO:76:GLU:C	15:AO:78:TYR:N	2.72	0.43
18:AR:82:THR:CG2	18:AR:83:GLU:H	2.30	0.43
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.18	0.43
22:AV:1:C:H2'	22:AV:2:G:C5'	2.48	0.43
22:AV:51:C:C2'	22:AV:52:G:C5'	2.89	0.43
27:B1:23:LYS:CD	27:B1:28:GLY:HA3	2.48	0.43
28:B2:30:ARG:HH22	55:BX:48:LYS:NZ	2.16	0.43
33:B7:47:ARG:NH2	55:BX:60:ARG:NH2	2.62	0.43
36:BA:769:G:H5'	36:BA:1379:A:N6	2.33	0.43
36:BA:871:U:H4'	48:BQ:69:PHE:CE2	2.53	0.43
36:BA:1274:A:N3	36:BA:1297:C:H1'	2.32	0.43
36:BA:1568:G:H21	39:BD:58:HIS:CE1	2.36	0.43
36:BA:1668:A:H4'	36:BA:1669:A:O5'	2.18	0.43
36:BA:1796:U:H2'	36:BA:1797:C:H6	1.78	0.43
36:BA:1966:A:N3	36:BA:2592:G:O2'	2.45	0.43
36:BA:2033:A:O2'	36:BA:2034:U:O5'	2.35	0.43
36:BA:2182:G:H2'	36:BA:2183:C:C6	2.53	0.43
36:BA:2580:U:H4'	40:BE:130:GLY:CA	2.47	0.43
36:BA:2688:U:C5	36:BA:2719:G:C5	3.07	0.43
37:BB:35:U:HO2'	37:BB:36:C:H5'	1.82	0.43
39:BD:43:ARG:HG2	39:BD:54:ARG:O	2.19	0.43
39:BD:44:ASN:HB3	39:BD:49:ILE:CA	2.41	0.43
39:BD:142:VAL:CG2	39:BD:192:THR:O	2.66	0.43
39:BD:227:ASN:HB3	39:BD:228:PRO:HD2	1.99	0.43
41:BF:20:LEU:C	41:BF:24:LEU:HD23	2.38	0.43
42:BG:51:ARG:CZ	42:BG:53:LEU:HD21	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:132:ARG:HH11	43:BH:132:ARG:HG2	1.82	0.43
44:BI:6:LEU:HD12	44:BI:34:GLY:O	2.18	0.43
44:BI:65:ALA:CB	44:BI:131:LYS:HE2	2.48	0.43
44:BI:71:ILE:CG1	44:BI:72:LEU:N	2.82	0.43
44:BI:145:VAL:CG1	44:BI:146:ALA:N	2.81	0.43
45:BN:41:ASP:O	45:BN:42:TRP:C	2.57	0.43
45:BN:59:LYS:O	45:BN:60:ILE:C	2.56	0.43
45:BN:62:VAL:HG22	45:BN:66:LYS:HD2	1.99	0.43
49:BR:10:LEU:HB3	49:BR:17:ARG:HD2	2.00	0.43
50:BS:87:PHE:O	50:BS:88:ASP:HB2	2.19	0.43
51:BT:65:LYS:O	51:BT:72:VAL:N	2.39	0.43
53:BV:19:LYS:C	53:BV:20:LEU:HD12	2.38	0.43
54:BW:55:ALA:HA	54:BW:107:LEU:HD23	1.99	0.43
55:BX:64:LYS:CD	55:BX:73:ARG:CZ	2.96	0.43
57:BZ:61:LEU:HB2	57:BZ:65:GLN:HB2	2.00	0.43
1:CA:505:G:C6	1:CA:535:A:C2	3.07	0.43
1:CA:564:C:H5'	17:CQ:32:TYR:HE2	1.83	0.43
1:CA:624:C:H4'	16:CP:10:GLY:HA2	2.01	0.43
1:CA:955:U:H1'	1:CA:1227:A:N6	2.33	0.43
1:CA:1014:A:C5'	19:CS:14:HIS:HB2	2.48	0.43
1:CA:1310:G:H5'	13:CM:77:ASN:HD21	1.82	0.43
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.48	0.43
2:CB:19:HIS:ND1	2:CB:191:ASP:HB2	2.33	0.43
2:CB:80:ILE:CD1	2:CB:212:GLN:HA	2.48	0.43
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.33	0.43
2:CB:112:VAL:CG1	2:CB:153:ARG:HA	2.47	0.43
2:CB:167:PRO:O	2:CB:168:THR:C	2.56	0.43
3:CC:189:ALA:O	3:CC:191:THR:N	2.50	0.43
5:CE:13:ILE:HA	5:CE:29:GLY:O	2.18	0.43
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.18	0.43
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.81	0.43
8:CH:82:HIS:C	8:CH:82:HIS:HD2	2.19	0.43
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.85	0.43
10:CJ:98:ILE:O	10:CJ:98:ILE:HG22	2.18	0.43
12:CL:28:LYS:O	12:CL:29:GLY:C	2.56	0.43
12:CL:113:ARG:NH1	12:CL:120:TYR:CD2	2.87	0.43
13:CM:92:HIS:CD2	13:CM:98:VAL:HG23	2.53	0.43
14:CN:27:CYS:O	14:CN:29:ARG:N	2.51	0.43
15:CO:29:VAL:O	15:CO:32:LEU:N	2.51	0.43
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.65	0.43
20:CT:96:GLY:O	20:CT:97:ALA:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:20:U:H2'	23:CW:21:A:H4'	2.01	0.43
25:CY:75:C:H2'	25:CY:76:8AN:C8	2.48	0.43
34:D8:50:LEU:O	34:D8:51:ALA:HB3	2.18	0.43
36:DA:262:A:H2'	36:DA:263:C:O4'	2.19	0.43
36:DA:1021:A:OP2	45:DN:65:LYS:NZ	2.50	0.43
36:DA:1829:A:N3	39:DD:15:PHE:HE1	2.15	0.43
36:DA:2236:C:H2'	36:DA:2237:G:H5'	2.00	0.43
36:DA:2256:G:O2'	36:DA:2257:U:H5'	2.18	0.43
36:DA:2801:A:H8	36:DA:2801(A):A:H62	1.65	0.43
38:DC:191:ALA:O	38:DC:195:ALA:HB3	2.18	0.43
39:DD:132:PRO:HD3	39:DD:190:TYR:CZ	2.54	0.43
39:DD:197:GLY:O	39:DD:198:ASN:HB3	2.18	0.43
39:DD:268:ARG:NH1	39:DD:268:ARG:HB3	2.33	0.43
40:DE:11:MET:CB	40:DE:24:THR:HA	2.49	0.43
40:DE:117:MET:HE1	40:DE:124:GLY:HA3	2.01	0.43
41:DF:168:ARG:C	41:DF:170:LEU:H	2.22	0.43
42:DG:63:ILE:HD13	42:DG:102:PHE:CZ	2.53	0.43
42:DG:72:ARG:HD2	42:DG:86:MET:C	2.38	0.43
42:DG:135:LEU:HD13	42:DG:157:ILE:N	2.33	0.43
42:DG:155:MET:CE	42:DG:155:MET:H	2.31	0.43
42:DG:173:LEU:HB3	42:DG:178:PHE:CB	2.48	0.43
43:DH:127:GLU:OE2	43:DH:130:ARG:NH2	2.52	0.43
44:DI:14:ASP:O	44:DI:15:VAL:O	2.36	0.43
47:DP:30:THR:CG2	47:DP:31:ALA:H	2.17	0.43
49:DR:55:ALA:HB1	49:DR:84:ALA:HB2	2.00	0.43
51:DT:96:ARG:NH1	51:DT:96:ARG:HG2	2.27	0.43
52:DU:24:TYR:HB2	52:DU:29:SER:HB3	2.00	0.43
54:DW:70:TYR:HE2	54:DW:108:GLY:HA3	1.84	0.43
55:DX:26:TYR:CD2	55:DX:92:LEU:HD12	2.53	0.43
57:DZ:5:LEU:HB3	57:DZ:59:LEU:CD2	2.46	0.43
57:DZ:85:HIS:ND1	57:DZ:86:VAL:N	2.66	0.43
1:AA:778:G:H2'	1:AA:779:C:O4'	2.18	0.43
1:AA:851:G:H2'	1:AA:852:G:H8	1.82	0.43
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.18	0.43
1:AA:1053:G:H4'	1:AA:1054:C:H5'	2.00	0.43
1:AA:1321:C:C5'	1:AA:1322:C:H5'	2.48	0.43
2:AB:102:LEU:HD23	2:AB:182:ILE:HD12	2.00	0.43
7:AG:148:ASN:O	7:AG:150:ALA:N	2.51	0.43
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	2.01	0.43
8:AH:66:GLY:O	8:AH:76:PRO:HB2	2.18	0.43
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:47:LEU:N	9:AI:47:LEU:CD1	2.81	0.43
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.92	0.43
23:AW:14:A:N3	23:AW:14:A:H2'	2.32	0.43
25:AY:12:U:O2	25:AY:12:U:H2'	2.18	0.43
25:AY:69:G:C2	25:AY:70:G:N7	2.86	0.43
29:B3:1:MET:HE2	29:B3:44:ARG:NH2	2.34	0.43
29:B3:1:MET:HE2	29:B3:44:ARG:HH22	1.84	0.43
30:B4:45:GLY:O	30:B4:46:ASN:O	2.37	0.43
31:B5:3:LYS:HA	31:B5:3:LYS:HD2	1.70	0.43
33:B7:29:LYS:O	33:B7:32:LYS:HB3	2.19	0.43
36:BA:36:G:H4'	36:BA:451:C:C2	2.53	0.43
36:BA:143(A):C:H4'	55:BX:38:GLU:OE1	2.19	0.43
36:BA:203:C:C3'	36:BA:204:A:H5"	2.44	0.43
36:BA:246:C:C2'	36:BA:247:G:H5'	2.49	0.43
36:BA:337:C:H2'	36:BA:338:G:O5'	2.18	0.43
36:BA:389:G:N1	47:BP:71:VAL:CG1	2.78	0.43
36:BA:848:G:H5'	36:BA:848:G:C8	2.51	0.43
36:BA:1847:A:H3'	36:BA:1848:A:C5'	2.48	0.43
36:BA:2392:A:H2'	36:BA:2393:A:O4'	2.18	0.43
36:BA:2556:C:H2'	36:BA:2557:G:O4'	2.19	0.43
36:BA:2580:U:H5'	40:BE:131:ALA:H	1.81	0.43
36:BA:2667:C:H1'	43:BH:109:PHE:CD2	2.53	0.43
36:BA:2735:G:H2'	36:BA:2736:G:C8	2.53	0.43
36:BA:2825:C:H2'	36:BA:2826:A:O4'	2.19	0.43
36:BA:2846:G:H2'	36:BA:2847:U:O4'	2.17	0.43
39:BD:61:LEU:O	39:BD:63:ARG:NH1	2.51	0.43
39:BD:81:ALA:HA	39:BD:113:VAL:CG1	2.49	0.43
39:BD:161:THR:HG1	39:BD:196:VAL:HG21	1.83	0.43
40:BE:35:GLN:HG2	40:BE:36:ARG:N	2.33	0.43
41:BF:41:LEU:HD11	41:BF:184:TYR:CE1	2.52	0.43
41:BF:89:VAL:CG1	41:BF:90:PHE:H	2.28	0.43
42:BG:53:LEU:N	42:BG:53:LEU:CD2	2.81	0.43
42:BG:107:LEU:HD21	42:BG:178:PHE:CE1	2.53	0.43
42:BG:164:GLU:O	42:BG:165:THR:C	2.57	0.43
43:BH:89:ILE:O	43:BH:161:GLY:O	2.36	0.43
43:BH:130:ARG:NH1	43:BH:132:ARG:HH21	2.16	0.43
44:BI:113:ARG:HD2	44:BI:113:ARG:H	1.83	0.43
45:BN:128:HIS:HA	45:BN:129:PRO:HD2	1.83	0.43
46:BO:18:LYS:HD2	46:BO:45:GLU:OE1	2.18	0.43
46:BO:49:ARG:NH1	46:BO:49:ARG:CG	2.78	0.43
47:BP:10:PRO:O	47:BP:11:GLY:O	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:62:LEU:HD23	47:BP:62:LEU:H	1.82	0.43
51:BT:81:PRO:O	51:BT:82:LEU:HD12	2.19	0.43
52:BU:55:ARG:HA	52:BU:58:ARG:HG3	1.99	0.43
55:BX:36:LYS:HD2	55:BX:54:VAL:O	2.18	0.43
56:BY:37:VAL:O	56:BY:38:ILE:HG12	2.19	0.43
57:BZ:3:TYR:N	57:BZ:3:TYR:CD1	2.85	0.43
57:BZ:6:LYS:HB2	57:BZ:6:LYS:NZ	2.33	0.43
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.18	0.43
1:CA:983:A:N1	1:CA:1222:G:N2	2.66	0.43
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.18	0.43
1:CA:1201:A:H1'	1:CA:1202:G:OP2	2.19	0.43
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.54	0.43
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.79	0.43
2:CB:105:PHE:O	2:CB:106:LYS:C	2.57	0.43
3:CC:84:ILE:HA	3:CC:87:LEU:HD12	2.00	0.43
4:CD:33:MET:HE2	4:CD:33:MET:HA	1.99	0.43
4:CD:96:LEU:N	4:CD:96:LEU:CD1	2.82	0.43
5:CE:65:ASN:C	5:CE:66:MET:HG2	2.39	0.43
6:CF:63:TYR:N	6:CF:63:TYR:HD2	2.17	0.43
7:CG:50:ILE:O	7:CG:54:THR:O	2.36	0.43
10:CJ:13:HIS:ND1	10:CJ:13:HIS:C	2.71	0.43
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB3	2.49	0.43
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.33	0.43
10:CJ:50:ILE:N	10:CJ:50:ILE:CD1	2.66	0.43
12:CL:85:ILE:HD13	12:CL:100:ILE:HA	2.00	0.43
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	2.01	0.43
14:CN:27:CYS:C	14:CN:29:ARG:H	2.22	0.43
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.84	0.43
16:CP:45:THR:OG1	16:CP:46:PRO:HD2	2.18	0.43
17:CQ:78:GLU:O	17:CQ:78:GLU:HG3	2.18	0.43
26:D0:45:PHE:CD1	26:D0:45:PHE:N	2.85	0.43
32:D6:27:LYS:HE3	36:DA:2285:C:C5	2.45	0.43
33:D7:16:HIS:HA	33:D7:21:ARG:NH1	2.32	0.43
36:DA:83:G:C2	36:DA:102:G:H2'	2.53	0.43
36:DA:271(G):C:O2'	36:DA:271(H):G:H5'	2.19	0.43
36:DA:803:U:C2'	36:DA:804:A:H5'	2.48	0.43
36:DA:1140:C:OP1	45:DN:23:LEU:HD23	2.18	0.43
36:DA:1142(A):A:C5	36:DA:1144:G:C5	3.06	0.43
36:DA:1503:U:C4	36:DA:1504:C:N4	2.83	0.43
36:DA:1509(B):A:H2'	36:DA:1510:G:C8	2.54	0.43
36:DA:2146:C:H4'	36:DA:2147:G:C8	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2205:C:O2	36:DA:2220:G:C2	2.71	0.43
36:DA:2703:C:H2'	36:DA:2704:C:H6	1.83	0.43
36:DA:2791:C:H41	36:DA:2803:C:N4	2.17	0.43
38:DC:169:GLY:O	38:DC:170:ALA:HB3	2.18	0.43
39:DD:176:ARG:HG2	39:DD:176:ARG:NH1	2.30	0.43
40:DE:108:SER:HB3	40:DE:165:VAL:HG21	1.99	0.43
40:DE:128:SER:O	40:DE:130:GLY:N	2.51	0.43
41:DF:9:ILE:CG1	41:DF:14:PRO:HA	2.48	0.43
42:DG:144:ILE:CG2	42:DG:145:THR:N	2.58	0.43
43:DH:54:ARG:HG2	43:DH:54:ARG:NH1	2.33	0.43
44:DI:98:ALA:C	44:DI:100:ALA:N	2.72	0.43
45:DN:23:LEU:H	45:DN:23:LEU:HD23	1.83	0.43
47:DP:62:LEU:HD23	47:DP:62:LEU:H	1.84	0.43
47:DP:114:ILE:HD12	47:DP:115:LEU:H	1.80	0.43
48:DQ:1:MET:HE2	48:DQ:2:LEU:HB3	1.98	0.43
49:DR:12:ARG:HG3	49:DR:12:ARG:HH11	1.84	0.43
50:DS:85:VAL:C	50:DS:106:ARG:HG3	2.39	0.43
53:DV:41:GLY:N	53:DV:45:THR:HB	2.33	0.43
53:DV:47:VAL:CB	53:DV:50:PRO:O	2.64	0.43
56:DY:46:LYS:C	56:DY:47:LYS:HG3	2.39	0.43
56:DY:86:ARG:CZ	56:DY:95:LYS:HZ2	2.32	0.43
57:DZ:53:ILE:O	57:DZ:54:HIS:CG	2.72	0.43
1:AA:323:U:O3'	20:AT:22:ARG:HD3	2.18	0.43
1:AA:840:C:H4'	1:AA:848:C:C2	2.52	0.43
1:AA:954:G:H21	1:AA:1227:A:H62	1.65	0.43
1:AA:979:C:C3'	1:AA:980:C:C5'	2.87	0.43
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.19	0.43
1:AA:1494:G:H2'	1:AA:1494:G:N3	2.33	0.43
3:AC:29:TYR:CD1	14:AN:36:PHE:CZ	3.06	0.43
4:AD:33:MET:CE	4:AD:33:MET:HA	2.49	0.43
23:AW:66:U:H2'	23:AW:67:C:C6	2.54	0.43
25:AY:19:G:H5'	25:AY:60:U:C2	2.54	0.43
27:B1:8:SER:HB3	27:B1:66:HIS:NE2	2.33	0.43
27:B1:11:ARG:NH2	36:BA:1365:A:O2'	2.44	0.43
28:B2:13:ALA:C	28:B2:15:LYS:H	2.21	0.43
34:B8:26:LYS:CE	34:B8:47:LYS:HD3	2.48	0.43
36:BA:142:A:H1'	36:BA:1408:C:O4'	2.18	0.43
36:BA:542:C:N4	36:BA:543:C:N4	2.67	0.43
36:BA:644:A:N6	36:BA:2349:G:H1'	2.33	0.43
36:BA:661:C:H2'	36:BA:662:G:H8	1.83	0.43
36:BA:1142(A):A:C5	36:BA:1144:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1363:C:H2'	36:BA:1364:G:H8	1.84	0.43
36:BA:1438:U:O2'	36:BA:1439:A:H5'	2.18	0.43
36:BA:1500:G:C6	36:BA:1501:C:N3	2.87	0.43
36:BA:1993:U:H4'	40:BE:128:SER:OG	2.19	0.43
36:BA:2150:U:H2'	36:BA:2151:G:H8	1.79	0.43
36:BA:2408:U:O5'	36:BA:2408:U:H6	2.01	0.43
36:BA:2654:A:N1	36:BA:2665:A:H5"	2.34	0.43
36:BA:2770:G:H5'	36:BA:2771:C:OP2	2.19	0.43
37:BB:30:C:H4'	37:BB:58:A:H2	1.83	0.43
38:BC:82:LYS:HZ3	38:BC:149:ILE:HA	1.84	0.43
40:BE:59:VAL:CG2	40:BE:60:ASN:H	2.02	0.43
40:BE:101:ARG:HH21	40:BE:171:GLU:N	2.16	0.43
41:BF:168:ARG:C	41:BF:170:LEU:H	2.22	0.43
42:BG:97:ASP:O	42:BG:98:ARG:C	2.56	0.43
43:BH:26:VAL:HG11	43:BH:76:VAL:HA	2.00	0.43
43:BH:153:LYS:O	43:BH:153:LYS:HD3	2.19	0.43
44:BI:80:PRO:O	44:BI:81:VAL:C	2.57	0.43
45:BN:126:PRO:O	45:BN:127:ASP:CB	2.66	0.43
46:BO:104:ARG:CZ	51:BT:33:LYS:HD2	2.49	0.43
47:BP:9:ASN:C	47:BP:11:GLY:N	2.71	0.43
48:BQ:62:GLY:H	48:BQ:109:VAL:HG23	1.83	0.43
49:BR:60:LEU:O	49:BR:63:ARG:HB3	2.18	0.43
53:BV:2:PHE:HB3	53:BV:41:GLY:C	2.39	0.43
56:BY:15:VAL:HG12	56:BY:16:ALA:N	2.32	0.43
56:BY:28:LYS:CB	56:BY:37:VAL:HB	2.34	0.43
56:BY:30:VAL:CG1	56:BY:31:LEU:N	2.81	0.43
57:BZ:74:VAL:HG22	57:BZ:86:VAL:CG1	2.49	0.43
1:CA:633:G:H5'	1:CA:634:C:OP2	2.19	0.43
1:CA:853:G:O2'	1:CA:854:G:H5'	2.19	0.43
1:CA:1236:A:OP1	21:CU:2:GLY:HA3	2.18	0.43
1:CA:1381:U:C2'	1:CA:1382:C:H5'	2.49	0.43
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.84	0.43
10:CJ:7:LYS:CD	10:CJ:71:LEU:HD13	2.42	0.43
10:CJ:48:THR:CG2	10:CJ:62:HIS:HB3	2.45	0.43
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.34	0.43
11:CK:34:ASP:OD2	11:CK:36:ASP:N	2.52	0.43
13:CM:91:ARG:HB3	13:CM:96:LEU:O	2.18	0.43
20:CT:49:ALA:HB1	20:CT:100:ILE:HD13	1.99	0.43
21:CU:6:ARG:HG2	21:CU:15:ARG:NH1	2.33	0.43
25:CY:19:G:C5	36:DA:881:G:H4'	2.53	0.43
26:D0:7:LEU:HB3	48:DQ:85:LYS:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:392:C:H5"	36:DA:409:C:H5"	2.00	0.43
36:DA:512:G:O2'	36:DA:513:A:H8	2.02	0.43
36:DA:542:C:N4	36:DA:543:C:N4	2.66	0.43
36:DA:574:C:N3	40:DE:145:LYS:HE2	2.33	0.43
36:DA:582:G:H2'	36:DA:583:G:C8	2.54	0.43
36:DA:1446:C:O2'	36:DA:1447:G:H5'	2.18	0.43
36:DA:1488:G:N1	36:DA:1489:U:O2	2.52	0.43
36:DA:1885:A:H5'	36:DA:1885:A:C8	2.54	0.43
36:DA:2228:G:H2'	36:DA:2229:C:C6	2.52	0.43
36:DA:2291:U:H5"	36:DA:2380:C:O2'	2.18	0.43
36:DA:2457:U:C2'	36:DA:2458:G:H5'	2.49	0.43
41:DF:160:ASN:C	41:DF:162:LEU:H	2.21	0.43
42:DG:137:GLU:O	42:DG:154:GLY:HA3	2.18	0.43
43:DH:118:PRO:HD2	43:DH:123:PHE:HE1	1.83	0.43
46:DO:16:ALA:HB2	46:DO:52:VAL:CG1	2.48	0.43
50:DS:54:LEU:H	50:DS:54:LEU:CD2	2.29	0.43
50:DS:59:LYS:HE3	50:DS:68:GLN:NE2	2.33	0.43
50:DS:77:ALA:O	50:DS:78:LEU:C	2.57	0.43
51:DT:35:LYS:C	51:DT:37:GLY:N	2.71	0.43
51:DT:96:ARG:HB3	51:DT:96:ARG:CZ	2.48	0.43
54:DW:64:MET:CE	54:DW:109:GLU:HG2	2.49	0.43
57:DZ:13:GLU:HB3	57:DZ:14:LYS:HE3	2.01	0.43
57:DZ:64:GLY:O	57:DZ:65:GLN:C	2.57	0.43
1:AA:15:G:H1	1:AA:920:U:H3	1.66	0.43
1:AA:324:G:OP1	20:AT:70:SER:HB2	2.19	0.43
1:AA:489:C:O2'	1:AA:490:G:H5'	2.19	0.43
1:AA:542:G:H2'	1:AA:543:C:C6	2.52	0.43
1:AA:1057:G:O2'	1:AA:1058:G:H5'	2.19	0.43
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.52	0.43
1:AA:1305:G:H22	1:AA:1331:G:C1'	2.31	0.43
2:AB:223:ILE:O	2:AB:227:GLY:N	2.52	0.43
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.37	0.43
3:AC:119:ARG:HE	3:AC:140:ARG:NE	2.17	0.43
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	2.00	0.43
3:AC:173:VAL:HG12	3:AC:175:LEU:HD12	2.00	0.43
4:AD:28:SER:O	4:AD:29:PRO:C	2.55	0.43
4:AD:169:LYS:HZ2	6:CF:25:ILE:HD11	1.83	0.43
5:AE:80:ILE:HG22	8:AH:104:ARG:NH2	2.33	0.43
6:AF:63:TYR:N	6:AF:63:TYR:HD2	2.17	0.43
7:AG:43:PHE:HD1	7:AG:43:PHE:O	2.01	0.43
7:AG:95:ARG:HH11	7:AG:95:ARG:HG3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:125:ARG:HG3	8:AH:125:ARG:HH11	1.83	0.43
19:AS:11:VAL:O	19:AS:11:VAL:HG13	2.18	0.43
20:AT:96:GLY:O	20:AT:97:ALA:O	2.36	0.43
25:AY:41:C:H2'	25:AY:42:C:H6	1.83	0.43
26:B0:43:THR:CG2	36:BA:2336:A:H61	2.31	0.43
26:B0:77:ARG:NH2	36:BA:857:C:H5'	2.29	0.43
28:B2:18:PRO:O	28:B2:21:LEU:HB2	2.18	0.43
34:B8:29:LYS:CE	34:B8:44:LYS:HB3	2.49	0.43
36:BA:302:C:O2'	36:BA:303:U:H5'	2.18	0.43
36:BA:956:G:N2	36:BA:959:A:H3'	2.34	0.43
36:BA:1385:G:C4	36:BA:1386:C:C5	3.07	0.43
36:BA:1407:C:H42	36:BA:1595:G:H1	1.66	0.43
36:BA:2164:C:H3'	36:BA:2165:G:C8	2.53	0.43
36:BA:2302:G:C6	36:BA:2315:G:C6	3.06	0.43
36:BA:2557:G:H2'	36:BA:2558:C:C6	2.53	0.43
36:BA:2636:U:H4'	40:BE:80:GLU:CD	2.38	0.43
38:BC:42:GLU:H	38:BC:213:TYR:H	1.67	0.43
38:BC:58:VAL:HG22	38:BC:167:LYS:CA	2.49	0.43
38:BC:78:ALA:HB1	38:BC:82:LYS:HB2	2.00	0.43
39:BD:158:ALA:O	39:BD:161:THR:HG23	2.18	0.43
39:BD:176:ARG:HH11	39:BD:176:ARG:CG	2.28	0.43
40:BE:45:THR:CG2	40:BE:83:ASP:HA	2.45	0.43
40:BE:47:VAL:HG23	40:BE:84:PHE:O	2.19	0.43
40:BE:201:THR:HG21	40:BE:203:LYS:HG2	2.00	0.43
41:BF:181:LEU:HB3	41:BF:205:ARG:HH12	1.84	0.43
42:BG:40:ASN:HA	42:BG:91:ARG:HA	2.00	0.43
42:BG:173:LEU:HD22	42:BG:178:PHE:CE2	2.53	0.43
44:BI:88:ILE:H	44:BI:122:GLU:HA	1.83	0.43
44:BI:110:ASP:C	44:BI:114:LEU:HD21	2.39	0.43
46:BO:7:TYR:HE1	46:BO:20:MET:CE	2.31	0.43
48:BQ:51:ARG:HH11	48:BQ:51:ARG:CB	2.31	0.43
49:BR:13:HIS:O	49:BR:14:SER:C	2.56	0.43
50:BS:15:ARG:C	50:BS:17:ARG:N	2.68	0.43
50:BS:54:LEU:H	50:BS:54:LEU:CD2	2.28	0.43
50:BS:62:LYS:N	50:BS:65:VAL:HG23	2.30	0.43
51:BT:92:GLY:CA	51:BT:114:LEU:HD22	2.49	0.43
55:BX:63:LYS:HB3	55:BX:72:LYS:HG3	2.01	0.43
56:BY:20:TYR:CE1	56:BY:42:VAL:HG22	2.54	0.43
56:BY:27:VAL:CA	56:BY:28:LYS:NZ	2.69	0.43
56:BY:54:LYS:O	56:BY:55:TYR:CD1	2.72	0.43
1:CA:59:A:H2'	1:CA:59:A:N3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:825:G:C6	1:CA:826:C:C4	3.06	0.43
1:CA:979:C:C5	1:CA:980:C:C6	3.06	0.43
1:CA:979:C:C2'	1:CA:980:C:H5"	2.49	0.43
1:CA:1007:C:H2'	1:CA:1008:C:C5	2.53	0.43
1:CA:1054:C:C2'	1:CA:1055:A:H5"	2.48	0.43
1:CA:1130:A:C2	1:CA:1146:A:C4	3.06	0.43
1:CA:1251:A:H1'	1:CA:1369:C:HO2'	1.83	0.43
2:CB:69:LEU:HB2	2:CB:159:PRO:HG2	2.01	0.43
2:CB:219:VAL:HA	2:CB:222:ILE:HG13	2.00	0.43
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.52	0.43
8:CH:38:ILE:HG12	8:CH:41:ARG:HH11	1.83	0.43
13:CM:25:ILE:HD11	13:CM:66:LEU:HD23	2.01	0.43
13:CM:72:ALA:HA	13:CM:75:ALA:HB2	2.00	0.43
13:CM:79:LYS:O	13:CM:82:MET:SD	2.76	0.43
19:CS:45:VAL:C	19:CS:47:HIS:N	2.63	0.43
20:CT:38:LYS:C	20:CT:40:ALA:H	2.21	0.43
23:CW:55:U:C4	23:CW:57:G:H5'	2.54	0.43
28:D2:62:THR:OG1	36:DA:76:C:H1'	2.19	0.43
30:D4:43:GLY:N	30:D4:59:VAL:O	2.52	0.43
32:D6:12:GLU:HA	32:D6:23:THR:HA	1.99	0.43
33:D7:47:ARG:NH2	36:DA:1311:G:C4	2.87	0.43
34:D8:26:LYS:NZ	34:D8:47:LYS:HD3	2.33	0.43
36:DA:247:G:H4'	36:DA:386:G:C5	2.54	0.43
36:DA:350:U:O2'	36:DA:351:G:H5'	2.19	0.43
36:DA:660:G:H5'	41:DF:99:TYR:CD2	2.53	0.43
36:DA:729:G:C5	39:DD:208:LYS:HB2	2.54	0.43
36:DA:1141:U:OP1	45:DN:25:ARG:NH1	2.51	0.43
36:DA:1188:U:C4'	53:DV:79:VAL:HG22	2.48	0.43
36:DA:1453:U:O4	49:DR:67:LEU:HD21	2.17	0.43
36:DA:1812:A:H2'	36:DA:1813:G:C8	2.54	0.43
38:DC:23:ASP:C	38:DC:25:ALA:N	2.71	0.43
38:DC:83:ILE:HG22	38:DC:83:ILE:O	2.19	0.43
38:DC:127:LEU:O	38:DC:129:ARG:N	2.51	0.43
40:DE:28:ALA:O	40:DE:29:GLY:C	2.56	0.43
40:DE:39:PRO:HA	40:DE:43:GLY:CA	2.41	0.43
42:DG:60:LEU:HD22	42:DG:92:VAL:HG11	2.01	0.43
44:DI:109:ILE:O	44:DI:111:PRO:HD2	2.19	0.43
45:DN:41:ASP:O	45:DN:42:TRP:C	2.57	0.43
45:DN:119:ARG:HG3	45:DN:119:ARG:HH11	1.83	0.43
46:DO:10:VAL:HA	46:DO:84:ALA:O	2.19	0.43
48:DQ:52:VAL:HG12	48:DQ:56:ARG:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DS:16:ASN:ND2	50:DS:92:TYR:CE1	2.87	0.43
57:DZ:61:LEU:HG	57:DZ:67:LEU:HD11	2.01	0.43
1:AA:9:G:H2'	1:AA:10:A:H8	1.84	0.43
1:AA:113:G:H2'	1:AA:114:U:H6	1.83	0.43
1:AA:423:G:C2'	1:AA:424:G:H5'	2.49	0.43
1:AA:537:G:H2'	1:AA:538:G:C8	2.54	0.43
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.43
1:AA:879:C:O2'	1:AA:880:C:H5'	2.19	0.43
1:AA:983:A:N1	1:AA:1222:G:N2	2.66	0.43
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.19	0.43
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.18	0.43
2:AB:37:ASN:O	2:AB:39:ILE:N	2.46	0.43
4:AD:38:TYR:CZ	4:AD:45:GLN:NE2	2.86	0.43
6:AF:62:TRP:C	6:AF:63:TYR:HD2	2.21	0.43
10:AJ:51:ARG:HE	10:AJ:61:GLU:HB2	1.83	0.43
11:AK:48:ILE:CD1	11:AK:64:ALA:HA	2.44	0.43
13:AM:108:ARG:NH1	13:AM:108:ARG:HG3	2.33	0.43
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	2.01	0.43
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.79	0.43
19:AS:45:VAL:C	19:AS:47:HIS:N	2.63	0.43
23:AW:56:C:H2'	23:AW:57:G:C8	2.51	0.43
29:B3:23:LEU:CD1	29:B3:50:VAL:HG11	2.49	0.43
33:B7:1:MET:SD	33:B7:3:ARG:NH2	2.92	0.43
35:B9:19:ARG:HA	36:BA:2757:A:OP1	2.19	0.43
36:BA:294:A:O2'	56:BY:2:ARG:NH2	2.50	0.43
36:BA:920:G:O2'	36:BA:921:G:H5'	2.19	0.43
36:BA:1022:G:H4'	36:BA:1023:U:O5'	2.18	0.43
36:BA:1048:A:H4'	36:BA:1049:C:C5	2.53	0.43
36:BA:1488:G:C2	36:BA:1489:U:O2	2.72	0.43
36:BA:2266:A:H4'	36:BA:2267:A:N3	2.33	0.43
36:BA:2488:A:H2'	36:BA:2489:G:O4'	2.19	0.43
36:BA:2689:U:H4'	36:BA:2690:C:C6	2.49	0.43
36:BA:2784:C:H1'	40:BE:37:ARG:NH1	2.33	0.43
38:BC:47:LEU:HB2	38:BC:207:THR:CB	2.49	0.43
39:BD:8:PRO:C	39:BD:10:THR:H	2.22	0.43
40:BE:120:TRP:NE1	40:BE:155:LYS:HB3	2.34	0.43
40:BE:141:ILE:O	40:BE:141:ILE:HG13	2.18	0.43
41:BF:8:GLN:HB2	41:BF:124:LEU:HD11	2.00	0.43
41:BF:187:VAL:HG12	47:BP:7:ARG:NH2	2.33	0.43
42:BG:91:ARG:CD	42:BG:91:ARG:C	2.87	0.43
42:BG:106:LEU:CA	42:BG:110:ALA:HB3	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BH:147:ASN:O	43:BH:150:ALA:HB3	2.19	0.43
44:BI:54:GLN:HG2	44:BI:54:GLN:O	2.19	0.43
44:BI:88:ILE:CG2	44:BI:89:TYR:N	2.81	0.43
45:BN:72:TYR:N	45:BN:72:TYR:CD1	2.87	0.43
49:BR:82:GLU:C	49:BR:85:PRO:HD2	2.39	0.43
50:BS:53:SER:O	50:BS:56:LEU:HB3	2.19	0.43
51:BT:64:ARG:HH11	51:BT:64:ARG:HG2	1.84	0.43
52:BU:91:ASP:C	52:BU:92:ARG:CD	2.82	0.43
53:BV:41:GLY:N	53:BV:45:THR:HB	2.32	0.43
54:BW:20:VAL:HG11	54:BW:44:ALA:HA	2.01	0.43
57:BZ:16:SER:O	57:BZ:19:ARG:HB2	2.19	0.43
57:BZ:127:LYS:HD3	57:BZ:162:GLU:OE1	2.19	0.43
57:BZ:128:VAL:HG22	57:BZ:129:SER:H	1.84	0.43
1:CA:473:G:H2'	1:CA:474:G:C8	2.53	0.43
1:CA:640:A:H2'	1:CA:641:U:H5'	2.00	0.43
1:CA:771:G:O2'	1:CA:772:U:H5'	2.18	0.43
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.84	0.43
1:CA:1372:U:C2'	1:CA:1373:G:H5'	2.49	0.43
4:CD:108:LEU:O	4:CD:110:PHE:CD1	2.71	0.43
5:CE:72:GLN:O	5:CE:75:THR:HG22	2.18	0.43
5:CE:105:VAL:N	5:CE:106:PRO:HD2	2.33	0.43
6:CF:75:LEU:O	6:CF:78:GLU:HB3	2.19	0.43
9:CI:95:LYS:N	9:CI:98:PRO:HD2	2.33	0.43
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	2.00	0.43
11:CK:31:THR:O	11:CK:31:THR:HG23	2.18	0.43
12:CL:126:LYS:HE2	12:CL:127:GLU:H	1.84	0.43
15:CO:17:ARG:HD3	15:CO:26:GLU:HG3	2.01	0.43
19:CS:36:ARG:HH11	19:CS:36:ARG:HB3	1.84	0.43
28:D2:34:GLU:HA	28:D2:34:GLU:OE1	2.19	0.43
33:D7:24:THR:HG23	33:D7:27:GLY:H	1.83	0.43
34:D8:51:ALA:HA	34:D8:54:GLU:OE1	2.19	0.43
36:DA:71:A:H5'	36:DA:71:A:H8	1.82	0.43
36:DA:605:C:O2	36:DA:657:U:O2'	2.36	0.43
36:DA:1051:G:N2	36:DA:1052:C:C5	2.84	0.43
36:DA:1448:G:N3	36:DA:1528(A):A:H2	2.16	0.43
36:DA:2039:C:O2'	36:DA:2040:C:H5'	2.18	0.43
36:DA:2618:G:O2'	36:DA:2619:C:H5'	2.18	0.43
37:DB:16:G:O2'	37:DB:17:C:H5'	2.18	0.43
39:DD:81:ALA:HA	39:DD:113:VAL:CG1	2.49	0.43
41:DF:3:GLU:HG3	41:DF:19:GLU:CG	2.49	0.43
41:DF:19:GLU:O	41:DF:20:LEU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DG:16:ARG:CZ	42:DG:28:VAL:HB	2.48	0.43
42:DG:36:LYS:O	42:DG:159:VAL:HA	2.18	0.43
43:DH:147:ASN:O	43:DH:150:ALA:HB3	2.19	0.43
44:DI:15:VAL:C	44:DI:17:GLN:H	2.22	0.43
44:DI:109:ILE:HG22	44:DI:111:PRO:CD	2.44	0.43
47:DP:120:ALA:HB1	47:DP:138:LEU:HD12	2.00	0.43
47:DP:136:GLU:O	47:DP:139:LYS:HB3	2.19	0.43
50:DS:34:HIS:CE1	50:DS:55:ALA:HB2	2.53	0.43
50:DS:48:LEU:HD12	50:DS:48:LEU:H	1.84	0.43
51:DT:83:ILE:CG1	51:DT:84:GLN:N	2.67	0.43
52:DU:31:SER:CB	52:DU:34:LYS:HB2	2.44	0.43
53:DV:28:GLU:O	53:DV:29:PRO:O	2.37	0.43
54:DW:84:ARG:HB2	54:DW:96:ILE:CG2	2.45	0.43
57:DZ:24:LEU:O	57:DZ:25:PRO:C	2.56	0.43
1:AA:383:A:H2'	1:AA:384:G:H5'	2.01	0.43
1:AA:444:C:H2'	1:AA:445:G:H8	1.84	0.43
1:AA:721:G:H4'	1:AA:722:A:O4'	2.19	0.43
1:AA:748:C:OP2	1:AA:748:C:C6	2.72	0.43
1:AA:1310:G:H5'	13:AM:77:ASN:HD21	1.84	0.43
1:AA:1347:G:C4	9:AI:107:ARG:NH2	2.87	0.43
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.18	0.43
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.34	0.43
4:AD:39:PRO:O	4:AD:44:GLY:HA3	2.17	0.43
4:AD:81:GLU:CD	4:AD:139:ARG:HH22	2.22	0.43
5:AE:12:LEU:C	5:AE:13:ILE:HG13	2.39	0.43
5:AE:65:ASN:C	5:AE:66:MET:HG2	2.38	0.43
6:AF:42:GLU:C	6:AF:44:GLY:N	2.72	0.43
7:AG:151:TYR:O	7:AG:154:TYR:HB2	2.18	0.43
9:AI:79:LEU:HD11	9:AI:83:ARG:CZ	2.48	0.43
9:AI:103:THR:O	9:AI:104:ARG:C	2.57	0.43
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.99	0.43
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.83	0.43
28:B2:3:LEU:O	28:B2:3:LEU:HD23	2.18	0.43
31:B5:19:ARG:NH1	36:BA:1266:G:OP2	2.52	0.43
36:BA:330:A:H2	36:BA:1210:A:H2'	1.83	0.43
36:BA:375:C:H2'	36:BA:376:C:C6	2.54	0.43
36:BA:582:G:H2'	36:BA:583:G:C8	2.54	0.43
36:BA:624:C:C2'	36:BA:625:G:H5'	2.48	0.43
36:BA:624:C:H6	36:BA:624:C:O5'	2.01	0.43
36:BA:811:U:OP1	47:BP:30:THR:HG22	2.19	0.43
36:BA:888:C:O2'	36:BA:889:C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1245:G:OP1	47:BP:16:ARG:NE	2.51	0.43
36:BA:1508:A:N3	36:BA:1508:A:H2'	2.34	0.43
36:BA:1602:U:H3'	36:BA:1603:A:H5'	2.01	0.43
36:BA:1983:C:H4'	36:BA:2606:C:H4'	2.01	0.43
36:BA:2134:A:N6	36:BA:2157:G:C1'	2.73	0.43
36:BA:2236:C:H2'	36:BA:2237:G:C5'	2.48	0.43
36:BA:2287:A:N3	36:BA:2289:G:C8	2.87	0.43
36:BA:2525:G:O4'	36:BA:2741:A:H2	2.02	0.43
39:BD:206:LEU:HD22	39:BD:211:ARG:CG	2.49	0.43
40:BE:8:LYS:HE2	40:BE:192:ASN:HD22	1.82	0.43
40:BE:52:LEU:HD12	40:BE:53:PRO:HD2	2.00	0.43
40:BE:176:ILE:HB	40:BE:181:LEU:HB2	2.01	0.43
41:BF:160:ASN:C	41:BF:162:LEU:H	2.21	0.43
42:BG:76:SER:HB3	42:BG:84:LYS:HG3	2.00	0.43
42:BG:131:TYR:O	42:BG:159:VAL:HG13	2.19	0.43
43:BH:17:VAL:O	43:BH:19:VAL:HG23	2.19	0.43
43:BH:116:GLU:HG2	43:BH:117:PRO:N	2.34	0.43
44:BI:72:LEU:CD1	44:BI:138:ILE:HG21	2.49	0.43
46:BO:71:ARG:NH1	51:BT:74:ARG:NH2	2.63	0.43
47:BP:47:ASP:HB2	47:BP:51:PHE:HB2	2.01	0.43
47:BP:97:PRO:C	47:BP:99:LEU:N	2.71	0.43
47:BP:101:VAL:HG23	47:BP:102:ARG:N	2.33	0.43
47:BP:111:ARG:CZ	47:BP:149:GLU:HG3	2.48	0.43
47:BP:115:LEU:N	47:BP:115:LEU:CD2	2.82	0.43
51:BT:96:ARG:CZ	51:BT:96:ARG:HB3	2.48	0.43
57:BZ:51:ALA:O	57:BZ:52:SER:HB3	2.19	0.43
1:CA:89:C:OP2	1:CA:90:U:O4'	2.37	0.43
1:CA:585:G:OP1	17:CQ:37:LYS:HE2	2.19	0.43
1:CA:645:C:H2'	1:CA:646:U:H6	1.83	0.43
1:CA:855:G:C6	1:CA:856:C:C4	3.07	0.43
1:CA:946:A:C2	1:CA:1236:A:C2	3.07	0.43
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.83	0.43
1:CA:1228:C:O3'	13:CM:116:THR:HA	2.19	0.43
1:CA:1346:A:H5'	9:CI:120:ARG:HH12	1.82	0.43
3:CC:87:LEU:C	3:CC:89:GLU:N	2.70	0.43
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.22	0.43
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.19	0.43
4:CD:30:LYS:O	4:CD:32:ALA:N	2.51	0.43
7:CG:81:GLY:O	24:CX:13:A:H5'	2.18	0.43
14:CN:26:ARG:HD2	14:CN:43:CYS:CB	2.49	0.43
16:CP:82:GLN:O	16:CP:83:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:75:ARG:HG3	17:CQ:75:ARG:NH1	2.33	0.43
22:CV:61:C:H2'	22:CV:62:C:H6	1.83	0.43
24:CX:20:U:C4	25:CY:36:A:N1	2.86	0.43
26:D0:10:THR:CG2	26:D0:12:ASN:HB2	2.49	0.43
34:D8:38:GLY:O	34:D8:42:ARG:HB3	2.19	0.43
36:DA:953:A:C2'	36:DA:954:G:H5'	2.49	0.43
36:DA:957:A:N1	36:DA:2458:G:H4'	2.33	0.43
36:DA:2136:C:N4	36:DA:2155:G:N1	2.67	0.43
36:DA:2720:U:C5'	36:DA:2721:A:OP2	2.67	0.43
36:DA:2838:G:C1'	49:DR:45:ARG:HH11	2.32	0.43
36:DA:2839:G:H1	36:DA:2878:U:H3	1.66	0.43
40:DE:48:GLN:NE2	40:DE:78:LEU:CD1	2.82	0.43
41:DF:65:TRP:HB3	41:DF:66:PRO:HD2	2.01	0.43
41:DF:187:VAL:HG12	47:DP:7:ARG:NH2	2.34	0.43
42:DG:53:LEU:CD1	42:DG:56:ALA:HB3	2.47	0.43
42:DG:58:GLN:C	42:DG:60:LEU:N	2.71	0.43
42:DG:155:MET:H	42:DG:155:MET:HE2	1.84	0.43
43:DH:154:PRO:O	43:DH:155:SER:O	2.37	0.43
44:DI:38:LEU:HB2	44:DI:40:THR:HG23	2.00	0.43
44:DI:133:HIS:O	44:DI:134:PRO:C	2.57	0.43
45:DN:62:VAL:HG22	45:DN:66:LYS:HD3	2.00	0.43
47:DP:7:ARG:NE	47:DP:7:ARG:CA	2.68	0.43
49:DR:2:ARG:CZ	49:DR:5:LYS:NZ	2.82	0.43
50:DS:42:ASP:C	50:DS:44:LYS:N	2.72	0.43
50:DS:49:VAL:CG1	50:DS:50:SER:H	2.25	0.43
50:DS:95:HIS:CG	50:DS:96:GLY:H	2.37	0.43
52:DU:78:THR:HG22	52:DU:79:PHE:N	2.33	0.43
53:DV:68:LYS:HB2	53:DV:68:LYS:HZ3	1.81	0.43
53:DV:97:LYS:HD3	53:DV:97:LYS:HA	1.86	0.43
57:DZ:150:LEU:HD21	57:DZ:171:ILE:HB	2.01	0.43
1:AA:151:A:H2'	1:AA:152:A:O4'	2.19	0.43
1:AA:648:A:H2'	1:AA:649:G:C8	2.54	0.43
1:AA:978:A:H1'	1:AA:1322:C:O2	2.19	0.43
1:AA:1130:A:C2	1:AA:1146:A:C4	3.06	0.43
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.19	0.43
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.53	0.43
1:AA:1372:U:H2'	1:AA:1373:G:H5'	2.00	0.43
1:AA:1476:G:H2'	1:AA:1477:C:C6	2.54	0.43
3:AC:92:ALA:HB2	3:AC:99:VAL:HG22	1.98	0.43
4:AD:43:HIS:O	4:AD:44:GLY:C	2.57	0.43
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.82	0.43
6:AF:52:ILE:HD12	6:AF:87:ARG:NH2	2.34	0.43
7:AG:6:ARG:HG2	7:AG:6:ARG:O	2.19	0.43
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.33	0.43
11:AK:12:ARG:CG	11:AK:13:GLN:H	2.31	0.43
12:AL:42:THR:O	12:AL:42:THR:HG23	2.18	0.43
13:AM:3:ARG:HG2	13:AM:9:ILE:HG13	2.01	0.43
14:AN:22:THR:HB	14:AN:33:VAL:HG21	2.01	0.43
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.49	0.43
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.18	0.43
26:B0:49:LYS:HB2	26:B0:80:HIS:HB3	2.01	0.43
34:B8:6:THR:CG2	36:BA:243:U:OP1	2.66	0.43
34:B8:38:GLY:O	34:B8:42:ARG:HB3	2.19	0.43
34:B8:49:VAL:C	34:B8:53:PRO:HG3	2.38	0.43
36:BA:271(G):C:O2'	36:BA:271(H):G:H5'	2.18	0.43
36:BA:409:C:O2'	36:BA:410:G:H5'	2.18	0.43
36:BA:542:C:C2'	36:BA:543:C:OP1	2.66	0.43
36:BA:855:G:C6	36:BA:856:C:C4	3.07	0.43
36:BA:2181:G:O2'	36:BA:2182:G:H5'	2.19	0.43
36:BA:2206:G:H3'	36:BA:2206:G:N3	2.34	0.43
36:BA:2228:G:H2'	36:BA:2229:C:C6	2.54	0.43
36:BA:2287:A:C2	36:BA:2346:A:C2	3.06	0.43
36:BA:2303:G:H1'	42:BG:132:ASN:HD22	1.83	0.43
36:BA:2813:A:C2'	36:BA:2814:C:H5'	2.49	0.43
39:BD:43:ARG:HH11	39:BD:44:ASN:ND2	2.16	0.43
40:BE:59:VAL:HG21	40:BE:63:LEU:HD12	2.01	0.43
41:BF:57:VAL:CG1	41:BF:59:TYR:HD1	2.31	0.43
43:BH:19:VAL:HG22	43:BH:24:VAL:HG12	2.01	0.43
45:BN:57:ALA:O	45:BN:58:ASP:C	2.56	0.43
47:BP:48:PRO:HG2	47:BP:49:ARG:N	2.29	0.43
50:BS:28:VAL:CG1	50:BS:29:PHE:N	2.81	0.43
52:BU:96:ALA:HB1	52:BU:106:PHE:HE1	1.84	0.43
57:BZ:9:TYR:HD2	57:BZ:9:TYR:HA	1.70	0.43
57:BZ:12:GLY:O	57:BZ:13:GLU:HG3	2.18	0.43
57:BZ:150:LEU:CD2	57:BZ:171:ILE:HG13	2.38	0.43
1:CA:15:G:H1	1:CA:920:U:H3	1.66	0.43
1:CA:406:G:C5'	4:CD:5:ILE:HD13	2.48	0.43
1:CA:542:G:H5'	4:CD:41:GLY:HA3	2.01	0.43
1:CA:656:C:O2'	1:CA:657:G:H5'	2.19	0.43
1:CA:690:G:O2'	1:CA:691:G:H5'	2.18	0.43
1:CA:1066:C:O2	1:CA:1066:C:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1117:G:H2'	1:CA:1118:C:H5'	2.01	0.43
1:CA:1226:C:P	13:CM:91:ARG:HH12	2.42	0.43
1:CA:1262:C:H2'	1:CA:1263:C:H6	1.83	0.43
1:CA:1300:G:O2'	1:CA:1301:U:P	2.77	0.43
1:CA:1343:G:C1'	9:CI:121:ARG:HH12	2.29	0.43
2:CB:24:TRP:HB3	2:CB:40:HIS:CE1	2.53	0.43
2:CB:95:GLN:NE2	2:CB:147:LYS:HG2	2.29	0.43
5:CE:12:LEU:C	5:CE:13:ILE:HG13	2.39	0.43
5:CE:15:ARG:O	5:CE:16:THR:O	2.37	0.43
5:CE:101:ILE:HD11	5:CE:119:LEU:HA	2.01	0.43
7:CG:78:ARG:NE	7:CG:79:ARG:O	2.52	0.43
8:CH:44:PHE:HA	8:CH:79:VAL:HG12	2.01	0.43
10:CJ:32:ALA:N	10:CJ:76:ASN:HD22	2.16	0.43
12:CL:126:LYS:CG	12:CL:127:GLU:N	2.82	0.43
13:CM:14:ARG:HB2	13:CM:16:ASP:OD2	2.18	0.43
13:CM:37:THR:HG22	13:CM:59:TYR:HB2	2.00	0.43
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.54	0.43
18:CR:37:VAL:O	18:CR:41:LYS:HB2	2.18	0.43
27:D1:84:GLY:O	27:D1:85:LEU:C	2.56	0.43
33:D7:47:ARG:HE	55:DX:60:ARG:HH22	1.66	0.43
34:D8:14:VAL:O	34:D8:14:VAL:HG13	2.18	0.43
34:D8:29:LYS:CE	34:D8:44:LYS:HB3	2.49	0.43
36:DA:158:U:H4'	36:DA:171:G:C4	2.53	0.43
36:DA:315:G:H2'	36:DA:316:C:C6	2.54	0.43
36:DA:338:G:H2'	36:DA:339:U:C6	2.54	0.43
36:DA:792:G:C5'	36:DA:793:A:H5'	2.48	0.43
36:DA:874:G:O2'	36:DA:875:G:H5'	2.19	0.43
36:DA:995:C:C2	52:DU:57:PHE:CE1	3.07	0.43
36:DA:1025:G:H8	36:DA:1025:G:OP1	2.02	0.43
36:DA:1494:A:N3	36:DA:1494:A:H3'	2.34	0.43
36:DA:2009:G:O2'	36:DA:2010:G:H5'	2.19	0.43
36:DA:2173:A:C2'	36:DA:2174:C:H5'	2.48	0.43
38:DC:83:ILE:HA	38:DC:94:VAL:HG21	2.00	0.43
39:DD:8:PRO:C	39:DD:10:THR:H	2.22	0.43
39:DD:198:ASN:C	39:DD:198:ASN:HD22	2.22	0.43
42:DG:118:ARG:O	42:DG:181:ARG:HB2	2.19	0.43
42:DG:124:SER:C	42:DG:126:ASP:H	2.22	0.43
43:DH:17:VAL:O	43:DH:19:VAL:HG23	2.18	0.43
44:DI:145:VAL:CG1	44:DI:146:ALA:N	2.82	0.43
48:DQ:69:PHE:HD1	48:DQ:70:PRO:HD2	1.79	0.43
51:DT:19:LEU:HA	51:DT:20:PRO:HD3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:93:ARG:O	51:DT:94:ALA:C	2.57	0.43
57:DZ:116:VAL:H	57:DZ:174:VAL:CG1	2.32	0.43
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.42
1:AA:313:A:H2'	1:AA:314:C:C6	2.54	0.42
1:AA:827:U:H2'	1:AA:870:U:O4	2.19	0.42
1:AA:1139:G:N3	1:AA:1141:C:N4	2.65	0.42
1:AA:1153:C:P	10:AJ:13:HIS:NE2	2.92	0.42
1:AA:1237:C:C4'	1:AA:1334:G:H21	2.32	0.42
1:AA:1423:G:C5'	46:BO:49:ARG:HH22	2.31	0.42
1:AA:1466:C:H2'	1:AA:1467:G:C5'	2.49	0.42
2:AB:74:LYS:C	2:AB:76:GLN:N	2.72	0.42
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.49	0.42
2:AB:204:ASN:HD21	2:AB:206:ASP:H	1.66	0.42
2:AB:208:ILE:HG22	2:AB:212:GLN:HB2	2.01	0.42
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.19	0.42
3:AC:149:ALA:O	3:AC:169:ALA:HB1	2.19	0.42
4:AD:9:CYS:SG	4:AD:31:CYS:C	2.97	0.42
4:AD:127:THR:HG22	4:AD:132:ARG:HA	2.00	0.42
6:AF:21:LEU:HD13	6:AF:24:GLU:OE1	2.19	0.42
7:AG:47:CYS:HA	7:AG:50:ILE:CG1	2.45	0.42
10:AJ:30:SER:CB	10:AJ:80:LYS:HD3	2.49	0.42
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.34	0.42
12:AL:86:ARG:HB2	12:AL:101:VAL:CG2	2.49	0.42
12:AL:126:LYS:HE2	12:AL:127:GLU:H	1.83	0.42
14:AN:29:ARG:HG2	14:AN:40:CYS:HB2	2.00	0.42
14:AN:50:LYS:H	14:AN:50:LYS:HG3	1.66	0.42
19:AS:43:GLU:O	19:AS:43:GLU:OE1	2.36	0.42
20:AT:48:LYS:HD2	20:AT:51:GLU:OE2	2.19	0.42
22:AV:24:U:O2'	36:BA:1923:U:H5"	2.19	0.42
33:B7:6:GLN:HA	33:B7:7:PRO:HD2	1.82	0.42
33:B7:47:ARG:HE	55:BX:60:ARG:HH22	1.67	0.42
36:BA:9:U:C4	36:BA:2629:A:N6	2.87	0.42
36:BA:234:C:H2'	36:BA:235:U:H6	1.84	0.42
36:BA:282:A:H2'	36:BA:283:A:H5"	2.01	0.42
36:BA:332:A:O2'	36:BA:333:G:P	2.77	0.42
36:BA:437:G:O2'	36:BA:438:G:H5'	2.19	0.42
36:BA:1509(B):A:H2'	36:BA:1510:G:C8	2.54	0.42
36:BA:1717:G:C2'	36:BA:1718:G:H5"	2.47	0.42
36:BA:1817:G:H2'	36:BA:1818:U:H5'	2.01	0.42
36:BA:2238:G:N3	36:BA:2238:G:H2'	2.33	0.42
39:BD:136:ILE:HA	39:BD:137:PRO:HD3	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BD:241:PRO:C	39:BD:242:ARG:HD2	2.38	0.42
40:BE:77:ILE:HG22	40:BE:78:LEU:HG	2.01	0.42
40:BE:93:VAL:C	40:BE:95:ILE:H	2.22	0.42
43:BH:118:PRO:HD2	43:BH:123:PHE:HE1	1.83	0.42
46:BO:76:ALA:HB3	51:BT:75:ILE:HD12	2.01	0.42
46:BO:87:ILE:HG23	46:BO:91:LEU:C	2.40	0.42
48:BQ:103:MET:CE	48:BQ:125:LEU:HD13	2.48	0.42
49:BR:53:HIS:ND1	49:BR:53:HIS:O	2.52	0.42
49:BR:80:PHE:HD1	49:BR:80:PHE:HA	1.75	0.42
51:BT:55:ASN:H	51:BT:59:THR:CG2	2.30	0.42
52:BU:92:ARG:HH12	53:BV:11:GLN:H	1.67	0.42
53:BV:47:VAL:HB	53:BV:49:THR:O	2.19	0.42
53:BV:47:VAL:CB	53:BV:50:PRO:O	2.66	0.42
54:BW:70:TYR:HE2	54:BW:108:GLY:HA3	1.83	0.42
56:BY:97:ARG:HD2	56:BY:97:ARG:HA	1.81	0.42
57:BZ:99:TYR:HA	57:BZ:125:LEU:HA	2.01	0.42
1:CA:1105:A:H2'	1:CA:1106:G:C8	2.53	0.42
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.19	0.42
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.19	0.42
1:CA:1305:G:H22	1:CA:1331:G:C1'	2.30	0.42
1:CA:1312:G:O2'	1:CA:1313:U:H5'	2.19	0.42
2:CB:12:GLU:C	2:CB:14:GLY:N	2.73	0.42
2:CB:112:VAL:CG2	2:CB:149:LEU:HD13	2.48	0.42
3:CC:69:HIS:CD2	3:CC:69:HIS:N	2.87	0.42
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.34	0.42
7:CG:95:ARG:HG3	7:CG:95:ARG:NH1	2.33	0.42
8:CH:109:ILE:CG1	8:CH:110:ALA:H	2.23	0.42
10:CJ:40:LEU:CG	10:CJ:69:ASN:HB3	2.44	0.42
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.57	0.42
10:CJ:84:GLN:O	10:CJ:85:LEU:HD23	2.19	0.42
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.87	0.42
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	2.01	0.42
17:CQ:92:ARG:O	17:CQ:95:TYR:CD2	2.72	0.42
18:CR:82:THR:CG2	18:CR:83:GLU:H	2.32	0.42
19:CS:28:LYS:HD2	19:CS:29:ARG:NE	2.34	0.42
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.43	0.42
22:CV:66:C:H2'	22:CV:67:C:O4'	2.18	0.42
25:CY:58:A:N3	25:CY:60:U:H6	2.16	0.42
27:D1:5:CYS:SG	27:D1:8:SER:N	2.85	0.42
29:D3:52:HIS:NE2	37:DB:83:G:C5'	2.82	0.42
30:D4:45:GLY:O	30:D4:46:ASN:O	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:9:U:C4	36:DA:2629:A:N6	2.87	0.42
36:DA:282:A:H2'	36:DA:283:A:H5"	2.01	0.42
36:DA:486:C:C2	36:DA:495:G:N2	2.87	0.42
36:DA:954:G:H4'	48:DQ:13:GLN:NE2	2.34	0.42
36:DA:996:A:N6	36:DA:1160:G:C6	2.87	0.42
36:DA:1140:C:H1'	36:DA:1143:A:N3	2.34	0.42
36:DA:1188:U:O2'	36:DA:1189:A:H5'	2.19	0.42
36:DA:1930:G:N2	36:DA:1968:G:H2'	2.34	0.42
36:DA:2134:A:N3	36:DA:2159:G:H1'	2.31	0.42
36:DA:2182:G:H2'	36:DA:2183:C:C6	2.54	0.42
36:DA:2525:G:O4'	36:DA:2741:A:H2	2.02	0.42
36:DA:2590:A:OP2	39:DD:238:GLY:HA2	2.19	0.42
36:DA:2748:A:C2	43:DH:63:SER:HB3	2.54	0.42
38:DC:187:ASP:O	38:DC:189:ILE:N	2.50	0.42
40:DE:4:ILE:HG13	40:DE:5:LEU:N	2.34	0.42
40:DE:181:LEU:HD21	51:DT:7:ILE:HG22	2.01	0.42
43:DH:107:VAL:O	43:DH:107:VAL:HG23	2.19	0.42
43:DH:153:LYS:HD3	43:DH:153:LYS:O	2.18	0.42
44:DI:65:ALA:HB2	44:DI:131:LYS:HE2	2.00	0.42
45:DN:131:GLN:O	45:DN:132:ALA:HB2	2.19	0.42
47:DP:66:GLY:O	47:DP:67:MET:CB	2.62	0.42
47:DP:101:VAL:HG12	47:DP:107:LYS:H	1.83	0.42
48:DQ:51:ARG:NH1	48:DQ:51:ARG:HG2	2.33	0.42
51:DT:12:SER:O	51:DT:15:VAL:HG12	2.18	0.42
52:DU:91:ASP:C	52:DU:92:ARG:CD	2.82	0.42
53:DV:47:VAL:O	53:DV:49:THR:O	2.37	0.42
54:DW:36:LEU:HD23	54:DW:36:LEU:N	2.34	0.42
55:DX:12:VAL:CG1	55:DX:27:THR:O	2.65	0.42
55:DX:27:THR:HG22	55:DX:80:ILE:CB	2.25	0.42
57:DZ:148:ASP:O	57:DZ:149:SER:HB3	2.19	0.42
1:AA:405:U:H5"	1:AA:406:G:O4'	2.19	0.42
1:AA:542:G:H5'	4:AD:41:GLY:HA3	2.00	0.42
1:AA:546:G:P	4:AD:72:GLU:HB3	2.59	0.42
1:AA:862:C:C2'	1:AA:863:U:H5'	2.49	0.42
1:AA:1165:C:H2'	1:AA:1166:G:H8	1.84	0.42
1:AA:1251:A:H1'	1:AA:1369:C:HO2'	1.83	0.42
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.20	0.42
5:AE:90:VAL:O	5:AE:91:LEU:HD12	2.19	0.42
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	2.01	0.42
7:AG:152:ALA:O	7:AG:155:ARG:HG3	2.19	0.42
8:AH:21:LYS:O	8:AH:22:GLU:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:114:THR:C	8:AH:116:LYS:H	2.22	0.42
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.37	0.42
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.34	0.42
12:AL:22:SER:C	12:AL:24:VAL:N	2.73	0.42
14:AN:23:ARG:O	14:AN:24:CYS:O	2.37	0.42
17:AQ:75:ARG:HG3	17:AQ:75:ARG:NH1	2.34	0.42
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.19	0.42
19:AS:17:GLU:O	19:AS:21:GLU:HG3	2.19	0.42
22:AV:5:G:H2'	22:AV:6:G:H8	1.83	0.42
26:B0:53:MET:HA	26:B0:58:THR:O	2.19	0.42
27:B1:3:LYS:CG	27:B1:4:VAL:H	2.15	0.42
27:B1:83:GLU:O	27:B1:86:SER:OG	2.38	0.42
31:B5:56:LYS:HD2	31:B5:56:LYS:N	2.34	0.42
34:B8:46:ARG:HB3	34:B8:47:LYS:H	1.72	0.42
34:B8:61:LEU:N	34:B8:63:PRO:HD2	2.33	0.42
36:BA:158:U:H4'	36:BA:171:G:C4	2.54	0.42
36:BA:363:G:N7	36:BA:363(A):A:N7	2.67	0.42
36:BA:365:C:H5'	36:BA:365:C:C6	2.32	0.42
36:BA:534:U:O2'	52:BU:49:HIS:CD2	2.71	0.42
36:BA:553:G:C6	36:BA:554:U:N3	2.87	0.42
36:BA:792:G:C5'	36:BA:793:A:H5'	2.46	0.42
36:BA:892:G:O2'	36:BA:893:C:H5'	2.19	0.42
36:BA:1140:C:OP1	45:BN:23:LEU:HD23	2.19	0.42
36:BA:1289:C:H2'	36:BA:1290:C:C6	2.54	0.42
36:BA:1665:A:H4'	46:BO:67:LYS:HB2	2.00	0.42
36:BA:2086:U:H2'	36:BA:2087:G:C8	2.53	0.42
36:BA:2420:C:O2'	36:BA:2421:G:H5'	2.19	0.42
36:BA:2528:U:H2'	36:BA:2530:A:O5'	2.19	0.42
37:BB:75:G:H1	37:BB:103:G:N2	2.16	0.42
38:BC:45:ALA:HB3	38:BC:174:PRO:CB	2.49	0.42
39:BD:26:LYS:HE2	39:BD:81:ALA:HA	2.00	0.42
39:BD:134:ARG:O	39:BD:168:ARG:NH1	2.53	0.42
39:BD:142:VAL:HG21	39:BD:191:ALA:HB1	2.00	0.42
39:BD:241:PRO:O	39:BD:242:ARG:HB2	2.19	0.42
41:BF:40:GLN:OE1	41:BF:183:VAL:HG23	2.19	0.42
41:BF:53:THR:HG23	41:BF:54:ARG:N	2.33	0.42
42:BG:64:THR:CG2	42:BG:65:GLY:N	2.79	0.42
42:BG:66:GLN:HE21	42:BG:98:ARG:HG3	1.84	0.42
46:BO:19:ILE:HG22	46:BO:43:VAL:HA	2.00	0.42
47:BP:75:ILE:N	47:BP:75:ILE:CD1	2.81	0.42
47:BP:97:PRO:O	47:BP:99:LEU:N	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:114:ILE:HD12	47:BP:115:LEU:H	1.84	0.42
48:BQ:141:GLN:HB2	57:BZ:98:MET:HA	2.00	0.42
50:BS:35:ILE:HG23	50:BS:53:SER:HB2	2.01	0.42
50:BS:101:LEU:HD22	50:BS:101:LEU:O	2.19	0.42
51:BT:16:ARG:HH11	51:BT:16:ARG:HB3	1.84	0.42
51:BT:78:LEU:O	51:BT:78:LEU:CD2	2.67	0.42
54:BW:64:MET:HE3	54:BW:109:GLU:HG2	2.01	0.42
56:BY:31:LEU:HD23	56:BY:36:ALA:H	1.84	0.42
1:CA:59:A:H3'	1:CA:331:G:H22	1.84	0.42
1:CA:489:C:O2'	1:CA:490:G:H5'	2.18	0.42
1:CA:677:U:H3	1:CA:713:G:H22	1.67	0.42
1:CA:762:C:H2'	1:CA:763:G:H8	1.84	0.42
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.52	0.42
1:CA:983:A:H3'	1:CA:983:A:N3	2.34	0.42
1:CA:1316:G:C2'	1:CA:1317:C:H5"	2.47	0.42
2:CB:42:ILE:CD1	2:CB:202:PRO:HB2	2.40	0.42
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.19	0.42
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	2.01	0.42
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.19	0.42
3:CC:188:LEU:HD12	3:CC:195:VAL:CG1	2.49	0.42
3:CC:196:LEU:HB3	3:CC:197:GLY:H	1.72	0.42
9:CI:59:PHE:CD1	9:CI:59:PHE:N	2.87	0.42
13:CM:46:LYS:HG3	13:CM:47:ASP:OD1	2.18	0.42
13:CM:116:THR:HG22	13:CM:117:VAL:N	2.33	0.42
22:CV:4:G:HO2'	22:CV:5:G:H8	1.67	0.42
22:CV:63:G:C2	22:CV:64:G:C8	3.07	0.42
25:CY:9:A:N3	25:CY:45:U:C2	2.87	0.42
27:D1:58:ILE:CD1	27:D1:94:LEU:HD13	2.49	0.42
28:D2:24:LEU:HD23	28:D2:60:LEU:HD21	2.00	0.42
32:D6:13:CYS:HB2	32:D6:22:ALA:HB3	1.99	0.42
33:D7:12:ARG:HG3	36:DA:686:G:O6	2.18	0.42
34:D8:13:ARG:HD2	47:DP:61:ARG:O	2.17	0.42
36:DA:271(O):C:O2'	36:DA:271(P):C:C6	2.61	0.42
36:DA:299:A:N1	36:DA:322:A:O2'	2.48	0.42
36:DA:409:C:O2'	36:DA:410:G:H5'	2.19	0.42
36:DA:535:C:C2'	36:DA:536:A:H5'	2.49	0.42
36:DA:542:C:N4	36:DA:543:C:H41	2.16	0.42
36:DA:875:G:H2'	36:DA:876:C:O4'	2.19	0.42
36:DA:1022:G:O6	45:DN:66:LYS:HE3	2.19	0.42
36:DA:1317:A:H2'	36:DA:1318:C:C6	2.54	0.42
36:DA:1917:U:O2'	36:DA:1918:A:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2259:G:C2	36:DA:2282:G:N1	2.87	0.42
36:DA:2680:C:H2'	36:DA:2681:C:O2	2.19	0.42
36:DA:2747:G:O6	36:DA:2755:C:H5"	2.19	0.42
37:DB:40:U:H1'	37:DB:45:A:N6	2.35	0.42
39:DD:211:ARG:HA	39:DD:214:TRP:CG	2.54	0.42
40:DE:51:PHE:CD1	40:DE:52:LEU:HB2	2.54	0.42
40:DE:77:ILE:HG22	40:DE:78:LEU:HG	2.01	0.42
40:DE:181:LEU:HD21	51:DT:7:ILE:CG2	2.48	0.42
42:DG:107:LEU:C	42:DG:112:PRO:HG2	2.39	0.42
45:DN:87:LEU:O	45:DN:88:GLU:C	2.57	0.42
48:DQ:56:ARG:HH11	48:DQ:56:ARG:HG2	1.84	0.42
49:DR:18:LEU:HD11	49:DR:22:ARG:NE	2.35	0.42
50:DS:36:TYR:H	50:DS:36:TYR:HD1	1.66	0.42
51:DT:28:VAL:CG1	51:DT:46:GLU:HA	2.32	0.42
51:DT:112:ARG:HB2	51:DT:112:ARG:NH1	2.35	0.42
53:DV:5:VAL:HG21	53:DV:35:LEU:HG	2.01	0.42
53:DV:45:THR:O	53:DV:46:VAL:O	2.37	0.42
54:DW:17:VAL:O	54:DW:18:ARG:C	2.55	0.42
56:DY:2:ARG:C	56:DY:4:LYS:H	2.22	0.42
56:DY:11:ASP:H	56:DY:28:LYS:NZ	2.17	0.42
56:DY:76:CYS:SG	56:DY:77:PRO:CD	2.90	0.42
57:DZ:28:MET:HA	57:DZ:88:PHE:O	2.19	0.42
1:AA:77:G:H2'	1:AA:77:G:N3	2.33	0.42
1:AA:184:G:O2'	1:AA:185:A:H5'	2.18	0.42
1:AA:625:G:C4	1:AA:626:U:C5	3.08	0.42
1:AA:1007:C:H2'	1:AA:1008:C:C5	2.53	0.42
1:AA:1155:G:C2'	1:AA:1156:G:H5'	2.49	0.42
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.54	0.42
1:AA:1423:G:H5'	46:BO:49:ARG:NH2	2.34	0.42
3:AC:30:ARG:O	3:AC:34:LEU:HB3	2.20	0.42
4:AD:127:THR:HG23	4:AD:149:ALA:HB2	2.01	0.42
5:AE:7:GLU:HG2	5:AE:37:ARG:HH21	1.84	0.42
6:AF:3:ARG:NH1	6:AF:38:GLU:OE1	2.52	0.42
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.18	0.42
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.19	0.42
25:AY:59:U:O2	25:AY:60:U:H5"	2.20	0.42
26:B0:7:LEU:HB3	48:BQ:85:LYS:HG3	2.01	0.42
29:B3:26:LEU:O	29:B3:27:GLY:C	2.57	0.42
31:B5:39:MET:CE	54:BW:34:ASN:OD1	2.68	0.42
34:B8:26:LYS:NZ	34:B8:47:LYS:HD3	2.35	0.42
36:BA:281:G:N2	36:BA:358:U:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:320:A:C2'	41:BF:136:THR:HG21	2.49	0.42
36:BA:874:G:O2'	36:BA:875:G:H5'	2.19	0.42
36:BA:1045:A:N3	36:BA:1045:A:C2'	2.78	0.42
36:BA:1242:A:C2	47:BP:8:PRO:HG3	2.55	0.42
36:BA:1608:A:H1'	36:BA:1610:A:OP2	2.19	0.42
36:BA:1827:C:H2'	36:BA:1828:G:H5'	2.00	0.42
36:BA:2064:C:H2'	36:BA:2065:C:C6	2.55	0.42
36:BA:2779:U:H4'	36:BA:2780:G:C5'	2.49	0.42
38:BC:212:VAL:O	38:BC:213:TYR:CB	2.67	0.42
39:BD:136:ILE:HG22	39:BD:140:THR:OG1	2.18	0.42
42:BG:95:ARG:HG2	42:BG:95:ARG:NH1	2.34	0.42
43:BH:107:VAL:O	43:BH:107:VAL:HG23	2.20	0.42
44:BI:5:LEU:C	44:BI:6:LEU:HD23	2.39	0.42
44:BI:68:LEU:O	44:BI:72:LEU:HB3	2.19	0.42
44:BI:113:ARG:HD2	44:BI:113:ARG:N	2.34	0.42
48:BQ:25:ASP:OD1	48:BQ:25:ASP:N	2.51	0.42
48:BQ:134:ARG:HH21	57:BZ:122:ARG:NE	2.17	0.42
49:BR:24:GLN:HE22	49:BR:36:THR:HG21	1.84	0.42
49:BR:78:LYS:O	49:BR:78:LYS:HG2	2.19	0.42
53:BV:35:LEU:HB2	53:BV:57:VAL:HG13	2.01	0.42
54:BW:76:VAL:O	54:BW:76:VAL:CG1	2.67	0.42
56:BY:27:VAL:CA	56:BY:28:LYS:HZ2	2.30	0.42
57:BZ:44:PHE:CZ	57:BZ:86:VAL:HG11	2.54	0.42
1:CA:403:C:H2'	1:CA:404:U:C6	2.52	0.42
1:CA:872:A:C4	1:CA:874:G:N7	2.87	0.42
1:CA:983:A:H2	1:CA:984:C:C6	2.37	0.42
1:CA:1014:A:H2	1:CA:1219:U:H1'	1.84	0.42
1:CA:1444:C:O2'	1:CA:1445:C:H5'	2.20	0.42
2:CB:8:LYS:HZ3	2:CB:217:ARG:HH12	1.65	0.42
3:CC:156:ARG:NH2	3:CC:160:ALA:O	2.50	0.42
4:CD:30:LYS:HB3	4:CD:35:ARG:HD2	2.01	0.42
5:CE:78:HIS:CE1	5:CE:142:LEU:HA	2.55	0.42
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.22	0.42
7:CG:50:ILE:HG21	7:CG:58:PRO:CA	2.39	0.42
9:CI:89:ASN:C	9:CI:91:ASP:H	2.23	0.42
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.44	0.42
12:CL:28:LYS:C	12:CL:30:ALA:N	2.72	0.42
14:CN:15:LYS:O	14:CN:16:PHE:C	2.57	0.42
14:CN:23:ARG:O	14:CN:24:CYS:O	2.37	0.42
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.99	0.42
18:CR:56:THR:CB	18:CR:58:LEU:CD1	2.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:17:GLU:O	19:CS:21:GLU:HG3	2.18	0.42
19:CS:39:THR:HG22	19:CS:40:ILE:H	1.82	0.42
19:CS:45:VAL:O	19:CS:47:HIS:N	2.51	0.42
28:D2:40:SER:OG	55:DX:11:PRO:HD2	2.19	0.42
29:D3:3:ARG:HA	29:D3:38:GLU:OE2	2.19	0.42
36:DA:624:C:O5'	36:DA:624:C:H6	2.01	0.42
36:DA:1022:G:N2	36:DA:1142(A):A:C2	2.86	0.42
36:DA:1218:C:C2'	36:DA:1219:G:H5'	2.50	0.42
36:DA:1386:C:H2'	36:DA:1387:C:H6	1.84	0.42
36:DA:2030:A:H4'	36:DA:2031:A:H8	1.83	0.42
36:DA:2135:A:H2'	36:DA:2136:C:C6	2.54	0.42
36:DA:2691:C:H5'	36:DA:2691:C:C6	2.46	0.42
36:DA:2822:G:OP1	40:DE:159:HIS:NE2	2.53	0.42
38:DC:58:VAL:HG22	38:DC:167:LYS:CA	2.49	0.42
40:DE:169:ASN:OD1	40:DE:203:LYS:HB3	2.19	0.42
42:DG:103:LEU:N	42:DG:103:LEU:CD2	2.78	0.42
42:DG:127:GLY:O	42:DG:128:ARG:CG	2.54	0.42
42:DG:142:PRO:HG2	42:DG:143:GLU:N	2.34	0.42
50:DS:20:ARG:HD3	50:DS:20:ARG:HA	1.78	0.42
51:DT:12:SER:O	51:DT:13:ARG:CZ	2.67	0.42
51:DT:120:ARG:HA	51:DT:123:GLN:HG2	2.00	0.42
1:AA:297:G:N2	1:AA:300:A:OP2	2.48	0.42
1:AA:760:G:H2'	1:AA:761:G:H5'	2.01	0.42
1:AA:788:U:H2'	1:AA:789:U:O4'	2.20	0.42
1:AA:1148:U:O2'	1:AA:1149:C:H5'	2.19	0.42
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.53	0.42
1:AA:1201:A:H1'	1:AA:1202:G:OP2	2.19	0.42
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.87	0.42
2:AB:134:GLU:CA	2:AB:137:ARG:HB3	2.47	0.42
3:AC:39:ILE:O	3:AC:41:GLY:N	2.52	0.42
5:AE:150:ARG:CZ	5:AE:150:ARG:CB	2.97	0.42
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	2.20	0.42
6:AF:75:LEU:O	6:AF:78:GLU:HB3	2.18	0.42
7:AG:11:GLN:NE2	7:AG:12:LEU:N	2.61	0.42
7:AG:113:GLU:HB3	7:AG:118:VAL:HG23	2.02	0.42
8:AH:40:ALA:C	8:AH:42:GLU:N	2.73	0.42
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	2.01	0.42
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.50	0.42
16:AP:25:ARG:HG3	16:AP:25:ARG:NH1	2.35	0.42
16:AP:76:GLN:O	16:AP:76:GLN:CG	2.66	0.42
19:AS:40:ILE:HG21	19:AS:67:VAL:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:45:GLN:C	20:AT:47:GLY:H	2.22	0.42
21:AU:6:ARG:HG2	21:AU:15:ARG:NH1	2.34	0.42
27:B1:71:TYR:N	27:B1:71:TYR:CD1	2.88	0.42
28:B2:4:SER:O	28:B2:7:ARG:HG2	2.19	0.42
33:B7:10:ARG:NH2	36:BA:1378:A:OP1	2.52	0.42
36:BA:9:U:O2'	36:BA:10:G:P	2.77	0.42
36:BA:624:C:O2'	36:BA:657:U:H5'	2.19	0.42
36:BA:697:C:H2'	36:BA:698:C:C6	2.54	0.42
36:BA:1427:A:H4'	36:BA:1428:C:O5'	2.20	0.42
36:BA:1494:A:N3	36:BA:1494:A:H3'	2.34	0.42
36:BA:1914:C:O2	36:BA:1914:C:O5'	2.37	0.42
36:BA:1937:A:C8	36:BA:1939:U:H2'	2.54	0.42
36:BA:2171:A:H4'	36:BA:2172:U:OP1	2.18	0.42
36:BA:2726:U:O2'	36:BA:2727:G:H5'	2.19	0.42
36:BA:2759:G:C2'	36:BA:2760:C:H5'	2.49	0.42
36:BA:2776:A:H4'	36:BA:2777:G:H5"	2.01	0.42
38:BC:106:GLY:O	38:BC:108:MET:N	2.47	0.42
38:BC:168:THR:HA	38:BC:173:ALA:HB1	2.01	0.42
38:BC:169:GLY:O	38:BC:170:ALA:HB3	2.19	0.42
39:BD:146:GLU:HG2	39:BD:152:GLY:C	2.40	0.42
39:BD:166:GLN:CA	39:BD:166:GLN:NE2	2.74	0.42
39:BD:245:PRO:O	39:BD:245:PRO:HG2	2.19	0.42
42:BG:64:THR:CG2	42:BG:65:GLY:H	2.26	0.42
42:BG:69:ALA:O	42:BG:90:LEU:CD2	2.67	0.42
45:BN:17:ASP:C	45:BN:19:GLU:N	2.71	0.42
46:BO:10:VAL:HA	46:BO:84:ALA:O	2.19	0.42
46:BO:26:LYS:HB3	46:BO:27:GLY:H	1.63	0.42
47:BP:61:ARG:HD2	47:BP:61:ARG:H	1.83	0.42
49:BR:55:ALA:HB1	49:BR:84:ALA:HB2	2.01	0.42
52:BU:12:ARG:CA	52:BU:15:LYS:NZ	2.82	0.42
53:BV:38:LEU:CD1	53:BV:57:VAL:HB	2.49	0.42
56:BY:20:TYR:CZ	56:BY:42:VAL:HA	2.55	0.42
56:BY:55:TYR:O	56:BY:56:PRO:O	2.38	0.42
1:CA:406:G:H5'	4:CD:5:ILE:HD13	2.02	0.42
1:CA:579:G:C6	1:CA:580:U:C4	3.08	0.42
1:CA:860:A:H2'	1:CA:861:G:O4'	2.19	0.42
1:CA:976:G:OP1	14:CN:32:SER:N	2.52	0.42
1:CA:1053:G:H4'	1:CA:1054:C:H5'	2.01	0.42
1:CA:1216:G:OP1	14:CN:2:ALA:HA	2.20	0.42
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.53	0.42
1:CA:1464:G:OP1	51:DT:108:ARG:HD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1484:C:H4'	36:DA:1960:A:O2'	2.19	0.42
2:CB:50:GLU:O	2:CB:51:LEU:C	2.58	0.42
2:CB:69:LEU:HB2	2:CB:159:PRO:CG	2.49	0.42
4:CD:4:TYR:CD2	4:CD:5:ILE:N	2.87	0.42
4:CD:191:ARG:O	4:CD:191:ARG:HD2	2.19	0.42
6:CF:52:ILE:HD12	6:CF:87:ARG:NH2	2.34	0.42
6:CF:100:ASN:O	6:CF:101:ALA:O	2.37	0.42
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	2.02	0.42
9:CI:28:VAL:CG2	9:CI:63:ILE:HB	2.27	0.42
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE2	2.37	0.42
11:CK:127:LYS:HA	11:CK:127:LYS:CE	2.18	0.42
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.55	0.42
12:CL:32:PHE:HB3	12:CL:84:LEU:CD1	2.49	0.42
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.19	0.42
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.19	0.42
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.84	0.42
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.20	0.42
22:CV:34:C:H2'	22:CV:35:A:O4'	2.18	0.42
27:D1:41:ARG:HD3	27:D1:43:TYR:OH	2.20	0.42
27:D1:81:LYS:O	27:D1:82:LEU:HD13	2.20	0.42
28:D2:16:LEU:O	28:D2:17:SER:CB	2.66	0.42
29:D3:24:LYS:HD3	36:DA:931:G:O2'	2.19	0.42
32:D6:11:LEU:HD13	32:D6:12:GLU:N	2.35	0.42
36:DA:120:U:H5"	36:DA:122:G:OP2	2.18	0.42
36:DA:558:G:OP2	45:DN:111:PRO:HD2	2.19	0.42
36:DA:852:G:H2'	36:DA:853:G:H8	1.82	0.42
36:DA:892:G:O2'	36:DA:893:C:H5'	2.19	0.42
36:DA:994:C:C2'	52:DU:54:LYS:HE3	2.48	0.42
36:DA:1018:C:C2'	36:DA:1019:U:H5'	2.49	0.42
36:DA:1241:A:N7	36:DA:1242:A:C4	2.87	0.42
36:DA:1246:A:P	47:DP:18:ARG:HG3	2.60	0.42
36:DA:1668:A:N3	36:DA:1670:C:C4	2.87	0.42
36:DA:2236:C:H2'	36:DA:2237:G:C5'	2.49	0.42
36:DA:2302:G:C6	36:DA:2303:G:C5	3.07	0.42
36:DA:2667:C:H1'	43:DH:109:PHE:CD2	2.55	0.42
36:DA:2813:A:C2'	36:DA:2814:C:H5'	2.50	0.42
36:DA:2832:U:O4	36:DA:2883:A:H5"	2.19	0.42
37:DB:40:U:O2'	37:DB:43:C:C5	2.69	0.42
39:DD:23:GLU:HA	39:DD:23:GLU:OE2	2.18	0.42
39:DD:24:ILE:O	39:DD:26:LYS:NZ	2.53	0.42
39:DD:161:THR:H	39:DD:196:VAL:HB	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DE:52:LEU:HD12	40:DE:53:PRO:HD2	2.00	0.42
41:DF:131:GLY:O	41:DF:132:VAL:O	2.37	0.42
41:DF:161:GLU:HG2	41:DF:164:ARG:NH2	2.34	0.42
42:DG:114:ILE:HD12	42:DG:117:PHE:CG	2.54	0.42
43:DH:44:VAL:CG1	43:DH:45:VAL:H	2.15	0.42
46:DO:11:ALA:O	46:DO:99:PHE:HD2	2.01	0.42
46:DO:17:ARG:HD3	46:DO:47:ILE:CD1	2.49	0.42
46:DO:68:GLU:O	46:DO:68:GLU:HG2	2.20	0.42
47:DP:83:VAL:CG1	47:DP:114:ILE:HA	2.49	0.42
47:DP:111:ARG:CZ	47:DP:149:GLU:HG3	2.49	0.42
48:DQ:25:ASP:OD1	48:DQ:25:ASP:N	2.52	0.42
48:DQ:27:VAL:HG23	48:DQ:137:TYR:CE1	2.50	0.42
49:DR:84:ALA:N	49:DR:85:PRO:CD	2.82	0.42
52:DU:65:ILE:C	52:DU:67:ALA:N	2.72	0.42
52:DU:92:ARG:CG	52:DU:92:ARG:NH1	2.78	0.42
54:DW:45:TYR:CD2	54:DW:45:TYR:C	2.92	0.42
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.55	0.42
2:AB:178:ARG:HA	2:AB:178:ARG:HD3	1.94	0.42
2:AB:189:ASP:HB2	2:AB:190:THR:H	1.75	0.42
3:AC:29:TYR:HD1	14:AN:36:PHE:CZ	2.38	0.42
3:AC:107:GLN:CD	3:AC:107:GLN:H	2.23	0.42
4:AD:52:SER:C	4:AD:54:TYR:N	2.72	0.42
4:AD:81:GLU:OE1	4:AD:139:ARG:NH2	2.52	0.42
9:AI:19:LEU:HD21	9:AI:61:ALA:HB2	2.01	0.42
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.19	0.42
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	2.00	0.42
28:B2:29:LYS:HD3	28:B2:57:ILE:CG2	2.48	0.42
29:B3:59:VAL:CG1	29:B3:60:GLU:N	2.82	0.42
34:B8:50:LEU:O	34:B8:51:ALA:HB3	2.20	0.42
36:BA:142:A:H8	36:BA:1408:C:H1'	1.84	0.42
36:BA:323:G:HO2'	36:BA:1205:U:H3	1.68	0.42
36:BA:613:G:C5'	36:BA:613:G:C8	2.97	0.42
36:BA:927:G:H2'	36:BA:927:G:N3	2.35	0.42
36:BA:1652:A:C2	36:BA:2006:C:N3	2.88	0.42
36:BA:1681:G:H8	36:BA:1681:G:OP2	2.02	0.42
36:BA:1815:A:P	39:BD:54:ARG:HH22	2.43	0.42
36:BA:2223:G:O2'	36:BA:2224:G:H5'	2.20	0.42
36:BA:2227:A:H5'	39:BD:263:ARG:NH1	2.32	0.42
37:BB:32:C:C2	37:BB:51:G:N2	2.88	0.42
37:BB:56:G:H5"	42:BG:27:ASN:CG	2.39	0.42
39:BD:25:THR:C	39:BD:27:THR:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BD:30:GLU:CD	39:BD:63:ARG:NE	2.72	0.42
39:BD:77:ALA:HB2	39:BD:97:TYR:CG	2.54	0.42
42:BG:111:LEU:CB	42:BG:112:PRO:HD3	2.38	0.42
43:BH:151:ILE:N	43:BH:151:ILE:HD13	2.35	0.42
47:BP:108:LYS:O	47:BP:110:TYR:N	2.52	0.42
53:BV:19:LYS:HZ3	53:BV:20:LEU:H	1.61	0.42
54:BW:58:ALA:HB1	54:BW:64:MET:SD	2.60	0.42
55:BX:44:GLU:O	55:BX:46:ALA:N	2.45	0.42
57:BZ:120:ILE:O	57:BZ:171:ILE:HA	2.20	0.42
57:BZ:150:LEU:O	57:BZ:171:ILE:CG1	2.67	0.42
57:BZ:159:PRO:C	57:BZ:161:VAL:H	2.23	0.42
1:CA:197:A:N7	1:CA:221:C:H4'	2.35	0.42
1:CA:328:C:O2	1:CA:328:C:C2'	2.68	0.42
1:CA:592:G:H2'	1:CA:593:G:H8	1.84	0.42
1:CA:675:A:H1'	11:CK:116:HIS:ND1	2.35	0.42
1:CA:826:C:H4'	8:CH:12:ARG:HG3	2.00	0.42
1:CA:949:A:C2	1:CA:1233:G:N3	2.88	0.42
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.55	0.42
2:CB:215:LEU:HD23	2:CB:215:LEU:HA	1.92	0.42
3:CC:34:LEU:HD12	14:CN:25:VAL:CG1	2.50	0.42
3:CC:68:VAL:CG1	3:CC:70:VAL:HG23	2.45	0.42
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.18	0.42
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.20	0.42
4:CD:81:GLU:CD	4:CD:139:ARG:HH22	2.23	0.42
6:CF:30:LEU:O	6:CF:35:ALA:N	2.49	0.42
7:CG:95:ARG:CZ	7:CG:99:LEU:HD21	2.49	0.42
9:CI:43:ALA:O	9:CI:45:ALA:N	2.52	0.42
9:CI:125:TYR:CE2	9:CI:127:LYS:HB2	2.54	0.42
11:CK:12:ARG:HE	11:CK:14:VAL:CG1	2.33	0.42
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.20	0.42
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.18	0.42
14:CN:34:TYR:HD1	14:CN:34:TYR:H	1.66	0.42
14:CN:42:ILE:O	14:CN:45:ARG:N	2.53	0.42
19:CS:11:VAL:HG21	19:CS:16:LEU:HD11	2.02	0.42
19:CS:36:ARG:CZ	19:CS:72:GLY:HA2	2.49	0.42
26:D0:24:LYS:N	26:D0:37:LEU:O	2.50	0.42
26:D0:26:TYR:N	26:D0:29:GLN:NE2	2.68	0.42
28:D2:16:LEU:HD12	28:D2:21:LEU:HD21	2.01	0.42
29:D3:13:ILE:HG21	36:DA:988:A:C5	2.54	0.42
33:D7:48:LYS:HD2	36:DA:125:G:N2	2.33	0.42
36:DA:661:C:O3'	47:DP:18:ARG:HD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:908:C:OP1	48:DQ:22:LYS:HB2	2.19	0.42
36:DA:978:G:C2	36:DA:986:C:C2	3.08	0.42
36:DA:1349:A:N6	36:DA:1598:C:N4	2.67	0.42
36:DA:1557:C:H5"	36:DA:1558:A:OP2	2.20	0.42
36:DA:1608:A:H1'	36:DA:1610:A:OP2	2.19	0.42
36:DA:1685:C:C3'	36:DA:1686:C:H5"	2.46	0.42
36:DA:1952:A:C5	46:DO:22:ILE:HD12	2.54	0.42
36:DA:2171:A:H4'	36:DA:2172:U:OP1	2.17	0.42
36:DA:2265:U:H2'	36:DA:2266:A:C8	2.55	0.42
36:DA:2468:G:H5'	48:DQ:120:ILE:HD12	2.01	0.42
39:DD:117:VAL:HG22	39:DD:118:VAL:N	2.35	0.42
41:DF:34:TRP:CE2	47:DP:12:ALA:HB2	2.54	0.42
41:DF:181:LEU:HB3	41:DF:205:ARG:HH12	1.84	0.42
42:DG:38:VAL:HA	42:DG:92:VAL:O	2.18	0.42
43:DH:27:LYS:HE3	43:DH:32:GLU:HB2	2.00	0.42
43:DH:94:TYR:CG	43:DH:107:VAL:HG12	2.54	0.42
44:DI:7:GLU:HA	44:DI:8:PRO:HD2	1.92	0.42
44:DI:23:PRO:HB3	44:DI:27:ARG:HH12	1.84	0.42
44:DI:23:PRO:O	44:DI:24:GLY:C	2.58	0.42
47:DP:110:TYR:O	47:DP:111:ARG:C	2.58	0.42
48:DQ:103:MET:CE	48:DQ:125:LEU:HD13	2.50	0.42
50:DS:34:HIS:HD2	50:DS:54:LEU:HD23	1.84	0.42
50:DS:82:ILE:O	50:DS:83:LYS:HB2	2.20	0.42
50:DS:87:PHE:O	50:DS:88:ASP:HB2	2.19	0.42
52:DU:92:ARG:HH11	53:DV:11:GLN:HG3	1.85	0.42
53:DV:2:PHE:HB3	53:DV:41:GLY:C	2.39	0.42
53:DV:47:VAL:HB	53:DV:49:THR:O	2.19	0.42
56:DY:30:VAL:CG1	56:DY:31:LEU:N	2.82	0.42
57:DZ:22:GLY:CA	57:DZ:41:LEU:CD1	2.97	0.42
57:DZ:23:LYS:HE2	57:DZ:38:TYR:CE1	2.43	0.42
57:DZ:82:ARG:CG	57:DZ:82:ARG:NH1	2.82	0.42
1:AA:89:C:OP2	1:AA:90:U:O4'	2.37	0.42
1:AA:276:G:C2'	1:AA:277:C:H5'	2.50	0.42
1:AA:298:A:H2'	1:AA:299:G:O4'	2.20	0.42
1:AA:336:C:H2'	1:AA:337:C:C6	2.53	0.42
1:AA:644:G:O2'	1:AA:645:C:H5'	2.20	0.42
1:AA:928:G:C2	1:AA:1390:U:O2	2.73	0.42
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.18	0.42
3:AC:34:LEU:HD12	14:AN:25:VAL:CG1	2.50	0.42
4:AD:46:LYS:O	4:AD:47:ARG:C	2.57	0.42
7:AG:95:ARG:CZ	7:AG:99:LEU:HD21	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:8:GLY:HA2	9:AI:79:LEU:HB3	2.00	0.42
12:AL:32:PHE:CB	12:AL:84:LEU:HD11	2.50	0.42
12:AL:85:ILE:HD13	12:AL:85:ILE:HA	1.60	0.42
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	2.02	0.42
13:AM:88:ARG:HA	13:AM:98:VAL:HG11	2.01	0.42
13:AM:109:THR:O	13:AM:109:THR:HG22	2.19	0.42
19:AS:36:ARG:HH11	19:AS:36:ARG:HB3	1.85	0.42
20:AT:53:LEU:O	20:AT:56:MET:N	2.53	0.42
22:AV:76:A:H2'	36:BA:2602:A:N6	2.35	0.42
24:AX:19:U:N3	25:AY:37:A:C2	2.88	0.42
27:B1:92:LYS:HG3	27:B1:93:GLU:N	2.34	0.42
36:BA:154(A):C:N4	36:BA:172:C:H42	2.16	0.42
36:BA:198:C:H6	36:BA:198:C:O5'	2.02	0.42
36:BA:455:C:N3	36:BA:472:A:H2'	2.33	0.42
36:BA:614:U:O2	36:BA:614:U:O4'	2.36	0.42
36:BA:807:U:OP2	47:BP:39:LYS:HG3	2.20	0.42
36:BA:1018:C:C2'	36:BA:1019:U:H5'	2.50	0.42
36:BA:1323:U:OP1	54:BW:84:ARG:NE	2.52	0.42
36:BA:1614:A:H62	54:BW:93:ALA:CB	2.23	0.42
36:BA:1909:C:C6	36:BA:1909:C:H5"	2.55	0.42
36:BA:2136:C:N4	36:BA:2155:G:N1	2.67	0.42
36:BA:2236:C:O2'	36:BA:2237:G:H5'	2.20	0.42
36:BA:2302:G:C6	36:BA:2303:G:C5	3.07	0.42
36:BA:2334:G:H21	50:BS:18:ILE:HG12	1.85	0.42
39:BD:260:ARG:HD3	39:BD:261:LYS:O	2.19	0.42
40:BE:176:ILE:CG2	40:BE:178:GLU:HB3	2.49	0.42
41:BF:3:GLU:HG3	41:BF:19:GLU:CG	2.48	0.42
41:BF:7:TYR:CE2	41:BF:10:PRO:HG3	2.54	0.42
41:BF:9:ILE:CG1	41:BF:14:PRO:HA	2.48	0.42
42:BG:125:PHE:HZ	42:BG:180:PHE:CZ	2.38	0.42
42:BG:172:LEU:O	42:BG:176:LEU:HD12	2.20	0.42
46:BO:91:LEU:HA	46:BO:91:LEU:HD13	1.86	0.42
47:BP:21:ARG:O	47:BP:23:PRO:HD3	2.20	0.42
47:BP:83:VAL:CG1	47:BP:114:ILE:HA	2.50	0.42
47:BP:110:TYR:O	47:BP:111:ARG:C	2.58	0.42
52:BU:52:ARG:HD3	52:BU:55:ARG:NE	2.25	0.42
52:BU:83:LEU:HD12	52:BU:113:ALA:HB2	2.02	0.42
52:BU:97:ASP:O	52:BU:100:VAL:HB	2.19	0.42
54:BW:45:TYR:CD2	54:BW:45:TYR:C	2.93	0.42
56:BY:11:ASP:H	56:BY:28:LYS:NZ	2.18	0.42
56:BY:101:LYS:HG2	56:BY:102:CYS:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:99:TYR:HD2	57:BZ:99:TYR:H	1.67	0.42
1:CA:319:G:O2'	1:CA:320:C:H5'	2.19	0.42
1:CA:748:C:OP2	1:CA:748:C:C6	2.72	0.42
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.34	0.42
2:CB:129:GLU:O	2:CB:130:ARG:O	2.37	0.42
4:CD:100:ARG:CZ	4:CD:137:SER:HA	2.50	0.42
4:CD:174:LEU:O	4:CD:186:LEU:HD11	2.19	0.42
5:CE:131:ILE:O	5:CE:134:ALA:HB3	2.19	0.42
7:CG:47:CYS:C	7:CG:49:ILE:N	2.73	0.42
7:CG:50:ILE:CG2	7:CG:61:VAL:HG21	2.50	0.42
7:CG:79:ARG:CG	7:CG:79:ARG:NH1	2.83	0.42
8:CH:86:ILE:HG13	8:CH:133:LEU:HD22	2.00	0.42
9:CI:37:PHE:CE1	9:CI:74:ILE:HG12	2.55	0.42
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.35	0.42
10:CJ:95:GLU:HA	10:CJ:95:GLU:OE2	2.19	0.42
23:CW:57:G:H2'	23:CW:57:G:N3	2.34	0.42
25:CY:74:C:C2'	25:CY:75:C:H5'	2.49	0.42
27:D1:57:GLU:O	27:D1:58:ILE:C	2.58	0.42
27:D1:80:LEU:HD22	27:D1:82:LEU:CD2	2.50	0.42
27:D1:86:SER:HB3	27:D1:89:GLU:OE1	2.20	0.42
28:D2:45:SER:O	28:D2:46:GLN:NE2	2.52	0.42
36:DA:154(A):C:N4	36:DA:172:C:H42	2.15	0.42
36:DA:248:G:C2	36:DA:2431:U:H4'	2.55	0.42
36:DA:294:A:O2'	56:DY:2:ARG:NH2	2.48	0.42
36:DA:301:G:C4	36:DA:302:C:C5	3.08	0.42
36:DA:468:G:H2'	36:DA:469:G:O4'	2.20	0.42
36:DA:1771:C:O2'	36:DA:1786:A:H8	2.02	0.42
36:DA:1847:A:H3'	36:DA:1848:A:H5'	2.01	0.42
36:DA:2287:A:N3	36:DA:2289:G:C8	2.87	0.42
36:DA:2464:C:O2'	36:DA:2465:C:H6	2.02	0.42
36:DA:2689:U:H4'	36:DA:2690:C:C6	2.49	0.42
36:DA:2776:A:H4'	36:DA:2777:G:H5"	2.02	0.42
38:DC:66:HIS:CE1	38:DC:68:LEU:HD21	2.54	0.42
39:DD:227:ASN:O	39:DD:228:PRO:C	2.57	0.42
40:DE:1:MET:HA	40:DE:200:GLU:CD	2.39	0.42
40:DE:82:ARG:HB3	40:DE:83:ASP:H	1.65	0.42
41:DF:8:GLN:HB2	41:DF:124:LEU:HD11	2.01	0.42
41:DF:32:LEU:HD22	41:DF:112:MET:CE	2.49	0.42
41:DF:117:ARG:NH2	41:DF:187:VAL:HA	2.34	0.42
43:DH:94:TYR:CZ	43:DH:107:VAL:HB	2.54	0.42
43:DH:164:TYR:O	43:DH:165:ALA:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:81:GLN:HE21	47:DP:81:GLN:HB2	1.52	0.42
48:DQ:43:THR:HG1	48:DQ:46:GLN:HG3	1.78	0.42
51:DT:46:GLU:OE1	51:DT:88:ILE:HD11	2.18	0.42
55:DX:57:LEU:HD21	55:DX:78:LYS:HE2	2.02	0.42
56:DY:28:LYS:CB	56:DY:37:VAL:HB	2.37	0.42
56:DY:31:LEU:HD23	56:DY:36:ALA:H	1.85	0.42
57:DZ:13:GLU:HB3	57:DZ:14:LYS:CE	2.49	0.42
57:DZ:117:LEU:HG	57:DZ:117:LEU:O	2.20	0.42
1:AA:37:U:O2'	1:AA:38:G:H5'	2.20	0.42
1:AA:273:A:N6	1:AA:274:A:N6	2.68	0.42
1:AA:589:C:O2'	1:AA:590:C:H5'	2.19	0.42
1:AA:837:G:C2	1:AA:850:U:O2	2.73	0.42
1:AA:1457:G:H2'	1:AA:1458:G:C8	2.53	0.42
1:AA:1475:G:H4'	36:BA:1689:A:H4'	2.02	0.42
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.19	0.42
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.20	0.42
5:AE:28:PHE:N	5:AE:28:PHE:HD1	2.16	0.42
9:AI:125:TYR:CE2	9:AI:127:LYS:HB2	2.55	0.42
12:AL:86:ARG:NH2	12:AL:99:HIS:CG	2.87	0.42
15:AO:54:ARG:HG3	15:AO:58:MET:HE2	2.01	0.42
19:AS:6:LYS:HG2	19:AS:7:LYS:HE3	2.00	0.42
20:AT:23:ARG:O	20:AT:27:LYS:HB2	2.20	0.42
26:B0:82:ARG:O	26:B0:83:PRO:O	2.38	0.42
27:B1:35:THR:HG23	36:BA:2080:G:O5'	2.20	0.42
28:B2:14:ARG:HD3	28:B2:66:GLU:OE2	2.19	0.42
28:B2:47:ASN:O	28:B2:49:LYS:N	2.52	0.42
29:B3:31:LEU:C	29:B3:33:GLN:N	2.73	0.42
31:B5:48:GLU:O	31:B5:57:VAL:HG22	2.19	0.42
36:BA:519:U:O2'	36:BA:520:G:H5'	2.19	0.42
36:BA:523:C:C2'	36:BA:524:U:H5'	2.50	0.42
36:BA:612:C:C2'	36:BA:613:G:C5'	2.74	0.42
36:BA:658:C:H2'	36:BA:659:C:C6	2.55	0.42
36:BA:1573:G:C2'	36:BA:1574:C:H5'	2.49	0.42
36:BA:1642:G:O2'	36:BA:1643:G:H5'	2.20	0.42
36:BA:1717:G:H2'	36:BA:1718:G:H5"	2.02	0.42
36:BA:1784:A:H4'	36:BA:1785:A:C5'	2.50	0.42
36:BA:1961:C:C2'	36:BA:1962:C:H5'	2.49	0.42
36:BA:2521:C:H42	36:BA:2544:G:H1	1.68	0.42
38:BC:99:ILE:HG23	38:BC:103:ILE:CB	2.50	0.42
39:BD:24:ILE:HD12	39:BD:84:TYR:HB2	2.00	0.42
41:BF:20:LEU:HG	41:BF:21:ALA:N	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BF:82:ILE:O	41:BF:82:ILE:HG13	2.19	0.42
42:BG:54:GLU:HA	42:BG:57:ALA:HB3	2.01	0.42
45:BN:9:VAL:CG1	45:BN:10:GLU:N	2.83	0.42
46:BO:99:PHE:N	46:BO:99:PHE:CD2	2.88	0.42
47:BP:6:LEU:HD23	47:BP:6:LEU:N	2.30	0.42
47:BP:7:ARG:HB2	47:BP:7:ARG:CZ	2.50	0.42
51:BT:108:ARG:NH1	51:BT:108:ARG:CB	2.82	0.42
52:BU:92:ARG:HH11	53:BV:11:GLN:HG3	1.83	0.42
52:BU:97:ASP:OD2	52:BU:101:ARG:NH2	2.31	0.42
53:BV:61:VAL:HG22	53:BV:61:VAL:O	2.19	0.42
54:BW:1:MET:CE	54:BW:2:GLU:H	2.32	0.42
54:BW:87:PRO:HA	54:BW:93:ALA:HA	2.01	0.42
57:BZ:14:LYS:CD	57:BZ:17:ALA:HB3	2.46	0.42
57:BZ:141:VAL:O	57:BZ:141:VAL:HG13	2.18	0.42
1:CA:175:C:H4'	20:CT:25:ARG:NH1	2.35	0.42
1:CA:456:C:H2'	1:CA:457:C:C6	2.54	0.42
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.55	0.42
1:CA:1217:C:H2'	1:CA:1218:C:O4'	2.19	0.42
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ2	1.85	0.42
4:CD:52:SER:C	4:CD:54:TYR:N	2.73	0.42
5:CE:7:GLU:HG2	5:CE:37:ARG:HH21	1.84	0.42
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.85	0.42
7:CG:43:PHE:HD1	7:CG:43:PHE:O	2.03	0.42
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	2.00	0.42
9:CI:19:LEU:HD21	9:CI:61:ALA:HB2	2.00	0.42
9:CI:96:LEU:CG	9:CI:102:LEU:HB2	2.49	0.42
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.82	0.42
11:CK:27:ASN:HA	11:CK:55:LYS:C	2.39	0.42
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.84	0.42
12:CL:84:LEU:HD23	12:CL:105:TYR:HE1	1.85	0.42
12:CL:113:ARG:HG2	12:CL:113:ARG:NH1	2.35	0.42
14:CN:50:LYS:H	14:CN:50:LYS:HG3	1.69	0.42
20:CT:98:PRO:C	20:CT:100:ILE:N	2.72	0.42
22:CV:14:A:C5	22:CV:22:G:C6	3.08	0.42
23:CW:18:G:H1	23:CW:55:U:C2'	2.33	0.42
26:D0:51:VAL:HG21	26:D0:80:HIS:HA	2.01	0.42
27:D1:41:ARG:HD3	27:D1:43:TYR:CZ	2.55	0.42
32:D6:30:THR:CB	36:DA:2286:A:OP1	2.68	0.42
36:DA:142:A:H1'	36:DA:1408:C:O4'	2.19	0.42
36:DA:363:G:N7	36:DA:363(A):A:N7	2.67	0.42
36:DA:807:U:OP2	47:DP:39:LYS:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:992:C:O2'	36:DA:993:G:H5'	2.19	0.42
36:DA:1431:U:H2'	36:DA:1432:C:H6	1.85	0.42
36:DA:1796:U:H4'	39:DD:256:GLY:N	2.35	0.42
36:DA:1864:U:H6	36:DA:1864:U:OP2	2.02	0.42
36:DA:2313:C:C4'	42:DG:40:ASN:ND2	2.69	0.42
36:DA:2465:C:O2'	36:DA:2466:C:H5'	2.19	0.42
36:DA:2636:U:H4'	40:DE:80:GLU:CD	2.40	0.42
37:DB:6:C:O2'	50:DS:29:PHE:HE1	2.02	0.42
37:DB:91:C:H2'	37:DB:92:C:C6	2.55	0.42
39:DD:27:THR:HG21	39:DD:81:ALA:HB1	2.02	0.42
39:DD:61:LEU:O	39:DD:63:ARG:NH1	2.49	0.42
39:DD:176:ARG:CG	39:DD:176:ARG:NH1	2.81	0.42
40:DE:117:MET:O	40:DE:118:LYS:HB2	2.19	0.42
42:DG:143:GLU:H	42:DG:143:GLU:HG2	1.65	0.42
42:DG:152:LEU:HD22	42:DG:152:LEU:N	2.34	0.42
43:DH:13:LYS:HB3	43:DH:14:GLY:H	1.64	0.42
43:DH:68:THR:O	43:DH:70:THR:O	2.38	0.42
44:DI:4:ILE:HD11	44:DI:44:LEU:CD1	2.49	0.42
46:DO:19:ILE:HG22	46:DO:43:VAL:HA	2.01	0.42
51:DT:76:PHE:HA	51:DT:77:PRO:HD3	1.81	0.42
51:DT:108:ARG:NH1	51:DT:108:ARG:CB	2.83	0.42
52:DU:31:SER:C	52:DU:33:ARG:N	2.66	0.42
52:DU:99:ALA:HB2	52:DU:106:PHE:CG	2.54	0.42
54:DW:20:VAL:HG11	54:DW:44:ALA:HA	2.01	0.42
55:DX:14:SER:O	55:DX:17:ALA:HB3	2.20	0.42
56:DY:10:GLY:CA	56:DY:27:VAL:HG13	2.44	0.42
1:AA:333:G:O2'	1:AA:334:C:H5'	2.19	0.42
1:AA:337:C:H2'	1:AA:338:A:C8	2.55	0.42
1:AA:474:G:O2'	1:AA:475:G:H5'	2.20	0.42
1:AA:532:A:H2	1:AA:1207:G:O4'	2.02	0.42
1:AA:671:G:O2'	1:AA:672:U:H5'	2.20	0.42
1:AA:807:A:H2'	1:AA:808:C:C6	2.54	0.42
1:AA:965:A:OP1	1:AA:1198:G:H5"	2.19	0.42
1:AA:1160:G:O6	1:AA:1181:G:C6	2.72	0.42
1:AA:1399:C:C2	1:AA:1401:G:C5	3.07	0.42
2:AB:74:LYS:HE3	2:AB:166:ASP:HB3	2.02	0.42
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	2.01	0.42
3:AC:207:VAL:O	3:AC:207:VAL:HG12	2.20	0.42
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.19	0.42
5:AE:80:ILE:CD1	5:AE:138:ALA:HB1	2.50	0.42
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.84	0.42
7:AG:84:ASN:HD22	23:AW:33:U:H4'	1.83	0.42
7:AG:95:ARG:HG3	7:AG:95:ARG:NH1	2.35	0.42
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.40	0.42
9:AI:16:ARG:HE	9:AI:64:THR:CG2	2.32	0.42
10:AJ:78:ASN:HD21	10:AJ:80:LYS:CB	2.33	0.42
11:AK:121:PRO:C	11:AK:122:LYS:O	2.57	0.42
12:AL:126:LYS:CG	12:AL:127:GLU:N	2.82	0.42
13:AM:82:MET:O	13:AM:83:ASP:O	2.37	0.42
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.20	0.42
20:AT:90:GLN:O	20:AT:91:LEU:HD23	2.20	0.42
27:B1:14:VAL:HG21	36:BA:188:G:H5'	2.02	0.42
36:BA:106:C:H2'	36:BA:107:C:H6	1.84	0.42
36:BA:833:U:H1'	47:BP:55:ARG:NH1	2.31	0.42
36:BA:1270:C:H5"	36:BA:1271:G:H5'	2.01	0.42
36:BA:2222:G:O2'	36:BA:2223:G:H5'	2.20	0.42
36:BA:2313:C:OP1	42:BG:71:THR:HG21	2.20	0.42
36:BA:2473:U:O2	36:BA:2473:U:H2'	2.18	0.42
36:BA:2881:C:C2	36:BA:2882:A:C8	3.07	0.42
37:BB:16:G:O2'	37:BB:17:C:H5'	2.20	0.42
38:BC:154:ARG:C	38:BC:156:ILE:H	2.23	0.42
39:BD:74:GLY:O	39:BD:76:PRO:HD3	2.19	0.42
39:BD:168:ARG:HA	39:BD:173:VAL:HA	2.00	0.42
39:BD:198:ASN:C	39:BD:198:ASN:HD22	2.21	0.42
39:BD:232:PRO:HD2	39:BD:249:PRO:HA	2.01	0.42
40:BE:1:MET:N	40:BE:1:MET:SD	2.79	0.42
40:BE:28:ALA:O	40:BE:29:GLY:O	2.38	0.42
40:BE:169:ASN:OD1	40:BE:203:LYS:HB3	2.20	0.42
42:BG:91:ARG:HD2	42:BG:91:ARG:C	2.40	0.42
43:BH:154:PRO:O	43:BH:155:SER:O	2.38	0.42
50:BS:56:LEU:HD22	50:BS:58:LEU:HD13	2.00	0.42
50:BS:59:LYS:HE3	50:BS:68:GLN:NE2	2.32	0.42
50:BS:79:ALA:C	50:BS:80:LEU:HD12	2.40	0.42
51:BT:106:SER:CB	51:BT:110:ILE:HD11	2.50	0.42
52:BU:8:VAL:O	52:BU:9:VAL:C	2.58	0.42
53:BV:21:ARG:O	53:BV:22:VAL:HG13	2.20	0.42
54:BW:64:MET:CE	54:BW:109:GLU:HG2	2.50	0.42
56:BY:77:PRO:O	56:BY:78:ALA:CB	2.68	0.42
57:BZ:53:ILE:HG21	57:BZ:71:VAL:O	2.20	0.42
57:BZ:146:ILE:CG2	57:BZ:174:VAL:HG12	2.44	0.42
1:CA:372:C:H4'	1:CA:373:A:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:457:C:H2'	1:CA:458:C:C6	2.55	0.42
1:CA:890:G:HO2'	1:CA:891:U:P	2.43	0.42
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.84	0.42
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.55	0.42
2:CB:8:LYS:C	2:CB:12:GLU:HG3	2.39	0.42
2:CB:114:ARG:HH12	2:CB:118:LEU:HD11	1.85	0.42
2:CB:187:LEU:HA	2:CB:201:ILE:O	2.19	0.42
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	2.02	0.42
3:CC:30:ARG:O	3:CC:34:LEU:HB3	2.20	0.42
5:CE:150:ARG:HB2	5:CE:150:ARG:NH1	2.35	0.42
8:CH:21:LYS:O	8:CH:22:GLU:C	2.58	0.42
9:CI:53:VAL:C	9:CI:54:ASP:N	2.73	0.42
9:CI:79:LEU:HD11	9:CI:83:ARG:CZ	2.50	0.42
10:CJ:61:GLU:HG3	14:CN:58:LYS:HZ3	1.85	0.42
11:CK:48:ILE:HG21	11:CK:63:LEU:HD22	2.01	0.42
12:CL:22:SER:C	12:CL:24:VAL:N	2.73	0.42
13:CM:69:GLU:CA	13:CM:70:LEU:N	2.77	0.42
20:CT:41:ILE:HG13	20:CT:42:GLN:N	2.34	0.42
20:CT:45:GLN:C	20:CT:47:GLY:H	2.23	0.42
23:CW:16:U:C2'	23:CW:17:C:H5'	2.50	0.42
25:CY:58:A:O2'	25:CY:61:C:N4	2.52	0.42
29:D3:6:VAL:HB	29:D3:54:VAL:HG11	2.01	0.42
29:D3:23:LEU:CD1	29:D3:50:VAL:HG11	2.49	0.42
31:D5:2:ALA:N	36:DA:747:U:C2	2.88	0.42
36:DA:26:G:C6	36:DA:27:G:N1	2.88	0.42
36:DA:251:A:C5'	47:DP:51:PHE:CZ	3.03	0.42
36:DA:281:G:N2	36:DA:358:U:C5	2.88	0.42
36:DA:332:A:O2'	36:DA:333:G:P	2.78	0.42
36:DA:336:C:H5"	56:DY:7:VAL:HG11	2.02	0.42
36:DA:451:C:C5	36:DA:453:C:H5"	2.54	0.42
36:DA:569:U:C4	36:DA:570:G:C6	3.08	0.42
36:DA:671:C:H41	47:DP:42:SER:HA	1.85	0.42
36:DA:790:C:O2'	36:DA:791:C:OP1	2.25	0.42
36:DA:833:U:H5"	47:DP:48:PRO:HB3	2.02	0.42
36:DA:836:G:H2'	36:DA:837:C:C6	2.54	0.42
36:DA:925:C:C3'	36:DA:926:A:H5"	2.47	0.42
36:DA:1050:A:C2	36:DA:1051:G:N7	2.88	0.42
36:DA:1419:A:H2'	36:DA:1421:G:N7	2.35	0.42
36:DA:2056:G:N3	36:DA:2056:G:H2'	2.34	0.42
36:DA:2123:G:H2'	36:DA:2124:G:O4'	2.20	0.42
36:DA:2222:G:O2'	36:DA:2223:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DB:73:A:C4	37:DB:105:A:C2	3.07	0.42
38:DC:212:VAL:O	38:DC:213:TYR:CB	2.67	0.42
38:DC:214:VAL:O	38:DC:216:THR:N	2.52	0.42
40:DE:7:VAL:HA	40:DE:194:GLY:O	2.19	0.42
40:DE:81:ILE:O	40:DE:81:ILE:CG2	2.57	0.42
40:DE:93:VAL:HG13	40:DE:182:LEU:HD13	2.02	0.42
40:DE:202:LYS:N	40:DE:202:LYS:HD3	2.35	0.42
41:DF:22:ALA:CA	41:DF:26:ALA:HB2	2.50	0.42
42:DG:50:ALA:C	42:DG:52:ILE:H	2.22	0.42
43:DH:157:TYR:O	43:DH:158:HIS:CB	2.67	0.42
44:DI:40:THR:C	44:DI:42:SER:N	2.73	0.42
45:DN:32:THR:HG22	45:DN:37:LYS:HB3	2.01	0.42
45:DN:136:GLU:OE1	45:DN:137:LYS:N	2.53	0.42
49:DR:103:ARG:HD3	54:DW:40:ASN:ND2	2.35	0.42
51:DT:35:LYS:C	51:DT:37:GLY:H	2.21	0.42
52:DU:57:PHE:O	52:DU:59:ARG:N	2.52	0.42
53:DV:19:LYS:C	53:DV:20:LEU:HD12	2.40	0.42
53:DV:28:GLU:HB3	53:DV:29:PRO:CD	2.49	0.42
57:DZ:11:GLU:O	57:DZ:36:LYS:HD3	2.19	0.42
1:AA:161:A:H2'	1:AA:162:A:H8	1.84	0.42
1:AA:192:U:H4'	20:AT:103:GLY:HA2	2.01	0.42
1:AA:273:A:N6	1:AA:274:A:C6	2.88	0.42
1:AA:304:U:H2'	1:AA:305:G:C8	2.54	0.42
1:AA:457:C:H2'	1:AA:458:C:C6	2.55	0.42
1:AA:979:C:C5	1:AA:980:C:C6	3.07	0.42
1:AA:1357:A:H8	1:AA:1357:A:O5'	2.02	0.42
1:AA:1428:A:H2'	1:AA:1429:C:O4'	2.19	0.42
1:AA:1444:C:C4	1:AA:1445:C:C5	3.07	0.42
2:AB:12:GLU:C	2:AB:14:GLY:N	2.73	0.42
4:AD:14:ARG:HG3	4:AD:15:GLU:OE1	2.20	0.42
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.40	0.42
5:AE:31:LEU:HD22	5:AE:31:LEU:HA	1.89	0.42
7:AG:84:ASN:HD22	23:AW:33:U:C5'	2.33	0.42
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.55	0.42
9:AI:43:ALA:O	9:AI:45:ALA:N	2.52	0.42
10:AJ:13:HIS:ND1	10:AJ:13:HIS:C	2.73	0.42
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.34	0.42
12:AL:28:LYS:O	12:AL:29:GLY:C	2.57	0.42
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.83	0.42
14:AN:27:CYS:C	14:AN:29:ARG:H	2.23	0.42
15:AO:20:GLY:O	15:AO:22:THR:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:32:ARG:O	18:AR:69:THR:HG21	2.20	0.42
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.20	0.42
20:AT:38:LYS:C	20:AT:40:ALA:H	2.22	0.42
20:AT:53:LEU:CD1	20:AT:102:GLY:HA3	2.49	0.42
23:AW:48:C:C6	23:AW:59:U:H5'	2.55	0.42
25:AY:10:G:N1	25:AY:25:C:O2	2.53	0.42
26:B0:44:ARG:HH12	36:BA:2330:G:H4'	1.84	0.42
27:B1:25:LYS:C	27:B1:27:GLU:N	2.74	0.42
27:B1:51:VAL:HG12	27:B1:58:ILE:O	2.19	0.42
29:B3:31:LEU:O	29:B3:33:GLN:N	2.52	0.42
29:B3:46:ASN:OD1	36:BA:851:U:O4'	2.38	0.42
33:B7:31:LEU:O	33:B7:35:ARG:HB2	2.20	0.42
34:B8:14:VAL:CG2	34:B8:22:VAL:CG1	2.98	0.42
34:B8:30:ARG:NH1	36:BA:2419:U:O4	2.53	0.42
36:BA:589:C:H2'	36:BA:590:A:C8	2.55	0.42
36:BA:635:C:O2'	36:BA:636:G:H5'	2.20	0.42
36:BA:833:U:H2'	36:BA:834:C:C6	2.55	0.42
36:BA:919:G:H4'	37:BB:81:G:C4'	2.49	0.42
36:BA:986:C:C2'	36:BA:987:G:H5'	2.50	0.42
36:BA:1108:U:C2'	36:BA:1109:C:H5'	2.49	0.42
36:BA:1173:G:H3'	36:BA:1174:A:H5'	2.02	0.42
36:BA:1240:U:O2'	36:BA:1241:A:H5'	2.19	0.42
36:BA:1448:G:N3	36:BA:1528(A):A:H2	2.18	0.42
36:BA:1651:G:OP1	49:BR:40:LYS:HE3	2.20	0.42
36:BA:1851:U:C2'	36:BA:1852:C:H5'	2.50	0.42
36:BA:2171:A:O2'	36:BA:2172:U:H6	2.03	0.42
36:BA:2302:G:H21	42:BG:128:ARG:CD	2.32	0.42
36:BA:2465:C:O2'	36:BA:2466:C:H5'	2.20	0.42
36:BA:2754:U:H2'	36:BA:2755:C:H5"	2.02	0.42
36:BA:2817:G:H21	36:BA:2836:U:H1'	1.84	0.42
37:BB:50:G:OP2	50:BS:62:LYS:CB	2.68	0.42
37:BB:65:C:C2'	37:BB:66:A:H5'	2.50	0.42
38:BC:82:LYS:O	38:BC:86:ALA:HB3	2.20	0.42
38:BC:214:VAL:C	38:BC:216:THR:H	2.23	0.42
40:BE:24:THR:O	40:BE:24:THR:HG23	2.19	0.42
41:BF:1:MET:CE	41:BF:27:GLU:HG3	2.50	0.42
41:BF:127:GLU:HG2	41:BF:196:LEU:HD11	2.02	0.42
42:BG:9:ARG:O	42:BG:10:LYS:C	2.58	0.42
43:BH:127:GLU:HB3	43:BH:128:PRO:HD2	2.00	0.42
45:BN:26:LEU:HG	45:BN:30:ILE:CD1	2.50	0.42
45:BN:136:GLU:OE1	45:BN:137:LYS:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:7:TYR:CZ	46:BO:44:LYS:HG3	2.55	0.42
47:BP:32:THR:HG21	47:BP:37:GLY:HA2	2.02	0.42
52:BU:66:ASN:OD1	52:BU:76:TYR:CB	2.68	0.42
54:BW:52:GLU:OE2	54:BW:52:GLU:HA	2.20	0.42
56:BY:39:VAL:O	56:BY:40:GLU:HG2	2.20	0.42
56:BY:67:LEU:HD12	56:BY:67:LEU:C	2.40	0.42
57:BZ:77:ASP:HB2	57:BZ:84:GLU:OE2	2.20	0.42
57:BZ:150:LEU:N	57:BZ:150:LEU:HD13	2.35	0.42
57:BZ:152:ALA:HB3	57:BZ:154:ASP:OD1	2.20	0.42
1:CA:97:G:HO2'	1:CA:98:G:P	2.43	0.42
1:CA:511:C:C2	1:CA:512:U:C5	3.08	0.42
1:CA:879:C:O2'	1:CA:880:C:H5'	2.20	0.42
1:CA:971:G:C8	1:CA:1365:G:H4'	2.55	0.42
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.35	0.42
1:CA:1131:G:C2	1:CA:1132:C:N4	2.88	0.42
1:CA:1349:A:P	9:CI:118:LYS:NZ	2.93	0.42
1:CA:1399:C:C2	1:CA:1401:G:C5	3.08	0.42
2:CB:37:ASN:O	2:CB:39:ILE:N	2.46	0.42
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.49	0.42
2:CB:132:LYS:HA	2:CB:135:GLN:CG	2.50	0.42
2:CB:170:GLU:HA	2:CB:172:ILE:CD1	2.50	0.42
2:CB:180:LEU:O	2:CB:181:PHE:HB2	2.20	0.42
2:CB:207:ALA:C	2:CB:209:ARG:N	2.72	0.42
3:CC:73:PRO:HA	3:CC:76:VAL:HG22	2.01	0.42
4:CD:127:THR:HG22	4:CD:132:ARG:HA	2.02	0.42
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.25	0.42
5:CE:146:ALA:O	5:CE:148:VAL:N	2.52	0.42
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	2.01	0.42
6:CF:68:PRO:HG3	6:CF:71:ARG:NH2	2.34	0.42
7:CG:131:LYS:O	7:CG:131:LYS:HG3	2.20	0.42
8:CH:109:ILE:HG22	8:CH:137:VAL:HB	2.00	0.42
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.49	0.42
9:CI:11:LYS:O	9:CI:12:GLU:C	2.58	0.42
10:CJ:30:SER:CB	10:CJ:80:LYS:HD3	2.50	0.42
13:CM:88:ARG:HA	13:CM:98:VAL:HG11	2.01	0.42
16:CP:6:LEU:N	16:CP:6:LEU:HD12	2.35	0.42
16:CP:64:ALA:O	16:CP:65:GLN:C	2.57	0.42
18:CR:61:LYS:CG	18:CR:65:ILE:HD11	2.49	0.42
19:CS:13:ASP:O	19:CS:15:LEU:N	2.53	0.42
22:CV:34:C:O2'	22:CV:35:A:H5'	2.19	0.42
22:CV:56:C:O2	42:DG:78:SER:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CY:72:C:H2'	25:CY:72:C:O2	2.19	0.42
28:D2:3:LEU:HD21	28:D2:7:ARG:HH11	1.85	0.42
36:DA:25:U:H5'	54:DW:78:GLU:O	2.20	0.42
36:DA:271(S):G:C3'	36:DA:271(T):C:H5"	2.48	0.42
36:DA:1140:C:H1'	36:DA:1143:A:C2	2.55	0.42
36:DA:2231:C:H2'	36:DA:2232:U:O4'	2.20	0.42
36:DA:2530:A:O2'	36:DA:2532:G:OP2	2.24	0.42
36:DA:2804:C:C2'	36:DA:2805:G:H5'	2.49	0.42
37:DB:30:C:H4'	37:DB:58:A:H2	1.84	0.42
37:DB:54:G:N2	42:DG:29:TRP:CH2	2.86	0.42
37:DB:65:C:C2'	37:DB:66:A:H5'	2.50	0.42
37:DB:78:A:C2	37:DB:100:A:C5	3.07	0.42
38:DC:41:VAL:CG2	38:DC:178:ALA:HB3	2.43	0.42
39:DD:7:LYS:HB3	39:DD:8:PRO:HD2	2.01	0.42
39:DD:45:ASN:ND2	39:DD:46:GLN:H	2.16	0.42
39:DD:155:LEU:HD12	39:DD:155:LEU:N	2.35	0.42
42:DG:19:LEU:CD2	42:DG:25:TYR:HE2	2.32	0.42
42:DG:120:LEU:CD1	42:DG:121:ASN:N	2.81	0.42
42:DG:167:GLU:O	42:DG:169:ALA:N	2.52	0.42
43:DH:98:LEU:HD22	43:DH:125:VAL:CG2	2.46	0.42
44:DI:29:TYR:CE1	44:DI:33:ARG:NE	2.77	0.42
49:DR:94:TYR:H	49:DR:94:TYR:HD1	1.66	0.42
50:DS:34:HIS:O	50:DS:35:ILE:HB	2.20	0.42
51:DT:92:GLY:CA	51:DT:114:LEU:HD22	2.50	0.42
53:DV:22:VAL:HG21	53:DV:94:LEU:CD1	2.50	0.42
53:DV:35:LEU:HB2	53:DV:57:VAL:HG13	2.01	0.42
53:DV:69:LYS:CA	53:DV:88:ARG:HG2	2.47	0.42
54:DW:87:PRO:HA	54:DW:93:ALA:HA	2.02	0.42
56:DY:77:PRO:O	56:DY:78:ALA:CB	2.68	0.42
57:DZ:77:ASP:O	57:DZ:78:LYS:C	2.58	0.42
57:DZ:134:PRO:HB3	57:DZ:158:PRO:HG3	2.02	0.42
1:AA:260:G:H2'	1:AA:261:U:C6	2.54	0.42
1:AA:456:C:H2'	1:AA:457:C:C6	2.54	0.42
1:AA:622:A:C8	1:AA:623:C:C5	3.08	0.42
1:AA:946:A:C2	1:AA:1236:A:C2	3.08	0.42
2:AB:8:LYS:C	2:AB:12:GLU:HG3	2.39	0.42
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.35	0.42
4:AD:31:CYS:O	4:AD:33:MET:N	2.43	0.42
7:AG:49:ILE:CG2	7:AG:53:LYS:HD2	2.46	0.42
7:AG:75:VAL:HA	7:AG:88:PRO:HA	2.02	0.42
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:118:VAL:O	8:AH:119:LEU:HD23	2.20	0.42
11:AK:12:ARG:HE	11:AK:14:VAL:CG1	2.32	0.42
11:AK:107:SER:OG	11:AK:108:ILE:N	2.53	0.42
13:AM:15:VAL:HG22	13:AM:43:THR:O	2.20	0.42
13:AM:34:LEU:HD13	13:AM:41:PRO:CA	2.47	0.42
14:AN:8:GLU:HG3	14:AN:12:ARG:HH11	1.85	0.42
19:AS:16:LEU:N	19:AS:16:LEU:CD1	2.83	0.42
23:AW:61:C:H2'	23:AW:62:C:C5	2.54	0.42
26:B0:33:ALA:N	26:B0:64:ASP:OD1	2.53	0.42
32:B6:11:LEU:HD13	32:B6:12:GLU:N	2.34	0.42
36:BA:548:A:O2'	36:BA:549:G:OP1	2.38	0.42
36:BA:614(C):A:HO2'	36:BA:615:G:C5'	2.32	0.42
36:BA:676:A:H2	36:BA:802:A:N6	2.17	0.42
36:BA:803:U:O2'	36:BA:804:A:H5'	2.19	0.42
36:BA:954:G:H4'	48:BQ:13:GLN:NE2	2.34	0.42
36:BA:1399:C:O2'	36:BA:1400:G:H5'	2.20	0.42
36:BA:1864:U:OP2	36:BA:1864:U:H6	2.03	0.42
36:BA:1946:U:H2'	36:BA:1947:C:H6	1.85	0.42
36:BA:2415:G:H2'	36:BA:2416:C:C6	2.54	0.42
36:BA:2538:C:N3	36:BA:2539:C:C5	2.88	0.42
36:BA:2612:C:C4	36:BA:2613:U:H5	2.38	0.42
36:BA:2638:G:P	40:BE:82:ARG:NH2	2.93	0.42
37:BB:71:C:H2'	37:BB:72:G:C8	2.47	0.42
37:BB:73:A:C4	37:BB:105:A:C2	3.07	0.42
39:BD:96:HIS:ND1	39:BD:102:LYS:HG2	2.34	0.42
39:BD:172:TYR:HE2	39:BD:269:PHE:HE1	1.67	0.42
42:BG:46:ALA:C	42:BG:51:ARG:HG3	2.39	0.42
43:BH:164:TYR:O	43:BH:165:ALA:HB2	2.20	0.42
47:BP:7:ARG:CZ	47:BP:7:ARG:CB	2.98	0.42
47:BP:16:ARG:HH11	47:BP:16:ARG:CB	2.32	0.42
47:BP:90:ARG:HB3	47:BP:91:PHE:HD1	1.85	0.42
47:BP:91:PHE:N	47:BP:91:PHE:HD1	2.16	0.42
47:BP:121:LYS:O	47:BP:123:LEU:N	2.53	0.42
52:BU:92:ARG:CD	53:BV:11:GLN:CD	2.82	0.42
57:BZ:14:LYS:HD3	57:BZ:17:ALA:CB	2.46	0.42
57:BZ:39:VAL:HG21	57:BZ:44:PHE:HB2	2.02	0.42
57:BZ:44:PHE:CE1	57:BZ:48:PHE:CB	3.03	0.42
57:BZ:110:GLY:O	57:BZ:115:GLY:O	2.37	0.42
1:CA:19:C:O2'	1:CA:20:U:H5'	2.20	0.42
1:CA:80:G:N7	1:CA:81:U:H5	2.17	0.42
1:CA:255:G:H2'	1:CA:256:U:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:298:A:H2'	1:CA:299:G:O4'	2.19	0.42
1:CA:651:C:H2'	1:CA:652:U:C6	2.55	0.42
1:CA:706:A:C5	1:CA:707:C:C5	3.07	0.42
1:CA:741:G:H2'	1:CA:742:G:O4'	2.19	0.42
1:CA:788:U:C5	1:CA:789:U:C5	3.08	0.42
1:CA:936:C:H2'	1:CA:937:A:O4'	2.20	0.42
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.20	0.42
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.30	0.42
1:CA:1136:U:H5"	1:CA:1137:C:C4	2.55	0.42
1:CA:1389:C:O2'	1:CA:1390:U:H5'	2.20	0.42
1:CA:1452:C:O4'	1:CA:1456:G:C2	2.73	0.42
1:CA:1502:A:H4'	1:CA:1503:A:OP2	2.20	0.42
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.92	0.42
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.83	0.42
11:CK:27:ASN:OD1	11:CK:28:THR:N	2.51	0.42
12:CL:120:TYR:CD1	12:CL:120:TYR:N	2.88	0.42
36:DA:181:A:C2	36:DA:435:C:C5	3.07	0.42
36:DA:200:U:H2'	36:DA:201:C:H5'	2.02	0.42
36:DA:363(B):G:H2'	36:DA:363(B):G:N3	2.35	0.42
36:DA:414:C:HO2'	36:DA:1864:U:C2'	2.33	0.42
36:DA:534:U:H5'	52:DU:42:ALA:HB1	2.00	0.42
36:DA:780:G:H21	36:DA:783:A:H62	1.68	0.42
36:DA:1042:G:H3'	36:DA:1043:C:C6	2.55	0.42
36:DA:1301:A:H2	36:DA:1626:G:N3	2.18	0.42
36:DA:1323:U:OP1	54:DW:84:ARG:NE	2.53	0.42
36:DA:1363:C:H2'	36:DA:1364:G:H8	1.84	0.42
36:DA:1865:G:H5'	36:DA:1866:C:OP2	2.20	0.42
36:DA:1914:C:O2	36:DA:1914:C:O5'	2.38	0.42
36:DA:1972:A:H2'	36:DA:1973:G:C8	2.55	0.42
36:DA:2164:C:H2'	36:DA:2165:G:O4'	2.19	0.42
36:DA:2767:C:H2'	36:DA:2768:C:H6	1.84	0.42
38:DC:154:ARG:C	38:DC:156:ILE:H	2.23	0.42
38:DC:168:THR:HA	38:DC:173:ALA:HB1	2.01	0.42
39:DD:26:LYS:HE2	39:DD:81:ALA:HA	2.01	0.42
39:DD:43:ARG:HG2	39:DD:54:ARG:O	2.20	0.42
39:DD:145:VAL:HB	39:DD:155:LEU:HB2	2.02	0.42
39:DD:147:LEU:HD12	39:DD:147:LEU:HA	1.78	0.42
40:DE:167:VAL:CG2	40:DE:168:MET:N	2.83	0.42
42:DG:15:VAL:HG22	42:DG:175:LEU:HG	2.01	0.42
43:DH:41:MET:CA	43:DH:53:GLU:HB2	2.50	0.42
43:DH:142:GLY:O	43:DH:145:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DI:113:ARG:HD2	44:DI:113:ARG:N	2.35	0.42
47:DP:16:ARG:HH11	47:DP:16:ARG:CB	2.32	0.42
49:DR:18:LEU:HD13	49:DR:19:ALA:N	2.34	0.42
50:DS:99:LYS:HE2	50:DS:99:LYS:HB3	1.88	0.42
51:DT:67:SER:O	51:DT:68:TYR:HB2	2.20	0.42
51:DT:113:LYS:C	51:DT:114:LEU:HD23	2.38	0.42
52:DU:96:ALA:HB1	52:DU:106:PHE:HE1	1.85	0.42
57:DZ:30:ASN:C	57:DZ:32:HIS:H	2.24	0.42
1:AA:430:A:C2'	1:AA:431:A:H5'	2.50	0.41
1:AA:677:U:H3	1:AA:713:G:H22	1.67	0.41
1:AA:1054:C:N4	25:AY:34:G:H1'	2.35	0.41
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.20	0.41
1:AA:1168:A:C6	1:AA:1169:A:C6	3.08	0.41
1:AA:1346:A:C5'	9:AI:120:ARG:NH1	2.78	0.41
1:AA:1379:G:O6	7:AG:2:ALA:N	2.53	0.41
2:AB:21:ARG:O	2:AB:23:ARG:N	2.50	0.41
3:AC:66:VAL:HG12	3:AC:66:VAL:O	2.19	0.41
4:AD:170:VAL:O	4:AD:171:GLY:C	2.58	0.41
7:AG:47:CYS:C	7:AG:49:ILE:N	2.73	0.41
7:AG:75:VAL:HG12	7:AG:88:PRO:HB3	2.01	0.41
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.85	0.41
9:AI:33:PHE:CZ	9:AI:47:LEU:HD13	2.55	0.41
11:AK:22:HIS:HB3	11:AK:29:ILE:CG2	2.46	0.41
14:AN:15:LYS:O	14:AN:16:PHE:C	2.59	0.41
14:AN:42:ILE:O	14:AN:45:ARG:N	2.53	0.41
22:AV:64:G:H2'	22:AV:65:C:C6	2.54	0.41
23:AW:59:U:H2'	23:AW:60:U:O4'	2.19	0.41
25:AY:28:G:N2	25:AY:42:C:N3	2.68	0.41
27:B1:41:ARG:NH1	36:BA:1365:A:H5"	2.21	0.41
27:B1:58:ILE:HD12	27:B1:91:LYS:CA	2.51	0.41
36:BA:171:G:O2'	36:BA:172:C:H5'	2.20	0.41
36:BA:282:A:C8	36:BA:284:U:C4	3.08	0.41
36:BA:332:A:O2'	36:BA:333:G:O5'	2.38	0.41
36:BA:703:U:H2'	36:BA:704:G:H5'	2.02	0.41
36:BA:818:G:H5'	36:BA:839:U:OP1	2.20	0.41
36:BA:860:U:C2	36:BA:2268:A:C8	3.08	0.41
36:BA:1048:A:P	36:BA:1048:A:N3	2.93	0.41
36:BA:1204:A:N6	36:BA:1240:U:O2	2.53	0.41
36:BA:1352:U:O2'	36:BA:1353:A:H5'	2.20	0.41
36:BA:1686:C:H2'	36:BA:1687:G:C5'	2.49	0.41
36:BA:1991:U:H2'	36:BA:1992:G:C5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2078:C:C4	36:BA:2079:U:C4	3.08	0.41
36:BA:2685:G:P	51:BT:51:ARG:HH22	2.43	0.41
36:BA:2838:G:C1'	49:BR:45:ARG:HH11	2.33	0.41
39:BD:58:HIS:CD2	39:BD:59:LYS:N	2.88	0.41
39:BD:117:VAL:CG2	39:BD:128:GLY:O	2.68	0.41
39:BD:257:LEU:C	39:BD:257:LEU:CD2	2.89	0.41
40:BE:47:VAL:HG21	40:BE:86:PRO:HD3	2.01	0.41
41:BF:140:LEU:CD2	41:BF:170:LEU:HD11	2.50	0.41
42:BG:111:LEU:CB	42:BG:112:PRO:CD	2.98	0.41
45:BN:62:VAL:HG22	45:BN:66:LYS:HD3	2.01	0.41
45:BN:132:ALA:O	45:BN:133:GLN:HB3	2.19	0.41
50:BS:29:PHE:HD2	50:BS:30:ARG:N	2.18	0.41
50:BS:98:VAL:HG22	50:BS:100:ALA:H	1.84	0.41
54:BW:8:ARG:HD3	54:BW:102:HIS:CD2	2.55	0.41
56:BY:50:ARG:HG3	56:BY:58:GLY:HA2	2.00	0.41
57:BZ:28:MET:CG	57:BZ:33:LEU:HD21	2.48	0.41
57:BZ:77:ASP:O	57:BZ:79:ARG:N	2.53	0.41
57:BZ:94:GLU:HA	57:BZ:95:PRO:HD3	1.95	0.41
57:BZ:99:TYR:N	57:BZ:99:TYR:HD2	2.16	0.41
1:CA:14:U:O2	1:CA:17:U:H5	2.03	0.41
1:CA:21:G:H2'	1:CA:22:G:C8	2.55	0.41
1:CA:186:C:H2'	1:CA:187:C:C6	2.55	0.41
1:CA:251:G:H4'	1:CA:252:U:O5'	2.19	0.41
1:CA:267:C:OP2	17:CQ:67:LYS:HD2	2.20	0.41
1:CA:337:C:O2'	1:CA:338:A:H5'	2.20	0.41
1:CA:734:G:H2'	1:CA:735:C:C6	2.55	0.41
1:CA:946:A:H2'	1:CA:947:G:C8	2.55	0.41
1:CA:1053:G:C4	1:CA:1199:U:C5	3.08	0.41
1:CA:1313:U:OP2	19:CS:6:LYS:HG3	2.20	0.41
1:CA:1349:A:OP1	9:CI:118:LYS:O	2.38	0.41
1:CA:1376:U:O2'	1:CA:1377:A:H5'	2.19	0.41
2:CB:74:LYS:C	2:CB:76:GLN:N	2.72	0.41
4:CD:28:SER:O	4:CD:30:LYS:HG2	2.20	0.41
4:CD:157:LEU:CD1	4:CD:161:ASN:HD21	2.33	0.41
8:CH:29:SER:O	8:CH:30:ARG:C	2.58	0.41
20:CT:14:LYS:CA	20:CT:17:ARG:HH21	2.32	0.41
20:CT:24:LEU:HD13	20:CT:24:LEU:O	2.19	0.41
20:CT:50:GLU:N	20:CT:100:ILE:HG12	2.34	0.41
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.73	0.41
26:D0:77:ARG:NH2	36:DA:857:C:OP2	2.53	0.41
27:D1:23:LYS:HD3	27:D1:28:GLY:HA3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D2:32:LEU:O	28:D2:32:LEU:HD23	2.20	0.41
28:D2:39:ALA:HA	28:D2:45:SER:HB3	2.02	0.41
31:D5:3:LYS:HE3	36:DA:2611:U:O2	2.20	0.41
32:D6:51:GLU:O	32:D6:52:VAL:HB	2.20	0.41
34:D8:46:ARG:O	34:D8:47:LYS:CB	2.62	0.41
36:DA:282:A:C2'	36:DA:283:A:H5"	2.50	0.41
36:DA:320:A:C2'	41:DF:136:THR:HG21	2.50	0.41
36:DA:384:U:H2'	36:DA:385:C:H6	1.85	0.41
36:DA:470:A:OP1	41:DF:59:TYR:HE2	2.02	0.41
36:DA:621:A:H2'	36:DA:622:G:C5'	2.49	0.41
36:DA:635:C:O2'	36:DA:636:G:H5'	2.20	0.41
36:DA:1019:U:H2'	36:DA:1020:A:H8	1.85	0.41
36:DA:1033:U:H5"	36:DA:1034:G:OP1	2.20	0.41
36:DA:1142(A):A:C4	36:DA:1144:G:C8	3.08	0.41
36:DA:1149:G:H2'	36:DA:1150:C:C6	2.55	0.41
36:DA:1851:U:C2'	36:DA:1852:C:H5'	2.50	0.41
36:DA:2692:C:H1'	36:DA:2847:U:O2'	2.20	0.41
36:DA:2759:G:C2'	36:DA:2760:C:H5'	2.50	0.41
38:DC:45:ALA:HB3	38:DC:174:PRO:CB	2.50	0.41
38:DC:86:ALA:HB2	38:DC:152:ILE:CB	2.50	0.41
39:DD:158:ALA:O	39:DD:161:THR:HG23	2.20	0.41
41:DF:25:PRO:HB3	41:DF:119:ARG:HD3	2.00	0.41
41:DF:164:ARG:HG3	41:DF:175:THR:HG1	1.85	0.41
42:DG:7:LEU:HD13	42:DG:100:TRP:CB	2.50	0.41
42:DG:20:ILE:HD11	42:DG:28:VAL:HG13	2.02	0.41
42:DG:45:GLU:HG2	42:DG:51:ARG:NH1	2.35	0.41
42:DG:114:ILE:CG2	42:DG:115:ARG:N	2.83	0.41
42:DG:181:ARG:O	42:DG:182:LYS:OXT	2.38	0.41
43:DH:58:GLU:C	43:DH:60:ARG:N	2.73	0.41
44:DI:88:ILE:CD1	44:DI:88:ILE:N	2.83	0.41
45:DN:132:ALA:O	45:DN:133:GLN:HB3	2.19	0.41
46:DO:7:TYR:OH	46:DO:44:LYS:HG3	2.20	0.41
46:DO:99:PHE:CD2	46:DO:99:PHE:N	2.87	0.41
47:DP:140:ALA:O	47:DP:141:ALA:CB	2.67	0.41
48:DQ:137:TYR:OH	57:DZ:81:ARG:NH2	2.53	0.41
50:DS:82:ILE:HG22	50:DS:83:LYS:N	2.34	0.41
51:DT:65:LYS:CE	51:DT:66:VAL:H	2.31	0.41
51:DT:92:GLY:HA2	51:DT:114:LEU:CB	2.50	0.41
52:DU:102:GLU:OE2	53:DV:2:PHE:CD1	2.73	0.41
56:DY:88:LYS:HZ3	56:DY:93:GLY:N	2.18	0.41
57:DZ:13:GLU:HB3	57:DZ:14:LYS:NZ	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:384:G:H2'	1:AA:385:C:C6	2.56	0.41
1:AA:444:C:O2'	1:AA:445:G:H5'	2.20	0.41
1:AA:579:G:C6	1:AA:580:U:C4	3.09	0.41
1:AA:949:A:C2	1:AA:1233:G:N3	2.88	0.41
1:AA:963:G:HO2'	10:AJ:54:PHE:HZ	1.63	0.41
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.55	0.41
1:AA:1190:G:H3'	3:AC:3:ASN:HD22	1.83	0.41
1:AA:1255:G:H5'	3:AC:26:LYS:HZ2	1.85	0.41
1:AA:1442(B):A:N1	51:BT:118:ARG:CZ	2.83	0.41
2:AB:69:LEU:HB2	2:AB:159:PRO:HG2	2.01	0.41
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.19	0.41
3:AC:150:LYS:CA	3:AC:169:ALA:HB2	2.47	0.41
4:AD:11:LEU:O	4:AD:12:CYS:C	2.59	0.41
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.86	0.41
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.55	0.41
12:AL:51:ALA:O	12:AL:52:LEU:HD22	2.20	0.41
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.57	0.41
22:AV:71:C:H3'	22:AV:71:C:H6	1.83	0.41
25:AY:60:U:H2'	25:AY:60:U:H6	1.71	0.41
26:B0:4:LYS:HE2	48:BQ:82:ARG:NH1	2.36	0.41
26:B0:72:ARG:CZ	26:B0:75:LEU:HD13	2.50	0.41
36:BA:6:A:O2'	45:BN:130:HIS:CB	2.67	0.41
36:BA:20:C:H2'	36:BA:21:A:C8	2.55	0.41
36:BA:188:G:H2'	36:BA:189:G:H5'	2.02	0.41
36:BA:271(J):C:H2'	36:BA:271(K):U:H5"	2.02	0.41
36:BA:359:A:H2'	36:BA:360:G:O4'	2.20	0.41
36:BA:640:C:O2'	36:BA:641:C:H5'	2.19	0.41
36:BA:674:G:P	41:BF:54:ARG:HH22	2.43	0.41
36:BA:1386:C:H2'	36:BA:1387:C:H6	1.84	0.41
36:BA:2646:C:OP2	36:BA:2732:G:O2'	2.37	0.41
37:BB:103:G:O2'	37:BB:104:U:H5'	2.20	0.41
39:BD:48:ARG:HH11	39:BD:48:ARG:CG	2.27	0.41
40:BE:11:MET:N	51:BT:8:LYS:NZ	2.68	0.41
40:BE:57:LYS:NZ	40:BE:57:LYS:HB3	2.36	0.41
40:BE:102:VAL:HB	40:BE:199:ARG:O	2.20	0.41
42:BG:20:ILE:O	42:BG:24:GLY:HA2	2.20	0.41
42:BG:26:GLN:O	42:BG:28:VAL:N	2.52	0.41
42:BG:63:ILE:HA	42:BG:143:GLU:HG3	2.01	0.41
42:BG:97:ASP:O	42:BG:99:MET:N	2.53	0.41
43:BH:170:ARG:HG2	43:BH:171:LEU:N	2.35	0.41
44:BI:92:VAL:O	44:BI:92:VAL:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:22:THR:HA	45:BN:61:ARG:O	2.19	0.41
45:BN:62:VAL:HG22	45:BN:66:LYS:HB2	2.00	0.41
45:BN:65:LYS:O	45:BN:67:LEU:N	2.53	0.41
47:BP:56:SER:C	47:BP:57:THR:HG1	2.23	0.41
48:BQ:10:ARG:HG3	48:BQ:10:ARG:NH1	2.32	0.41
49:BR:63:ARG:HG3	49:BR:80:PHE:HE2	1.85	0.41
50:BS:16:ASN:ND2	50:BS:92:TYR:CE1	2.88	0.41
52:BU:12:ARG:C	52:BU:14:HIS:N	2.73	0.41
53:BV:28:GLU:HB3	53:BV:29:PRO:CD	2.48	0.41
56:BY:28:LYS:N	56:BY:28:LYS:CE	2.83	0.41
1:CA:151:A:H2'	1:CA:152:A:O4'	2.19	0.41
1:CA:161:A:H2'	1:CA:162:A:H8	1.84	0.41
1:CA:266:G:O2'	1:CA:267:C:OP2	2.32	0.41
1:CA:829:G:O2'	1:CA:830:G:H5'	2.20	0.41
1:CA:939:G:H2'	1:CA:940:C:H6	1.84	0.41
1:CA:994:A:N3	1:CA:994:A:H2'	2.35	0.41
1:CA:1160:G:H2'	1:CA:1160:G:N3	2.35	0.41
1:CA:1417:G:C6	1:CA:1482:G:C6	3.08	0.41
2:CB:20:GLU:CD	2:CB:23:ARG:HH22	2.24	0.41
2:CB:124:SER:O	2:CB:127:ILE:HG12	2.20	0.41
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.35	0.41
5:CE:122:GLU:O	5:CE:123:LEU:HD23	2.20	0.41
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.84	0.41
8:CH:63:LEU:HB2	8:CH:65:TYR:HE1	1.84	0.41
13:CM:3:ARG:HD3	30:D4:60:GLU:OE1	2.20	0.41
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.60	0.41
14:CN:8:GLU:HG3	14:CN:12:ARG:HH11	1.85	0.41
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.33	0.41
22:CV:7:G:O2'	22:CV:49:G:H5'	2.20	0.41
23:CW:43:C:H3'	23:CW:44:G:H8	1.85	0.41
27:D1:86:SER:O	27:D1:90:ILE:N	2.53	0.41
28:D2:35:LEU:CB	28:D2:50:ILE:HD13	2.46	0.41
31:D5:2:ALA:HA	36:DA:2015:A:O4'	2.20	0.41
36:DA:7:G:H1	36:DA:2896:C:H42	1.69	0.41
36:DA:237:C:O2'	36:DA:238:C:H5'	2.20	0.41
36:DA:676:A:C2	36:DA:802:A:N6	2.80	0.41
36:DA:924:C:H2'	36:DA:925:C:C6	2.55	0.41
36:DA:1161:C:H1'	53:DV:8:GLY:O	2.20	0.41
36:DA:1165:U:O2'	36:DA:1166:C:H5'	2.20	0.41
36:DA:2033:A:O2'	36:DA:2034:U:O5'	2.38	0.41
36:DA:2536:G:C6	36:DA:2537:U:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2677:G:H2'	36:DA:2678:C:H6	1.84	0.41
36:DA:2678:C:C2	36:DA:2679:A:C8	3.07	0.41
36:DA:2711:A:OP1	36:DA:2712(A):A:P	2.78	0.41
36:DA:2875:C:C4'	51:DT:5:ALA:HB2	2.47	0.41
37:DB:32:C:C2	37:DB:51:G:N2	2.88	0.41
38:DC:97:GLU:HA	38:DC:100:ILE:HG12	2.01	0.41
41:DF:65:TRP:HB3	41:DF:66:PRO:CD	2.51	0.41
42:DG:78:SER:O	42:DG:79:ASN:C	2.57	0.41
42:DG:81:LYS:O	42:DG:82:LEU:CB	2.67	0.41
43:DH:89:ILE:CD1	43:DH:90:LYS:O	2.61	0.41
45:DN:26:LEU:HD23	45:DN:99:LEU:HD21	2.02	0.41
45:DN:27:ALA:HA	45:DN:30:ILE:HB	2.01	0.41
52:DU:45:TYR:O	52:DU:46:ALA:C	2.59	0.41
52:DU:74:LEU:C	52:DU:74:LEU:HD12	2.41	0.41
56:DY:28:LYS:N	56:DY:28:LYS:CE	2.83	0.41
57:DZ:99:TYR:HA	57:DZ:124:ILE:O	2.20	0.41
57:DZ:111:VAL:O	57:DZ:111:VAL:HG22	2.20	0.41
1:AA:67:C:O2'	1:AA:171:A:H1'	2.20	0.41
1:AA:186:C:H2'	1:AA:187:C:C6	2.56	0.41
1:AA:288:A:H2'	1:AA:289:G:H4'	2.03	0.41
1:AA:473:G:H2'	1:AA:474:G:C8	2.53	0.41
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.55	0.41
1:AA:1226:C:P	13:AM:91:ARG:HH12	2.43	0.41
1:AA:1261:A:H4'	1:AA:1283:G:H5"	2.02	0.41
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.35	0.41
1:AA:1309:G:C6	1:AA:1329:A:C2	3.08	0.41
2:AB:24:TRP:HB3	2:AB:40:HIS:HE1	1.85	0.41
2:AB:50:GLU:O	2:AB:51:LEU:C	2.58	0.41
2:AB:102:LEU:HD12	2:AB:102:LEU:N	2.34	0.41
3:AC:86:VAL:C	3:AC:89:GLU:HB3	2.41	0.41
4:AD:191:ARG:O	4:AD:191:ARG:HD2	2.20	0.41
6:AF:39:LYS:CG	6:AF:40:VAL:H	2.29	0.41
7:AG:50:ILE:O	7:AG:54:THR:O	2.37	0.41
8:AH:2:LEU:HD13	8:AH:2:LEU:O	2.21	0.41
8:AH:34:GLU:OE1	8:AH:34:GLU:HA	2.20	0.41
10:AJ:84:GLN:O	10:AJ:85:LEU:HD23	2.20	0.41
11:AK:29:ILE:HD12	11:AK:43:SER:C	2.40	0.41
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.50	0.41
13:AM:37:THR:HG22	13:AM:59:TYR:HB2	2.02	0.41
18:AR:25:THR:HG22	18:AR:25:THR:O	2.21	0.41
19:AS:10:PHE:HZ	19:AS:70:LYS:CE	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.21	0.41
25:AY:13:C:C2'	25:AY:22:G:H1	2.33	0.41
25:AY:48:C:O2	25:AY:48:C:C2'	2.68	0.41
28:B2:55:ARG:HG2	36:BA:76:C:C5'	2.47	0.41
29:B3:6:VAL:HB	29:B3:54:VAL:HG11	2.01	0.41
32:B6:20:ASN:HD22	32:B6:21:TYR:N	2.15	0.41
36:BA:28:A:H61	36:BA:512:G:H1'	1.83	0.41
36:BA:182:A:H2'	36:BA:183:C:O4'	2.20	0.41
36:BA:571:A:C5	36:BA:575:A:N7	2.88	0.41
36:BA:585:G:H2'	36:BA:1251:C:N4	2.35	0.41
36:BA:852:G:H2'	36:BA:853:G:H8	1.85	0.41
36:BA:1234:U:O2'	36:BA:1235:G:H5'	2.21	0.41
36:BA:2842:G:O2'	36:BA:2843:G:H5'	2.19	0.41
38:BC:23:ASP:C	38:BC:25:ALA:N	2.72	0.41
40:BE:37:ARG:HD3	40:BE:42:ASP:OD2	2.20	0.41
41:BF:11:VAL:CG1	41:BF:12:LEU:H	2.21	0.41
41:BF:179:GLU:OE2	41:BF:179:GLU:N	2.53	0.41
42:BG:111:LEU:CD2	42:BG:114:ILE:HD11	2.50	0.41
43:BH:50:VAL:HG12	43:BH:51:ARG:N	2.35	0.41
47:BP:23:PRO:HD2	47:BP:33:ARG:HE	1.81	0.41
49:BR:12:ARG:HG3	49:BR:12:ARG:NH1	2.35	0.41
49:BR:87:TYR:CE1	49:BR:117:VAL:O	2.72	0.41
50:BS:101:LEU:HD22	50:BS:101:LEU:C	2.41	0.41
54:BW:9:TYR:HD2	54:BW:9:TYR:H	1.66	0.41
54:BW:17:VAL:O	54:BW:18:ARG:C	2.57	0.41
54:BW:36:LEU:N	54:BW:36:LEU:HD23	2.35	0.41
56:BY:91:GLU:HB3	56:BY:92:ASN:H	1.50	0.41
57:BZ:63:ASP:O	57:BZ:65:GLN:N	2.46	0.41
1:CA:37:U:O2'	1:CA:38:G:H5'	2.20	0.41
1:CA:227:G:H2'	1:CA:228:A:H8	1.82	0.41
1:CA:473:G:OP2	16:CP:75:ARG:NH1	2.52	0.41
1:CA:668:G:O2'	15:CO:46:HIS:HD2	2.03	0.41
1:CA:682:G:O2'	1:CA:683:G:H5'	2.20	0.41
1:CA:885:G:O2'	1:CA:914:A:N1	2.42	0.41
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.20	0.41
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.55	0.41
1:CA:1349:A:C4	1:CA:1350:A:C8	3.09	0.41
1:CA:1399:C:C2	1:CA:1502:A:N6	2.88	0.41
2:CB:233:SER:OG	2:CB:234:PRO:CD	2.65	0.41
3:CC:3:ASN:O	3:CC:4:LYS:O	2.37	0.41
4:CD:31:CYS:O	4:CD:33:MET:N	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:11:GLN:NE2	7:CG:12:LEU:N	2.62	0.41
11:CK:20:TYR:HB2	11:CK:31:THR:CG2	2.49	0.41
12:CL:86:ARG:NH2	12:CL:99:HIS:CG	2.88	0.41
12:CL:117:ARG:HD2	12:CL:122:THR:CG2	2.51	0.41
15:CO:32:LEU:O	15:CO:34:LEU:N	2.54	0.41
17:CQ:76:LEU:HD11	17:CQ:78:GLU:C	2.41	0.41
19:CS:11:VAL:HG13	19:CS:16:LEU:HD21	2.03	0.41
20:CT:53:LEU:CD1	20:CT:102:GLY:HA3	2.49	0.41
25:CY:56:C:C3'	25:CY:57:G:C5'	2.93	0.41
26:D0:4:LYS:HE2	48:DQ:82:ARG:NH1	2.35	0.41
27:D1:4:VAL:HG22	27:D1:5:CYS:N	2.35	0.41
27:D1:11:ARG:HB2	27:D1:12:PRO:HD2	2.01	0.41
27:D1:23:LYS:HE2	27:D1:27:GLU:HB3	2.02	0.41
28:D2:33:MET:O	28:D2:36:ARG:HB2	2.21	0.41
36:DA:271(J):C:H2'	36:DA:271(K):U:H5"	2.02	0.41
36:DA:640:C:O2'	36:DA:641:C:H5'	2.20	0.41
36:DA:658:C:H2'	36:DA:659:C:C6	2.55	0.41
36:DA:993:G:O2'	53:DV:89:GLN:HG3	2.21	0.41
36:DA:1029:A:H8	36:DA:1029:A:O5'	2.04	0.41
36:DA:1050:A:C4	36:DA:1051:G:N7	2.88	0.41
36:DA:1399:C:O2'	36:DA:1400:G:H5'	2.21	0.41
36:DA:1623:G:H2'	36:DA:1624:G:H8	1.85	0.41
36:DA:1784:A:H4'	36:DA:1785:A:C5'	2.51	0.41
36:DA:2011:U:C2'	36:DA:2012:G:H5'	2.50	0.41
36:DA:2538:C:N3	36:DA:2539:C:C5	2.88	0.41
38:DC:196:LEU:C	38:DC:198:ALA:N	2.73	0.41
39:DD:33:LEU:HD21	39:DD:102:LYS:HZ2	1.84	0.41
40:DE:63:LEU:O	40:DE:64:LYS:C	2.59	0.41
41:DF:53:THR:HG23	41:DF:54:ARG:N	2.34	0.41
42:DG:7:LEU:HD13	42:DG:100:TRP:CA	2.50	0.41
42:DG:57:ALA:CB	42:DG:90:LEU:HD11	2.50	0.41
43:DH:15:VAL:O	43:DH:15:VAL:HG23	2.20	0.41
43:DH:54:ARG:O	43:DH:54:ARG:CG	2.65	0.41
45:DN:17:ASP:OD2	45:DN:19:GLU:HB3	2.20	0.41
48:DQ:81:VAL:CG2	48:DQ:82:ARG:N	2.83	0.41
51:DT:23:ARG:HG2	51:DT:120:ARG:HH12	1.82	0.41
51:DT:121:ILE:HD13	51:DT:121:ILE:HA	1.90	0.41
53:DV:38:LEU:CD1	53:DV:57:VAL:HB	2.49	0.41
54:DW:9:TYR:H	54:DW:9:TYR:HD2	1.68	0.41
56:DY:28:LYS:O	56:DY:38:ILE:HB	2.20	0.41
1:AA:231:G:O2'	1:AA:232:G:H5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:263:A:H2'	1:AA:264:U:C6	2.56	0.41
1:AA:633:G:H5'	1:AA:634:C:OP2	2.20	0.41
1:AA:951:G:C6	1:AA:1231:G:C6	3.08	0.41
1:AA:1095:U:H5"	1:AA:1109:C:O2	2.20	0.41
1:AA:1160:G:H2'	1:AA:1160:G:N3	2.34	0.41
1:AA:1293:G:O2'	1:AA:1294:G:O5'	2.36	0.41
1:AA:1349:A:C4	1:AA:1350:A:C8	3.09	0.41
1:AA:1370:G:C2	1:AA:1371:G:N7	2.89	0.41
1:AA:1372:U:H2'	1:AA:1373:G:C5'	2.50	0.41
2:AB:62:ALA:HB1	2:AB:225:ALA:HB3	2.03	0.41
2:AB:96:ARG:O	2:AB:97:TRP:C	2.55	0.41
2:AB:124:SER:O	2:AB:127:ILE:HG12	2.20	0.41
2:AB:221:LEU:CD2	2:AB:221:LEU:H	2.34	0.41
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.34	0.41
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.48	0.41
7:AG:78:ARG:NE	7:AG:79:ARG:O	2.52	0.41
11:AK:41:THR:CG2	11:AK:42:TRP:N	2.84	0.41
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.20	0.41
27:B1:80:LEU:HD23	27:B1:81:LYS:H	1.86	0.41
34:B8:59:LYS:CD	47:BP:50:ARG:HB3	2.40	0.41
36:BA:265:A:H1'	36:BA:266:G:O4'	2.20	0.41
36:BA:272(B):G:O2'	36:BA:272(C):G:H5'	2.20	0.41
36:BA:950:G:H2'	36:BA:951:C:H6	1.85	0.41
36:BA:1041:C:O2'	36:BA:1115:G:N2	2.54	0.41
36:BA:1594:G:H8	36:BA:1594:G:C5'	2.33	0.41
36:BA:2457:U:C2'	36:BA:2458:G:H5'	2.50	0.41
36:BA:2679:A:H2'	36:BA:2680:C:H6	1.84	0.41
36:BA:2720:U:O2	36:BA:2720:U:H2'	2.20	0.41
38:BC:95:GLY:HA3	38:BC:99:ILE:CD1	2.51	0.41
39:BD:73:VAL:HG13	39:BD:120:GLY:HA2	2.02	0.41
39:BD:130:ALA:O	39:BD:131:LEU:HG	2.20	0.41
41:BF:63:LYS:NZ	41:BF:67:GLN:CB	2.84	0.41
41:BF:117:ARG:NH2	41:BF:187:VAL:HA	2.36	0.41
42:BG:47:LYS:HE2	42:BG:81:LYS:HD2	2.00	0.41
43:BH:103:LEU:HD22	43:BH:123:PHE:HD2	1.82	0.41
46:BO:101:PRO:HG2	51:BT:67:SER:HB3	2.02	0.41
47:BP:16:ARG:HB2	47:BP:16:ARG:HH11	1.80	0.41
47:BP:16:ARG:HD3	47:BP:16:ARG:C	2.39	0.41
50:BS:25:ARG:CZ	50:BS:40:ILE:HD12	2.51	0.41
1:CA:176:C:H2'	1:CA:177:C:H6	1.84	0.41
1:CA:393:A:C2	1:CA:394:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:423:G:C2'	1:CA:424:G:H5'	2.51	0.41
1:CA:649:G:O2'	1:CA:650:G:H5'	2.20	0.41
1:CA:1010:G:N2	1:CA:1020:U:H1'	2.35	0.41
1:CA:1192:C:C5	1:CA:1193:G:C8	3.09	0.41
1:CA:1228:C:H4'	13:CM:116:THR:CA	2.49	0.41
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.19	0.41
1:CA:1293:G:HO2'	1:CA:1294:G:P	2.43	0.41
1:CA:1316:G:H22	1:CA:1319:A:P	2.43	0.41
1:CA:1347:G:C4	9:CI:107:ARG:NH2	2.88	0.41
2:CB:131:PRO:HG2	2:CB:134:GLU:CB	2.45	0.41
3:CC:19:GLU:HG2	3:CC:19:GLU:O	2.21	0.41
4:CD:17:VAL:HG11	4:CD:197:PRO:HB2	2.01	0.41
4:CD:68:TYR:O	4:CD:69:GLY:C	2.58	0.41
7:CG:152:ALA:O	7:CG:155:ARG:HG3	2.21	0.41
9:CI:98:PRO:C	9:CI:100:GLY:N	2.74	0.41
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.84	0.41
12:CL:64:TYR:HB3	12:CL:65:GLU:H	1.68	0.41
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	2.01	0.41
15:CO:26:GLU:HA	15:CO:81:LEU:HD22	2.02	0.41
18:CR:36:ASN:ND2	18:CR:39:VAL:HG21	2.35	0.41
19:CS:61:TYR:O	19:CS:62:ILE:HB	2.20	0.41
22:CV:50:U:H6	22:CV:50:U:OP2	2.03	0.41
26:D0:82:ARG:O	26:D0:83:PRO:O	2.39	0.41
27:D1:62:VAL:CG2	27:D1:63:ALA:H	2.33	0.41
27:D1:83:GLU:HB2	27:D1:84:GLY:H	1.50	0.41
28:D2:55:ARG:O	28:D2:58:ALA:HB3	2.20	0.41
34:D8:11:LYS:HG3	34:D8:64:TYR:OH	2.20	0.41
36:DA:143(A):C:H4'	55:DX:38:GLU:OE1	2.20	0.41
36:DA:213:A:C2'	36:DA:214:G:H5'	2.50	0.41
36:DA:271(P):C:C2'	36:DA:271(Q):G:H5'	2.49	0.41
36:DA:553:G:C6	36:DA:554:U:N3	2.88	0.41
36:DA:646:A:H3'	36:DA:647:G:H8	1.86	0.41
36:DA:848:G:H5'	36:DA:848:G:C8	2.55	0.41
36:DA:911:A:C6	48:DQ:9:TYR:CD1	3.08	0.41
36:DA:948:G:C2	36:DA:970:C:O2	2.74	0.41
36:DA:1131:G:C2	36:DA:1132:A:C5	3.09	0.41
36:DA:1278:A:C5'	49:DR:36:THR:HG22	2.44	0.41
36:DA:1329:U:H5"	36:DA:1330:C:C5	2.54	0.41
36:DA:1478:G:HO2'	36:DA:1558:A:H2	1.67	0.41
36:DA:1651:G:H4'	49:DR:39:PRO:HG2	2.02	0.41
36:DA:1717:G:H2'	36:DA:1718:G:H5"	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2013:A:H4'	54:DW:96:ILE:HD12	2.03	0.41
36:DA:2126:A:O2'	36:DA:2127:G:OP2	2.37	0.41
36:DA:2531:A:H2	36:DA:2658:C:O2	2.04	0.41
36:DA:2869:G:H2'	36:DA:2870:C:C6	2.55	0.41
36:DA:2893:G:H8	36:DA:2893:G:H5'	1.83	0.41
39:DD:73:VAL:HG13	39:DD:120:GLY:HA2	2.02	0.41
41:DF:1:MET:CE	41:DF:27:GLU:HG3	2.50	0.41
42:DG:39:ILE:HA	42:DG:157:ILE:HG13	2.01	0.41
42:DG:64:THR:C	42:DG:66:GLN:N	2.74	0.41
42:DG:108:ASN:HD22	42:DG:108:ASN:HA	1.63	0.41
44:DI:10:GLU:CD	44:DI:11:ASN:N	2.73	0.41
45:DN:25:ARG:HH11	45:DN:25:ARG:CG	2.32	0.41
47:DP:30:THR:HG22	47:DP:31:ALA:N	2.24	0.41
47:DP:32:THR:HG21	47:DP:37:GLY:HA2	2.02	0.41
47:DP:104:GLY:C	47:DP:105:LEU:HD23	2.41	0.41
47:DP:146:VAL:CG2	47:DP:147:LEU:H	2.28	0.41
49:DR:73:VAL:O	49:DR:76:VAL:HB	2.20	0.41
50:DS:56:LEU:HD22	50:DS:58:LEU:HD13	2.03	0.41
50:DS:89:ARG:CB	50:DS:92:TYR:HB3	2.38	0.41
51:DT:64:ARG:NH1	51:DT:103:ARG:HA	2.35	0.41
51:DT:134:GLU:O	51:DT:135:ALA:HB3	2.20	0.41
56:DY:17:SER:HB2	56:DY:71:LYS:HD2	2.01	0.41
57:DZ:145:GLU:O	57:DZ:146:ILE:C	2.58	0.41
57:DZ:166:SER:HB2	57:DZ:167:PRO:CA	2.50	0.41
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.84	0.41
1:AA:409:G:P	4:AD:24:GLU:HB2	2.60	0.41
1:AA:484:G:H4'	1:AA:485:G:O5'	2.21	0.41
1:AA:564:C:H5'	17:AQ:32:TYR:HE2	1.84	0.41
1:AA:624:C:H2'	1:AA:625:G:C8	2.50	0.41
1:AA:902:G:O2'	1:AA:903:G:H5'	2.21	0.41
1:AA:1128:C:H5'	9:AI:16:ARG:NH1	2.33	0.41
1:AA:1435:G:C2	1:AA:1436:U:N3	2.89	0.41
2:AB:187:LEU:O	2:AB:187:LEU:HD13	2.20	0.41
3:AC:68:VAL:CG1	3:AC:70:VAL:HG23	2.44	0.41
4:AD:18:LYS:C	4:AD:19:LEU:HD12	2.41	0.41
4:AD:96:LEU:N	4:AD:96:LEU:CD1	2.83	0.41
4:AD:196:LEU:HB3	4:AD:197:PRO:HD2	2.02	0.41
7:AG:143:ARG:NH2	23:AW:42:C:H5'	2.36	0.41
8:AH:29:SER:O	8:AH:30:ARG:C	2.58	0.41
9:AI:35:GLU:O	9:AI:38:GLN:HB2	2.19	0.41
13:AM:72:ALA:HA	13:AM:75:ALA:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:91:ARG:HB3	13:AM:96:LEU:O	2.20	0.41
15:AO:47:LYS:H	15:AO:47:LYS:HG2	1.57	0.41
18:AR:37:VAL:O	18:AR:41:LYS:HB2	2.20	0.41
19:AS:13:ASP:O	19:AS:15:LEU:N	2.53	0.41
31:B5:2:ALA:HA	36:BA:2015:A:O4'	2.20	0.41
36:BA:30:G:H2'	36:BA:31:C:C6	2.55	0.41
36:BA:350:U:H2'	36:BA:351:G:O4'	2.20	0.41
36:BA:590:A:H2'	36:BA:591:C:C6	2.56	0.41
36:BA:833:U:H5"	47:BP:48:PRO:HB3	2.03	0.41
36:BA:885:C:C2	36:BA:886:C:N4	2.88	0.41
36:BA:992:C:O2'	36:BA:993:G:H5'	2.20	0.41
36:BA:1032:A:H2	36:BA:1122:G:H22	1.69	0.41
36:BA:1161:C:H1'	53:BV:8:GLY:O	2.20	0.41
36:BA:1332:G:H21	36:BA:1610:A:H8	1.60	0.41
36:BA:1348:G:H2'	36:BA:1349:A:C5'	2.45	0.41
36:BA:1438:U:H2'	36:BA:1439:A:H8	1.85	0.41
36:BA:1505:C:H2'	36:BA:1506:C:O4'	2.21	0.41
36:BA:1763:G:H4'	36:BA:1763:G:OP1	2.21	0.41
36:BA:2260:C:O2'	36:BA:2261:C:H5'	2.21	0.41
36:BA:2262:U:H2'	36:BA:2263:C:H5"	2.00	0.41
36:BA:2414:G:H21	47:BP:67:MET:HE1	1.85	0.41
36:BA:2803:C:O3'	36:BA:2804:C:O4'	2.39	0.41
37:BB:40:U:O2'	37:BB:43:C:C5	2.72	0.41
37:BB:91:C:H2'	37:BB:92:C:C6	2.56	0.41
39:BD:25:THR:O	39:BD:26:LYS:CG	2.68	0.41
39:BD:112:GLN:H	39:BD:115:GLN:NE2	2.19	0.41
39:BD:221:VAL:HG22	39:BD:226:MET:HE3	2.03	0.41
40:BE:55:ASN:HD22	40:BE:55:ASN:HA	1.59	0.41
43:BH:65:HIS:HD1	43:BH:69:ARG:HD3	1.85	0.41
45:BN:89:LYS:NZ	45:BN:89:LYS:HB3	2.36	0.41
48:BQ:2:LEU:O	48:BQ:2:LEU:HG	2.21	0.41
49:BR:79:LEU:CD2	49:BR:79:LEU:C	2.89	0.41
50:BS:49:VAL:CG1	50:BS:50:SER:N	2.82	0.41
50:BS:56:LEU:O	50:BS:57:LYS:CB	2.65	0.41
50:BS:70:GLY:C	50:BS:72:ALA:N	2.70	0.41
50:BS:88:ASP:CG	50:BS:89:ARG:N	2.73	0.41
50:BS:106:ARG:HD2	50:BS:106:ARG:O	2.20	0.41
51:BT:33:LYS:O	51:BT:39:ARG:O	2.38	0.41
53:BV:40:LEU:N	53:BV:40:LEU:HD23	2.35	0.41
55:BX:14:SER:O	55:BX:17:ALA:HB3	2.21	0.41
55:BX:52:VAL:HG21	55:BX:84:ALA:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:8:LYS:HE3	56:BY:72:VAL:HG23	2.03	0.41
57:BZ:14:LYS:O	57:BZ:18:LEU:HB2	2.20	0.41
57:BZ:98:MET:HE2	57:BZ:99:TYR:O	2.20	0.41
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.19	0.41
1:CA:594:G:O2'	1:CA:595:G:H5'	2.20	0.41
1:CA:947:G:O2'	1:CA:948:C:H5'	2.20	0.41
1:CA:1121:U:H2'	1:CA:1122:U:H6	1.86	0.41
1:CA:1133:G:C1'	1:CA:1142:G:H22	2.34	0.41
1:CA:1178:G:OP2	9:CI:97:LYS:CD	2.66	0.41
1:CA:1261:A:H4'	1:CA:1283:G:H5"	2.01	0.41
1:CA:1367:C:OP1	9:CI:115:GLY:N	2.52	0.41
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.21	0.41
1:CA:1505:G:H5"	1:CA:1506:U:H5"	2.03	0.41
2:CB:17:PHE:HD1	2:CB:44:LEU:HD11	1.85	0.41
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.20	0.41
3:CC:92:ALA:C	3:CC:94:LEU:N	2.73	0.41
4:CD:33:MET:CE	4:CD:33:MET:HA	2.49	0.41
4:CD:39:PRO:O	4:CD:44:GLY:HA3	2.21	0.41
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.89	0.41
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	2.02	0.41
5:CE:71:LEU:HD22	5:CE:114:GLY:O	2.20	0.41
7:CG:44:TYR:O	7:CG:47:CYS:N	2.53	0.41
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.24	0.41
10:CJ:57:LYS:CE	10:CJ:60:ARG:NH2	2.84	0.41
11:CK:82:VAL:HG21	11:CK:98:LEU:HD12	2.03	0.41
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.35	0.41
21:CU:21:TYR:N	21:CU:21:TYR:CD1	2.89	0.41
23:CW:52:G:H2'	23:CW:53:G:O4'	2.20	0.41
26:D0:38:VAL:HB	26:D0:59:LEU:HB2	2.03	0.41
31:D5:3:LYS:HD2	31:D5:3:LYS:HA	1.70	0.41
31:D5:42:PRO:O	31:D5:43:HIS:CB	2.69	0.41
36:DA:384:U:H2'	36:DA:385:C:C6	2.55	0.41
36:DA:519:U:O2'	36:DA:520:G:H5'	2.20	0.41
36:DA:571:A:C5	36:DA:575:A:N7	2.88	0.41
36:DA:644:A:N6	36:DA:2349:G:H1'	2.35	0.41
36:DA:674:G:P	41:DF:54:ARG:HH22	2.43	0.41
36:DA:765:G:O2'	36:DA:766:C:H5'	2.21	0.41
36:DA:855:G:C6	36:DA:856:C:C4	3.09	0.41
36:DA:897:C:C2	36:DA:898:C:C5	3.08	0.41
36:DA:1112:G:O2'	36:DA:1113:U:O5'	2.25	0.41
36:DA:1169:G:H2'	36:DA:1170:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1665:A:H4'	46:DO:67:LYS:HB2	2.03	0.41
36:DA:1686:C:H2'	36:DA:1687:G:C5'	2.50	0.41
36:DA:1842:G:H1	36:DA:1898:U:H3	1.68	0.41
36:DA:2364:C:C2'	36:DA:2365:G:H5'	2.51	0.41
36:DA:2484:G:O2'	48:DQ:124:LYS:O	2.37	0.41
36:DA:2688:U:C5	36:DA:2719:G:C5	3.08	0.41
36:DA:2783:G:H2'	36:DA:2784:C:H6	1.84	0.41
36:DA:2892:A:C3'	36:DA:2893:G:C5'	2.98	0.41
37:DB:103:G:O2'	37:DB:104:U:H5'	2.20	0.41
39:DD:70:TRP:CZ2	39:DD:150:LYS:HA	2.55	0.41
39:DD:146:GLU:HG2	39:DD:152:GLY:C	2.41	0.41
40:DE:9:VAL:CG1	40:DE:25:VAL:O	2.68	0.41
41:DF:187:VAL:CG1	47:DP:7:ARG:HH21	2.33	0.41
42:DG:35:GLU:HA	42:DG:99:MET:SD	2.60	0.41
42:DG:56:ALA:HB1	42:DG:153:ARG:NE	2.35	0.41
42:DG:102:PHE:C	42:DG:105:LYS:HG2	2.38	0.41
43:DH:116:GLU:HG2	43:DH:117:PRO:N	2.35	0.41
47:DP:68:GLN:HE21	47:DP:68:GLN:HB2	1.53	0.41
47:DP:96:THR:HG22	47:DP:126:VAL:CB	2.46	0.41
48:DQ:76:LYS:HB3	48:DQ:91:GLU:CG	2.50	0.41
49:DR:17:ARG:HH11	49:DR:17:ARG:CG	2.33	0.41
50:DS:17:ARG:O	50:DS:18:ILE:HG22	2.20	0.41
51:DT:65:LYS:HG3	51:DT:66:VAL:N	2.36	0.41
51:DT:77:PRO:O	51:DT:78:LEU:CB	2.68	0.41
52:DU:30:LYS:HA	52:DU:30:LYS:HD3	1.95	0.41
57:DZ:7:ALA:HB3	57:DZ:59:LEU:HB3	2.02	0.41
1:AA:408:A:C2	1:AA:409:G:C4	3.09	0.41
1:AA:424:G:O2'	1:AA:425:G:H5'	2.21	0.41
1:AA:603:U:H2'	1:AA:604:G:H8	1.85	0.41
1:AA:614:A:OP1	4:AD:85:LYS:NZ	2.50	0.41
1:AA:668:G:O2'	15:AO:46:HIS:HD2	2.03	0.41
1:AA:1323:G:H4'	1:AA:1363:C:N3	2.35	0.41
1:AA:1381:U:C2'	1:AA:1382:C:H5'	2.51	0.41
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.54	0.41
2:AB:24:TRP:CG	2:AB:40:HIS:HE1	2.38	0.41
2:AB:170:GLU:HA	2:AB:172:ILE:CD1	2.50	0.41
3:AC:3:ASN:O	3:AC:4:LYS:O	2.39	0.41
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.21	0.41
7:AG:9:VAL:O	7:AG:10:ARG:C	2.59	0.41
7:AG:107:ALA:CB	7:AG:134:ALA:HB2	2.50	0.41
7:AG:151:TYR:CD1	7:AG:151:TYR:N	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:34:ASP:OD2	11:AK:36:ASP:N	2.53	0.41
12:AL:83:VAL:HG11	12:AL:100:ILE:HG23	2.02	0.41
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.20	0.41
18:AR:76:LEU:N	18:AR:76:LEU:HD22	2.35	0.41
19:AS:5:LEU:CD1	19:AS:8:GLY:O	2.69	0.41
20:AT:81:LYS:O	20:AT:83:ARG:N	2.53	0.41
26:B0:39:ARG:HH21	36:BA:2355:C:H1'	1.84	0.41
26:B0:53:MET:HB3	26:B0:59:LEU:CD2	2.47	0.41
28:B2:59:ARG:NH1	36:BA:77:C:OP1	2.52	0.41
32:B6:9:LEU:HD23	32:B6:9:LEU:C	2.40	0.41
36:BA:528:A:C2	36:BA:2043:C:C4'	2.85	0.41
36:BA:908:C:OP1	48:BQ:22:LYS:HB2	2.20	0.41
36:BA:1783:A:N1	36:BA:2587:A:H2'	2.36	0.41
36:BA:2123:G:H2'	36:BA:2124:G:O4'	2.20	0.41
36:BA:2168:G:O2'	36:BA:2170:A:N7	2.41	0.41
36:BA:2245:U:H5'	36:BA:2246:G:C5'	2.44	0.41
36:BA:2847:U:OP1	51:BT:98:LYS:HD3	2.19	0.41
39:BD:27:THR:CG2	39:BD:27:THR:O	2.68	0.41
39:BD:83:GLU:OE1	39:BD:104:TYR:OH	2.31	0.41
40:BE:75:VAL:HG12	40:BE:76:ARG:N	2.35	0.41
41:BF:125:LEU:HD11	41:BF:199:TRP:CD1	2.55	0.41
41:BF:132:VAL:HG13	41:BF:133:ASN:H	1.85	0.41
42:BG:32:PRO:HB3	42:BG:163:ALA:HB2	2.03	0.41
43:BH:15:VAL:O	43:BH:15:VAL:HG23	2.21	0.41
43:BH:139:GLN:CD	43:BH:139:GLN:C	2.79	0.41
45:BN:79:PRO:C	45:BN:81:GLY:H	2.22	0.41
46:BO:25:LEU:O	46:BO:26:LYS:HG3	2.20	0.41
52:BU:30:LYS:HA	52:BU:30:LYS:HD3	1.94	0.41
53:BV:5:VAL:HG21	53:BV:35:LEU:HG	2.02	0.41
56:BY:31:LEU:N	56:BY:31:LEU:CD2	2.78	0.41
1:CA:386:C:C2'	1:CA:387:U:H5'	2.51	0.41
1:CA:414:A:C5	1:CA:431:A:C2	3.08	0.41
1:CA:734:G:H2'	1:CA:735:C:H6	1.85	0.41
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.43	0.41
1:CA:1178:G:OP2	9:CI:97:LYS:HE3	2.21	0.41
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.36	0.41
1:CA:1306:A:H2'	1:CA:1307:U:O4'	2.21	0.41
1:CA:1372:U:H2'	1:CA:1373:G:C5'	2.51	0.41
2:CB:114:ARG:HG3	2:CB:114:ARG:NH1	2.31	0.41
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.21	0.41
2:CB:213:LEU:O	2:CB:216:SER:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.21	0.41
8:CH:36:LEU:HD13	8:CH:61:VAL:HG22	2.03	0.41
8:CH:40:ALA:C	8:CH:42:GLU:N	2.72	0.41
8:CH:65:TYR:N	8:CH:65:TYR:HD1	2.17	0.41
8:CH:125:ARG:O	8:CH:128:GLY:N	2.45	0.41
11:CK:121:PRO:C	11:CK:122:LYS:O	2.57	0.41
13:CM:96:LEU:O	13:CM:98:VAL:HG22	2.19	0.41
19:CS:11:VAL:HA	19:CS:38:SER:HB2	2.03	0.41
19:CS:18:LYS:HD2	19:CS:22:LEU:HD21	2.02	0.41
19:CS:40:ILE:HG21	19:CS:67:VAL:HA	2.02	0.41
20:CT:89:ARG:CZ	20:CT:104:LEU:HD21	2.50	0.41
26:D0:51:VAL:HG22	26:D0:81:VAL:HG23	2.02	0.41
29:D3:26:LEU:O	29:D3:27:GLY:C	2.59	0.41
29:D3:59:VAL:CG1	29:D3:60:GLU:N	2.81	0.41
33:D7:43:THR:CG2	33:D7:44:PRO:N	2.83	0.41
33:D7:47:ARG:NH2	36:DA:1311:G:C6	2.89	0.41
34:D8:2:PRO:HA	36:DA:591:C:O2	2.20	0.41
35:D9:2:LYS:O	35:D9:34:GLN:HA	2.20	0.41
36:DA:184:C:H2'	36:DA:185:U:C6	2.56	0.41
36:DA:265:A:H1'	36:DA:266:G:O4'	2.21	0.41
36:DA:389:G:C2	47:DP:71:VAL:HG12	2.54	0.41
36:DA:566:U:O2'	36:DA:567:A:H5'	2.21	0.41
36:DA:666:G:OP1	47:DP:47:ASP:O	2.39	0.41
36:DA:829:A:N7	36:DA:2248:C:H5'	2.35	0.41
36:DA:1826:G:H2'	36:DA:1827:C:C6	2.56	0.41
36:DA:2094:G:OP1	44:DI:22:LYS:HD2	2.20	0.41
36:DA:2266:A:H4'	36:DA:2267:A:C2	2.55	0.41
36:DA:2488:A:H2'	36:DA:2489:G:O4'	2.18	0.41
36:DA:2881:C:C2	36:DA:2882:A:C8	3.08	0.41
39:DD:25:THR:C	39:DD:27:THR:H	2.23	0.41
39:DD:48:ARG:HH11	39:DD:48:ARG:CG	2.23	0.41
40:DE:93:VAL:O	40:DE:95:ILE:N	2.54	0.41
42:DG:15:VAL:HG22	42:DG:175:LEU:HD12	2.01	0.41
42:DG:57:ALA:HB1	42:DG:90:LEU:CD1	2.50	0.41
43:DH:53:GLU:O	43:DH:54:ARG:CB	2.63	0.41
45:DN:22:THR:HA	45:DN:61:ARG:O	2.21	0.41
45:DN:26:LEU:HG	45:DN:30:ILE:CD1	2.50	0.41
45:DN:39:ARG:HE	45:DN:41:ASP:CG	2.23	0.41
46:DO:106:LEU:HD23	46:DO:106:LEU:HA	1.92	0.41
47:DP:51:PHE:HB3	47:DP:52:GLU:HG2	2.03	0.41
48:DQ:62:GLY:H	48:DQ:109:VAL:HG23	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:49:ASP:OD2	49:DR:95:THR:HG22	2.21	0.41
50:DS:48:LEU:H	50:DS:48:LEU:CD1	2.33	0.41
52:DU:8:VAL:HG13	52:DU:11:ARG:HH21	1.86	0.41
54:DW:45:TYR:O	54:DW:48:ALA:HB3	2.20	0.41
1:AA:88:A:N6	1:AA:89:C:H41	2.18	0.41
1:AA:123:C:H6	1:AA:123:C:O5'	2.03	0.41
1:AA:255:G:H2'	1:AA:256:U:C6	2.56	0.41
1:AA:514:C:O2'	1:AA:515:G:H5'	2.21	0.41
1:AA:587:G:N1	1:AA:754:C:OP2	2.46	0.41
1:AA:792:A:H4'	1:AA:793:U:O5'	2.21	0.41
1:AA:960:U:C2	1:AA:1225:A:N7	2.88	0.41
1:AA:983:A:H3'	1:AA:983:A:N3	2.35	0.41
1:AA:1086:U:C2'	1:AA:1087:G:H5'	2.51	0.41
1:AA:1131:G:H2'	1:AA:1132:C:C5	2.56	0.41
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.56	0.41
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.56	0.41
1:AA:1294:G:O2'	1:AA:1295:G:H5'	2.20	0.41
1:AA:1465:C:O2'	1:AA:1466:C:H5'	2.20	0.41
3:AC:53:ALA:HB2	3:AC:115:LEU:CD2	2.50	0.41
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	2.03	0.41
5:AE:18:ARG:HH21	5:AE:25:ARG:HB3	1.85	0.41
7:AG:59:LEU:HD23	7:AG:59:LEU:C	2.40	0.41
8:AH:44:PHE:HA	8:AH:79:VAL:HG12	2.02	0.41
11:AK:20:TYR:HB2	11:AK:31:THR:HG22	2.03	0.41
13:AM:94:ARG:NH2	36:BA:887:A:H3'	2.36	0.41
13:AM:96:LEU:O	13:AM:98:VAL:HG22	2.21	0.41
16:AP:75:ARG:C	16:AP:77:ALA:H	2.24	0.41
22:AV:51:C:O2'	22:AV:52:G:H5"	2.21	0.41
23:AW:43:C:H2'	23:AW:43:C:O2	2.20	0.41
25:AY:77:PHA:HA	36:BA:2506:U:O2	2.21	0.41
26:B0:9:SER:OG	26:B0:10:THR:N	2.50	0.41
26:B0:51:VAL:HG21	26:B0:80:HIS:HA	2.03	0.41
29:B3:11:SER:OG	29:B3:12:PRO:HD2	2.21	0.41
32:B6:51:GLU:O	32:B6:52:VAL:HB	2.20	0.41
34:B8:7:HIS:ND1	34:B8:10:ALA:N	2.69	0.41
36:BA:25:U:H5'	54:BW:78:GLU:O	2.20	0.41
36:BA:27:G:O2'	36:BA:28:A:C8	2.54	0.41
36:BA:120:U:H5"	36:BA:122:G:OP2	2.21	0.41
36:BA:195:A:C8	36:BA:197:A:OP1	2.74	0.41
36:BA:200:U:H2'	36:BA:201:C:H5'	2.02	0.41
36:BA:301:G:C4	36:BA:302:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:526:A:O2'	36:BA:2043:C:O2	2.38	0.41
36:BA:535:C:C2'	36:BA:536:A:H5'	2.51	0.41
36:BA:950:G:O2'	36:BA:951:C:H5'	2.20	0.41
36:BA:1022:G:O2'	36:BA:1023:U:P	2.78	0.41
36:BA:1169:G:H2'	36:BA:1170:G:O4'	2.20	0.41
36:BA:1591:G:O2'	36:BA:1592:C:H5'	2.21	0.41
36:BA:1808:U:H2'	36:BA:1809:A:O4'	2.20	0.41
36:BA:1829:A:N3	39:BD:15:PHE:HE1	2.18	0.41
36:BA:1841:U:H2'	36:BA:1842:G:C8	2.55	0.41
36:BA:2171:A:O2'	36:BA:2172:U:C6	2.74	0.41
36:BA:2804:C:C2'	36:BA:2805:G:H5'	2.50	0.41
37:BB:61:G:H2'	37:BB:62:C:H6	1.84	0.41
38:BC:83:ILE:O	38:BC:83:ILE:HG22	2.21	0.41
39:BD:198:ASN:C	39:BD:198:ASN:ND2	2.74	0.41
40:BE:26:ILE:HG22	40:BE:27:LEU:N	2.35	0.41
40:BE:51:PHE:CE1	40:BE:52:LEU:HD22	2.56	0.41
42:BG:95:ARG:C	42:BG:96:ARG:O	2.59	0.41
45:BN:3:THR:HG22	45:BN:5:VAL:CG1	2.51	0.41
46:BO:17:ARG:HD3	46:BO:47:ILE:CD1	2.49	0.41
47:BP:50:ARG:HH21	47:BP:50:ARG:CG	2.32	0.41
48:BQ:1:MET:HE2	48:BQ:1:MET:C	2.41	0.41
48:BQ:43:THR:HG1	48:BQ:46:GLN:HG3	1.79	0.41
49:BR:18:LEU:HD21	49:BR:22:ARG:HE	1.85	0.41
51:BT:35:LYS:NZ	51:BT:41:ARG:HE	2.18	0.41
52:BU:62:ILE:HD13	52:BU:93:LYS:HG2	1.97	0.41
56:BY:46:LYS:HB3	56:BY:47:LYS:H	1.51	0.41
1:CA:157:G:C2	1:CA:165:C:C2	3.09	0.41
1:CA:472:A:O2'	16:CP:82:GLN:NE2	2.53	0.41
1:CA:990:C:H2'	1:CA:991:U:C6	2.55	0.41
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.56	0.41
1:CA:1168:A:C6	1:CA:1169:A:C6	3.09	0.41
1:CA:1279:A:H61	3:CC:26:LYS:HZ3	1.67	0.41
1:CA:1466:C:H2'	1:CA:1467:G:O4'	2.21	0.41
1:CA:1502:A:C2	1:CA:1505:G:N1	2.88	0.41
2:CB:30:ARG:HH21	2:CB:194:PRO:CG	2.34	0.41
2:CB:193:ASP:OD2	2:CB:193:ASP:O	2.39	0.41
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.36	0.41
3:CC:62:ASP:HA	3:CC:97:LYS:CE	2.50	0.41
4:CD:46:LYS:O	4:CD:47:ARG:C	2.59	0.41
4:CD:159:ARG:HG3	4:CD:159:ARG:HH11	1.85	0.41
7:CG:9:VAL:O	7:CG:10:ARG:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:75:VAL:HA	7:CG:88:PRO:HA	2.02	0.41
7:CG:140:ASP:CG	7:CG:143:ARG:HH12	2.24	0.41
7:CG:149:ARG:HD3	11:CK:59:TYR:CE1	2.56	0.41
8:CH:2:LEU:HD13	8:CH:2:LEU:O	2.21	0.41
9:CI:53:VAL:HG13	9:CI:95:LYS:HE3	2.03	0.41
9:CI:105:ASP:C	9:CI:107:ARG:N	2.73	0.41
9:CI:118:LYS:HB2	9:CI:118:LYS:NZ	2.35	0.41
15:CO:3:ILE:N	15:CO:3:ILE:CD1	2.79	0.41
15:CO:27:VAL:O	15:CO:31:LEU:HB2	2.21	0.41
16:CP:27:LYS:H	16:CP:27:LYS:HG2	1.65	0.41
17:CQ:68:ARG:HH11	17:CQ:68:ARG:HG2	1.84	0.41
19:CS:16:LEU:O	19:CS:19:VAL:HB	2.20	0.41
26:D0:43:THR:O	26:D0:43:THR:HG23	2.20	0.41
26:D0:63:VAL:O	26:D0:63:VAL:HG23	2.21	0.41
28:D2:33:MET:HE1	55:DX:47:PHE:CE1	2.56	0.41
34:D8:41:ILE:O	34:D8:44:LYS:HB2	2.19	0.41
36:DA:332:A:O2'	36:DA:333:G:O5'	2.39	0.41
36:DA:769:G:H5'	36:DA:1379:A:N6	2.36	0.41
36:DA:946:G:H2'	36:DA:947:G:C8	2.55	0.41
36:DA:956:G:N2	36:DA:959:A:H3'	2.36	0.41
36:DA:1291:C:H2'	36:DA:1292:U:C6	2.56	0.41
36:DA:1505:C:H2'	36:DA:1506:C:O4'	2.20	0.41
36:DA:1594:G:H8	36:DA:1594:G:C5'	2.31	0.41
36:DA:2240:C:O2'	36:DA:2241:A:H5'	2.20	0.41
36:DA:2313:C:H4'	42:DG:40:ASN:CG	2.39	0.41
36:DA:2773:C:OP1	40:DE:166:THR:OG1	2.38	0.41
37:DB:57:A:H1'	42:DG:29:TRP:C	2.40	0.41
40:DE:70:ALA:O	40:DE:71:GLY:O	2.38	0.41
41:DF:192:LEU:HD21	41:DF:194:MET:HE3	2.02	0.41
43:DH:30:LYS:CE	43:DH:81:GLU:HG2	2.49	0.41
44:DI:54:GLN:HG2	44:DI:54:GLN:O	2.20	0.41
46:DO:10:VAL:CG2	46:DO:16:ALA:O	2.68	0.41
49:DR:3:HIS:O	49:DR:5:LYS:HD2	2.20	0.41
49:DR:5:LYS:N	49:DR:5:LYS:CD	2.83	0.41
49:DR:10:LEU:CB	49:DR:17:ARG:HD2	2.51	0.41
51:DT:107:ASP:C	51:DT:109:GLU:H	2.23	0.41
52:DU:98:LEU:O	52:DU:101:ARG:N	2.53	0.41
56:DY:14:LEU:HG	56:DY:15:VAL:N	2.35	0.41
57:DZ:47:VAL:O	57:DZ:48:PHE:O	2.38	0.41
57:DZ:128:VAL:HG22	57:DZ:132:ASN:HB3	2.02	0.41
1:AA:153:C:O5'	1:AA:153:C:H6	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:520:A:N1	1:AA:536:C:H1'	2.36	0.41
1:AA:617:G:N1	1:AA:618:C:C4	2.88	0.41
1:AA:649:G:O2'	1:AA:650:G:H5'	2.21	0.41
1:AA:682:G:O2'	1:AA:683:G:H5'	2.20	0.41
1:AA:933:G:OP2	7:AG:3:ARG:HB3	2.20	0.41
1:AA:979:C:C2'	1:AA:980:C:H5"	2.49	0.41
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.35	0.41
1:AA:1089:G:C5	1:AA:1090:U:C5	3.09	0.41
1:AA:1140:C:C4	1:AA:1141:C:N3	2.89	0.41
1:AA:1178:G:OP2	9:AI:97:LYS:HE3	2.21	0.41
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.88	0.41
2:AB:207:ALA:C	2:AB:209:ARG:N	2.73	0.41
3:AC:53:ALA:HB2	3:AC:115:LEU:HG	2.02	0.41
3:AC:188:LEU:HD12	3:AC:195:VAL:HG11	2.02	0.41
6:AF:68:PRO:HG3	6:AF:71:ARG:NH2	2.36	0.41
10:AJ:65:LEU:HD12	14:AN:55:GLY:HA3	2.03	0.41
11:AK:73:MET:SD	11:AK:103:LEU:HD23	2.60	0.41
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.35	0.41
18:AR:47:THR:O	18:AR:83:GLU:HG2	2.21	0.41
20:AT:42:GLN:HG3	20:AT:43:LEU:HD23	2.02	0.41
20:AT:98:PRO:C	20:AT:100:ILE:N	2.73	0.41
25:AY:64:A:N3	25:AY:65:G:N7	2.68	0.41
27:B1:29:GLY:O	27:B1:30:VAL:HG23	2.21	0.41
30:B4:63:SER:HB3	42:BG:112:PRO:HG2	2.01	0.41
33:B7:36:GLN:O	33:B7:36:GLN:HG2	2.21	0.41
34:B8:13:ARG:HD3	47:BP:61:ARG:O	2.19	0.41
34:B8:41:ILE:HD13	36:BA:2419:U:OP1	2.21	0.41
36:BA:470:A:OP1	41:BF:59:TYR:HE2	2.03	0.41
36:BA:498:G:O2'	36:BA:499:U:H5'	2.20	0.41
36:BA:601:C:H2'	36:BA:602:G:O4'	2.21	0.41
36:BA:1109:C:C5	36:BA:1110:G:C5	3.06	0.41
36:BA:1141:U:OP1	45:BN:25:ARG:NH1	2.54	0.41
36:BA:1142(A):A:C4	36:BA:1144:G:C8	3.09	0.41
36:BA:1856:G:H2'	36:BA:1857:G:H5'	2.03	0.41
36:BA:2069:G:C2'	36:BA:2070:G:H5'	2.51	0.41
36:BA:2167:U:H6	36:BA:2167:U:O5'	2.04	0.41
36:BA:2242:G:H2'	36:BA:2243:U:O4'	2.20	0.41
38:BC:97:GLU:HA	38:BC:100:ILE:HG12	2.02	0.41
40:BE:1:MET:HA	40:BE:200:GLU:CD	2.40	0.41
40:BE:7:VAL:HA	40:BE:194:GLY:O	2.20	0.41
41:BF:22:ALA:C	41:BF:24:LEU:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BF:202:PHE:O	41:BF:203:GLN:C	2.59	0.41
43:BH:54:ARG:O	43:BH:54:ARG:CG	2.66	0.41
43:BH:157:TYR:O	43:BH:158:HIS:CB	2.68	0.41
44:BI:110:ASP:O	44:BI:114:LEU:HG	2.20	0.41
46:BO:1:MET:HB2	46:BO:32:TYR:HB3	2.03	0.41
46:BO:1:MET:HE2	46:BO:67:LYS:HG2	2.01	0.41
46:BO:71:ARG:NE	46:BO:105:GLU:OE2	2.54	0.41
47:BP:80:TYR:CE1	47:BP:111:ARG:HB3	2.55	0.41
48:BQ:27:VAL:O	48:BQ:29:PHE:N	2.53	0.41
48:BQ:52:VAL:HG12	48:BQ:56:ARG:HG3	2.02	0.41
50:BS:19:LYS:O	50:BS:19:LYS:HG2	2.21	0.41
51:BT:36:GLU:O	51:BT:38:ASN:OD1	2.39	0.41
51:BT:64:ARG:HD2	51:BT:73:GLU:HG3	2.02	0.41
51:BT:91:ARG:O	51:BT:93:ARG:N	2.52	0.41
52:BU:92:ARG:NH1	53:BV:11:GLN:CB	2.83	0.41
53:BV:38:LEU:HD23	53:BV:39:LEU:N	2.35	0.41
54:BW:34:ASN:O	54:BW:37:ARG:HB3	2.21	0.41
56:BY:76:CYS:O	56:BY:77:PRO:C	2.59	0.41
1:CA:104:G:O2'	1:CA:105:G:H5'	2.21	0.41
1:CA:189(D):C:H2'	1:CA:189(E):U:O4'	2.20	0.41
1:CA:408:A:C2	1:CA:409:G:C4	3.09	0.41
1:CA:424:G:O2'	1:CA:425:G:H5'	2.20	0.41
1:CA:444:C:O2'	1:CA:445:G:H5'	2.20	0.41
1:CA:474:G:O2'	1:CA:475:G:H5'	2.20	0.41
1:CA:688:G:H2'	1:CA:689:C:C6	2.48	0.41
1:CA:1206:G:C6	1:CA:1207:G:C5	3.09	0.41
1:CA:1281:U:C5'	1:CA:1282:C:OP2	2.68	0.41
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.86	0.41
2:CB:7:VAL:O	2:CB:7:VAL:HG12	2.20	0.41
3:CC:149:ALA:O	3:CC:169:ALA:HB1	2.21	0.41
5:CE:51:VAL:CB	5:CE:52:PRO:HD3	2.49	0.41
5:CE:80:ILE:CD1	5:CE:138:ALA:HB1	2.51	0.41
6:CF:53:ALA:C	6:CF:55:ASP:H	2.24	0.41
11:CK:12:ARG:CG	11:CK:13:GLN:H	2.30	0.41
11:CK:29:ILE:HD12	11:CK:43:SER:C	2.39	0.41
13:CM:21:TYR:N	13:CM:21:TYR:CD2	2.89	0.41
14:CN:42:ILE:O	14:CN:43:CYS:C	2.59	0.41
20:CT:38:LYS:HB3	20:CT:38:LYS:HE2	1.85	0.41
20:CT:81:LYS:O	20:CT:83:ARG:N	2.54	0.41
23:CW:14:A:C6	23:CW:15:G:H1'	2.55	0.41
25:CY:48:C:C5	25:CY:59:U:H1'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CY:76:8AN:H4'	36:DA:2506:U:O2'	2.21	0.41
27:D1:53:VAL:O	27:D1:53:VAL:HG12	2.20	0.41
29:D3:5:LYS:HE2	29:D3:57:GLU:OE2	2.21	0.41
31:D5:48:GLU:O	31:D5:57:VAL:HG22	2.21	0.41
32:D6:9:LEU:HD23	32:D6:9:LEU:C	2.41	0.41
33:D7:9:ARG:NH1	36:DA:1309:G:H3'	2.36	0.41
34:D8:52:LYS:O	34:D8:55:ALA:HB3	2.21	0.41
36:DA:52:A:O2'	36:DA:53:A:H5'	2.20	0.41
36:DA:1039:G:C6	36:DA:1040:C:C4	3.09	0.41
36:DA:1322:A:C2'	36:DA:1323:U:H5'	2.51	0.41
36:DA:1467:C:H42	36:DA:1525:G:H1	1.67	0.41
36:DA:1593:G:C3'	36:DA:1594:G:C5'	2.95	0.41
36:DA:1652:A:C2	36:DA:2006:C:N3	2.88	0.41
36:DA:1692:U:H2'	36:DA:1694:C:C5	2.55	0.41
36:DA:1791:A:H8	36:DA:1791:A:OP2	2.04	0.41
36:DA:1956:U:H2'	36:DA:1957:C:H5'	2.02	0.41
36:DA:2318:G:H2'	36:DA:2319:G:OP1	2.21	0.41
36:DA:2454:G:C2'	36:DA:2455:G:H5'	2.50	0.41
36:DA:2571:C:H5'	36:DA:2572:A:H5"	2.01	0.41
36:DA:2654:A:N1	36:DA:2665:A:H5"	2.36	0.41
36:DA:2801(A):A:H4'	36:DA:2802:G:C5'	2.20	0.41
36:DA:2821:A:OP2	49:DR:2:ARG:NH2	2.53	0.41
36:DA:2867:G:C5	51:DT:23:ARG:NH1	2.89	0.41
37:DB:71:C:H2'	37:DB:72:G:C8	2.48	0.41
39:DD:153:ALA:C	39:DD:154:LYS:HG2	2.41	0.41
40:DE:11:MET:H	51:DT:8:LYS:NZ	2.16	0.41
40:DE:16:ARG:O	40:DE:17:ASP:CB	2.67	0.41
41:DF:195:ASP:HB2	41:DF:198:ALA:CB	2.51	0.41
42:DG:32:PRO:O	42:DG:172:LEU:HD11	2.21	0.41
42:DG:41:GLN:CB	42:DG:90:LEU:HD23	2.51	0.41
42:DG:111:LEU:CD2	42:DG:111:LEU:C	2.89	0.41
43:DH:121:ILE:HG21	43:DH:133:VAL:HG12	2.00	0.41
43:DH:139:GLN:CD	43:DH:139:GLN:C	2.79	0.41
44:DI:68:LEU:HD21	44:DI:130:TYR:CE2	2.55	0.41
46:DO:16:ALA:HB2	46:DO:52:VAL:HG11	2.03	0.41
47:DP:6:LEU:HD23	47:DP:6:LEU:N	2.28	0.41
47:DP:9:ASN:C	47:DP:11:GLY:N	2.71	0.41
47:DP:108:LYS:O	47:DP:110:TYR:N	2.53	0.41
50:DS:85:VAL:HG22	50:DS:106:ARG:CB	2.49	0.41
50:DS:88:ASP:CG	50:DS:89:ARG:H	2.24	0.41
50:DS:88:ASP:CG	50:DS:89:ARG:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:33:LYS:O	51:DT:39:ARG:O	2.39	0.41
54:DW:14:PRO:O	54:DW:16:LYS:N	2.53	0.41
1:AA:59:A:H3'	1:AA:331:G:H22	1.86	0.41
1:AA:122:G:O2'	1:AA:123:C:H5'	2.21	0.41
1:AA:170:U:O2'	1:AA:171:A:C5'	2.66	0.41
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	2.21	0.41
1:AA:675:A:H2'	1:AA:676:A:C8	2.56	0.41
1:AA:831:U:O2'	1:AA:832:C:H5'	2.20	0.41
1:AA:853:G:O2'	1:AA:854:G:H5'	2.21	0.41
1:AA:936:C:H2'	1:AA:937:A:O4'	2.20	0.41
1:AA:981:U:H5'	14:AN:21:TYR:CZ	2.56	0.41
1:AA:1054:C:H6	1:AA:1196:U:C2	2.39	0.41
1:AA:1066:C:O2	1:AA:1066:C:H2'	2.21	0.41
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.56	0.41
1:AA:1133:G:C1'	1:AA:1142:G:H22	2.33	0.41
1:AA:1136:U:H5"	1:AA:1137:C:C4	2.55	0.41
1:AA:1194:U:C4'	5:AE:22:GLY:HA2	2.45	0.41
1:AA:1201:A:H5'	1:AA:1203:C:OP2	2.20	0.41
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.56	0.41
1:AA:1443:G:C6	1:AA:1460:A:C2	3.09	0.41
1:AA:1474:G:H4'	36:BA:1701:A:N3	2.35	0.41
2:AB:20:GLU:CD	2:AB:23:ARG:HH22	2.24	0.41
2:AB:168:THR:O	2:AB:169:LYS:C	2.59	0.41
2:AB:235:SER:OG	2:AB:236:TYR:CD1	2.68	0.41
3:AC:130:VAL:O	3:AC:134:ILE:HG12	2.21	0.41
3:AC:196:LEU:HB3	3:AC:197:GLY:H	1.73	0.41
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	2.03	0.41
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.68	0.41
5:AE:101:ILE:CD1	5:AE:118:ILE:O	2.69	0.41
5:AE:146:ALA:O	5:AE:148:VAL:N	2.54	0.41
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.21	0.41
8:AH:109:ILE:HD11	8:AH:120:THR:HG22	2.02	0.41
9:AI:98:PRO:C	9:AI:100:GLY:H	2.25	0.41
10:AJ:50:ILE:HD13	10:AJ:50:ILE:H	1.81	0.41
11:AK:59:TYR:CE2	11:AK:63:LEU:HD12	2.56	0.41
12:AL:73:GLU:HA	12:AL:73:GLU:OE1	2.20	0.41
13:AM:7:VAL:CG2	42:BG:115:ARG:HA	2.50	0.41
13:AM:70:LEU:O	13:AM:73:GLU:N	2.38	0.41
13:AM:90:LEU:C	13:AM:92:HIS:N	2.74	0.41
14:AN:12:ARG:HD3	14:AN:12:ARG:H	1.85	0.41
16:AP:6:LEU:N	16:AP:6:LEU:CD1	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	2.03	0.41
23:AW:49:C:H2'	23:AW:50:U:H6	1.85	0.41
23:AW:64:A:H2'	23:AW:65:G:H8	1.83	0.41
25:AY:24:G:H3'	25:AY:25:C:H6	1.84	0.41
25:AY:55:U:O4	25:AY:58:A:H8	2.03	0.41
26:B0:45:PHE:N	26:B0:45:PHE:CD1	2.89	0.41
26:B0:70:GLN:HE21	26:B0:70:GLN:HB3	1.54	0.41
28:B2:50:ILE:C	28:B2:52:ASP:N	2.74	0.41
29:B3:3:ARG:HA	29:B3:38:GLU:OE2	2.20	0.41
31:B5:11:THR:HG1	36:BA:1264:G:H5'	1.85	0.41
32:B6:10:LEU:HD22	32:B6:10:LEU:N	2.35	0.41
33:B7:12:ARG:HG3	33:B7:12:ARG:HH11	1.86	0.41
34:B8:13:ARG:NE	47:BP:61:ARG:HH11	2.19	0.41
34:B8:14:VAL:O	34:B8:14:VAL:HG13	2.21	0.41
34:B8:51:ALA:N	34:B8:54:GLU:OE2	2.49	0.41
36:BA:35:G:O2'	36:BA:36:G:H5'	2.20	0.41
36:BA:57:C:O2'	36:BA:58:G:H5'	2.21	0.41
36:BA:271(O):C:O2'	36:BA:271(P):C:P	2.79	0.41
36:BA:350:U:O2'	36:BA:351:G:H5'	2.20	0.41
36:BA:389:G:C2	47:BP:71:VAL:HG12	2.54	0.41
36:BA:466:A:N3	36:BA:683:C:H1'	2.36	0.41
36:BA:603:A:H4'	36:BA:604:G:O5'	2.21	0.41
36:BA:897:C:C2	36:BA:898:C:C5	3.09	0.41
36:BA:943:U:OP1	47:BP:38:GLN:HB3	2.21	0.41
36:BA:1042:G:H3'	36:BA:1043:C:C6	2.56	0.41
36:BA:1050:A:C4	36:BA:1051:G:N7	2.89	0.41
36:BA:1301:A:H2	36:BA:1626:G:N3	2.19	0.41
36:BA:1349:A:N6	36:BA:1598:C:N4	2.68	0.41
36:BA:1578:U:C2'	36:BA:1579:A:C5'	2.96	0.41
36:BA:1762:A:O5'	36:BA:1762:A:C8	2.69	0.41
36:BA:1827:C:OP2	39:BD:222:ARG:NH1	2.49	0.41
36:BA:1914:C:O2	36:BA:1914:C:O4'	2.39	0.41
36:BA:2033:A:O2'	36:BA:2034:U:P	2.79	0.41
36:BA:2262:U:C2'	36:BA:2263:C:C5'	2.97	0.41
36:BA:2463:C:O2'	36:BA:2464:C:H5'	2.20	0.41
36:BA:2471:C:N4	36:BA:2476:A:O2'	2.50	0.41
36:BA:2655:G:HO2'	36:BA:2656:U:P	2.44	0.41
36:BA:2746:U:O3'	43:BH:138:LYS:HE3	2.21	0.41
36:BA:2801(A):A:O3'	36:BA:2802:G:H3'	2.20	0.41
36:BA:2810:A:H1'	40:BE:61:ARG:HH12	1.85	0.41
36:BA:2822:G:OP1	40:BE:159:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BB:24:G:H5'	37:BB:25:A:N7	2.36	0.41
39:BD:133:LEU:CB	39:BD:173:VAL:HG11	2.50	0.41
39:BD:201:HIS:C	39:BD:203:ASN:H	2.24	0.41
39:BD:268:ARG:HB3	39:BD:268:ARG:NH1	2.36	0.41
40:BE:37:ARG:O	40:BE:45:THR:N	2.49	0.41
40:BE:56:PRO:O	40:BE:57:LYS:C	2.59	0.41
40:BE:63:LEU:O	40:BE:64:LYS:C	2.59	0.41
41:BF:32:LEU:HD22	41:BF:112:MET:CE	2.50	0.41
42:BG:36:LYS:HE2	42:BG:160:VAL:HG21	2.03	0.41
43:BH:85:LYS:HD3	43:BH:133:VAL:CB	2.41	0.41
43:BH:94:TYR:CZ	43:BH:107:VAL:HB	2.55	0.41
44:BI:42:SER:O	44:BI:44:LEU:N	2.54	0.41
44:BI:82:ARG:HH11	44:BI:82:ARG:CG	2.34	0.41
45:BN:78:TYR:HD1	45:BN:78:TYR:H	1.68	0.41
45:BN:96:GLU:OE2	45:BN:96:GLU:N	2.34	0.41
47:BP:102:ARG:O	47:BP:102:ARG:HG2	2.21	0.41
47:BP:106:LEU:HD13	47:BP:112:LEU:HD23	2.03	0.41
47:BP:111:ARG:HH21	47:BP:111:ARG:HG3	1.86	0.41
47:BP:123:LEU:C	47:BP:123:LEU:HD12	2.42	0.41
47:BP:131:SER:O	47:BP:132:LYS:C	2.58	0.41
50:BS:17:ARG:NH2	50:BS:90:GLY:H	2.19	0.41
50:BS:77:ALA:O	50:BS:78:LEU:C	2.59	0.41
50:BS:85:VAL:HG23	50:BS:86:ALA:H	1.86	0.41
50:BS:87:PHE:HZ	50:BS:97:ARG:HH12	1.69	0.41
51:BT:23:ARG:HG2	51:BT:120:ARG:HH12	1.85	0.41
51:BT:64:ARG:NH1	51:BT:103:ARG:HA	2.35	0.41
51:BT:93:ARG:O	51:BT:94:ALA:C	2.57	0.41
51:BT:107:ASP:C	51:BT:109:GLU:H	2.23	0.41
51:BT:118:ARG:O	51:BT:119:LYS:C	2.60	0.41
51:BT:129:ARG:HG3	51:BT:129:ARG:O	2.21	0.41
52:BU:104:GLN:CB	53:BV:44:LYS:HZ1	2.34	0.41
53:BV:22:VAL:HG21	53:BV:94:LEU:CD1	2.50	0.41
53:BV:39:LEU:CB	53:BV:47:VAL:HG11	2.31	0.41
54:BW:41:LYS:HB3	54:BW:41:LYS:HE3	1.81	0.41
56:BY:2:ARG:HG2	56:BY:2:ARG:NH1	2.36	0.41
56:BY:81:LYS:HA	56:BY:82:PRO:HD3	2.00	0.41
57:BZ:85:HIS:C	57:BZ:85:HIS:HD1	2.24	0.41
57:BZ:103:ARG:HD3	57:BZ:136:PHE:CE2	2.55	0.41
57:BZ:110:GLY:HA3	57:BZ:115:GLY:HA3	2.02	0.41
57:BZ:119:GLU:CD	57:BZ:119:GLU:H	2.24	0.41
57:BZ:129:SER:HA	57:BZ:130:PRO:HD3	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:77:G:N3	1:CA:77:G:H2'	2.35	0.41
1:CA:582:U:H2'	1:CA:583:A:C8	2.55	0.41
1:CA:719:C:O2	18:CR:50:ILE:HG12	2.21	0.41
1:CA:761:G:H2'	1:CA:762:C:C6	2.56	0.41
1:CA:950:U:H2'	1:CA:951:G:H8	1.86	0.41
1:CA:953:G:C5'	1:CA:965:A:H61	2.34	0.41
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.55	0.41
1:CA:1076:C:C2	1:CA:1082:G:N2	2.89	0.41
1:CA:1086:U:C2'	1:CA:1087:G:H5'	2.51	0.41
1:CA:1089:G:C5	1:CA:1090:U:C5	3.09	0.41
1:CA:1155:G:O2'	1:CA:1156:G:H5'	2.20	0.41
1:CA:1211:U:H5'	1:CA:1212:U:P	2.61	0.41
1:CA:1219:U:H2'	1:CA:1220:G:C8	2.55	0.41
1:CA:1302:U:P	13:CM:21:TYR:HH	2.43	0.41
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.36	0.41
1:CA:1491:G:C5	59:CA:1817:PAR:H21	2.55	0.41
2:CB:97:TRP:CZ2	2:CB:173:ALA:HA	2.55	0.41
2:CB:207:ALA:C	2:CB:209:ARG:H	2.23	0.41
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.21	0.41
2:CB:221:LEU:CD2	2:CB:221:LEU:H	2.34	0.41
3:CC:52:LEU:H	3:CC:52:LEU:CD2	2.23	0.41
3:CC:73:PRO:CD	3:CC:105:GLU:OE2	2.68	0.41
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.21	0.41
3:CC:123:GLN:O	3:CC:128:PHE:HB2	2.21	0.41
4:CD:4:TYR:HE2	4:CD:6:GLY:C	2.24	0.41
4:CD:29:PRO:O	4:CD:30:LYS:CB	2.69	0.41
4:CD:81:GLU:OE1	4:CD:139:ARG:NH2	2.53	0.41
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.47	0.41
6:CF:97:PHE:N	18:CR:30:ASP:OD1	2.53	0.41
7:CG:113:GLU:HB3	7:CG:118:VAL:HG23	2.02	0.41
10:CJ:8:LEU:HD21	10:CJ:96:ILE:HG22	2.01	0.41
11:CK:59:TYR:O	11:CK:63:LEU:HB2	2.21	0.41
11:CK:95:ILE:HG23	11:CK:108:ILE:HD11	2.03	0.41
11:CK:123:LYS:O	11:CK:124:LYS:C	2.59	0.41
12:CL:8:ASN:ND2	17:CQ:34:LYS:HE2	2.36	0.41
12:CL:25:PRO:C	12:CL:27:LEU:N	2.69	0.41
13:CM:90:LEU:C	13:CM:92:HIS:N	2.74	0.41
13:CM:118:ALA:HB1	13:CM:119:GLY:N	2.36	0.41
19:CS:10:PHE:CZ	19:CS:70:LYS:HD2	2.56	0.41
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.20	0.41
23:CW:43:C:O2	23:CW:43:C:H2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:55:U:C6	23:CW:57:G:H5'	2.55	0.41
29:D3:56:VAL:O	29:D3:57:GLU:HB2	2.21	0.41
32:D6:25:LYS:CD	34:D8:34:TRP:HZ2	2.33	0.41
33:D7:31:LEU:O	33:D7:35:ARG:HB2	2.21	0.41
34:D8:7:HIS:CD2	47:DP:50:ARG:HD3	2.56	0.41
36:DA:125:G:H4'	36:DA:126:A:OP2	2.21	0.41
36:DA:283:A:H5'	36:DA:284:U:H5	1.86	0.41
36:DA:301:G:H1'	36:DA:302:C:C6	2.56	0.41
36:DA:359:A:H2'	36:DA:360:G:O4'	2.21	0.41
36:DA:590:A:H2'	36:DA:591:C:C6	2.55	0.41
36:DA:811:U:C2	36:DA:1251:C:C5	3.09	0.41
36:DA:936:C:H2'	36:DA:937:U:C6	2.56	0.41
36:DA:966:G:C5	36:DA:967:C:C5	3.09	0.41
36:DA:1042:G:H3'	36:DA:1043:C:O4'	2.21	0.41
36:DA:1260:G:O2'	36:DA:1261:C:H5'	2.21	0.41
36:DA:1328:G:H2'	36:DA:1330:C:C5	2.55	0.41
36:DA:1427:A:H4'	36:DA:1428:C:O5'	2.21	0.41
36:DA:1510:G:C2'	36:DA:1511:C:H5'	2.50	0.41
36:DA:1657:C:H2'	36:DA:1658:C:H6	1.85	0.41
36:DA:1681:G:OP2	36:DA:1681:G:H8	2.04	0.41
36:DA:1762:A:O5'	36:DA:1762:A:C8	2.67	0.41
36:DA:2034:U:H2'	36:DA:2035:G:H5'	2.02	0.41
36:DA:2206:G:N3	36:DA:2207:G:H5'	2.36	0.41
36:DA:2206:G:N1	36:DA:2208:A:OP1	2.54	0.41
36:DA:2299:G:C6	36:DA:2318:G:C8	3.09	0.41
36:DA:2394:C:OP1	47:DP:63:PRO:CD	2.58	0.41
36:DA:2762:G:H2'	36:DA:2763:G:C5'	2.35	0.41
36:DA:2825:C:H2'	36:DA:2826:A:O4'	2.19	0.41
37:DB:42:C:O2	42:DG:93:THR:N	2.51	0.41
39:DD:96:HIS:ND1	39:DD:102:LYS:HG2	2.36	0.41
39:DD:133:LEU:HA	39:DD:136:ILE:HD12	2.03	0.41
39:DD:268:ARG:HB3	39:DD:268:ARG:CZ	2.50	0.41
40:DE:33:VAL:O	40:DE:69:LYS:HE2	2.20	0.41
40:DE:52:LEU:HA	40:DE:53:PRO:HD3	1.74	0.41
40:DE:68:ALA:C	40:DE:70:ALA:H	2.25	0.41
40:DE:107:THR:O	40:DE:190:GLY:HA2	2.21	0.41
41:DF:20:LEU:HG	41:DF:21:ALA:N	2.25	0.41
41:DF:41:LEU:HD11	41:DF:184:TYR:CE1	2.56	0.41
41:DF:68:LYS:HG3	41:DF:69:HIS:CD2	2.56	0.41
41:DF:118:ALA:O	41:DF:121:GLY:N	2.53	0.41
41:DF:139:PHE:HB3	41:DF:166:ALA:HB1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DF:195:ASP:HB2	41:DF:198:ALA:HB2	2.02	0.41
42:DG:8:LYS:HA	42:DG:11:TYR:HB3	2.02	0.41
42:DG:19:LEU:HD13	42:DG:31:VAL:CG2	2.50	0.41
42:DG:37:VAL:HG12	42:DG:157:ILE:CD1	2.45	0.41
42:DG:115:ARG:CD	42:DG:116:ASP:HB2	2.51	0.41
42:DG:139:LEU:HD13	42:DG:146:TYR:CD1	2.55	0.41
44:DI:43:ASN:HA	44:DI:46:ALA:HB3	2.03	0.41
44:DI:65:ALA:CB	44:DI:131:LYS:HG2	2.50	0.41
44:DI:86:THR:O	44:DI:122:GLU:OE2	2.39	0.41
44:DI:144:VAL:HB	44:DI:145:VAL:H	1.61	0.41
45:DN:93:THR:O	45:DN:93:THR:HG23	2.21	0.41
47:DP:24:GLY:O	47:DP:25:SER:HB3	2.21	0.41
47:DP:112:LEU:C	47:DP:112:LEU:HD13	2.41	0.41
47:DP:121:LYS:O	47:DP:123:LEU:N	2.54	0.41
48:DQ:108:GLY:O	48:DQ:109:VAL:HG23	2.21	0.41
49:DR:18:LEU:HD21	49:DR:22:ARG:HE	1.86	0.41
51:DT:28:VAL:HG22	51:DT:46:GLU:HG3	1.96	0.41
51:DT:55:ASN:N	51:DT:59:THR:HG22	2.33	0.41
52:DU:92:ARG:CD	53:DV:11:GLN:CD	2.86	0.41
54:DW:62:HIS:O	54:DW:63:ASP:C	2.59	0.41
56:DY:14:LEU:CG	56:DY:15:VAL:N	2.83	0.41
56:DY:42:VAL:CG1	56:DY:65:ALA:HB3	2.51	0.41
56:DY:73:ARG:HB3	56:DY:74:PRO:HD2	2.03	0.41
57:DZ:23:LYS:HA	57:DZ:23:LYS:HD3	1.72	0.41
57:DZ:79:ARG:O	57:DZ:79:ARG:HG3	2.21	0.41
57:DZ:134:PRO:CB	57:DZ:158:PRO:HG3	2.51	0.41
57:DZ:137:ILE:HD11	57:DZ:158:PRO:HG3	2.03	0.41
57:DZ:163:LEU:O	57:DZ:163:LEU:HD12	2.20	0.41
1:AA:36:C:HO2'	1:AA:37:U:H5'	1.83	0.41
1:AA:829:G:O2'	1:AA:830:G:H5'	2.21	0.41
1:AA:958:A:C6	1:AA:959:A:C6	3.09	0.41
1:AA:1003:G:O2'	1:AA:1004:A:H4'	2.21	0.41
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.86	0.41
1:AA:1419:G:C6	1:AA:1482:G:C2	3.09	0.41
1:AA:1425:U:O2'	1:AA:1426:C:H5'	2.21	0.41
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.20	0.41
1:AA:1516:G:N3	1:AA:1518:A:OP2	2.54	0.41
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	2.03	0.41
6:AF:68:PRO:HG3	6:AF:71:ARG:HH22	1.85	0.41
7:AG:46:ALA:O	7:AG:49:ILE:N	2.54	0.41
7:AG:59:LEU:HD23	7:AG:60:LYS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:69:VAL:HG21	7:AG:104:LEU:CD2	2.50	0.41
8:AH:38:ILE:HG12	8:AH:41:ARG:HH11	1.86	0.41
9:AI:98:PRO:C	9:AI:100:GLY:N	2.74	0.41
10:AJ:32:ALA:C	10:AJ:33:GLN:HG3	2.41	0.41
11:AK:99:GLN:HA	11:AK:105:VAL:CG1	2.51	0.41
11:AK:108:ILE:O	18:AR:86:VAL:HG13	2.21	0.41
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.84	0.41
18:AR:36:ASN:O	18:AR:39:VAL:N	2.54	0.41
23:AW:62:C:H2'	23:AW:63:G:H8	1.86	0.41
27:B1:15:ALA:HB3	27:B1:40:ARG:HD2	2.03	0.41
27:B1:35:THR:HG21	36:BA:2080:G:OP1	2.21	0.41
27:B1:76:ARG:NH2	27:B1:95:LEU:HD22	2.36	0.41
29:B3:24:LYS:HD3	36:BA:931:G:O2'	2.20	0.41
29:B3:44:ARG:O	29:B3:45:GLY:C	2.60	0.41
36:BA:363(B):G:N3	36:BA:363(B):G:H2'	2.35	0.41
36:BA:803:U:C2'	36:BA:804:A:H5'	2.50	0.41
36:BA:1171:G:H3'	36:BA:1173:G:C4'	2.40	0.41
36:BA:1388:G:C2'	36:BA:1389:G:H5'	2.50	0.41
36:BA:1446:C:O2'	36:BA:1447:G:H5'	2.21	0.41
36:BA:1473:G:C2'	36:BA:1474:C:H5'	2.51	0.41
36:BA:1488:G:C6	36:BA:1489:U:N3	2.89	0.41
36:BA:1568:G:H4'	39:BD:59:LYS:CG	2.51	0.41
36:BA:1817:G:C2'	36:BA:1818:U:H5'	2.51	0.41
36:BA:1844:C:O2'	36:BA:1845:G:H5'	2.20	0.41
36:BA:1930:G:N2	36:BA:1968:G:H2'	2.35	0.41
36:BA:2126:A:H8	36:BA:2126:A:OP2	2.04	0.41
36:BA:2818:G:H4'	36:BA:2837:G:O4'	2.21	0.41
36:BA:2875:C:O2'	51:BT:5:ALA:CB	2.64	0.41
37:BB:50:G:P	50:BS:63:THR:HG23	2.61	0.41
37:BB:78:A:H2'	37:BB:79:C:O4'	2.20	0.41
38:BC:187:ASP:O	38:BC:189:ILE:N	2.50	0.41
38:BC:196:LEU:C	38:BC:198:ALA:N	2.74	0.41
39:BD:147:LEU:HD13	39:BD:155:LEU:CD1	2.48	0.41
40:BE:6:GLY:CA	40:BE:27:LEU:O	2.69	0.41
40:BE:9:VAL:CG1	40:BE:25:VAL:O	2.69	0.41
40:BE:88:GLY:O	40:BE:89:ASP:CB	2.69	0.41
44:BI:33:ARG:HH11	44:BI:33:ARG:HG2	1.86	0.41
44:BI:77:LEU:CD2	44:BI:104:GLN:OE1	2.69	0.41
44:BI:79:ILE:CG1	44:BI:140:LEU:HD11	2.47	0.41
44:BI:117:GLU:O	44:BI:118:LYS:C	2.57	0.41
45:BN:55:VAL:O	45:BN:56:ASN:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:16:ASN:O	50:BS:20:ARG:NH2	2.51	0.41
51:BT:77:PRO:O	51:BT:78:LEU:CB	2.69	0.41
51:BT:109:GLU:HA	51:BT:112:ARG:HH11	1.86	0.41
52:BU:44:ASN:ND2	53:BV:75:PHE:N	2.67	0.41
53:BV:2:PHE:O	53:BV:3:ALA:CB	2.68	0.41
57:BZ:33:LEU:CD1	57:BZ:34:ASN:H	2.31	0.41
1:CA:288:A:H2'	1:CA:289:G:H4'	2.02	0.41
1:CA:603:U:H2'	1:CA:604:G:H8	1.86	0.41
1:CA:1068:G:N3	1:CA:1191:A:C2	2.89	0.41
1:CA:1109:C:OP2	3:CC:176:HIS:ND1	2.47	0.41
1:CA:1170:A:C2'	1:CA:1171:G:H5'	2.50	0.41
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.85	0.41
1:CA:1309:G:C6	1:CA:1329:A:C2	3.09	0.41
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.21	0.41
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.84	0.41
2:CB:12:GLU:C	2:CB:14:GLY:H	2.23	0.41
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	2.03	0.41
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.51	0.41
5:CE:64:ARG:O	5:CE:64:ARG:HG3	2.21	0.41
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.50	0.41
12:CL:6:THR:O	12:CL:7:ILE:C	2.59	0.41
12:CL:86:ARG:HB2	12:CL:101:VAL:HG23	2.02	0.41
15:CO:4:THR:OG1	15:CO:7:GLU:HG3	2.21	0.41
15:CO:39:LEU:HA	15:CO:39:LEU:HD23	1.78	0.41
19:CS:16:LEU:N	19:CS:16:LEU:CD1	2.84	0.41
20:CT:55:ILE:O	20:CT:58:LYS:HB3	2.21	0.41
20:CT:98:PRO:O	20:CT:100:ILE:N	2.54	0.41
25:CY:33:U:H3	25:CY:35:A:H3'	1.86	0.41
28:D2:3:LEU:O	28:D2:7:ARG:HG3	2.21	0.41
36:DA:10:G:C6	36:DA:2629:A:C8	3.09	0.41
36:DA:271(J):C:H5'	36:DA:271(K):U:OP2	2.21	0.41
36:DA:272(B):G:O2'	36:DA:272(C):G:H5'	2.21	0.41
36:DA:330:A:H2	36:DA:1210:A:H2'	1.86	0.41
36:DA:603:A:H1'	36:DA:604:G:O4'	2.21	0.41
36:DA:624:C:H41	47:DP:107:LYS:HZ3	1.69	0.41
36:DA:999:U:O2'	36:DA:1000:A:H5"	2.21	0.41
36:DA:1276:A:O2'	49:DR:16:HIS:HE1	2.03	0.41
36:DA:1305:C:O2'	36:DA:1306:C:H5'	2.20	0.41
36:DA:1388:G:C2'	36:DA:1389:G:H5'	2.51	0.41
36:DA:1927:A:C6	36:DA:1928:A:C6	3.09	0.41
36:DA:1983:C:H4'	36:DA:2606:C:H4'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:2393:A:H4'	47:DP:60:MET:O	2.21	0.41
36:DA:2630:G:H1'	36:DA:2894:G:C4	2.55	0.41
37:DB:48:A:H4'	50:DS:95:HIS:CD2	2.45	0.41
39:DD:30:GLU:HG3	39:DD:63:ARG:NE	2.36	0.41
39:DD:142:VAL:CG2	39:DD:192:THR:O	2.69	0.41
39:DD:145:VAL:HG12	39:DD:146:GLU:O	2.21	0.41
39:DD:155:LEU:CD1	39:DD:155:LEU:N	2.84	0.41
42:DG:39:ILE:HD11	42:DG:135:LEU:HD22	2.03	0.41
42:DG:62:LEU:CD1	42:DG:143:GLU:O	2.69	0.41
42:DG:105:LYS:HE2	42:DG:105:LYS:HB3	1.94	0.41
43:DH:38:SER:C	43:DH:40:GLU:N	2.73	0.41
45:DN:24:GLY:HA2	45:DN:106:MET:HE1	2.03	0.41
45:DN:79:PRO:C	45:DN:81:GLY:H	2.23	0.41
45:DN:89:LYS:NZ	45:DN:89:LYS:HB3	2.36	0.41
46:DO:11:ALA:O	46:DO:98:VAL:HA	2.20	0.41
47:DP:48:PRO:HG2	47:DP:49:ARG:N	2.31	0.41
50:DS:35:ILE:HG23	50:DS:53:SER:HB2	2.02	0.41
51:DT:64:ARG:HH11	51:DT:64:ARG:HG2	1.86	0.41
51:DT:81:PRO:O	51:DT:82:LEU:HD12	2.20	0.41
51:DT:118:ARG:O	51:DT:119:LYS:C	2.58	0.41
52:DU:109:LEU:O	52:DU:110:VAL:C	2.59	0.41
52:DU:111:GLU:OE2	52:DU:111:GLU:HA	2.21	0.41
55:DX:52:VAL:HG21	55:DX:84:ALA:HA	2.03	0.41
57:DZ:41:LEU:O	57:DZ:43:GLU:N	2.54	0.41
57:DZ:137:ILE:O	57:DZ:138:GLU:O	2.39	0.41
1:AA:49:U:C2	1:AA:361:G:N2	2.90	0.40
1:AA:675:A:H2'	1:AA:676:A:H8	1.85	0.40
1:AA:976:G:C8	1:AA:1358:U:C2	3.09	0.40
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.56	0.40
1:AA:1206:G:C6	1:AA:1207:G:C5	3.09	0.40
2:AB:114:ARG:HH12	2:AB:118:LEU:HD11	1.86	0.40
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.41	0.40
3:AC:119:ARG:HG3	3:AC:119:ARG:NH1	2.36	0.40
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.55	0.40
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.56	0.40
7:AG:140:ASP:CG	7:AG:143:ARG:HH12	2.25	0.40
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.86	0.40
8:AH:109:ILE:CG1	8:AH:110:ALA:H	2.22	0.40
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.86	0.40
10:AJ:76:ASN:ND2	10:AJ:78:ASN:OD1	2.54	0.40
10:AJ:95:GLU:HA	10:AJ:95:GLU:OE2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:113:ARG:HG2	12:AL:113:ARG:NH1	2.35	0.40
13:AM:108:ARG:HH12	13:AM:111:LYS:HB2	1.85	0.40
15:AO:74:ASP:C	15:AO:76:GLU:N	2.71	0.40
17:AQ:50:LYS:HG3	17:AQ:51:TYR:H	1.86	0.40
26:B0:42:GLY:HA2	26:B0:57:PHE:CE2	2.56	0.40
29:B3:26:LEU:HD21	29:B3:46:ASN:HB2	2.03	0.40
29:B3:43:ILE:O	29:B3:47:VAL:HG23	2.21	0.40
33:B7:47:ARG:NH2	36:BA:1311:G:C4	2.89	0.40
36:BA:71:A:H5'	36:BA:71:A:H8	1.86	0.40
36:BA:184:C:H2'	36:BA:185:U:C6	2.56	0.40
36:BA:621:A:H2'	36:BA:622:G:C5'	2.50	0.40
36:BA:661:C:O3'	47:BP:18:ARG:HD2	2.20	0.40
36:BA:778:G:H2'	36:BA:779:U:C6	2.56	0.40
36:BA:886:C:C2	36:BA:889:C:N4	2.86	0.40
36:BA:1488:G:N1	36:BA:1489:U:O2	2.54	0.40
36:BA:2013:A:H4'	54:BW:96:ILE:HD12	2.02	0.40
36:BA:2172:U:O3'	36:BA:2173:A:H8	2.04	0.40
36:BA:2464:C:O2'	36:BA:2465:C:H6	2.03	0.40
36:BA:2739:U:O2'	36:BA:2740:A:H5'	2.21	0.40
36:BA:2791:C:H41	36:BA:2803:C:N4	2.18	0.40
36:BA:2850:A:OP2	36:BA:2866:U:C5	2.74	0.40
37:BB:43:C:H3'	37:BB:44:G:H5'	2.03	0.40
38:BC:49:ILE:HG22	38:BC:50:ASP:N	2.36	0.40
38:BC:107:TRP:O	38:BC:108:MET:CB	2.69	0.40
39:BD:18:VAL:HG13	39:BD:211:ARG:HH12	1.86	0.40
39:BD:158:ALA:O	39:BD:159:ALA:C	2.58	0.40
39:BD:201:HIS:C	39:BD:203:ASN:N	2.75	0.40
40:BE:48:GLN:NE2	40:BE:78:LEU:CD1	2.84	0.40
40:BE:54:GLN:HE21	40:BE:54:GLN:HB3	1.70	0.40
40:BE:61:ARG:CB	40:BE:62:PRO:HD3	2.51	0.40
40:BE:93:VAL:HG21	40:BE:180:ASN:C	2.42	0.40
41:BF:39:TRP:CD1	41:BF:101:LEU:HB2	2.56	0.40
41:BF:127:GLU:HB2	41:BF:196:LEU:HD11	2.03	0.40
42:BG:121:ASN:OD1	42:BG:123:ASN:N	2.52	0.40
44:BI:45:LYS:C	44:BI:47:LEU:N	2.74	0.40
46:BO:16:ALA:HB2	46:BO:52:VAL:CG1	2.51	0.40
46:BO:110:GLY:HA2	46:BO:112:MET:HE3	2.02	0.40
47:BP:83:VAL:HG23	47:BP:105:LEU:HD12	2.01	0.40
48:BQ:1:MET:HE2	48:BQ:2:LEU:HB3	2.03	0.40
48:BQ:16:ARG:CG	48:BQ:17:LEU:N	2.83	0.40
48:BQ:140:ALA:HB3	57:BZ:53:ILE:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:2:ARG:NH2	49:BR:5:LYS:HZ3	2.16	0.40
49:BR:107:ASP:C	49:BR:107:ASP:OD2	2.60	0.40
50:BS:85:VAL:HG22	50:BS:106:ARG:CB	2.50	0.40
53:BV:71:LEU:HD23	53:BV:71:LEU:HA	1.82	0.40
56:BY:96:ILE:CD1	56:BY:99:CYS:HB2	2.51	0.40
57:BZ:33:LEU:CG	57:BZ:34:ASN:N	2.84	0.40
57:BZ:41:LEU:HD11	57:BZ:82:ARG:HH11	1.87	0.40
57:BZ:103:ARG:HD3	57:BZ:136:PHE:CZ	2.55	0.40
1:CA:979:C:H42	14:CN:18:VAL:CG1	2.33	0.40
1:CA:1054:C:H6	1:CA:1196:U:C2	2.39	0.40
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.49	0.40
1:CA:1320:C:O4'	19:CS:73:GLU:HG3	2.20	0.40
1:CA:1470:G:C2'	1:CA:1471:G:H5'	2.51	0.40
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.86	0.40
2:CB:74:LYS:HE3	2:CB:166:ASP:HB3	2.02	0.40
7:CG:104:LEU:HD13	7:CG:134:ALA:CB	2.51	0.40
8:CH:30:ARG:HB3	8:CH:30:ARG:NH1	2.36	0.40
8:CH:85:ARG:HG3	8:CH:85:ARG:NH1	2.36	0.40
8:CH:85:ARG:C	8:CH:85:ARG:CD	2.90	0.40
8:CH:105:ARG:HD3	8:CH:105:ARG:HA	1.89	0.40
10:CJ:16:LEU:HD13	10:CJ:16:LEU:C	2.41	0.40
11:CK:18:ARG:NH2	11:CK:35:PRO:O	2.54	0.40
11:CK:82:VAL:CG1	11:CK:108:ILE:HG12	2.51	0.40
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.21	0.40
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.21	0.40
13:CM:3:ARG:HG2	13:CM:9:ILE:HG13	2.02	0.40
14:CN:48:ALA:CA	14:CN:53:LEU:HD12	2.51	0.40
15:CO:76:GLU:C	15:CO:78:TYR:N	2.74	0.40
16:CP:4:ILE:HB	16:CP:66:PRO:CB	2.49	0.40
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.84	0.40
19:CS:11:VAL:HG13	19:CS:11:VAL:O	2.21	0.40
25:CY:16:U:C4	25:CY:18:G:H5'	2.55	0.40
28:D2:33:MET:HE3	28:D2:37:PHE:CE1	2.56	0.40
36:DA:191:A:C2	36:DA:192:C:C2	3.09	0.40
36:DA:639:U:O2'	36:DA:640:C:H5'	2.21	0.40
36:DA:660:G:H5'	41:DF:99:TYR:CE2	2.56	0.40
36:DA:874:G:H2'	36:DA:875:G:C8	2.51	0.40
36:DA:878:A:H61	36:DA:899:A:C2'	2.34	0.40
36:DA:986:C:C2'	36:DA:987:G:H5'	2.51	0.40
36:DA:1173:G:H3'	36:DA:1174:A:H5'	2.02	0.40
36:DA:1252:G:C2	36:DA:1253:A:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DA:1275:A:C8	49:DR:16:HIS:CD2	3.09	0.40
36:DA:1385:G:C4	36:DA:1386:C:C5	3.09	0.40
36:DA:1602:U:H3'	36:DA:1603:A:H5'	2.02	0.40
36:DA:1718:G:H2'	36:DA:1719:G:H8	1.87	0.40
36:DA:2065:C:H2'	36:DA:2066:C:C6	2.57	0.40
36:DA:2128:C:P	38:DC:35:ALA:HB1	2.62	0.40
36:DA:2566:A:N1	46:DO:28:SER:HB2	2.35	0.40
36:DA:2606:C:C2'	36:DA:2607:G:H5'	2.51	0.40
36:DA:2738:A:C2	36:DA:2739:U:N1	2.88	0.40
39:DD:182:LEU:N	39:DD:272:ALA:HB3	2.36	0.40
39:DD:221:VAL:HG22	39:DD:226:MET:CE	2.51	0.40
40:DE:1:MET:HE2	40:DE:83:ASP:O	2.21	0.40
40:DE:24:THR:HB	40:DE:186:GLY:O	2.21	0.40
40:DE:26:ILE:HG22	40:DE:27:LEU:H	1.86	0.40
40:DE:28:ALA:O	40:DE:29:GLY:O	2.39	0.40
40:DE:93:VAL:HG21	40:DE:180:ASN:C	2.42	0.40
42:DG:102:PHE:HD2	42:DG:105:LYS:CG	2.33	0.40
43:DH:111:HIS:HA	43:DH:112:PRO:HD2	1.88	0.40
44:DI:6:LEU:HD12	44:DI:34:GLY:O	2.20	0.40
44:DI:71:ILE:CG1	44:DI:72:LEU:N	2.81	0.40
44:DI:110:ASP:O	44:DI:114:LEU:CD2	2.69	0.40
45:DN:62:VAL:O	45:DN:62:VAL:CG1	2.69	0.40
46:DO:75:SER:HB2	51:DT:75:ILE:O	2.21	0.40
47:DP:7:ARG:CZ	47:DP:7:ARG:HB2	2.52	0.40
47:DP:88:LEU:CD2	47:DP:114:ILE:HD13	2.51	0.40
49:DR:28:LEU:C	49:DR:28:LEU:CD1	2.87	0.40
50:DS:53:SER:O	50:DS:55:ALA:N	2.54	0.40
52:DU:54:LYS:HA	52:DU:54:LYS:HD3	1.91	0.40
1:AA:266:G:C8	1:AA:266:G:H5'	2.56	0.40
1:AA:832:C:HO2'	1:AA:833:U:P	2.43	0.40
1:AA:947:G:O2'	1:AA:948:C:H5'	2.21	0.40
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.86	0.40
1:AA:1117:G:H2'	1:AA:1118:C:H5'	2.02	0.40
1:AA:1211:U:H5'	1:AA:1212:U:P	2.62	0.40
2:AB:86:GLU:C	2:AB:88:ALA:H	2.24	0.40
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.52	0.40
3:AC:76:VAL:HG23	3:AC:77:ILE:H	1.77	0.40
3:AC:92:ALA:C	3:AC:94:LEU:N	2.73	0.40
4:AD:135:LEU:N	4:AD:135:LEU:HD13	2.36	0.40
4:AD:165:MET:O	4:AD:166:LYS:C	2.57	0.40
6:AF:65:VAL:HG23	6:AF:66:GLU:N	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:23:SER:CB	8:AH:62:TYR:HA	2.50	0.40
8:AH:86:ILE:CG1	8:AH:135:CYS:HA	2.47	0.40
9:AI:14:VAL:CG1	9:AI:15:ALA:N	2.84	0.40
11:AK:123:LYS:O	11:AK:124:LYS:C	2.58	0.40
12:AL:76:ASN:ND2	12:AL:77:LEU:N	2.68	0.40
12:AL:120:TYR:CD1	12:AL:120:TYR:N	2.88	0.40
13:AM:90:LEU:C	13:AM:92:HIS:H	2.24	0.40
14:AN:42:ILE:O	14:AN:43:CYS:C	2.60	0.40
15:AO:26:GLU:H	15:AO:26:GLU:HG2	1.66	0.40
17:AQ:92:ARG:O	17:AQ:95:TYR:CD2	2.74	0.40
21:AU:21:TYR:N	21:AU:21:TYR:CD1	2.88	0.40
21:AU:24:ARG:O	21:AU:25:LYS:CB	2.69	0.40
25:AY:55:U:O4	25:AY:58:A:C8	2.74	0.40
25:AY:72:C:O2	25:AY:72:C:C2'	2.69	0.40
27:B1:18:ILE:HG22	27:B1:20:ARG:HG3	2.03	0.40
27:B1:47:GLN:HG3	36:BA:2091:U:O2'	2.21	0.40
28:B2:34:GLU:O	28:B2:38:GLN:HG3	2.21	0.40
28:B2:59:ARG:O	28:B2:62:THR:HB	2.21	0.40
33:B7:9:ARG:HD2	36:BA:1309:G:P	2.61	0.40
36:BA:7:G:H1	36:BA:2896:C:H42	1.67	0.40
36:BA:52:A:O2'	36:BA:53:A:H5'	2.21	0.40
36:BA:253:C:O2'	36:BA:254:G:H5'	2.22	0.40
36:BA:660:G:H5'	41:BF:99:TYR:CD2	2.56	0.40
36:BA:947:G:N3	36:BA:984:A:H2	2.19	0.40
36:BA:1042:G:H3'	36:BA:1043:C:O4'	2.21	0.40
36:BA:1050:A:C2	36:BA:1051:G:N7	2.89	0.40
36:BA:1323:U:OP1	54:BW:98:LYS:NZ	2.55	0.40
36:BA:2065:C:H2'	36:BA:2066:C:C6	2.56	0.40
36:BA:2327:A:H2'	36:BA:2328:A:O4'	2.20	0.40
36:BA:2607:G:H2'	36:BA:2608:G:O4'	2.21	0.40
36:BA:2665:A:O2'	36:BA:2666:C:H5'	2.21	0.40
36:BA:2745:C:H2'	36:BA:2746:U:H6	1.83	0.40
36:BA:2748:A:C2	43:BH:63:SER:HB3	2.56	0.40
37:BB:40:U:H1'	37:BB:45:A:N6	2.36	0.40
38:BC:122:ALA:HB1	38:BC:129:ARG:CB	2.52	0.40
39:BD:31:LYS:HD2	39:BD:31:LYS:HA	1.98	0.40
40:BE:51:PHE:O	40:BE:74:PRO:HB2	2.21	0.40
42:BG:60:LEU:HD22	42:BG:63:ILE:HD11	2.03	0.40
42:BG:90:LEU:HD23	42:BG:90:LEU:HA	1.79	0.40
42:BG:160:VAL:CG1	42:BG:161:THR:N	2.85	0.40
45:BN:91:LEU:HD23	45:BN:98:VAL:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:103:VAL:O	45:BN:106:MET:N	2.43	0.40
49:BR:86:ARG:NE	49:BR:118:GLU:OE2	2.55	0.40
50:BS:99:LYS:HE2	50:BS:99:LYS:HB3	1.91	0.40
51:BT:26:ASP:HB3	51:BT:89:VAL:O	2.20	0.40
52:BU:12:ARG:C	52:BU:15:LYS:HZ2	2.20	0.40
52:BU:78:THR:O	52:BU:79:PHE:C	2.59	0.40
52:BU:98:LEU:C	52:BU:100:VAL:N	2.75	0.40
1:CA:180:U:C2'	1:CA:181:G:C5'	2.99	0.40
1:CA:246:A:N1	1:CA:279:A:C2	2.90	0.40
1:CA:724:G:C2	1:CA:725:G:C8	3.10	0.40
1:CA:981:U:H5'	14:CN:21:TYR:CZ	2.56	0.40
1:CA:1237:C:H2'	1:CA:1336:C:C5	2.56	0.40
1:CA:1493:A:H4'	24:CX:19:U:O2'	2.22	0.40
2:CB:19:HIS:CE1	2:CB:189:ASP:OD2	2.74	0.40
2:CB:86:GLU:C	2:CB:88:ALA:H	2.25	0.40
2:CB:196:LEU:HD12	2:CB:197:VAL:HG23	2.03	0.40
4:CD:24:GLU:O	4:CD:27:TYR:HB2	2.21	0.40
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	2.03	0.40
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.56	0.40
10:CJ:45:ARG:NH1	10:CJ:45:ARG:CG	2.78	0.40
12:CL:84:LEU:HD22	12:CL:84:LEU:HA	1.94	0.40
13:CM:79:LYS:O	13:CM:80:ARG:C	2.60	0.40
13:CM:90:LEU:C	13:CM:92:HIS:H	2.24	0.40
14:CN:26:ARG:CG	14:CN:27:CYS:H	2.07	0.40
15:CO:20:GLY:O	15:CO:22:THR:HG23	2.22	0.40
19:CS:32:LYS:HG2	19:CS:57:HIS:CD2	2.56	0.40
20:CT:90:GLN:O	20:CT:91:LEU:HD23	2.20	0.40
22:CV:43:A:H2'	22:CV:43:A:N3	2.36	0.40
28:D2:20:GLU:O	28:D2:23:LYS:HB2	2.21	0.40
30:D4:51:TYR:CE1	42:DG:5:VAL:HG13	2.56	0.40
36:DA:319:C:O2'	36:DA:320:A:H5'	2.21	0.40
36:DA:448:U:C4	36:DA:583:G:H1'	2.56	0.40
36:DA:599:G:H4'	41:DF:31:HIS:HD2	1.86	0.40
36:DA:1438:U:O2'	36:DA:1439:A:H5'	2.20	0.40
36:DA:1488:G:C6	36:DA:1489:U:N3	2.90	0.40
36:DA:1644:C:O2	36:DA:1644:C:H2'	2.22	0.40
36:DA:2223:G:H2'	36:DA:2224:G:C5'	2.51	0.40
36:DA:2260:C:O5'	36:DA:2260:C:H6	2.03	0.40
36:DA:2801(A):A:O3'	36:DA:2802:G:H3'	2.21	0.40
36:DA:2810:A:H1'	40:DE:61:ARG:HH12	1.86	0.40
37:DB:70:C:H2'	37:DB:71:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DC:18:LYS:O	38:DC:19:VAL:HB	2.21	0.40
39:DD:112:GLN:H	39:DD:115:GLN:NE2	2.19	0.40
40:DE:2:LYS:HB3	40:DE:95:ILE:CG2	2.51	0.40
40:DE:8:LYS:O	40:DE:193:GLY:N	2.54	0.40
40:DE:55:ASN:HD22	40:DE:55:ASN:HA	1.59	0.40
40:DE:61:ARG:CB	40:DE:62:PRO:HD3	2.52	0.40
40:DE:93:VAL:C	40:DE:95:ILE:H	2.25	0.40
41:DF:18:ARG:HG3	41:DF:19:GLU:N	2.35	0.40
42:DG:63:ILE:CG2	42:DG:144:ILE:CG1	2.99	0.40
42:DG:114:ILE:HG21	42:DG:117:PHE:HB2	2.04	0.40
43:DH:158:HIS:NE2	43:DH:170:ARG:HA	2.37	0.40
44:DI:45:LYS:HA	44:DI:48:GLU:HG2	2.03	0.40
44:DI:77:LEU:HB3	44:DI:140:LEU:CD1	2.31	0.40
44:DI:80:PRO:O	44:DI:81:VAL:C	2.60	0.40
46:DO:35:VAL:HG11	46:DO:103:ALA:CB	2.44	0.40
49:DR:38:VAL:CB	49:DR:39:PRO:HD3	2.41	0.40
49:DR:76:VAL:O	49:DR:79:LEU:HB3	2.21	0.40
50:DS:26:LEU:O	50:DS:26:LEU:CD2	2.69	0.40
51:DT:129:ARG:HG3	51:DT:129:ARG:O	2.21	0.40
53:DV:19:LYS:CG	53:DV:20:LEU:N	2.77	0.40
53:DV:40:LEU:N	53:DV:40:LEU:HD23	2.37	0.40
56:DY:101:LYS:HG2	56:DY:102:CYS:N	2.36	0.40
1:AA:376:G:OP1	16:AP:5:ARG:HB2	2.22	0.40
1:AA:414:A:H8	1:AA:414:A:H5'	1.86	0.40
1:AA:738:C:O5'	1:AA:738:C:H6	2.04	0.40
1:AA:1155:G:O2'	1:AA:1156:G:H5'	2.22	0.40
2:AB:17:PHE:HD2	2:AB:17:PHE:H	1.68	0.40
3:AC:15:THR:CG2	3:AC:16:ARG:H	2.34	0.40
3:AC:191:THR:HB	3:AC:192:THR:H	1.79	0.40
4:AD:87:GLY:O	4:AD:89:THR:N	2.54	0.40
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.51	0.40
4:AD:162:LEU:HD22	4:AD:178:VAL:HG13	2.04	0.40
5:AE:101:ILE:HD11	5:AE:119:LEU:HA	2.01	0.40
6:AF:100:ASN:O	6:AF:101:ALA:O	2.39	0.40
7:AG:50:ILE:CG2	7:AG:61:VAL:HG21	2.51	0.40
8:AH:58:TYR:HB3	8:AH:59:LEU:H	1.77	0.40
12:AL:78:GLN:O	12:AL:80:HIS:N	2.51	0.40
12:AL:113:ARG:NH1	12:AL:120:TYR:CD2	2.89	0.40
15:AO:63:ARG:NH1	15:AO:87:ILE:HD13	2.37	0.40
19:AS:13:ASP:C	19:AS:15:LEU:N	2.75	0.40
20:AT:49:ALA:HB1	20:AT:100:ILE:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:81:LYS:C	20:AT:83:ARG:N	2.75	0.40
24:AX:14:A:H2'	24:AX:15:A:C5'	2.51	0.40
25:AY:53:G:H5"	48:BQ:55:VAL:HG21	2.02	0.40
26:B0:41:ARG:HD3	26:B0:44:ARG:HD2	2.03	0.40
36:BA:271(R):G:H2'	36:BA:271(S):G:C8	2.56	0.40
36:BA:479:A:H4'	36:BA:480:A:H5'	2.02	0.40
36:BA:496:G:H1'	54:BW:61:ASN:OD1	2.21	0.40
36:BA:829:A:N7	36:BA:2248:C:H5'	2.36	0.40
36:BA:925:C:O2'	36:BA:926:A:H5"	2.20	0.40
36:BA:1014:U:H2'	36:BA:1015:G:H8	1.87	0.40
36:BA:1246:A:P	47:BP:18:ARG:HG3	2.60	0.40
36:BA:1275:A:H3'	36:BA:1645:G:O2'	2.20	0.40
36:BA:2536:G:C6	36:BA:2537:U:C4	3.09	0.40
36:BA:2810:A:O2'	40:BE:61:ARG:HB2	2.21	0.40
36:BA:2820:A:O2'	36:BA:2821:A:OP1	2.34	0.40
38:BC:208:PHE:O	38:BC:209:LEU:CB	2.69	0.40
40:BE:57:LYS:HZ3	40:BE:59:VAL:HG12	1.87	0.40
40:BE:69:LYS:O	40:BE:70:ALA:C	2.60	0.40
40:BE:181:LEU:HD21	51:BT:7:ILE:HG22	2.03	0.40
41:BF:197:ASP:O	41:BF:200:GLU:N	2.36	0.40
42:BG:22:ARG:NH1	42:BG:22:ARG:CB	2.55	0.40
43:BH:68:THR:O	43:BH:70:THR:O	2.40	0.40
44:BI:29:TYR:HE1	44:BI:33:ARG:HE	1.60	0.40
44:BI:75:LEU:HD21	44:BI:105:HIS:HE1	1.81	0.40
44:BI:110:ASP:O	44:BI:114:LEU:CD2	2.70	0.40
45:BN:24:GLY:HA2	45:BN:106:MET:HE1	2.04	0.40
48:BQ:103:MET:HE1	48:BQ:125:LEU:HD13	2.02	0.40
49:BR:84:ALA:N	49:BR:85:PRO:CD	2.84	0.40
52:BU:55:ARG:HA	52:BU:58:ARG:HD2	2.03	0.40
54:BW:14:PRO:O	54:BW:16:LYS:N	2.54	0.40
56:BY:14:LEU:HG	56:BY:15:VAL:N	2.36	0.40
1:CA:263:A:OP2	20:CT:79:ARG:NH1	2.54	0.40
1:CA:383:A:H2'	1:CA:384:G:H5'	2.03	0.40
1:CA:587:G:N1	1:CA:754:C:OP2	2.50	0.40
1:CA:617:G:N1	1:CA:618:C:C4	2.88	0.40
1:CA:975:A:H5'	1:CA:975:A:C8	2.56	0.40
4:CD:170:VAL:O	4:CD:171:GLY:C	2.60	0.40
5:CE:82:VAL:HG21	5:CE:138:ALA:CA	2.46	0.40
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.56	0.40
7:CG:151:TYR:CD1	7:CG:151:TYR:N	2.89	0.40
8:CH:36:LEU:O	8:CH:39:LEU:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:64:LYS:C	8:CH:65:TYR:CD1	2.95	0.40
8:CH:86:ILE:HG13	8:CH:133:LEU:HD21	2.02	0.40
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.37	0.40
9:CI:98:PRO:C	9:CI:100:GLY:H	2.25	0.40
12:CL:24:VAL:HA	12:CL:25:PRO:HD2	2.01	0.40
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	2.03	0.40
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.57	0.40
13:CM:45:VAL:O	13:CM:45:VAL:HG12	2.21	0.40
13:CM:109:THR:HG22	13:CM:109:THR:O	2.21	0.40
25:CY:19:G:N1	36:DA:881:G:H4'	2.36	0.40
25:CY:72:C:N4	25:CY:73:A:C6	2.89	0.40
27:D1:94:LEU:O	27:D1:95:LEU:HB3	2.21	0.40
29:D3:29:ARG:HD2	36:DA:1184:G:OP1	2.21	0.40
29:D3:45:GLY:HA3	36:DA:851:U:O2'	2.21	0.40
31:D5:19:ARG:NH2	36:DA:1264:G:OP1	2.40	0.40
35:D9:2:LYS:N	35:D9:4:ARG:HH21	2.19	0.40
36:DA:17:G:H4'	52:DU:25:TRP:HZ3	1.77	0.40
36:DA:26:G:OP1	54:DW:80:PRO:HB3	2.21	0.40
36:DA:271(R):G:H2'	36:DA:271(S):G:C8	2.56	0.40
36:DA:322:A:P	41:DF:169:ASN:HB2	2.61	0.40
36:DA:494:G:O2'	54:DW:5:ALA:O	2.36	0.40
36:DA:624:C:O2'	36:DA:657:U:H5'	2.21	0.40
36:DA:819:A:C4	36:DA:1189:A:C2	3.09	0.40
36:DA:1013:C:O2'	36:DA:1014:U:H5'	2.22	0.40
36:DA:1153:C:OP1	52:DU:76:TYR:OH	2.23	0.40
36:DA:1651:G:OP1	49:DR:40:LYS:HE3	2.20	0.40
36:DA:1791:A:N6	36:DA:1828:G:O2'	2.54	0.40
36:DA:1819:A:H5"	39:DD:161:THR:HG21	2.04	0.40
36:DA:1991:U:C2'	36:DA:1992:G:H5"	2.51	0.40
36:DA:2172:U:O3'	36:DA:2173:A:H8	2.04	0.40
36:DA:2242:G:H2'	36:DA:2243:U:O4'	2.22	0.40
36:DA:2296:U:OP2	50:DS:13:ARG:NH1	2.51	0.40
36:DA:2479:G:OP1	36:DA:2537:U:H1'	2.22	0.40
36:DA:2511:U:O4	36:DA:2575:C:N3	2.54	0.40
36:DA:2881:C:H4'	49:DR:117:VAL:HG21	2.03	0.40
37:DB:78:A:H2'	37:DB:79:C:O4'	2.21	0.40
38:DC:36:LYS:HD3	38:DC:37:PHE:N	2.29	0.40
40:DE:102:VAL:HB	40:DE:199:ARG:O	2.21	0.40
40:DE:115:GLY:HA2	40:DE:157:ALA:HB1	2.03	0.40
40:DE:120:TRP:NE1	40:DE:155:LYS:HB3	2.37	0.40
41:DF:36:VAL:HG12	41:DF:183:VAL:HG21	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DF:57:VAL:CG1	41:DF:59:TYR:HD1	2.34	0.40
44:DI:110:ASP:O	44:DI:114:LEU:HG	2.21	0.40
45:DN:91:LEU:HD23	45:DN:98:VAL:HG21	2.02	0.40
50:DS:29:PHE:HD2	50:DS:30:ARG:N	2.19	0.40
51:DT:16:ARG:HB3	51:DT:16:ARG:HH11	1.86	0.40
51:DT:88:ILE:CG2	51:DT:89:VAL:HG23	2.34	0.40
52:DU:44:ASN:ND2	53:DV:75:PHE:N	2.67	0.40
55:DX:63:LYS:HB3	55:DX:72:LYS:HG3	2.01	0.40
56:DY:97:ARG:HD2	56:DY:97:ARG:HA	1.85	0.40
57:DZ:20:ARG:CZ	57:DZ:20:ARG:HB3	2.51	0.40
57:DZ:35:ARG:HD3	57:DZ:35:ARG:HA	1.91	0.40
1:AA:16:A:N1	1:AA:919:A:H2	2.19	0.40
1:AA:251:G:H4'	1:AA:252:U:O5'	2.22	0.40
1:AA:358:U:H2'	1:AA:359:U:C6	2.56	0.40
1:AA:741:G:H2'	1:AA:742:G:O4'	2.22	0.40
1:AA:881:G:P	12:AL:12:ARG:NH2	2.94	0.40
1:AA:950:U:H2'	1:AA:951:G:H8	1.87	0.40
1:AA:973:G:OP1	10:AJ:57:LYS:HD3	2.22	0.40
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.56	0.40
1:AA:1190:G:P	3:AC:5:ILE:HG13	2.60	0.40
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.22	0.40
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.20	0.40
2:AB:36:ARG:NE	2:AB:36:ARG:CA	2.85	0.40
2:AB:194:PRO:O	2:AB:195:ASP:C	2.60	0.40
2:AB:219:VAL:HA	2:AB:222:ILE:HG13	2.02	0.40
3:AC:22:TRP:CE3	3:AC:22:TRP:O	2.74	0.40
3:AC:91:LEU:O	3:AC:95:THR:HB	2.22	0.40
4:AD:103:ASN:O	4:AD:106:TYR:N	2.54	0.40
5:AE:75:THR:CG2	5:AE:76:ILE:N	2.81	0.40
10:AJ:21:GLN:HG2	10:AJ:21:GLN:O	2.21	0.40
12:AL:28:LYS:C	12:AL:30:ALA:N	2.73	0.40
12:AL:117:ARG:HG3	12:AL:117:ARG:HH11	1.86	0.40
15:AO:27:VAL:O	15:AO:31:LEU:HB2	2.20	0.40
20:AT:89:ARG:CZ	20:AT:104:LEU:HD21	2.52	0.40
27:B1:82:LEU:HB3	27:B1:90:ILE:CD1	2.50	0.40
36:BA:271(P):C:C2'	36:BA:271(Q):G:H5'	2.50	0.40
36:BA:380:U:H2'	36:BA:381:G:C8	2.56	0.40
36:BA:491:G:C4	36:BA:492:A:C8	3.09	0.40
36:BA:850:C:O2'	36:BA:851:U:H5'	2.20	0.40
36:BA:1140:C:H1'	36:BA:1143:A:N3	2.37	0.40
36:BA:1341:U:H2'	36:BA:1397:U:O2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:1362:C:O2'	36:BA:1363:C:H5'	2.22	0.40
36:BA:1419:A:H2'	36:BA:1421:G:N7	2.35	0.40
36:BA:1512:U:H2'	36:BA:1513:C:C6	2.56	0.40
36:BA:1952:A:C5	46:BO:22:ILE:HD12	2.57	0.40
36:BA:2147:G:C2'	36:BA:2148:G:O4'	2.68	0.40
36:BA:2164:C:H2'	36:BA:2165:G:O4'	2.20	0.40
36:BA:2231:C:H2'	36:BA:2232:U:O4'	2.21	0.40
36:BA:2791:C:H41	36:BA:2803:C:H42	1.69	0.40
36:BA:2892:A:C8	36:BA:2893:G:O4'	2.75	0.40
37:BB:43:C:H3'	37:BB:44:G:C5'	2.52	0.40
37:BB:65:C:H2'	37:BB:66:A:H5'	2.03	0.40
39:BD:161:THR:H	39:BD:196:VAL:HB	1.86	0.40
39:BD:268:ARG:HB3	39:BD:268:ARG:CZ	2.51	0.40
40:BE:1:MET:O	40:BE:2:LYS:C	2.60	0.40
40:BE:39:PRO:HA	40:BE:43:GLY:CA	2.42	0.40
41:BF:195:ASP:HB2	41:BF:198:ALA:CB	2.51	0.40
42:BG:10:LYS:HD2	42:BG:10:LYS:HA	1.88	0.40
42:BG:13:GLU:O	42:BG:14:GLU:CB	2.67	0.40
43:BH:38:SER:HA	43:BH:39:PRO:HD3	1.93	0.40
46:BO:50:GLY:C	46:BO:52:VAL:N	2.75	0.40
47:BP:6:LEU:CG	47:BP:9:ASN:HD22	2.15	0.40
47:BP:96:THR:HG22	47:BP:126:VAL:CB	2.47	0.40
50:BS:53:SER:O	50:BS:54:LEU:C	2.60	0.40
51:BT:116:ALA:O	51:BT:118:ARG:N	2.55	0.40
52:BU:18:LEU:HD23	52:BU:18:LEU:HA	1.95	0.40
53:BV:13:ARG:O	53:BV:13:ARG:HG2	2.21	0.40
54:BW:29:LEU:HD12	54:BW:29:LEU:O	2.21	0.40
56:BY:8:LYS:HE3	56:BY:72:VAL:C	2.41	0.40
57:BZ:42:VAL:CG1	57:BZ:43:GLU:N	2.84	0.40
57:BZ:120:ILE:O	57:BZ:121:HIS:HB2	2.20	0.40
1:CA:67:C:O2'	1:CA:171:A:H1'	2.22	0.40
1:CA:657:G:H4'	15:CO:28:GLN:HG2	2.04	0.40
1:CA:933:G:OP2	7:CG:3:ARG:HB3	2.21	0.40
1:CA:952:U:H2'	1:CA:953:G:C8	2.54	0.40
1:CA:1066:C:H2'	1:CA:1067:A:H5'	2.02	0.40
1:CA:1095:U:H5"	1:CA:1109:C:O2	2.21	0.40
1:CA:1131:G:H2'	1:CA:1132:C:C5	2.56	0.40
1:CA:1422:G:O2'	1:CA:1423:G:H5'	2.22	0.40
3:CC:6:HIS:CD2	3:CC:8:ILE:H	2.39	0.40
3:CC:22:TRP:O	3:CC:22:TRP:CE3	2.75	0.40
3:CC:53:ALA:HB2	3:CC:115:LEU:CD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:112:SER:O	3:CC:114:PRO:HD2	2.21	0.40
3:CC:127:ARG:HG2	3:CC:127:ARG:NH1	2.37	0.40
5:CE:110:LEU:HD13	5:CE:118:ILE:HG21	2.02	0.40
7:CG:78:ARG:CD	7:CG:79:ARG:N	2.85	0.40
8:CH:34:GLU:OE1	8:CH:34:GLU:HA	2.22	0.40
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.52	0.40
9:CI:53:VAL:HG12	9:CI:92:TYR:HD2	1.87	0.40
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.90	0.40
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB2	1.84	0.40
11:CK:48:ILE:CD1	11:CK:64:ALA:HA	2.44	0.40
13:CM:78:ILE:HG23	13:CM:92:HIS:ND1	2.37	0.40
13:CM:82:MET:O	13:CM:83:ASP:O	2.40	0.40
14:CN:22:THR:HB	14:CN:33:VAL:HG21	2.01	0.40
18:CR:47:THR:O	18:CR:83:GLU:HG2	2.21	0.40
25:CY:9:A:C2	25:CY:45:U:N3	2.89	0.40
25:CY:74:C:H2'	25:CY:75:C:H5'	2.03	0.40
30:D4:62:CYS:HA	42:DG:109:VAL:O	2.22	0.40
34:D8:55:ALA:O	34:D8:56:GLU:C	2.59	0.40
36:DA:103:A:C2'	36:DA:104:U:H5'	2.51	0.40
36:DA:188:G:C2'	36:DA:189:G:H5'	2.51	0.40
36:DA:487:C:H1'	54:DW:53:SER:OG	2.22	0.40
36:DA:708:C:O2	36:DA:708:C:H2'	2.21	0.40
36:DA:966:G:C6	36:DA:967:C:N4	2.90	0.40
36:DA:987:G:O2'	36:DA:988:A:H5'	2.21	0.40
36:DA:999:U:C2'	36:DA:1000:A:C5'	2.99	0.40
36:DA:1006:C:O2	45:DN:106:MET:HG2	2.22	0.40
36:DA:1281:G:C5	36:DA:1282:U:C5	3.10	0.40
36:DA:1688:U:O2	36:DA:1700:A:H5'	2.21	0.40
36:DA:2342:C:O2'	36:DA:2374:C:H5"	2.22	0.40
36:DA:2638:G:OP2	40:DE:82:ARG:NH2	2.53	0.40
36:DA:2808:U:C2'	36:DA:2809:A:H5'	2.52	0.40
37:DB:65:C:H2'	37:DB:66:A:H5'	2.03	0.40
38:DC:214:VAL:C	38:DC:216:THR:H	2.23	0.40
41:DF:8:GLN:CG	41:DF:126:VAL:HA	2.51	0.40
41:DF:127:GLU:HB2	41:DF:196:LEU:HD11	2.04	0.40
42:DG:110:ALA:HB1	42:DG:113:ARG:N	2.37	0.40
42:DG:153:ARG:O	42:DG:154:GLY:C	2.57	0.40
43:DH:45:VAL:O	43:DH:45:VAL:HG12	2.22	0.40
43:DH:103:LEU:HD22	43:DH:123:PHE:HD2	1.87	0.40
43:DH:170:ARG:HG2	43:DH:171:LEU:N	2.36	0.40
44:DI:51:ILE:HD13	44:DI:51:ILE:HA	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DI:56:LYS:HB2	44:DI:56:LYS:HE3	1.90	0.40
47:DP:9:ASN:H	47:DP:10:PRO:HD2	1.87	0.40
48:DQ:18:LYS:O	48:DQ:98:LYS:HD3	2.20	0.40
50:DS:30:ARG:HA	50:DS:30:ARG:HD2	1.91	0.40
51:DT:65:LYS:NZ	51:DT:66:VAL:HB	2.36	0.40
52:DU:92:ARG:HH12	53:DV:11:GLN:H	1.67	0.40
57:DZ:57:ILE:HG22	57:DZ:58:VAL:H	1.78	0.40
57:DZ:139:VAL:O	57:DZ:139:VAL:HG23	2.22	0.40
1:AA:439:A:H5'	1:AA:439:A:H8	1.86	0.40
1:AA:708:C:O2'	1:AA:709:G:H5'	2.21	0.40
1:AA:731:G:H5'	1:AA:766:A:H4'	2.02	0.40
1:AA:979:C:H42	14:AN:18:VAL:CG1	2.33	0.40
1:AA:994:A:N3	1:AA:994:A:H2'	2.36	0.40
1:AA:1316:G:H22	1:AA:1319:A:P	2.45	0.40
2:AB:62:ALA:CB	2:AB:225:ALA:HB3	2.51	0.40
2:AB:213:LEU:O	2:AB:216:SER:HB3	2.22	0.40
5:AE:12:LEU:HD13	5:AE:12:LEU:C	2.41	0.40
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	2.03	0.40
8:AH:87:SER:HB3	8:AH:133:LEU:O	2.22	0.40
8:AH:104:ARG:C	8:AH:106:GLY:H	2.24	0.40
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.37	0.40
9:AI:105:ASP:C	9:AI:107:ARG:N	2.75	0.40
10:AJ:32:ALA:N	10:AJ:76:ASN:HD22	2.17	0.40
10:AJ:83:GLU:C	10:AJ:85:LEU:N	2.74	0.40
11:AK:59:TYR:O	11:AK:63:LEU:HB2	2.21	0.40
13:AM:90:LEU:O	13:AM:92:HIS:N	2.46	0.40
17:AQ:50:LYS:HG3	17:AQ:51:TYR:CD1	2.55	0.40
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.56	0.40
19:AS:16:LEU:CD1	19:AS:16:LEU:H	2.35	0.40
23:AW:8:U:O2	23:AW:21:A:H2	2.05	0.40
25:AY:8:U:C6	25:AY:13:C:C4	3.10	0.40
25:AY:28:G:N2	25:AY:43:C:C6	2.90	0.40
25:AY:59:U:C3'	25:AY:60:U:C5'	2.94	0.40
33:B7:47:ARG:NH2	36:BA:1311:G:C6	2.90	0.40
34:B8:55:ALA:O	34:B8:56:GLU:C	2.59	0.40
36:BA:574:C:N3	40:BE:145:LYS:HE2	2.36	0.40
36:BA:792:G:C4'	36:BA:793:A:H5'	2.52	0.40
36:BA:1175:U:H5"	36:BA:1176:G:H8	1.87	0.40
36:BA:1188:U:C4'	53:BV:79:VAL:HG22	2.50	0.40
36:BA:1572:A:O5'	36:BA:1572:A:H8	2.04	0.40
36:BA:2199:A:H5"	36:BA:2200:C:H5	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BA:2206:G:N3	36:BA:2207:G:H5'	2.36	0.40
36:BA:2260:C:H6	36:BA:2260:C:O5'	2.04	0.40
36:BA:2481:G:C2'	36:BA:2482:G:OP2	2.69	0.40
36:BA:2729:G:H5'	40:BE:22:PRO:HG3	2.04	0.40
37:BB:23:G:C2	37:BB:24:G:O6	2.74	0.40
38:BC:41:VAL:HG23	38:BC:178:ALA:CB	2.44	0.40
38:BC:86:ALA:HB2	38:BC:152:ILE:CB	2.50	0.40
38:BC:147:PHE:O	38:BC:148:ASN:CB	2.69	0.40
39:BD:132:PRO:HD3	39:BD:190:TYR:CZ	2.56	0.40
40:BE:2:LYS:HB3	40:BE:95:ILE:CG2	2.51	0.40
40:BE:33:VAL:HG12	40:BE:90:THR:H	1.85	0.40
40:BE:93:VAL:HG13	40:BE:182:LEU:HD13	2.03	0.40
41:BF:68:LYS:HG3	41:BF:69:HIS:CD2	2.56	0.40
44:BI:127:VAL:HA	44:BI:139:GLN:HA	2.03	0.40
45:BN:58:ASP:C	45:BN:60:ILE:HG13	2.40	0.40
45:BN:93:THR:O	45:BN:94:HIS:CB	2.70	0.40
47:BP:7:ARG:O	47:BP:9:ASN:N	2.55	0.40
47:BP:24:GLY:O	47:BP:25:SER:HB3	2.20	0.40
50:BS:42:ASP:C	50:BS:44:LYS:N	2.73	0.40
51:BT:30:VAL:HA	51:BT:44:ASP:HA	2.03	0.40
52:BU:104:GLN:HE21	52:BU:105:VAL:H	1.68	0.40
52:BU:109:LEU:O	52:BU:110:VAL:C	2.58	0.40
53:BV:20:LEU:N	53:BV:20:LEU:HD12	2.36	0.40
53:BV:39:LEU:N	53:BV:39:LEU:HD22	2.36	0.40
53:BV:66:ARG:HH11	53:BV:66:ARG:HG2	1.85	0.40
1:CA:376:G:H2'	1:CA:377:G:H8	1.87	0.40
1:CA:518:C:H2'	1:CA:530:G:C4	2.57	0.40
1:CA:546:G:P	4:CD:72:GLU:HB3	2.62	0.40
1:CA:579:G:H2'	1:CA:580:U:H6	1.86	0.40
1:CA:644:G:O2'	1:CA:645:C:H5'	2.22	0.40
1:CA:815:A:H4'	1:CA:817:C:C4	2.57	0.40
1:CA:831:U:O2'	1:CA:832:C:H5'	2.21	0.40
1:CA:972:C:C4'	10:CJ:57:LYS:HG3	2.49	0.40
1:CA:976:G:C8	1:CA:1358:U:C2	3.09	0.40
1:CA:1026:G:H3'	1:CA:1027:C:C5'	2.51	0.40
1:CA:1088:G:H2'	1:CA:1089:G:C8	2.56	0.40
1:CA:1140:C:C4	1:CA:1141:C:N3	2.89	0.40
1:CA:1268:A:H1'	1:CA:1326:C:O2'	2.22	0.40
1:CA:1282:C:O2'	1:CA:1283:G:H5'	2.21	0.40
2:CB:62:ALA:HB1	2:CB:225:ALA:HB3	2.03	0.40
5:CE:101:ILE:CD1	5:CE:118:ILE:O	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.42	0.40
7:CG:46:ALA:O	7:CG:49:ILE:N	2.53	0.40
7:CG:76:ARG:NH1	7:CG:76:ARG:CG	2.85	0.40
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.02	0.40
9:CI:95:LYS:HE2	9:CI:95:LYS:HB2	1.91	0.40
13:CM:15:VAL:HG22	13:CM:43:THR:O	2.21	0.40
13:CM:18:ALA:CB	13:CM:45:VAL:HG21	2.51	0.40
13:CM:70:LEU:O	13:CM:73:GLU:N	2.40	0.40
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.64	0.40
15:CO:61:GLY:O	15:CO:65:ARG:HD3	2.21	0.40
21:CU:12:LYS:HD2	21:CU:17:THR:OG1	2.21	0.40
25:CY:23:A:H2'	25:CY:24:G:C8	2.51	0.40
26:D0:73:GLY:C	26:D0:75:LEU:H	2.25	0.40
29:D3:44:ARG:O	29:D3:45:GLY:C	2.60	0.40
34:D8:6:THR:HA	34:D8:61:LEU:HD11	2.04	0.40
36:DA:187:G:N3	36:DA:1365:A:H2	2.19	0.40
36:DA:380:U:H2'	36:DA:381:G:C8	2.54	0.40
36:DA:703:U:H2'	36:DA:704:G:H5'	2.03	0.40
36:DA:1106:A:C1'	36:DA:1107:G:C8	3.05	0.40
36:DA:1498:C:O4'	36:DA:1577:C:H4'	2.22	0.40
36:DA:1512:U:H2'	36:DA:1513:C:C6	2.57	0.40
36:DA:1657:C:H2'	36:DA:1658:C:C6	2.55	0.40
36:DA:1853:A:H2'	36:DA:1854:A:C8	2.57	0.40
36:DA:1952:A:C6	36:DA:1953:A:C6	3.10	0.40
36:DA:2334:G:C2	50:DS:15:ARG:NH1	2.90	0.40
36:DA:2351:G:HO2'	36:DA:2352:A:H8	1.68	0.40
36:DA:2392:A:N3	36:DA:2392:A:H5'	2.35	0.40
36:DA:2612:C:C4	36:DA:2613:U:H5	2.39	0.40
36:DA:2818:G:H4'	36:DA:2837:G:O4'	2.21	0.40
37:DB:81:G:O6	37:DB:97:G:C6	2.74	0.40
38:DC:49:ILE:HG22	38:DC:50:ASP:N	2.36	0.40
39:DD:62:TYR:HA	39:DD:87:ASN:ND2	2.36	0.40
39:DD:201:HIS:O	39:DD:203:ASN:N	2.55	0.40
40:DE:57:LYS:NZ	40:DE:57:LYS:HB3	2.36	0.40
41:DF:179:GLU:OE2	41:DF:179:GLU:N	2.54	0.40
42:DG:8:LYS:HZ3	42:DG:96:ARG:HH12	1.68	0.40
42:DG:41:GLN:HB2	42:DG:90:LEU:CB	2.50	0.40
43:DH:76:VAL:C	43:DH:78:GLY:N	2.75	0.40
44:DI:131:LYS:HG3	44:DI:132:PRO:CD	2.52	0.40
45:DN:58:ASP:C	45:DN:60:ILE:HG13	2.41	0.40
45:DN:128:HIS:HA	45:DN:129:PRO:HD2	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:126:VAL:HA	47:DP:145:PRO:HB2	2.03	0.40
49:DR:11:ASN:O	49:DR:12:ARG:CG	2.64	0.40
50:DS:99:LYS:O	50:DS:100:ALA:C	2.60	0.40
51:DT:42:ILE:H	51:DT:42:ILE:CD1	2.30	0.40
54:DW:14:PRO:O	54:DW:17:VAL:N	2.52	0.40
54:DW:69:LEU:O	54:DW:70:TYR:HB3	2.21	0.40
56:DY:31:LEU:CB	56:DY:32:PRO:CA	2.96	0.40
57:DZ:99:TYR:CE2	57:DZ:125:LEU:HD13	2.56	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D5:59:GLU:N	53:DV:51:VAL:N[4_545]	2.15	0.05

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%)	148 (64%)	64 (28%)	21 (9%)	1 4
2	CB	233/256 (91%)	148 (64%)	64 (28%)	21 (9%)	1 4
3	AC	205/239 (86%)	137 (67%)	44 (22%)	24 (12%)	0 2
3	CC	205/239 (86%)	137 (67%)	43 (21%)	25 (12%)	0 1
4	AD	206/209 (99%)	145 (70%)	41 (20%)	20 (10%)	0 3
4	CD	206/209 (99%)	144 (70%)	40 (19%)	22 (11%)	0 3
5	AE	149/162 (92%)	112 (75%)	20 (13%)	17 (11%)	0 2
5	CE	149/162 (92%)	113 (76%)	19 (13%)	17 (11%)	0 2
6	AF	99/101 (98%)	82 (83%)	14 (14%)	3 (3%)	4 24
6	CF	99/101 (98%)	81 (82%)	15 (15%)	3 (3%)	4 24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
7	AG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	1 4
7	CG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	1 4
8	AH	136/138 (99%)	101 (74%)	27 (20%)	8 (6%)	1 10
8	CH	136/138 (99%)	102 (75%)	26 (19%)	8 (6%)	1 10
9	AI	121/128 (94%)	86 (71%)	23 (19%)	12 (10%)	0 3
9	CI	121/128 (94%)	86 (71%)	23 (19%)	12 (10%)	0 3
10	AJ	97/105 (92%)	66 (68%)	22 (23%)	9 (9%)	0 4
10	CJ	97/105 (92%)	67 (69%)	21 (22%)	9 (9%)	0 4
11	AK	117/129 (91%)	93 (80%)	19 (16%)	5 (4%)	2 16
11	CK	117/129 (91%)	92 (79%)	20 (17%)	5 (4%)	2 16
12	AL	123/135 (91%)	83 (68%)	25 (20%)	15 (12%)	0 1
12	CL	123/135 (91%)	83 (68%)	26 (21%)	14 (11%)	0 2
13	AM	113/126 (90%)	67 (59%)	29 (26%)	17 (15%)	0 1
13	CM	113/126 (90%)	67 (59%)	28 (25%)	18 (16%)	0 1
14	AN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0 0
14	CN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0 0
15	AO	86/89 (97%)	62 (72%)	19 (22%)	5 (6%)	1 11
15	CO	86/89 (97%)	63 (73%)	18 (21%)	5 (6%)	1 11
16	AP	82/88 (93%)	57 (70%)	22 (27%)	3 (4%)	3 20
16	CP	82/88 (93%)	58 (71%)	21 (26%)	3 (4%)	3 20
17	AQ	98/105 (93%)	77 (79%)	14 (14%)	7 (7%)	1 7
17	CQ	98/105 (93%)	77 (79%)	14 (14%)	7 (7%)	1 7
18	AR	68/88 (77%)	48 (71%)	15 (22%)	5 (7%)	1 7
18	CR	68/88 (77%)	45 (66%)	17 (25%)	6 (9%)	1 5
19	AS	77/93 (83%)	54 (70%)	11 (14%)	12 (16%)	0 1
19	CS	77/93 (83%)	53 (69%)	13 (17%)	11 (14%)	0 1
20	AT	97/106 (92%)	69 (71%)	17 (18%)	11 (11%)	0 2
20	CT	97/106 (92%)	69 (71%)	18 (19%)	10 (10%)	0 3
21	AU	23/27 (85%)	16 (70%)	4 (17%)	3 (13%)	0 1
21	CU	23/27 (85%)	16 (70%)	4 (17%)	3 (13%)	0 1
26	B0	82/85 (96%)	63 (77%)	12 (15%)	7 (8%)	1 5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
26	D0	82/85 (96%)	63 (77%)	11 (13%)	8 (10%)	0 3
27	B1	92/98 (94%)	64 (70%)	19 (21%)	9 (10%)	0 3
27	D1	92/98 (94%)	67 (73%)	15 (16%)	10 (11%)	0 2
28	B2	69/72 (96%)	48 (70%)	12 (17%)	9 (13%)	0 1
28	D2	69/72 (96%)	52 (75%)	7 (10%)	10 (14%)	0 1
29	B3	58/60 (97%)	41 (71%)	7 (12%)	10 (17%)	0 1
29	D3	58/60 (97%)	41 (71%)	8 (14%)	9 (16%)	0 1
30	B4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0 0
30	D4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0 0
31	B5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0 1
31	D5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0 1
32	B6	41/54 (76%)	18 (44%)	12 (29%)	11 (27%)	0 0
32	D6	41/54 (76%)	18 (44%)	12 (29%)	11 (27%)	0 0
33	B7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	7 31
33	D7	47/49 (96%)	43 (92%)	3 (6%)	1 (2%)	7 31
34	B8	62/65 (95%)	39 (63%)	14 (23%)	9 (14%)	0 1
34	D8	62/65 (95%)	38 (61%)	15 (24%)	9 (14%)	0 1
35	B9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	4 24
35	D9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	4 24
38	BC	183/229 (80%)	84 (46%)	45 (25%)	54 (30%)	0 0
38	DC	183/229 (80%)	84 (46%)	43 (24%)	56 (31%)	0 0
39	BD	270/276 (98%)	205 (76%)	38 (14%)	27 (10%)	0 3
39	DD	270/276 (98%)	204 (76%)	40 (15%)	26 (10%)	0 4
40	BE	203/206 (98%)	128 (63%)	36 (18%)	39 (19%)	0 1
40	DE	203/206 (98%)	128 (63%)	34 (17%)	41 (20%)	0 0
41	BF	206/210 (98%)	128 (62%)	55 (27%)	23 (11%)	0 2
41	DF	206/210 (98%)	130 (63%)	53 (26%)	23 (11%)	0 2
42	BG	177/182 (97%)	111 (63%)	40 (23%)	26 (15%)	0 1
42	DG	177/182 (97%)	83 (47%)	53 (30%)	41 (23%)	0 0
43	BH	158/180 (88%)	93 (59%)	31 (20%)	34 (22%)	0 0
43	DH	158/180 (88%)	91 (58%)	34 (22%)	33 (21%)	0 0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
44	BI	144/148 (97%)	88 (61%)	29 (20%)	27 (19%)	0 1
44	DI	144/148 (97%)	88 (61%)	28 (19%)	28 (19%)	0 1
45	BN	137/140 (98%)	84 (61%)	33 (24%)	20 (15%)	0 1
45	DN	137/140 (98%)	85 (62%)	32 (23%)	20 (15%)	0 1
46	BO	120/122 (98%)	99 (82%)	14 (12%)	7 (6%)	1 11
46	DO	120/122 (98%)	99 (82%)	14 (12%)	7 (6%)	1 11
47	BP	144/150 (96%)	78 (54%)	32 (22%)	34 (24%)	0 0
47	DP	144/150 (96%)	79 (55%)	31 (22%)	34 (24%)	0 0
48	BQ	139/141 (99%)	105 (76%)	18 (13%)	16 (12%)	0 2
48	DQ	139/141 (99%)	104 (75%)	18 (13%)	17 (12%)	0 1
49	BR	115/118 (98%)	83 (72%)	22 (19%)	10 (9%)	1 5
49	DR	115/118 (98%)	84 (73%)	21 (18%)	10 (9%)	1 5
50	BS	97/112 (87%)	38 (39%)	27 (28%)	32 (33%)	0 0
50	DS	97/112 (87%)	36 (37%)	30 (31%)	31 (32%)	0 0
51	BT	136/146 (93%)	75 (55%)	31 (23%)	30 (22%)	0 0
51	DT	136/146 (93%)	75 (55%)	31 (23%)	30 (22%)	0 0
52	BU	115/118 (98%)	70 (61%)	35 (30%)	10 (9%)	1 5
52	DU	115/118 (98%)	68 (59%)	37 (32%)	10 (9%)	1 5
53	BV	99/101 (98%)	61 (62%)	20 (20%)	18 (18%)	0 1
53	DV	99/101 (98%)	62 (63%)	19 (19%)	18 (18%)	0 1
54	BW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0 2
54	DW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0 2
55	BX	91/96 (95%)	66 (72%)	20 (22%)	5 (6%)	2 11
55	DX	91/96 (95%)	65 (71%)	20 (22%)	6 (7%)	1 8
56	BY	99/110 (90%)	47 (48%)	19 (19%)	33 (33%)	0 0
56	DY	99/110 (90%)	47 (48%)	19 (19%)	33 (33%)	0 0
57	BZ	175/206 (85%)	101 (58%)	37 (21%)	37 (21%)	0 0
57	DZ	175/206 (85%)	91 (52%)	48 (27%)	36 (21%)	0 0
All	All	11662/12592 (93%)	7696 (66%)	2368 (20%)	1598 (14%)	0 1

All (1598) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	15	VAL
2	AB	20	GLU
2	AB	88	ALA
2	AB	195	ASP
2	AB	238	LEU
2	AB	239	VAL
3	AC	15	THR
3	AC	47	LEU
3	AC	61	ALA
3	AC	113	ALA
3	AC	189	ALA
3	AC	190	ARG
3	AC	207	VAL
4	AD	3	ARG
4	AD	14	ARG
4	AD	30	LYS
5	AE	16	THR
5	AE	146	ALA
7	AG	33	ASP
7	AG	52	GLU
7	AG	53	LYS
7	AG	58	PRO
7	AG	77	SER
7	AG	116	ALA
8	AH	68	ARG
8	AH	86	ILE
9	AI	89	ASN
9	AI	111	ARG
9	AI	117	HIS
10	AJ	32	ALA
10	AJ	57	LYS
12	AL	18	VAL
12	AL	28	LYS
12	AL	47	LYS
13	AM	12	ASN
13	AM	59	TYR
13	AM	83	ASP
13	AM	104	ARG
13	AM	117	VAL
14	AN	14	PRO
14	AN	16	PHE
14	AN	23	ARG

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Mol	Chain	Res	Type
14	AN	24	CYS
17	AQ	78	GLU
18	AR	20	ALA
18	AR	36	ASN
18	AR	87	ARG
19	AS	10	PHE
19	AS	28	LYS
19	AS	30	LEU
21	AU	3	LYS
26	B0	55	ARG
26	B0	64	ASP
26	B0	83	PRO
27	B1	53	VAL
27	B1	58	ILE
28	B2	43	GLN
28	B2	44	LEU
28	B2	47	ASN
28	B2	70	GLN
30	B4	46	ASN
30	B4	52	SER
31	B5	4	HIS
31	B5	34	PRO
31	B5	57	VAL
32	B6	16	CYS
32	B6	19	ARG
32	B6	25	LYS
32	B6	26	ASN
32	B6	28	ARG
32	B6	52	VAL
34	B8	3	LYS
34	B8	34	TRP
38	BC	20	TYR
38	BC	35	ALA
38	BC	38	ASP
38	BC	46	LYS
38	BC	58	VAL
38	BC	63	SER
38	BC	108	MET
38	BC	120	MET
38	BC	122	ALA
38	BC	140	PRO
38	BC	142	ALA

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Mol	Chain	Res	Type
38	BC	148	ASN
38	BC	153	ILE
38	BC	156	ILE
38	BC	167	LYS
38	BC	173	ALA
38	BC	174	PRO
38	BC	179	SER
38	BC	182	PRO
38	BC	220	PRO
38	BC	222	VAL
39	BD	25	THR
39	BD	58	HIS
39	BD	169	GLU
39	BD	225	ALA
39	BD	239	ARG
39	BD	245	PRO
39	BD	246	PRO
39	BD	267	SER
39	BD	271	ILE
40	BE	4	ILE
40	BE	18	ASP
40	BE	35	GLN
40	BE	44	TYR
40	BE	53	PRO
40	BE	54	GLN
40	BE	56	PRO
40	BE	59	VAL
40	BE	60	ASN
40	BE	71	GLY
40	BE	73	GLU
40	BE	75	VAL
40	BE	77	ILE
40	BE	84	PHE
40	BE	89	ASP
40	BE	118	LYS
40	BE	169	ASN
40	BE	186	GLY
41	BF	68	LYS
41	BF	89	VAL
41	BF	128	ALA
41	BF	132	VAL
41	BF	134	GLY

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Mol	Chain	Res	Type
41	BF	168	ARG
41	BF	169	ASN
42	BG	14	GLU
42	BG	81	LYS
42	BG	86	MET
42	BG	87	PRO
42	BG	96	ARG
42	BG	97	ASP
42	BG	110	ALA
42	BG	126	ASP
43	BH	54	ARG
43	BH	55	PRO
43	BH	83	TYR
43	BH	92	ILE
43	BH	98	LEU
43	BH	108	GLY
43	BH	127	GLU
43	BH	155	SER
43	BH	156	ALA
43	BH	159	GLU
43	BH	165	ALA
44	BI	12	LEU
44	BI	15	VAL
44	BI	42	SER
44	BI	77	LEU
44	BI	85	GLU
44	BI	86	THR
44	BI	92	VAL
44	BI	93	THR
44	BI	120	ILE
44	BI	121	LYS
44	BI	133	HIS
44	BI	145	VAL
45	BN	4	TYR
45	BN	42	TRP
45	BN	57	ALA
45	BN	58	ASP
45	BN	132	ALA
46	BO	120	GLU
47	BP	9	ASN
47	BP	14	LYS
47	BP	17	LYS

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Mol	Chain	Res	Type
47	BP	18	ARG
47	BP	31	ALA
47	BP	47	ASP
47	BP	58	THR
47	BP	108	LYS
47	BP	147	LEU
48	BQ	2	LEU
48	BQ	5	ARG
48	BQ	60	ARG
48	BQ	134	ARG
48	BQ	135	ASP
48	BQ	138	ASP
49	BR	8	ARG
49	BR	9	LYS
49	BR	12	ARG
49	BR	14	SER
49	BR	107	ASP
50	BS	23	ARG
50	BS	35	ILE
50	BS	57	LYS
50	BS	58	LEU
50	BS	59	LYS
50	BS	62	LYS
50	BS	74	ALA
50	BS	87	PHE
50	BS	88	ASP
50	BS	94	TYR
50	BS	97	ARG
50	BS	100	ALA
51	BT	17	THR
51	BT	24	PRO
51	BT	27	THR
51	BT	28	VAL
51	BT	30	VAL
51	BT	33	LYS
51	BT	41	ARG
51	BT	55	ASN
51	BT	58	ASN
51	BT	80	SER
51	BT	83	ILE
51	BT	107	ASP
51	BT	115	ARG

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Mol	Chain	Res	Type
52	BU	25	TRP
52	BU	32	PHE
53	BV	15	GLU
53	BV	16	PRO
53	BV	18	LEU
53	BV	19	LYS
53	BV	28	GLU
53	BV	29	PRO
53	BV	46	VAL
53	BV	53	GLU
54	BW	11	ARG
55	BX	4	ALA
55	BX	12	VAL
56	BY	7	VAL
56	BY	17	SER
56	BY	44	ILE
56	BY	53	PRO
56	BY	56	PRO
56	BY	57	GLN
56	BY	66	PRO
56	BY	67	LEU
56	BY	77	PRO
56	BY	78	ALA
56	BY	90	LEU
56	BY	96	ILE
57	BZ	31	ARG
57	BZ	45	ASP
57	BZ	111	VAL
57	BZ	136	PHE
57	BZ	165	VAL
2	CB	9	GLU
2	CB	15	VAL
2	CB	20	GLU
2	CB	88	ALA
2	CB	194	PRO
2	CB	195	ASP
2	CB	238	LEU
2	CB	239	VAL
3	CC	15	THR
3	CC	47	LEU
3	CC	61	ALA
3	CC	113	ALA

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Mol	Chain	Res	Type
3	CC	189	ALA
3	CC	190	ARG
3	CC	207	VAL
4	CD	3	ARG
4	CD	4	TYR
4	CD	14	ARG
4	CD	30	LYS
5	CE	16	THR
5	CE	146	ALA
7	CG	33	ASP
7	CG	58	PRO
7	CG	77	SER
7	CG	116	ALA
8	CH	68	ARG
8	CH	86	ILE
9	CI	89	ASN
9	CI	111	ARG
9	CI	117	HIS
10	CJ	32	ALA
10	CJ	57	LYS
12	CL	18	VAL
12	CL	28	LYS
12	CL	47	LYS
13	CM	12	ASN
13	CM	59	TYR
13	CM	83	ASP
13	CM	104	ARG
13	CM	117	VAL
14	CN	14	PRO
14	CN	16	PHE
14	CN	23	ARG
14	CN	24	CYS
17	CQ	78	GLU
18	CR	20	ALA
18	CR	36	ASN
18	CR	45	SER
18	CR	87	ARG
19	CS	10	PHE
19	CS	28	LYS
19	CS	30	LEU
21	CU	3	LYS
26	D0	55	ARG

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Mol	Chain	Res	Type
26	D0	64	ASP
26	D0	83	PRO
27	D1	24	ALA
27	D1	31	GLY
27	D1	58	ILE
27	D1	85	LEU
28	D2	47	ASN
28	D2	48	HIS
28	D2	68	ARG
30	D4	46	ASN
31	D5	4	HIS
31	D5	34	PRO
31	D5	57	VAL
32	D6	16	CYS
32	D6	19	ARG
32	D6	25	LYS
32	D6	26	ASN
32	D6	28	ARG
32	D6	52	VAL
34	D8	3	LYS
34	D8	34	TRP
38	DC	20	TYR
38	DC	35	ALA
38	DC	38	ASP
38	DC	46	LYS
38	DC	58	VAL
38	DC	63	SER
38	DC	108	MET
38	DC	120	MET
38	DC	122	ALA
38	DC	140	PRO
38	DC	142	ALA
38	DC	148	ASN
38	DC	153	ILE
38	DC	156	ILE
38	DC	167	LYS
38	DC	173	ALA
38	DC	174	PRO
38	DC	179	SER
38	DC	182	PRO
38	DC	220	PRO
38	DC	222	VAL

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Mol	Chain	Res	Type
39	DD	25	THR
39	DD	58	HIS
39	DD	169	GLU
39	DD	225	ALA
39	DD	239	ARG
39	DD	245	PRO
39	DD	246	PRO
39	DD	267	SER
39	DD	271	ILE
40	DE	4	ILE
40	DE	18	ASP
40	DE	35	GLN
40	DE	44	TYR
40	DE	53	PRO
40	DE	54	GLN
40	DE	56	PRO
40	DE	59	VAL
40	DE	60	ASN
40	DE	71	GLY
40	DE	73	GLU
40	DE	75	VAL
40	DE	77	ILE
40	DE	84	PHE
40	DE	89	ASP
40	DE	118	LYS
40	DE	169	ASN
40	DE	186	GLY
40	DE	189	PRO
41	DF	68	LYS
41	DF	89	VAL
41	DF	128	ALA
41	DF	132	VAL
41	DF	134	GLY
41	DF	168	ARG
41	DF	169	ASN
42	DG	14	GLU
42	DG	46	ALA
42	DG	53	LEU
42	DG	87	PRO
42	DG	102	PHE
42	DG	103	LEU
42	DG	118	ARG

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Mol	Chain	Res	Type
42	DG	120	LEU
42	DG	128	ARG
42	DG	137	GLU
42	DG	163	ALA
43	DH	54	ARG
43	DH	55	PRO
43	DH	83	TYR
43	DH	92	ILE
43	DH	98	LEU
43	DH	108	GLY
43	DH	127	GLU
43	DH	155	SER
43	DH	156	ALA
43	DH	159	GLU
43	DH	165	ALA
44	DI	12	LEU
44	DI	15	VAL
44	DI	42	SER
44	DI	77	LEU
44	DI	85	GLU
44	DI	86	THR
44	DI	92	VAL
44	DI	93	THR
44	DI	120	ILE
44	DI	121	LYS
44	DI	133	HIS
44	DI	145	VAL
45	DN	4	TYR
45	DN	42	TRP
45	DN	57	ALA
45	DN	58	ASP
45	DN	132	ALA
46	DO	120	GLU
47	DP	9	ASN
47	DP	14	LYS
47	DP	17	LYS
47	DP	18	ARG
47	DP	31	ALA
47	DP	47	ASP
47	DP	58	THR
47	DP	108	LYS
47	DP	147	LEU

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Mol	Chain	Res	Type
48	DQ	2	LEU
48	DQ	5	ARG
48	DQ	60	ARG
48	DQ	134	ARG
48	DQ	135	ASP
48	DQ	138	ASP
49	DR	8	ARG
49	DR	9	LYS
49	DR	12	ARG
49	DR	14	SER
49	DR	107	ASP
50	DS	23	ARG
50	DS	35	ILE
50	DS	57	LYS
50	DS	58	LEU
50	DS	59	LYS
50	DS	62	LYS
50	DS	74	ALA
50	DS	87	PHE
50	DS	88	ASP
50	DS	94	TYR
50	DS	97	ARG
50	DS	100	ALA
51	DT	17	THR
51	DT	24	PRO
51	DT	27	THR
51	DT	28	VAL
51	DT	30	VAL
51	DT	33	LYS
51	DT	41	ARG
51	DT	55	ASN
51	DT	58	ASN
51	DT	80	SER
51	DT	83	ILE
51	DT	107	ASP
51	DT	115	ARG
52	DU	25	TRP
52	DU	32	PHE
53	DV	16	PRO
53	DV	18	LEU
53	DV	19	LYS
53	DV	28	GLU

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Mol	Chain	Res	Type
53	DV	29	PRO
53	DV	46	VAL
53	DV	49	THR
53	DV	53	GLU
54	DW	11	ARG
54	DW	49	LYS
55	DX	4	ALA
55	DX	12	VAL
56	DY	7	VAL
56	DY	17	SER
56	DY	44	ILE
56	DY	47	LYS
56	DY	53	PRO
56	DY	56	PRO
56	DY	57	GLN
56	DY	66	PRO
56	DY	67	LEU
56	DY	77	PRO
56	DY	78	ALA
56	DY	90	LEU
56	DY	96	ILE
57	DZ	20	ARG
57	DZ	32	HIS
57	DZ	41	LEU
57	DZ	42	VAL
57	DZ	48	PHE
57	DZ	49	ARG
57	DZ	52	SER
57	DZ	80	ARG
57	DZ	81	ARG
57	DZ	105	VAL
57	DZ	108	PRO
57	DZ	118	GLN
57	DZ	138	GLU
57	DZ	146	ILE
57	DZ	152	ALA
57	DZ	159	PRO
2	AB	18	GLY
2	AB	65	GLY
2	AB	167	PRO
2	AB	194	PRO
3	AC	4	LYS

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Mol	Chain	Res	Type
3	AC	41	GLY
3	AC	45	LYS
3	AC	62	ASP
3	AC	145	GLY
4	AD	4	TYR
4	AD	24	GLU
4	AD	26	CYS
4	AD	88	VAL
5	AE	6	PHE
5	AE	85	GLY
5	AE	137	GLU
5	AE	147	ASP
6	AF	62	TRP
7	AG	6	ARG
7	AG	14	PRO
7	AG	54	THR
7	AG	155	ARG
8	AH	2	LEU
8	AH	20	TYR
8	AH	71	GLY
8	AH	105	ARG
9	AI	11	LYS
9	AI	12	GLU
9	AI	44	VAL
9	AI	95	LYS
9	AI	100	GLY
9	AI	121	ARG
10	AJ	36	GLY
10	AJ	51	ARG
10	AJ	84	GLN
10	AJ	88	LEU
12	AL	6	THR
12	AL	65	GLU
12	AL	77	LEU
12	AL	80	HIS
12	AL	115	LYS
13	AM	64	TRP
13	AM	95	GLY
13	AM	100	GLY
14	AN	22	THR
14	AN	56	VAL
14	AN	59	ALA

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Mol	Chain	Res	Type
14	AN	60	SER
15	AO	88	ARG
16	AP	63	GLY
17	AQ	33	GLY
17	AQ	99	SER
18	AR	45	SER
19	AS	26	GLY
19	AS	62	ILE
19	AS	80	TYR
20	AT	49	ALA
20	AT	62	LEU
21	AU	7	ARG
26	B0	13	GLY
27	B1	28	GLY
27	B1	30	VAL
27	B1	45	ASN
27	B1	85	LEU
28	B2	14	ARG
28	B2	41	ILE
28	B2	48	HIS
29	B3	13	ILE
29	B3	29	ARG
30	B4	54	LYS
31	B5	33	CYS
31	B5	51	TYR
38	BC	55	ASP
38	BC	78	ALA
38	BC	89	ALA
38	BC	128	GLY
38	BC	133	PRO
38	BC	175	VAL
38	BC	183	GLU
38	BC	209	LEU
38	BC	217	THR
39	BD	3	VAL
39	BD	12	SER
39	BD	24	ILE
39	BD	27	THR
39	BD	32	SER
39	BD	33	LEU
39	BD	236	GLY
40	BE	2	LYS

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Mol	Chain	Res	Type
40	BE	29	GLY
40	BE	57	LYS
40	BE	69	LYS
40	BE	76	ARG
40	BE	82	ARG
40	BE	117	MET
40	BE	129	HIS
40	BE	131	ALA
40	BE	162	ALA
40	BE	189	PRO
41	BF	4	VAL
41	BF	21	ALA
41	BF	25	PRO
41	BF	86	GLY
41	BF	131	GLY
42	BG	27	ASN
42	BG	47	LYS
42	BG	82	LEU
42	BG	115	ARG
42	BG	124	SER
43	BH	49	VAL
43	BH	53	GLU
43	BH	138	LYS
43	BH	158	HIS
44	BI	16	GLY
44	BI	81	VAL
44	BI	91	SER
44	BI	95	LYS
44	BI	101	LEU
45	BN	8	GLN
45	BN	44	PRO
45	BN	47	ALA
45	BN	64	GLY
45	BN	66	LYS
46	BO	5	GLN
46	BO	27	GLY
46	BO	48	PRO
47	BP	11	GLY
47	BP	34	GLY
47	BP	35	HIS
47	BP	36	LYS
47	BP	65	ARG

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Mol	Chain	Res	Type
47	BP	83	VAL
47	BP	107	LYS
47	BP	111	ARG
47	BP	122	PRO
47	BP	146	VAL
48	BQ	7	MET
48	BQ	15	GLY
48	BQ	28	ALA
48	BQ	47	ILE
48	BQ	59	ARG
49	BR	78	LYS
49	BR	82	GLU
50	BS	78	LEU
50	BS	79	ALA
50	BS	83	LYS
50	BS	85	VAL
50	BS	90	GLY
50	BS	92	TYR
50	BS	102	ALA
50	BS	103	GLU
50	BS	104	GLY
51	BT	39	ARG
51	BT	81	PRO
51	BT	88	ILE
51	BT	94	ALA
51	BT	117	ASP
51	BT	129	ARG
52	BU	62	ILE
53	BV	31	ALA
53	BV	49	THR
53	BV	79	VAL
54	BW	49	LYS
54	BW	98	LYS
54	BW	111	HIS
55	BX	45	THR
56	BY	3	VAL
56	BY	26	LYS
56	BY	38	ILE
56	BY	39	VAL
56	BY	41	GLY
56	BY	47	LYS
56	BY	51	VAL

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Mol	Chain	Res	Type
56	BY	99	CYS
56	BY	101	LYS
57	BZ	30	ASN
57	BZ	38	TYR
57	BZ	53	ILE
57	BZ	56	VAL
57	BZ	78	LYS
57	BZ	93	ASP
57	BZ	112	ARG
57	BZ	145	GLU
57	BZ	172	ALA
57	BZ	177	PRO
2	CB	18	GLY
2	CB	65	GLY
2	CB	167	PRO
3	CC	4	LYS
3	CC	41	GLY
3	CC	45	LYS
3	CC	62	ASP
3	CC	145	GLY
4	CD	24	GLU
4	CD	26	CYS
4	CD	29	PRO
4	CD	88	VAL
5	CE	6	PHE
5	CE	85	GLY
5	CE	137	GLU
5	CE	147	ASP
6	CF	62	TRP
7	CG	6	ARG
7	CG	14	PRO
7	CG	52	GLU
7	CG	53	LYS
7	CG	54	THR
7	CG	155	ARG
8	CH	2	LEU
8	CH	20	TYR
8	CH	71	GLY
9	CI	11	LYS
9	CI	44	VAL
9	CI	95	LYS
9	CI	100	GLY

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Mol	Chain	Res	Type
9	CI	121	ARG
10	CJ	36	GLY
10	CJ	84	GLN
10	CJ	88	LEU
11	CK	117	ASN
11	CK	122	LYS
12	CL	6	THR
12	CL	65	GLU
12	CL	77	LEU
12	CL	115	LYS
13	CM	64	TRP
13	CM	95	GLY
13	CM	100	GLY
14	CN	22	THR
14	CN	60	SER
15	CO	88	ARG
16	CP	63	GLY
17	CQ	33	GLY
17	CQ	99	SER
19	CS	26	GLY
19	CS	62	ILE
19	CS	80	TYR
20	CT	49	ALA
21	CU	7	ARG
26	D0	13	GLY
27	D1	28	GLY
27	D1	52	ARG
27	D1	83	GLU
27	D1	84	GLY
28	D2	14	ARG
28	D2	42	GLY
28	D2	43	GLN
28	D2	44	LEU
28	D2	70	GLN
29	D3	13	ILE
29	D3	50	VAL
30	D4	52	SER
30	D4	54	LYS
31	D5	33	CYS
31	D5	51	TYR
34	D8	47	LYS
38	DC	55	ASP

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Mol	Chain	Res	Type
38	DC	78	ALA
38	DC	128	GLY
38	DC	133	PRO
38	DC	175	VAL
38	DC	183	GLU
38	DC	209	LEU
38	DC	217	THR
39	DD	3	VAL
39	DD	12	SER
39	DD	24	ILE
39	DD	27	THR
39	DD	32	SER
39	DD	33	LEU
39	DD	236	GLY
39	DD	241	PRO
40	DE	2	LYS
40	DE	29	GLY
40	DE	57	LYS
40	DE	69	LYS
40	DE	76	ARG
40	DE	82	ARG
40	DE	117	MET
40	DE	131	ALA
40	DE	162	ALA
41	DF	4	VAL
41	DF	21	ALA
41	DF	25	PRO
41	DF	86	GLY
41	DF	131	GLY
42	DG	4	ASP
42	DG	22	ARG
42	DG	27	ASN
42	DG	73	ALA
42	DG	79	ASN
42	DG	101	ILE
42	DG	117	PHE
42	DG	138	GLN
42	DG	159	VAL
42	DG	164	GLU
43	DH	24	VAL
43	DH	49	VAL
43	DH	53	GLU

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Mol	Chain	Res	Type
43	DH	97	ARG
43	DH	138	LYS
44	DI	16	GLY
44	DI	81	VAL
44	DI	91	SER
44	DI	95	LYS
44	DI	101	LEU
45	DN	8	GLN
45	DN	44	PRO
45	DN	47	ALA
45	DN	63	THR
45	DN	64	GLY
45	DN	66	LYS
45	DN	68	GLU
46	DO	5	GLN
46	DO	27	GLY
46	DO	48	PRO
47	DP	11	GLY
47	DP	34	GLY
47	DP	35	HIS
47	DP	36	LYS
47	DP	83	VAL
47	DP	107	LYS
47	DP	111	ARG
47	DP	122	PRO
47	DP	146	VAL
48	DQ	6	ARG
48	DQ	7	MET
48	DQ	15	GLY
48	DQ	28	ALA
48	DQ	47	ILE
48	DQ	48	GLU
48	DQ	59	ARG
49	DR	10	LEU
49	DR	78	LYS
49	DR	82	GLU
49	DR	102	GLU
50	DS	78	LEU
50	DS	79	ALA
50	DS	83	LYS
50	DS	85	VAL
50	DS	90	GLY

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Mol	Chain	Res	Type
50	DS	92	TYR
50	DS	102	ALA
50	DS	103	GLU
50	DS	104	GLY
51	DT	39	ARG
51	DT	81	PRO
51	DT	88	ILE
51	DT	94	ALA
51	DT	129	ARG
51	DT	131	ALA
52	DU	62	ILE
53	DV	15	GLU
53	DV	31	ALA
53	DV	79	VAL
54	DW	44	ALA
54	DW	98	LYS
54	DW	111	HIS
55	DX	45	THR
56	DY	3	VAL
56	DY	26	LYS
56	DY	38	ILE
56	DY	39	VAL
56	DY	41	GLY
56	DY	51	VAL
56	DY	55	TYR
56	DY	101	LYS
57	DZ	8	TYR
57	DZ	25	PRO
57	DZ	64	GLY
57	DZ	65	GLN
57	DZ	78	LYS
57	DZ	104	PHE
57	DZ	110	GLY
57	DZ	135	GLU
57	DZ	153	SER
57	DZ	166	SER
2	AB	77	ALA
2	AB	78	GLN
2	AB	130	ARG
3	AC	150	LYS
3	AC	154	SER
3	AC	156	ARG

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Mol	Chain	Res	Type
4	AD	13	ARG
4	AD	29	PRO
4	AD	40	PRO
4	AD	131	ARG
4	AD	171	GLY
4	AD	208	SER
5	AE	8	GLU
5	AE	21	ALA
5	AE	108	ALA
8	AH	41	ARG
10	AJ	23	ILE
10	AJ	59	SER
11	AK	117	ASN
12	AL	23	LYS
12	AL	46	LYS
13	AM	48	LEU
13	AM	75	ALA
14	AN	17	LYS
14	AN	28	GLY
15	AO	73	GLU
16	AP	43	LYS
17	AQ	34	LYS
20	AT	71	THR
20	AT	97	ALA
21	AU	25	LYS
27	B1	52	ARG
27	B1	74	VAL
27	B1	95	LEU
29	B3	50	VAL
29	B3	52	HIS
29	B3	57	GLU
32	B6	45	LYS
33	B7	2	LYS
34	B8	31	HIS
34	B8	33	ASN
34	B8	47	LYS
34	B8	64	TYR
38	BC	79	LYS
38	BC	107	TRP
38	BC	144	THR
38	BC	151	GLU
38	BC	164	ARG

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Mol	Chain	Res	Type
39	BD	10	THR
39	BD	191	ALA
39	BD	241	PRO
39	BD	268	ARG
40	BE	39	PRO
40	BE	66	HIS
40	BE	72	VAL
40	BE	94	GLU
41	BF	14	PRO
41	BF	58	ALA
41	BF	69	HIS
42	BG	9	ARG
42	BG	10	LYS
42	BG	52	ILE
43	BH	13	LYS
43	BH	24	VAL
43	BH	41	MET
43	BH	97	ARG
43	BH	109	PHE
43	BH	154	PRO
43	BH	160	LYS
43	BH	170	ARG
44	BI	43	ASN
44	BI	94	ALA
44	BI	111	PRO
44	BI	115	ALA
45	BN	40	PRO
45	BN	60	ILE
45	BN	63	THR
45	BN	68	GLU
46	BO	29	ASN
47	BP	19	VAL
47	BP	30	THR
47	BP	57	THR
47	BP	67	MET
47	BP	106	LEU
47	BP	141	ALA
48	BQ	6	ARG
48	BQ	48	GLU
48	BQ	54	MET
48	BQ	57	HIS
49	BR	10	LEU

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Mol	Chain	Res	Type
49	BR	102	GLU
50	BS	24	LEU
50	BS	26	LEU
50	BS	54	LEU
50	BS	93	LYS
51	BT	35	LYS
51	BT	85	LYS
51	BT	131	ALA
51	BT	136	GLN
52	BU	54	LYS
52	BU	99	ALA
53	BV	54	GLY
54	BW	14	PRO
54	BW	44	ALA
54	BW	92	ARG
55	BX	11	PRO
56	BY	37	VAL
56	BY	40	GLU
56	BY	48	ALA
56	BY	55	TYR
56	BY	68	HIS
57	BZ	64	GLY
57	BZ	65	GLN
57	BZ	81	ARG
57	BZ	163	LEU
2	CB	77	ALA
2	CB	130	ARG
3	CC	18	TRP
3	CC	150	LYS
3	CC	154	SER
3	CC	156	ARG
3	CC	179	ARG
4	CD	13	ARG
4	CD	131	ARG
4	CD	171	GLY
4	CD	208	SER
5	CE	21	ALA
5	CE	64	ARG
8	CH	41	ARG
8	CH	105	ARG
9	CI	12	GLU
10	CJ	23	ILE

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Mol	Chain	Res	Type
10	CJ	51	ARG
10	CJ	59	SER
12	CL	46	LYS
12	CL	80	HIS
13	CM	48	LEU
13	CM	75	ALA
14	CN	17	LYS
14	CN	28	GLY
14	CN	56	VAL
14	CN	59	ALA
15	CO	33	THR
16	CP	43	LYS
17	CQ	34	LYS
17	CQ	80	GLY
18	CR	37	VAL
20	CT	62	LEU
20	CT	71	THR
20	CT	74	LYS
20	CT	97	ALA
21	CU	25	LYS
29	D3	29	ARG
29	D3	52	HIS
29	D3	57	GLU
32	D6	45	LYS
33	D7	2	LYS
34	D8	31	HIS
34	D8	33	ASN
34	D8	64	TYR
38	DC	79	LYS
38	DC	89	ALA
38	DC	107	TRP
38	DC	144	THR
38	DC	151	GLU
38	DC	162	GLU
38	DC	164	ARG
39	DD	191	ALA
39	DD	268	ARG
39	DD	272	ALA
40	DE	39	PRO
40	DE	66	HIS
40	DE	72	VAL
40	DE	129	HIS

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Mol	Chain	Res	Type
41	DF	14	PRO
41	DF	58	ALA
41	DF	69	HIS
41	DF	138	GLU
42	DG	24	GLY
42	DG	36	LYS
42	DG	49	ASP
42	DG	82	LEU
42	DG	148	MET
42	DG	172	LEU
43	DH	13	LYS
43	DH	14	GLY
43	DH	41	MET
43	DH	154	PRO
43	DH	158	HIS
43	DH	160	LYS
43	DH	170	ARG
44	DI	43	ASN
44	DI	94	ALA
44	DI	111	PRO
44	DI	115	ALA
45	DN	40	PRO
45	DN	60	ILE
46	DO	29	ASN
47	DP	19	VAL
47	DP	30	THR
47	DP	65	ARG
47	DP	67	MET
47	DP	106	LEU
47	DP	141	ALA
48	DQ	54	MET
48	DQ	57	HIS
50	DS	24	LEU
50	DS	26	LEU
50	DS	54	LEU
50	DS	93	LYS
51	DT	35	LYS
51	DT	85	LYS
51	DT	117	ASP
51	DT	136	GLN
52	DU	54	LYS
52	DU	99	ALA

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Mol	Chain	Res	Type
53	DV	54	GLY
54	DW	14	PRO
54	DW	63	ASP
55	DX	11	PRO
56	DY	37	VAL
56	DY	48	ALA
56	DY	68	HIS
56	DY	99	CYS
57	DZ	31	ARG
57	DZ	39	VAL
57	DZ	54	HIS
57	DZ	157	LEU
2	AB	110	GLN
2	AB	157	ARG
2	AB	216	SER
3	AC	18	TRP
3	AC	55	VAL
3	AC	96	GLY
3	AC	101	LEU
3	AC	103	VAL
3	AC	179	ARG
5	AE	64	ARG
5	AE	104	ALA
5	AE	136	MET
5	AE	154	GLY
7	AG	7	ALA
9	AI	109	VAL
11	AK	27	ASN
11	AK	122	LYS
12	AL	79	GLU
12	AL	91	LYS
13	AM	49	THR
13	AM	67	GLU
14	AN	26	ARG
15	AO	79	ARG
17	AQ	80	GLY
17	AQ	96	GLU
18	AR	37	VAL
19	AS	14	HIS
19	AS	73	GLU
20	AT	74	LYS
20	AT	95	ALA

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Mol	Chain	Res	Type
20	AT	99	LEU
26	B0	20	ARG
29	B3	30	ARG
29	B3	32	GLN
29	B3	51	ALA
30	B4	45	GLY
31	B5	35	GLU
32	B6	33	LYS
32	B6	44	ARG
34	B8	7	HIS
34	B8	35	GLN
38	BC	132	GLY
38	BC	162	GLU
38	BC	166	ASP
38	BC	170	ALA
38	BC	184	LYS
38	BC	205	LYS
38	BC	213	TYR
38	BC	215	THR
39	BD	244	ARG
39	BD	272	ALA
40	BE	52	LEU
41	BF	12	LEU
41	BF	19	GLU
41	BF	84	VAL
41	BF	133	ASN
41	BF	138	GLU
42	BG	50	ALA
42	BG	55	LYS
42	BG	149	VAL
42	BG	165	THR
43	BH	14	GLY
43	BH	66	GLY
43	BH	84	SER
43	BH	85	LYS
44	BI	14	ASP
44	BI	98	ALA
44	BI	122	GLU
45	BN	127	ASP
45	BN	129	PRO
47	BP	33	ARG
47	BP	43	GLY

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Mol	Chain	Res	Type
47	BP	49	ARG
47	BP	102	ARG
47	BP	148	LEU
50	BS	14	VAL
51	BT	31	SER
51	BT	40	THR
51	BT	91	ARG
52	BU	74	LEU
52	BU	90	VAL
53	BV	3	ALA
53	BV	23	GLU
53	BV	40	LEU
54	BW	6	ILE
54	BW	63	ASP
56	BY	82	PRO
56	BY	100	ALA
57	BZ	73	GLN
57	BZ	117	LEU
57	BZ	130	PRO
57	BZ	141	VAL
57	BZ	152	ALA
57	BZ	166	SER
2	CB	78	GLN
2	CB	110	GLN
3	CC	55	VAL
3	CC	60	ALA
3	CC	96	GLY
3	CC	101	LEU
3	CC	103	VAL
4	CD	15	GLU
4	CD	40	PRO
4	CD	123	HIS
4	CD	195	ALA
5	CE	8	GLU
5	CE	70	PRO
5	CE	104	ALA
5	CE	108	ALA
5	CE	136	MET
5	CE	154	GLY
7	CG	7	ALA
7	CG	31	MET
9	CI	109	VAL

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Mol	Chain	Res	Type
11	CK	27	ASN
12	CL	23	LYS
12	CL	79	GLU
13	CM	49	THR
13	CM	60	VAL
13	CM	67	GLU
14	CN	26	ARG
15	CO	73	GLU
15	CO	79	ARG
17	CQ	96	GLU
19	CS	14	HIS
19	CS	73	GLU
20	CT	95	ALA
20	CT	99	LEU
26	D0	30	VAL
29	D3	51	ALA
30	D4	45	GLY
30	D4	61	VAL
30	D4	65	CYS
31	D5	35	GLU
32	D6	33	LYS
32	D6	44	ARG
34	D8	35	GLN
38	DC	132	GLY
38	DC	166	ASP
38	DC	170	ALA
38	DC	184	LYS
38	DC	205	LYS
38	DC	213	TYR
38	DC	215	THR
39	DD	10	THR
39	DD	244	ARG
40	DE	52	LEU
40	DE	94	GLU
41	DF	12	LEU
41	DF	19	GLU
41	DF	47	GLY
41	DF	84	VAL
41	DF	133	ASN
42	DG	19	LEU
42	DG	105	LYS
43	DH	66	GLY

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Mol	Chain	Res	Type
43	DH	84	SER
43	DH	85	LYS
43	DH	109	PHE
44	DI	122	GLU
45	DN	127	ASP
45	DN	129	PRO
47	DP	33	ARG
47	DP	49	ARG
47	DP	57	THR
47	DP	102	ARG
47	DP	148	LEU
50	DS	14	VAL
50	DS	89	ARG
51	DT	31	SER
51	DT	40	THR
51	DT	56	GLY
51	DT	91	ARG
52	DU	90	VAL
53	DV	3	ALA
53	DV	23	GLU
53	DV	40	LEU
54	DW	6	ILE
54	DW	92	ARG
55	DX	9	LEU
56	DY	40	GLU
56	DY	82	PRO
2	AB	22	LYS
2	AB	129	GLU
2	AB	158	LEU
3	AC	60	ALA
3	AC	81	GLY
4	AD	5	ILE
4	AD	47	ARG
4	AD	123	HIS
4	AD	195	ALA
5	AE	62	ALA
5	AE	70	PRO
5	AE	128	PRO
6	AF	13	ASN
6	AF	29	ALA
7	AG	31	MET
7	AG	100	ALA

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Mol	Chain	Res	Type
8	AH	91	ARG
9	AI	34	ASN
10	AJ	82	ILE
11	AK	39	PRO
12	AL	62	SER
13	AM	3	ARG
13	AM	60	VAL
15	AO	33	THR
19	AS	5	LEU
19	AS	25	LYS
19	AS	44	MET
19	AS	61	TYR
20	AT	82	SER
26	B0	30	VAL
26	B0	47	PRO
28	B2	18	PRO
29	B3	27	GLY
29	B3	39	ASP
30	B4	61	VAL
30	B4	62	CYS
30	B4	65	CYS
32	B6	20	ASN
32	B6	31	PRO
34	B8	40	GLU
38	BC	52	ARG
38	BC	64	LEU
40	BE	45	THR
40	BE	61	ARG
40	BE	98	PRO
41	BF	20	LEU
41	BF	22	ALA
42	BG	17	PRO
42	BG	25	TYR
42	BG	145	THR
42	BG	168	GLU
43	BH	21	PRO
43	BH	90	LYS
44	BI	106	GLY
44	BI	132	PRO
45	BN	134	ARG
45	BN	135	PRO
47	BP	48	PRO

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Mol	Chain	Res	Type
47	BP	149	GLU
49	BR	106	GLY
50	BS	89	ARG
51	BT	29	ARG
51	BT	32	TYR
51	BT	56	GLY
53	BV	35	LEU
53	BV	50	PRO
54	BW	93	ALA
55	BX	9	LEU
56	BY	18	GLY
56	BY	31	LEU
56	BY	81	LYS
57	BZ	46	LYS
57	BZ	108	PRO
57	BZ	137	ILE
57	BZ	138	GLU
57	BZ	158	PRO
2	CB	129	GLU
2	CB	157	ARG
2	CB	158	LEU
2	CB	216	SER
3	CC	81	GLY
4	CD	5	ILE
4	CD	47	ARG
5	CE	62	ALA
5	CE	128	PRO
6	CF	13	ASN
7	CG	100	ALA
8	CH	91	ARG
9	CI	34	ASN
10	CJ	82	ILE
12	CL	62	SER
13	CM	3	ARG
13	CM	81	LEU
19	CS	5	LEU
19	CS	61	TYR
20	CT	82	SER
26	D0	15	ASP
26	D0	20	ARG
26	D0	47	PRO
27	D1	53	VAL

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Mol	Chain	Res	Type
28	D2	17	SER
29	D3	30	ARG
30	D4	62	CYS
32	D6	20	ASN
32	D6	31	PRO
34	D8	7	HIS
34	D8	40	GLU
38	DC	52	ARG
38	DC	64	LEU
38	DC	197	GLU
40	DE	45	THR
40	DE	61	ARG
40	DE	98	PRO
42	DG	5	VAL
42	DG	88	ILE
42	DG	116	ASP
42	DG	142	PRO
42	DG	144	ILE
43	DH	21	PRO
43	DH	90	LYS
44	DI	14	ASP
44	DI	98	ALA
44	DI	106	GLY
44	DI	132	PRO
45	DN	134	ARG
45	DN	135	PRO
47	DP	43	GLY
47	DP	70	GLN
47	DP	149	GLU
50	DS	77	ALA
50	DS	96	GLY
51	DT	29	ARG
51	DT	32	TYR
52	DU	74	LEU
53	DV	35	LEU
54	DW	15	ARG
56	DY	31	LEU
56	DY	100	ALA
57	DZ	23	LYS
57	DZ	24	LEU
3	AC	14	ILE
4	AD	7	PRO

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Mol	Chain	Res	Type
4	AD	172	PRO
12	AL	127	GLU
13	AM	4	ILE
13	AM	81	LEU
20	AT	48	LYS
31	B5	50	GLY
35	B9	25	VAL
38	BC	26	ALA
38	BC	74	VAL
38	BC	197	GLU
41	BF	47	GLY
42	BG	142	PRO
42	BG	153	ARG
43	BH	39	PRO
43	BH	45	VAL
43	BH	101	ARG
46	BO	26	LYS
47	BP	70	GLN
50	BS	42	ASP
50	BS	96	GLY
52	BU	68	ALA
54	BW	15	ARG
56	BY	29	GLU
57	BZ	105	VAL
57	BZ	110	GLY
2	CB	22	LYS
3	CC	14	ILE
4	CD	7	PRO
4	CD	172	PRO
6	CF	29	ALA
11	CK	39	PRO
12	CL	91	LYS
13	CM	4	ILE
13	CM	116	THR
14	CN	25	VAL
18	CR	23	LYS
19	CS	44	MET
27	D1	30	VAL
29	D3	39	ASP
35	D9	25	VAL
38	DC	26	ALA
38	DC	74	VAL

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Mol	Chain	Res	Type
38	DC	125	SER
40	DE	90	THR
41	DF	20	LEU
41	DF	22	ALA
42	DG	6	ALA
42	DG	51	ARG
42	DG	86	MET
42	DG	168	GLU
43	DH	39	PRO
43	DH	45	VAL
44	DI	123	LEU
46	DO	26	LYS
48	DQ	78	PRO
49	DR	106	GLY
51	DT	92	GLY
52	DU	68	ALA
53	DV	50	PRO
54	DW	59	VAL
54	DW	93	ALA
56	DY	18	GLY
56	DY	81	LYS
57	DZ	12	GLY
2	AB	232	PRO
4	AD	56	VAL
11	AK	34	ASP
12	AL	121	GLY
14	AN	25	VAL
28	B2	17	SER
38	BC	49	ILE
38	BC	65	PRO
39	BD	238	GLY
40	BE	86	PRO
43	BH	17	VAL
46	BO	98	VAL
50	BS	98	VAL
51	BT	92	GLY
52	BU	9	VAL
53	BV	22	VAL
54	BW	59	VAL
57	BZ	161	VAL
2	CB	232	PRO
11	CK	34	ASP

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Mol	Chain	Res	Type
28	D2	41	ILE
29	D3	27	GLY
31	D5	50	GLY
38	DC	49	ILE
40	DE	86	PRO
42	DG	20	ILE
42	DG	154	GLY
43	DH	17	VAL
47	DP	63	PRO
50	DS	98	VAL
53	DV	22	VAL
7	AG	42	ILE
17	AQ	19	VAL
38	BC	19	VAL
44	BI	144	VAL
45	BN	125	GLY
52	BU	8	VAL
57	BZ	114	GLY
4	CD	56	VAL
12	CL	121	GLY
13	CM	7	VAL
20	CT	96	GLY
38	DC	19	VAL
38	DC	65	PRO
38	DC	145	VAL
38	DC	200	LYS
44	DI	144	VAL
46	DO	98	VAL
52	DU	8	VAL
13	AM	7	VAL
20	AT	96	GLY
38	BC	62	VAL
38	BC	145	VAL
38	BC	200	LYS
39	BD	34	VAL
40	BE	130	GLY
43	BH	120	GLY
48	BQ	78	PRO
57	BZ	37	VAL
3	CC	174	PRO
4	CD	178	VAL
7	CG	42	ILE

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Mol	Chain	Res	Type
15	CO	75	PRO
17	CQ	19	VAL
38	DC	62	VAL
39	DD	34	VAL
39	DD	127	VAL
40	DE	130	GLY
43	DH	120	GLY
45	DN	125	GLY
50	DS	91	PRO
52	DU	9	VAL
57	DZ	134	PRO
5	AE	11	ILE
9	AI	90	PRO
15	AO	75	PRO
16	AP	15	PRO
39	BD	36	PRO
39	BD	127	VAL
39	BD	228	PRO
47	BP	63	PRO
50	BS	91	PRO
57	BZ	146	ILE
5	CE	11	ILE
9	CI	90	PRO
16	CP	15	PRO
38	DC	22	ILE
39	DD	228	PRO
39	DD	238	GLY
42	DG	85	GLY
48	DQ	4	PRO
55	DX	39	ILE
56	DY	52	SER
57	DZ	160	GLY
20	AT	98	PRO
50	BS	46	VAL
56	BY	98	VAL
57	BZ	116	VAL
20	CT	98	PRO
40	DE	55	ASN
47	DP	48	PRO
56	DY	98	VAL
57	DZ	53	ILE
45	BN	126	PRO

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Mol	Chain	Res	Type
45	DN	126	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%)	178 (88%)	24 (12%)	5 21
2	CB	202/220 (92%)	179 (89%)	23 (11%)	5 22
3	AC	160/188 (85%)	151 (94%)	9 (6%)	21 52
3	CC	160/188 (85%)	151 (94%)	9 (6%)	21 52
4	AD	180/181 (99%)	161 (89%)	19 (11%)	6 25
4	CD	180/181 (99%)	161 (89%)	19 (11%)	6 25
5	AE	115/123 (94%)	102 (89%)	13 (11%)	6 22
5	CE	115/123 (94%)	103 (90%)	12 (10%)	7 25
6	AF	90/90 (100%)	85 (94%)	5 (6%)	21 52
6	CF	90/90 (100%)	84 (93%)	6 (7%)	16 45
7	AG	126/127 (99%)	116 (92%)	10 (8%)	12 37
7	CG	126/127 (99%)	116 (92%)	10 (8%)	12 37
8	AH	119/119 (100%)	111 (93%)	8 (7%)	16 45
8	CH	119/119 (100%)	110 (92%)	9 (8%)	13 39
9	AI	98/99 (99%)	87 (89%)	11 (11%)	6 23
9	CI	98/99 (99%)	87 (89%)	11 (11%)	6 23
10	AJ	88/92 (96%)	77 (88%)	11 (12%)	4 19
10	CJ	88/92 (96%)	77 (88%)	11 (12%)	4 19
11	AK	90/99 (91%)	81 (90%)	9 (10%)	7 27
11	CK	90/99 (91%)	81 (90%)	9 (10%)	7 27
12	AL	104/111 (94%)	93 (89%)	11 (11%)	6 25
12	CL	104/111 (94%)	93 (89%)	11 (11%)	6 25
13	AM	99/101 (98%)	88 (89%)	11 (11%)	6 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
13	CM	99/101 (98%)	88 (89%)	11 (11%)	6 23
14	AN	49/50 (98%)	41 (84%)	8 (16%)	2 10
14	CN	49/50 (98%)	42 (86%)	7 (14%)	3 15
15	AO	79/80 (99%)	72 (91%)	7 (9%)	9 32
15	CO	79/80 (99%)	72 (91%)	7 (9%)	9 32
16	AP	72/74 (97%)	63 (88%)	9 (12%)	4 19
16	CP	72/74 (97%)	65 (90%)	7 (10%)	8 29
17	AQ	94/97 (97%)	87 (93%)	7 (7%)	13 40
17	CQ	94/97 (97%)	87 (93%)	7 (7%)	13 40
18	AR	61/77 (79%)	57 (93%)	4 (7%)	16 46
18	CR	61/77 (79%)	57 (93%)	4 (7%)	16 46
19	AS	69/80 (86%)	58 (84%)	11 (16%)	2 11
19	CS	69/80 (86%)	58 (84%)	11 (16%)	2 11
20	AT	76/82 (93%)	72 (95%)	4 (5%)	22 53
20	CT	76/82 (93%)	72 (95%)	4 (5%)	22 53
21	AU	19/22 (86%)	18 (95%)	1 (5%)	22 53
21	CU	19/22 (86%)	18 (95%)	1 (5%)	22 53
26	B0	66/67 (98%)	58 (88%)	8 (12%)	5 20
26	D0	66/67 (98%)	57 (86%)	9 (14%)	3 16
27	B1	78/83 (94%)	66 (85%)	12 (15%)	2 12
27	D1	78/83 (94%)	62 (80%)	16 (20%)	1 4
28	B2	66/67 (98%)	55 (83%)	11 (17%)	2 10
28	D2	66/67 (98%)	58 (88%)	8 (12%)	5 20
29	B3	51/52 (98%)	49 (96%)	2 (4%)	32 62
29	D3	51/52 (98%)	49 (96%)	2 (4%)	32 62
30	B4	27/63 (43%)	24 (89%)	3 (11%)	6 23
30	D4	27/63 (43%)	24 (89%)	3 (11%)	6 23
31	B5	51/52 (98%)	45 (88%)	6 (12%)	5 21
31	D5	51/52 (98%)	45 (88%)	6 (12%)	5 21
32	B6	43/52 (83%)	34 (79%)	9 (21%)	1 4
32	D6	43/52 (83%)	34 (79%)	9 (21%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
33	B7	41/42 (98%)	36 (88%)	5 (12%)	5 20
33	D7	41/42 (98%)	35 (85%)	6 (15%)	3 14
34	B8	53/55 (96%)	43 (81%)	10 (19%)	1 6
34	D8	53/55 (96%)	43 (81%)	10 (19%)	1 6
35	B9	33/34 (97%)	30 (91%)	3 (9%)	9 31
35	D9	33/34 (97%)	30 (91%)	3 (9%)	9 31
38	BC	61/181 (34%)	56 (92%)	5 (8%)	11 36
38	DC	61/181 (34%)	55 (90%)	6 (10%)	8 29
39	BD	213/218 (98%)	180 (84%)	33 (16%)	2 12
39	DD	213/218 (98%)	177 (83%)	36 (17%)	2 9
40	BE	165/166 (99%)	140 (85%)	25 (15%)	3 13
40	DE	165/166 (99%)	141 (86%)	24 (14%)	3 14
41	BF	165/166 (99%)	147 (89%)	18 (11%)	6 24
41	DF	165/166 (99%)	149 (90%)	16 (10%)	8 29
42	BG	155/156 (99%)	138 (89%)	17 (11%)	6 24
42	DG	155/156 (99%)	130 (84%)	25 (16%)	2 10
43	BH	132/148 (89%)	119 (90%)	13 (10%)	8 29
43	DH	132/148 (89%)	119 (90%)	13 (10%)	8 29
44	BI	122/124 (98%)	107 (88%)	15 (12%)	4 20
44	DI	122/124 (98%)	108 (88%)	14 (12%)	5 22
45	BN	117/119 (98%)	96 (82%)	21 (18%)	2 8
45	DN	117/119 (98%)	96 (82%)	21 (18%)	2 8
46	BO	100/100 (100%)	94 (94%)	6 (6%)	19 49
46	DO	100/100 (100%)	93 (93%)	7 (7%)	15 43
47	BP	112/116 (97%)	86 (77%)	26 (23%)	1 3
47	DP	112/116 (97%)	85 (76%)	27 (24%)	0 2
48	BQ	111/111 (100%)	96 (86%)	15 (14%)	4 16
48	DQ	111/111 (100%)	96 (86%)	15 (14%)	4 16
49	BR	100/101 (99%)	86 (86%)	14 (14%)	3 16
49	DR	100/101 (99%)	86 (86%)	14 (14%)	3 16
50	BS	77/88 (88%)	67 (87%)	10 (13%)	4 17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
50	DS	77/88 (88%)	68 (88%)	9 (12%)	5 21
51	BT	120/127 (94%)	98 (82%)	22 (18%)	1 7
51	DT	120/127 (94%)	100 (83%)	20 (17%)	2 10
52	BU	92/94 (98%)	85 (92%)	7 (8%)	13 39
52	DU	92/94 (98%)	85 (92%)	7 (8%)	13 39
53	BV	82/82 (100%)	72 (88%)	10 (12%)	5 20
53	DV	82/82 (100%)	71 (87%)	11 (13%)	4 16
54	BW	91/92 (99%)	82 (90%)	9 (10%)	8 28
54	DW	91/92 (99%)	82 (90%)	9 (10%)	8 28
55	BX	74/78 (95%)	67 (90%)	7 (10%)	8 29
55	DX	74/78 (95%)	67 (90%)	7 (10%)	8 29
56	BY	84/91 (92%)	69 (82%)	15 (18%)	2 8
56	DY	84/91 (92%)	70 (83%)	14 (17%)	2 10
57	BZ	155/179 (87%)	138 (89%)	17 (11%)	6 24
57	DZ	155/179 (87%)	136 (88%)	19 (12%)	4 20
All	All	9654/10432 (92%)	8513 (88%)	1141 (12%)	5 21

All (1141) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	20	GLU
2	AB	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	45	GLN
2	AB	69	LEU
2	AB	74	LYS
2	AB	80	ILE
2	AB	92	TYR
2	AB	110	GLN
2	AB	119	GLU
2	AB	137	ARG
2	AB	145	LEU
2	AB	155	LEU

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Mol	Chain	Res	Type
2	AB	163	PHE
2	AB	178	ARG
2	AB	187	LEU
2	AB	189	ASP
2	AB	196	LEU
2	AB	206	ASP
2	AB	212	GLN
3	AC	12	LEU
3	AC	16	ARG
3	AC	29	TYR
3	AC	34	LEU
3	AC	94	LEU
3	AC	104	GLN
3	AC	127	ARG
3	AC	156	ARG
3	AC	192	THR
4	AD	3	ARG
4	AD	7	PRO
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	15	GLU
4	AD	26	CYS
4	AD	49	ARG
4	AD	53	ASP
4	AD	58	LEU
4	AD	110	PHE
4	AD	112	VAL
4	AD	122	ARG
4	AD	131	ARG
4	AD	135	LEU
4	AD	153	ARG
4	AD	162	LEU
4	AD	196	LEU
4	AD	200	GLU
5	AE	10	MET
5	AE	18	ARG
5	AE	28	PHE
5	AE	31	LEU
5	AE	41	VAL
5	AE	45	PHE
5	AE	51	VAL

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Mol	Chain	Res	Type
5	AE	56	GLN
5	AE	79	GLU
5	AE	101	ILE
5	AE	126	ARG
5	AE	128	PRO
5	AE	147	ASP
6	AF	46	ARG
6	AF	63	TYR
6	AF	69	GLU
6	AF	82	ARG
6	AF	98	LEU
7	AG	43	PHE
7	AG	52	GLU
7	AG	58	PRO
7	AG	60	LYS
7	AG	79	ARG
7	AG	88	PRO
7	AG	113	GLU
7	AG	114	ARG
7	AG	124	LEU
7	AG	148	ASN
8	AH	1	MET
8	AH	18	ARG
8	AH	52	ASP
8	AH	65	TYR
8	AH	82	HIS
8	AH	85	ARG
8	AH	104	ARG
8	AH	127	LEU
9	AI	4	TYR
9	AI	10	ARG
9	AI	20	ARG
9	AI	31	GLN
9	AI	38	GLN
9	AI	92	TYR
9	AI	95	LYS
9	AI	101	PHE
9	AI	114	TYR
9	AI	121	ARG
9	AI	125	TYR
10	AJ	13	HIS
10	AJ	22	LYS

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Mol	Chain	Res	Type
10	AJ	40	LEU
10	AJ	45	ARG
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	80	LYS
10	AJ	86	MET
10	AJ	96	ILE
11	AK	32	ILE
11	AK	38	ASN
11	AK	39	PRO
11	AK	51	LYS
11	AK	81	ASP
11	AK	84	VAL
11	AK	103	LEU
11	AK	116	HIS
11	AK	125	PHE
12	AL	6	THR
12	AL	8	ASN
12	AL	24	VAL
12	AL	43	VAL
12	AL	52	LEU
12	AL	62	SER
12	AL	80	HIS
12	AL	84	LEU
12	AL	85	ILE
12	AL	89	ARG
12	AL	106	ASP
13	AM	14	ARG
13	AM	17	VAL
13	AM	47	ASP
13	AM	48	LEU
13	AM	56	LEU
13	AM	64	TRP
13	AM	82	MET
13	AM	92	HIS
13	AM	102	ARG
13	AM	108	ARG
13	AM	115	LYS
14	AN	3	ARG
14	AN	12	ARG

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Mol	Chain	Res	Type
14	AN	14	PRO
14	AN	33	VAL
14	AN	34	TYR
14	AN	37	PHE
14	AN	44	LEU
14	AN	50	LYS
15	AO	3	ILE
15	AO	10	LYS
15	AO	41	GLU
15	AO	54	ARG
15	AO	65	ARG
15	AO	71	GLN
15	AO	82	ILE
16	AP	1	MET
16	AP	26	ARG
16	AP	27	LYS
16	AP	45	THR
16	AP	53	VAL
16	AP	65	GLN
16	AP	67	THR
16	AP	69	THR
16	AP	82	GLN
17	AQ	6	LEU
17	AQ	9	VAL
17	AQ	19	VAL
17	AQ	35	VAL
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	60	ILE
18	AR	31	LEU
18	AR	32	ARG
18	AR	36	ASN
18	AR	87	ARG
19	AS	6	LYS
19	AS	7	LYS
19	AS	13	ASP
19	AS	14	HIS
19	AS	27	GLU
19	AS	29	ARG
19	AS	33	THR
19	AS	37	ARG
19	AS	43	GLU

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Mol	Chain	Res	Type
19	AS	44	MET
19	AS	49	ILE
20	AT	26	ASN
20	AT	73	HIS
20	AT	75	ASN
20	AT	93	GLU
21	AU	12	LYS
26	B0	3	HIS
26	B0	20	ARG
26	B0	25	ARG
26	B0	53	MET
26	B0	55	ARG
26	B0	70	GLN
26	B0	80	HIS
26	B0	84	LEU
27	B1	25	LYS
27	B1	35	THR
27	B1	40	ARG
27	B1	45	ASN
27	B1	46	LEU
27	B1	58	ILE
27	B1	59	THR
27	B1	61	ARG
27	B1	72	GLU
27	B1	80	LEU
27	B1	82	LEU
27	B1	94	LEU
28	B2	2	LYS
28	B2	7	ARG
28	B2	32	LEU
28	B2	43	GLN
28	B2	44	LEU
28	B2	47	ASN
28	B2	48	HIS
28	B2	52	ASP
28	B2	53	LEU
28	B2	64	LEU
28	B2	68	ARG
29	B3	17	LYS
29	B3	37	LEU
30	B4	46	ASN
30	B4	48	ILE

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Mol	Chain	Res	Type
30	B4	56	GLU
31	B5	4	HIS
31	B5	11	THR
31	B5	37	LYS
31	B5	40	LYS
31	B5	48	GLU
31	B5	56	LYS
32	B6	10	LEU
32	B6	11	LEU
32	B6	12	GLU
32	B6	18	ARG
32	B6	19	ARG
32	B6	20	ASN
32	B6	31	PRO
32	B6	36	LEU
32	B6	42	TRP
33	B7	1	MET
33	B7	4	THR
33	B7	8	ASN
33	B7	10	ARG
33	B7	41	ARG
34	B8	8	LYS
34	B8	13	ARG
34	B8	30	ARG
34	B8	32	LEU
34	B8	33	ASN
34	B8	34	TRP
34	B8	41	ILE
34	B8	44	LYS
34	B8	49	VAL
34	B8	61	LEU
35	B9	2	LYS
35	B9	28	GLU
35	B9	33	LYS
38	BC	24	GLU
38	BC	36	LYS
38	BC	56	GLN
38	BC	77	ILE
38	BC	94	VAL
39	BD	18	VAL
39	BD	24	ILE
39	BD	26	LYS

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Mol	Chain	Res	Type
39	BD	33	LEU
39	BD	44	ASN
39	BD	46	GLN
39	BD	49	ILE
39	BD	61	LEU
39	BD	64	ILE
39	BD	65	ILE
39	BD	91	ARG
39	BD	92	ILE
39	BD	94	LEU
39	BD	103	ARG
39	BD	104	TYR
39	BD	111	LEU
39	BD	113	VAL
39	BD	122	ASP
39	BD	131	LEU
39	BD	166	GLN
39	BD	168	ARG
39	BD	192	THR
39	BD	193	VAL
39	BD	198	ASN
39	BD	211	ARG
39	BD	213	ARG
39	BD	218	ARG
39	BD	221	VAL
39	BD	228	PRO
39	BD	229	VAL
39	BD	257	LEU
39	BD	260	ARG
39	BD	271	ILE
40	BE	1	MET
40	BE	9	VAL
40	BE	16	ARG
40	BE	18	ASP
40	BE	33	VAL
40	BE	40	GLU
40	BE	49	LEU
40	BE	52	LEU
40	BE	55	ASN
40	BE	67	PHE
40	BE	76	ARG
40	BE	78	LEU

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Mol	Chain	Res	Type
40	BE	79	ARG
40	BE	86	PRO
40	BE	89	ASP
40	BE	101	ARG
40	BE	118	LYS
40	BE	119	ARG
40	BE	134	ILE
40	BE	144	ARG
40	BE	154	LYS
40	BE	169	ASN
40	BE	179	GLU
40	BE	202	LYS
40	BE	203	LYS
41	BF	2	LYS
41	BF	3	GLU
41	BF	19	GLU
41	BF	57	VAL
41	BF	59	TYR
41	BF	67	GLN
41	BF	78	ILE
41	BF	96	ASP
41	BF	110	LEU
41	BF	112	MET
41	BF	125	LEU
41	BF	140	LEU
41	BF	149	ASP
41	BF	160	ASN
41	BF	164	ARG
41	BF	171	PRO
41	BF	192	LEU
41	BF	202	PHE
42	BG	4	ASP
42	BG	16	ARG
42	BG	21	ARG
42	BG	22	ARG
42	BG	40	ASN
42	BG	48	GLU
42	BG	58	GLN
42	BG	70	VAL
42	BG	87	PRO
42	BG	101	ILE
42	BG	113	ARG

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Mol	Chain	Res	Type
42	BG	117	PHE
42	BG	143	GLU
42	BG	147	ASP
42	BG	148	MET
42	BG	159	VAL
42	BG	162	THR
43	BH	21	PRO
43	BH	25	LYS
43	BH	41	MET
43	BH	46	GLU
43	BH	54	ARG
43	BH	86	GLU
43	BH	103	LEU
43	BH	109	PHE
43	BH	111	HIS
43	BH	139	GLN
43	BH	153	LYS
43	BH	157	TYR
43	BH	170	ARG
44	BI	38	LEU
44	BI	47	LEU
44	BI	51	ILE
44	BI	61	ARG
44	BI	72	LEU
44	BI	75	LEU
44	BI	82	ARG
44	BI	96	ASP
44	BI	113	ARG
44	BI	118	LYS
44	BI	122	GLU
44	BI	129	THR
44	BI	134	PRO
44	BI	136	VAL
44	BI	138	ILE
45	BN	4	TYR
45	BN	12	ARG
45	BN	15	LEU
45	BN	22	THR
45	BN	23	LEU
45	BN	25	ARG
45	BN	38	HIS
45	BN	39	ARG

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Mol	Chain	Res	Type
45	BN	42	TRP
45	BN	48	MET
45	BN	55	VAL
45	BN	56	ASN
45	BN	63	THR
45	BN	68	GLU
45	BN	78	TYR
45	BN	87	LEU
45	BN	108	PRO
45	BN	119	ARG
45	BN	121	LYS
45	BN	134	ARG
45	BN	136	GLU
46	BO	23	ARG
46	BO	24	VAL
46	BO	49	ARG
46	BO	69	ILE
46	BO	73	ASP
46	BO	117	LEU
47	BP	6	LEU
47	BP	9	ASN
47	BP	13	ASN
47	BP	16	ARG
47	BP	18	ARG
47	BP	29	LYS
47	BP	30	THR
47	BP	39	LYS
47	BP	40	SER
47	BP	41	ARG
47	BP	57	THR
47	BP	59	LEU
47	BP	61	ARG
47	BP	64	LYS
47	BP	67	MET
47	BP	68	GLN
47	BP	81	GLN
47	BP	85	LEU
47	BP	91	PHE
47	BP	98	GLU
47	BP	105	LEU
47	BP	108	LYS
47	BP	114	ILE

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Mol	Chain	Res	Type
47	BP	125	VAL
47	BP	128	HIS
47	BP	135	LEU
48	BQ	1	MET
48	BQ	5	ARG
48	BQ	6	ARG
48	BQ	17	LEU
48	BQ	45	GLN
48	BQ	51	ARG
48	BQ	54	MET
48	BQ	55	VAL
48	BQ	56	ARG
48	BQ	79	LEU
48	BQ	81	VAL
48	BQ	110	THR
48	BQ	111	GLU
48	BQ	131	ILE
48	BQ	134	ARG
49	BR	2	ARG
49	BR	5	LYS
49	BR	8	ARG
49	BR	17	ARG
49	BR	18	LEU
49	BR	33	ARG
49	BR	51	LEU
49	BR	56	LYS
49	BR	60	LEU
49	BR	71	GLN
49	BR	79	LEU
49	BR	80	PHE
49	BR	94	TYR
49	BR	104	ARG
50	BS	12	PHE
50	BS	18	ILE
50	BS	29	PHE
50	BS	36	TYR
50	BS	56	LEU
50	BS	89	ARG
50	BS	92	TYR
50	BS	97	ARG
50	BS	101	LEU
50	BS	103	GLU

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Mol	Chain	Res	Type
51	BT	13	ARG
51	BT	15	VAL
51	BT	16	ARG
51	BT	19	LEU
51	BT	24	PRO
51	BT	29	ARG
51	BT	32	TYR
51	BT	41	ARG
51	BT	42	ILE
51	BT	44	ASP
51	BT	53	ARG
51	BT	59	THR
51	BT	64	ARG
51	BT	78	LEU
51	BT	80	SER
51	BT	85	LYS
51	BT	96	ARG
51	BT	99	LEU
51	BT	108	ARG
51	BT	113	LYS
51	BT	121	ILE
51	BT	128	GLU
52	BU	15	LYS
52	BU	44	ASN
52	BU	49	HIS
52	BU	60	LEU
52	BU	79	PHE
52	BU	92	ARG
52	BU	104	GLN
53	BV	18	LEU
53	BV	19	LYS
53	BV	21	ARG
53	BV	39	LEU
53	BV	40	LEU
53	BV	66	ARG
53	BV	68	LYS
53	BV	82	ARG
53	BV	91	TYR
53	BV	99	ILE
54	BW	11	ARG
54	BW	51	LEU
54	BW	60	ASN

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Mol	Chain	Res	Type
54	BW	61	ASN
54	BW	63	ASP
54	BW	70	TYR
54	BW	75	TYR
54	BW	76	VAL
54	BW	107	LEU
55	BX	49	VAL
55	BX	52	VAL
55	BX	57	LEU
55	BX	68	ARG
55	BX	76	ARG
55	BX	80	ILE
55	BX	83	VAL
56	BY	2	ARG
56	BY	6	HIS
56	BY	7	VAL
56	BY	28	LYS
56	BY	32	PRO
56	BY	47	LYS
56	BY	53	PRO
56	BY	56	PRO
56	BY	62	GLU
56	BY	66	PRO
56	BY	67	LEU
56	BY	77	PRO
56	BY	89	PHE
56	BY	96	ILE
56	BY	97	ARG
57	BZ	3	TYR
57	BZ	9	TYR
57	BZ	11	GLU
57	BZ	23	LYS
57	BZ	53	ILE
57	BZ	67	LEU
57	BZ	80	ARG
57	BZ	85	HIS
57	BZ	86	VAL
57	BZ	89	PHE
57	BZ	99	TYR
57	BZ	121	HIS
57	BZ	128	VAL
57	BZ	145	GLU

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Mol	Chain	Res	Type
57	BZ	150	LEU
57	BZ	154	ASP
57	BZ	168	GLU
2	CB	15	VAL
2	CB	17	PHE
2	CB	20	GLU
2	CB	24	TRP
2	CB	36	ARG
2	CB	44	LEU
2	CB	45	GLN
2	CB	69	LEU
2	CB	74	LYS
2	CB	80	ILE
2	CB	92	TYR
2	CB	110	GLN
2	CB	119	GLU
2	CB	137	ARG
2	CB	145	LEU
2	CB	155	LEU
2	CB	163	PHE
2	CB	178	ARG
2	CB	187	LEU
2	CB	189	ASP
2	CB	196	LEU
2	CB	206	ASP
2	CB	212	GLN
3	CC	12	LEU
3	CC	16	ARG
3	CC	29	TYR
3	CC	34	LEU
3	CC	94	LEU
3	CC	104	GLN
3	CC	127	ARG
3	CC	156	ARG
3	CC	192	THR
4	CD	3	ARG
4	CD	7	PRO
4	CD	9	CYS
4	CD	11	LEU
4	CD	12	CYS
4	CD	15	GLU
4	CD	26	CYS

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Mol	Chain	Res	Type
4	CD	49	ARG
4	CD	53	ASP
4	CD	58	LEU
4	CD	110	PHE
4	CD	112	VAL
4	CD	122	ARG
4	CD	131	ARG
4	CD	135	LEU
4	CD	153	ARG
4	CD	162	LEU
4	CD	196	LEU
4	CD	200	GLU
5	CE	10	MET
5	CE	18	ARG
5	CE	28	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	45	PHE
5	CE	51	VAL
5	CE	56	GLN
5	CE	79	GLU
5	CE	101	ILE
5	CE	126	ARG
5	CE	147	ASP
6	CF	46	ARG
6	CF	63	TYR
6	CF	69	GLU
6	CF	70	ASP
6	CF	82	ARG
6	CF	98	LEU
7	CG	43	PHE
7	CG	52	GLU
7	CG	58	PRO
7	CG	60	LYS
7	CG	79	ARG
7	CG	88	PRO
7	CG	113	GLU
7	CG	114	ARG
7	CG	124	LEU
7	CG	148	ASN
8	CH	1	MET
8	CH	18	ARG

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Mol	Chain	Res	Type
8	CH	52	ASP
8	CH	63	LEU
8	CH	65	TYR
8	CH	82	HIS
8	CH	85	ARG
8	CH	104	ARG
8	CH	127	LEU
9	CI	4	TYR
9	CI	10	ARG
9	CI	20	ARG
9	CI	31	GLN
9	CI	38	GLN
9	CI	92	TYR
9	CI	95	LYS
9	CI	101	PHE
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
10	CJ	13	HIS
10	CJ	22	LYS
10	CJ	40	LEU
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	80	LYS
10	CJ	86	MET
10	CJ	96	ILE
11	CK	32	ILE
11	CK	38	ASN
11	CK	39	PRO
11	CK	51	LYS
11	CK	81	ASP
11	CK	84	VAL
11	CK	103	LEU
11	CK	116	HIS
11	CK	125	PHE
12	CL	6	THR
12	CL	8	ASN
12	CL	24	VAL
12	CL	43	VAL

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Mol	Chain	Res	Type
12	CL	52	LEU
12	CL	62	SER
12	CL	80	HIS
12	CL	84	LEU
12	CL	85	ILE
12	CL	89	ARG
12	CL	106	ASP
13	CM	14	ARG
13	CM	17	VAL
13	CM	47	ASP
13	CM	48	LEU
13	CM	56	LEU
13	CM	64	TRP
13	CM	82	MET
13	CM	92	HIS
13	CM	102	ARG
13	CM	108	ARG
13	CM	115	LYS
14	CN	3	ARG
14	CN	12	ARG
14	CN	14	PRO
14	CN	33	VAL
14	CN	37	PHE
14	CN	44	LEU
14	CN	50	LYS
15	CO	3	ILE
15	CO	10	LYS
15	CO	41	GLU
15	CO	54	ARG
15	CO	65	ARG
15	CO	71	GLN
15	CO	82	ILE
16	CP	1	MET
16	CP	27	LYS
16	CP	45	THR
16	CP	53	VAL
16	CP	67	THR
16	CP	69	THR
16	CP	82	GLN
17	CQ	6	LEU
17	CQ	9	VAL
17	CQ	19	VAL

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Mol	Chain	Res	Type
17	CQ	35	VAL
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	60	ILE
18	CR	31	LEU
18	CR	32	ARG
18	CR	36	ASN
18	CR	87	ARG
19	CS	6	LYS
19	CS	7	LYS
19	CS	13	ASP
19	CS	14	HIS
19	CS	27	GLU
19	CS	29	ARG
19	CS	33	THR
19	CS	37	ARG
19	CS	43	GLU
19	CS	44	MET
19	CS	49	ILE
20	CT	26	ASN
20	CT	73	HIS
20	CT	75	ASN
20	CT	93	GLU
21	CU	12	LYS
26	D0	3	HIS
26	D0	20	ARG
26	D0	25	ARG
26	D0	53	MET
26	D0	55	ARG
26	D0	64	ASP
26	D0	70	GLN
26	D0	80	HIS
26	D0	84	LEU
27	D1	35	THR
27	D1	39	LYS
27	D1	40	ARG
27	D1	41	ARG
27	D1	45	ASN
27	D1	46	LEU
27	D1	56	GLN
27	D1	58	ILE
27	D1	59	THR

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Mol	Chain	Res	Type
27	D1	61	ARG
27	D1	67	ILE
27	D1	72	GLU
27	D1	80	LEU
27	D1	82	LEU
27	D1	83	GLU
27	D1	94	LEU
28	D2	2	LYS
28	D2	17	SER
28	D2	30	ARG
28	D2	34	GLU
28	D2	44	LEU
28	D2	52	ASP
28	D2	53	LEU
28	D2	68	ARG
29	D3	17	LYS
29	D3	37	LEU
30	D4	46	ASN
30	D4	48	ILE
30	D4	56	GLU
31	D5	4	HIS
31	D5	11	THR
31	D5	37	LYS
31	D5	40	LYS
31	D5	48	GLU
31	D5	56	LYS
32	D6	10	LEU
32	D6	11	LEU
32	D6	12	GLU
32	D6	18	ARG
32	D6	19	ARG
32	D6	20	ASN
32	D6	31	PRO
32	D6	36	LEU
32	D6	42	TRP
33	D7	1	MET
33	D7	4	THR
33	D7	8	ASN
33	D7	9	ARG
33	D7	10	ARG
33	D7	41	ARG
34	D8	8	LYS

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Mol	Chain	Res	Type
34	D8	13	ARG
34	D8	30	ARG
34	D8	32	LEU
34	D8	33	ASN
34	D8	34	TRP
34	D8	41	ILE
34	D8	44	LYS
34	D8	49	VAL
34	D8	61	LEU
35	D9	2	LYS
35	D9	28	GLU
35	D9	33	LYS
38	DC	24	GLU
38	DC	36	LYS
38	DC	56	GLN
38	DC	64	LEU
38	DC	77	ILE
38	DC	94	VAL
39	DD	10	THR
39	DD	18	VAL
39	DD	24	ILE
39	DD	26	LYS
39	DD	33	LEU
39	DD	44	ASN
39	DD	46	GLN
39	DD	49	ILE
39	DD	61	LEU
39	DD	64	ILE
39	DD	65	ILE
39	DD	89	SER
39	DD	91	ARG
39	DD	92	ILE
39	DD	94	LEU
39	DD	99	ASP
39	DD	103	ARG
39	DD	104	TYR
39	DD	111	LEU
39	DD	113	VAL
39	DD	122	ASP
39	DD	131	LEU
39	DD	166	GLN
39	DD	168	ARG

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Mol	Chain	Res	Type
39	DD	192	THR
39	DD	193	VAL
39	DD	198	ASN
39	DD	211	ARG
39	DD	213	ARG
39	DD	218	ARG
39	DD	221	VAL
39	DD	228	PRO
39	DD	229	VAL
39	DD	257	LEU
39	DD	260	ARG
39	DD	271	ILE
40	DE	1	MET
40	DE	9	VAL
40	DE	16	ARG
40	DE	18	ASP
40	DE	33	VAL
40	DE	40	GLU
40	DE	49	LEU
40	DE	55	ASN
40	DE	67	PHE
40	DE	76	ARG
40	DE	78	LEU
40	DE	79	ARG
40	DE	86	PRO
40	DE	89	ASP
40	DE	101	ARG
40	DE	118	LYS
40	DE	119	ARG
40	DE	134	ILE
40	DE	144	ARG
40	DE	154	LYS
40	DE	169	ASN
40	DE	179	GLU
40	DE	202	LYS
40	DE	203	LYS
41	DF	2	LYS
41	DF	3	GLU
41	DF	19	GLU
41	DF	57	VAL
41	DF	59	TYR
41	DF	67	GLN

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Mol	Chain	Res	Type
41	DF	78	ILE
41	DF	96	ASP
41	DF	110	LEU
41	DF	112	MET
41	DF	140	LEU
41	DF	149	ASP
41	DF	160	ASN
41	DF	164	ARG
41	DF	171	PRO
41	DF	202	PHE
42	DG	7	LEU
42	DG	16	ARG
42	DG	35	GLU
42	DG	43	LEU
42	DG	55	LYS
42	DG	58	GLN
42	DG	62	LEU
42	DG	66	GLN
42	DG	84	LYS
42	DG	98	ARG
42	DG	103	LEU
42	DG	108	ASN
42	DG	111	LEU
42	DG	113	ARG
42	DG	115	ARG
42	DG	118	ARG
42	DG	125	PHE
42	DG	133	LEU
42	DG	138	GLN
42	DG	147	ASP
42	DG	150	ASP
42	DG	155	MET
42	DG	156	ASP
42	DG	159	VAL
42	DG	174	GLU
43	DH	21	PRO
43	DH	25	LYS
43	DH	41	MET
43	DH	46	GLU
43	DH	54	ARG
43	DH	86	GLU
43	DH	103	LEU

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Mol	Chain	Res	Type
43	DH	109	PHE
43	DH	111	HIS
43	DH	139	GLN
43	DH	153	LYS
43	DH	157	TYR
43	DH	170	ARG
44	DI	38	LEU
44	DI	47	LEU
44	DI	51	ILE
44	DI	61	ARG
44	DI	72	LEU
44	DI	75	LEU
44	DI	82	ARG
44	DI	96	ASP
44	DI	113	ARG
44	DI	118	LYS
44	DI	122	GLU
44	DI	129	THR
44	DI	134	PRO
44	DI	138	ILE
45	DN	4	TYR
45	DN	12	ARG
45	DN	15	LEU
45	DN	22	THR
45	DN	23	LEU
45	DN	25	ARG
45	DN	38	HIS
45	DN	39	ARG
45	DN	42	TRP
45	DN	48	MET
45	DN	55	VAL
45	DN	56	ASN
45	DN	63	THR
45	DN	68	GLU
45	DN	78	TYR
45	DN	87	LEU
45	DN	108	PRO
45	DN	119	ARG
45	DN	121	LYS
45	DN	134	ARG
45	DN	136	GLU
46	DO	10	VAL

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Mol	Chain	Res	Type
46	DO	23	ARG
46	DO	24	VAL
46	DO	49	ARG
46	DO	69	ILE
46	DO	73	ASP
46	DO	117	LEU
47	DP	6	LEU
47	DP	7	ARG
47	DP	9	ASN
47	DP	13	ASN
47	DP	16	ARG
47	DP	18	ARG
47	DP	29	LYS
47	DP	30	THR
47	DP	39	LYS
47	DP	40	SER
47	DP	41	ARG
47	DP	57	THR
47	DP	59	LEU
47	DP	61	ARG
47	DP	64	LYS
47	DP	67	MET
47	DP	68	GLN
47	DP	81	GLN
47	DP	85	LEU
47	DP	91	PHE
47	DP	98	GLU
47	DP	105	LEU
47	DP	108	LYS
47	DP	114	ILE
47	DP	125	VAL
47	DP	128	HIS
47	DP	135	LEU
48	DQ	1	MET
48	DQ	5	ARG
48	DQ	6	ARG
48	DQ	17	LEU
48	DQ	45	GLN
48	DQ	51	ARG
48	DQ	54	MET
48	DQ	55	VAL
48	DQ	56	ARG

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Mol	Chain	Res	Type
48	DQ	79	LEU
48	DQ	81	VAL
48	DQ	110	THR
48	DQ	111	GLU
48	DQ	131	ILE
48	DQ	134	ARG
49	DR	2	ARG
49	DR	5	LYS
49	DR	8	ARG
49	DR	17	ARG
49	DR	18	LEU
49	DR	33	ARG
49	DR	51	LEU
49	DR	56	LYS
49	DR	60	LEU
49	DR	71	GLN
49	DR	79	LEU
49	DR	80	PHE
49	DR	94	TYR
49	DR	104	ARG
50	DS	12	PHE
50	DS	18	ILE
50	DS	29	PHE
50	DS	36	TYR
50	DS	89	ARG
50	DS	92	TYR
50	DS	97	ARG
50	DS	101	LEU
50	DS	103	GLU
51	DT	13	ARG
51	DT	15	VAL
51	DT	16	ARG
51	DT	19	LEU
51	DT	24	PRO
51	DT	29	ARG
51	DT	32	TYR
51	DT	41	ARG
51	DT	42	ILE
51	DT	44	ASP
51	DT	53	ARG
51	DT	64	ARG
51	DT	78	LEU

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Mol	Chain	Res	Type
51	DT	80	SER
51	DT	96	ARG
51	DT	99	LEU
51	DT	107	ASP
51	DT	113	LYS
51	DT	121	ILE
51	DT	128	GLU
52	DU	15	LYS
52	DU	44	ASN
52	DU	49	HIS
52	DU	60	LEU
52	DU	79	PHE
52	DU	92	ARG
52	DU	104	GLN
53	DV	18	LEU
53	DV	19	LYS
53	DV	21	ARG
53	DV	39	LEU
53	DV	40	LEU
53	DV	66	ARG
53	DV	68	LYS
53	DV	82	ARG
53	DV	91	TYR
53	DV	92	THR
53	DV	99	ILE
54	DW	11	ARG
54	DW	51	LEU
54	DW	60	ASN
54	DW	61	ASN
54	DW	63	ASP
54	DW	70	TYR
54	DW	75	TYR
54	DW	76	VAL
54	DW	107	LEU
55	DX	49	VAL
55	DX	52	VAL
55	DX	57	LEU
55	DX	68	ARG
55	DX	76	ARG
55	DX	80	ILE
55	DX	83	VAL
56	DY	2	ARG

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Mol	Chain	Res	Type
56	DY	6	HIS
56	DY	7	VAL
56	DY	28	LYS
56	DY	32	PRO
56	DY	47	LYS
56	DY	56	PRO
56	DY	62	GLU
56	DY	66	PRO
56	DY	67	LEU
56	DY	77	PRO
56	DY	89	PHE
56	DY	96	ILE
56	DY	97	ARG
57	DZ	3	TYR
57	DZ	9	TYR
57	DZ	11	GLU
57	DZ	14	LYS
57	DZ	25	PRO
57	DZ	31	ARG
57	DZ	38	TYR
57	DZ	42	VAL
57	DZ	53	ILE
57	DZ	71	VAL
57	DZ	81	ARG
57	DZ	88	PHE
57	DZ	89	PHE
57	DZ	99	TYR
57	DZ	112	ARG
57	DZ	131	ARG
57	DZ	140	ASP
57	DZ	144	LEU
57	DZ	150	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (323) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	78	GLN
2	AB	94	ASN
2	AB	95	GLN
2	AB	110	GLN
2	AB	135	GLN
2	AB	146	GLN

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Mol	Chain	Res	Type
2	AB	204	ASN
3	AC	3	ASN
3	AC	28	GLN
3	AC	31	HIS
3	AC	69	HIS
3	AC	98	ASN
3	AC	118	GLN
3	AC	123	GLN
3	AC	170	GLN
4	AD	45	GLN
4	AD	62	GLN
4	AD	160	GLN
4	AD	161	ASN
5	AE	73	ASN
5	AE	78	HIS
6	AF	7	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	11	GLN
7	AG	13	GLN
7	AG	28	ASN
7	AG	68	ASN
7	AG	106	GLN
7	AG	109	ASN
7	AG	148	ASN
9	AI	23	ASN
9	AI	31	GLN
9	AI	89	ASN
9	AI	124	GLN
10	AJ	76	ASN
10	AJ	78	ASN
10	AJ	84	GLN
11	AK	13	GLN
11	AK	38	ASN
11	AK	93	GLN
11	AK	99	GLN
12	AL	8	ASN
12	AL	9	GLN
12	AL	49	ASN
12	AL	75	HIS

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Mol	Chain	Res	Type
13	AM	40	ASN
13	AM	62	ASN
13	AM	77	ASN
13	AM	101	GLN
14	AN	52	GLN
15	AO	9	GLN
15	AO	13	GLN
15	AO	37	ASN
15	AO	46	HIS
15	AO	62	GLN
15	AO	71	GLN
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
17	AQ	93	GLN
18	AR	36	ASN
19	AS	47	HIS
20	AT	16	HIS
20	AT	18	GLN
20	AT	26	ASN
20	AT	42	GLN
20	AT	73	HIS
26	B0	3	HIS
26	B0	12	ASN
26	B0	29	GLN
27	B1	16	ASN
27	B1	45	ASN
28	B2	38	GLN
28	B2	43	GLN
28	B2	65	ASN
29	B3	19	GLN
30	B4	46	ASN
31	B5	4	HIS
31	B5	43	HIS
32	B6	20	ASN
32	B6	26	ASN
32	B6	32	ASN
33	B7	8	ASN
34	B8	31	HIS
34	B8	33	ASN
35	B9	34	GLN
39	BD	58	HIS

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Mol	Chain	Res	Type
39	BD	115	GLN
39	BD	126	GLN
39	BD	166	GLN
39	BD	186	HIS
39	BD	198	ASN
40	BE	35	GLN
40	BE	48	GLN
40	BE	54	GLN
40	BE	55	ASN
40	BE	66	HIS
40	BE	129	HIS
40	BE	132	HIS
40	BE	143	ASN
40	BE	180	ASN
40	BE	192	ASN
41	BF	69	HIS
41	BF	75	HIS
41	BF	160	ASN
41	BF	169	ASN
42	BG	27	ASN
42	BG	40	ASN
42	BG	41	GLN
42	BG	66	GLN
43	BH	74	ASN
43	BH	143	GLN
43	BH	147	ASN
44	BI	17	GLN
44	BI	54	GLN
44	BI	105	HIS
45	BN	56	ASN
45	BN	69	GLN
45	BN	131	GLN
46	BO	3	GLN
46	BO	5	GLN
46	BO	82	ASN
47	BP	9	ASN
47	BP	13	ASN
47	BP	68	GLN
47	BP	81	GLN
47	BP	84	ASN
48	BQ	12	GLN
48	BQ	13	GLN

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Mol	Chain	Res	Type
48	BQ	141	GLN
49	BR	3	HIS
49	BR	13	HIS
49	BR	16	HIS
49	BR	23	ASN
49	BR	24	GLN
49	BR	31	HIS
49	BR	71	GLN
50	BS	16	ASN
51	BT	43	GLN
51	BT	90	GLN
52	BU	44	ASN
52	BU	49	HIS
52	BU	72	HIS
52	BU	94	ASN
52	BU	104	GLN
52	BU	117	GLN
53	BV	11	GLN
54	BW	40	ASN
54	BW	57	ASN
54	BW	60	ASN
55	BX	41	ASN
55	BX	55	ASN
57	BZ	54	HIS
57	BZ	73	GLN
57	BZ	118	GLN
57	BZ	151	HIS
2	CB	78	GLN
2	CB	94	ASN
2	CB	95	GLN
2	CB	110	GLN
2	CB	135	GLN
2	CB	146	GLN
2	CB	204	ASN
3	CC	3	ASN
3	CC	28	GLN
3	CC	31	HIS
3	CC	69	HIS
3	CC	98	ASN
3	CC	118	GLN
3	CC	123	GLN
3	CC	170	GLN

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Mol	Chain	Res	Type
4	CD	45	GLN
4	CD	62	GLN
4	CD	160	GLN
4	CD	161	ASN
5	CE	73	ASN
5	CE	78	HIS
6	CF	7	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	100	ASN
7	CG	11	GLN
7	CG	13	GLN
7	CG	28	ASN
7	CG	68	ASN
7	CG	84	ASN
7	CG	106	GLN
7	CG	109	ASN
7	CG	148	ASN
9	CI	23	ASN
9	CI	31	GLN
9	CI	124	GLN
10	CJ	76	ASN
10	CJ	78	ASN
11	CK	13	GLN
11	CK	38	ASN
11	CK	93	GLN
11	CK	99	GLN
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN
12	CL	75	HIS
13	CM	40	ASN
13	CM	62	ASN
13	CM	77	ASN
13	CM	101	GLN
14	CN	52	GLN
15	CO	9	GLN
15	CO	13	GLN
15	CO	37	ASN
15	CO	46	HIS
15	CO	62	GLN

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Mol	Chain	Res	Type
15	CO	71	GLN
16	CP	76	GLN
16	CP	82	GLN
17	CQ	16	GLN
17	CQ	93	GLN
18	CR	36	ASN
19	CS	47	HIS
20	CT	16	HIS
20	CT	18	GLN
20	CT	26	ASN
20	CT	42	GLN
20	CT	73	HIS
26	D0	3	HIS
26	D0	12	ASN
26	D0	29	GLN
27	D1	45	ASN
27	D1	47	GLN
27	D1	56	GLN
28	D2	9	GLN
28	D2	43	GLN
28	D2	46	GLN
28	D2	47	ASN
28	D2	65	ASN
28	D2	70	GLN
29	D3	19	GLN
30	D4	46	ASN
31	D5	43	HIS
32	D6	20	ASN
32	D6	26	ASN
32	D6	32	ASN
33	D7	8	ASN
34	D8	31	HIS
34	D8	33	ASN
35	D9	34	GLN
39	DD	58	HIS
39	DD	115	GLN
39	DD	126	GLN
39	DD	166	GLN
39	DD	186	HIS
39	DD	198	ASN
40	DE	35	GLN
40	DE	48	GLN

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Mol	Chain	Res	Type
40	DE	54	GLN
40	DE	55	ASN
40	DE	66	HIS
40	DE	129	HIS
40	DE	132	HIS
40	DE	180	ASN
40	DE	192	ASN
41	DF	69	HIS
41	DF	75	HIS
41	DF	160	ASN
41	DF	169	ASN
42	DG	26	GLN
42	DG	41	GLN
42	DG	66	GLN
42	DG	108	ASN
43	DH	74	ASN
43	DH	143	GLN
43	DH	147	ASN
44	DI	17	GLN
44	DI	54	GLN
44	DI	105	HIS
45	DN	45	ASN
45	DN	56	ASN
45	DN	69	GLN
45	DN	131	GLN
46	DO	3	GLN
46	DO	5	GLN
46	DO	82	ASN
47	DP	9	ASN
47	DP	13	ASN
47	DP	68	GLN
47	DP	81	GLN
47	DP	84	ASN
48	DQ	12	GLN
48	DQ	13	GLN
48	DQ	141	GLN
49	DR	3	HIS
49	DR	13	HIS
49	DR	16	HIS
49	DR	23	ASN
49	DR	24	GLN
49	DR	31	HIS

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Mol	Chain	Res	Type
49	DR	71	GLN
50	DS	16	ASN
51	DT	43	GLN
51	DT	90	GLN
52	DU	44	ASN
52	DU	49	HIS
52	DU	72	HIS
52	DU	94	ASN
52	DU	104	GLN
52	DU	117	GLN
53	DV	11	GLN
54	DW	40	ASN
54	DW	57	ASN
54	DW	60	ASN
54	DW	61	ASN
55	DX	41	ASN
55	DX	55	ASN
57	DZ	65	GLN
57	DZ	73	GLN
57	DZ	75	ASN
57	DZ	118	GLN
57	DZ	121	HIS
57	DZ	132	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	206 (13%)	29 (1%)
1	CA	1503/1522 (98%)	207 (13%)	28 (1%)
22	AV	76/77 (98%)	16 (21%)	0
22	CV	76/77 (98%)	15 (19%)	1 (1%)
23	AW	75/76 (98%)	15 (20%)	0
23	CW	75/76 (98%)	15 (20%)	0
24	AX	9/10 (90%)	0	0
24	CX	9/10 (90%)	0	0
25	AY	74/77 (96%)	25 (33%)	1 (1%)
25	CY	74/77 (96%)	22 (29%)	0
36	BA	2806/2822 (99%)	523 (18%)	54 (1%)
36	DA	2806/2822 (99%)	523 (18%)	54 (1%)
37	BB	118/122 (96%)	16 (13%)	1 (0%)
37	DB	118/122 (96%)	16 (13%)	1 (0%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	9322/9412 (99%)	1599 (17%)	169 (1%)

All (1599) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	60	A
1	AA	61	G
1	AA	79	G
1	AA	80	G
1	AA	81	U
1	AA	89	C
1	AA	90	U
1	AA	91	C
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	150	C
1	AA	173	U
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	204	U
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	274	A
1	AA	289	G

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Mol	Chain	Res	Type
1	AA	301	G
1	AA	321	A
1	AA	328	C
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	390	C
1	AA	397	A
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	429	U
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	461	A
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	559	A

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Mol	Chain	Res	Type
1	AA	561	U
1	AA	562	C
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	632	A
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	723	U
1	AA	731	G
1	AA	749	C
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	828	A
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	859	A
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A

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Mol	Chain	Res	Type
1	AA	976	G
1	AA	977	A
1	AA	978	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	1027	C
1	AA	1030	C
1	AA	1030(A)	G
1	AA	1050	G
1	AA	1054	C
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1113	C
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1145	C
1	AA	1146	A
1	AA	1152	A
1	AA	1159	U
1	AA	1182	G
1	AA	1196	U
1	AA	1197	G
1	AA	1202	G
1	AA	1212	U

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Mol	Chain	Res	Type
1	AA	1213	A
1	AA	1225	A
1	AA	1227	A
1	AA	1238	A
1	AA	1249	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1336	C
1	AA	1347	G
1	AA	1364	U
1	AA	1398	A
1	AA	1419	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1487	G
1	AA	1492	A
1	AA	1497	G
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G

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Mol	Chain	Res	Type
1	AA	1530	G
22	AV	5	G
22	AV	8	U
22	AV	13	C
22	AV	17	C
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	47	U
22	AV	48	C
22	AV	49	G
22	AV	53	G
22	AV	71	C
22	AV	73	A
22	AV	75	C
22	AV	76	A
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	39	U
23	AW	41	C
23	AW	43	C
23	AW	47	U
23	AW	48	C
23	AW	57	G
23	AW	58	A
23	AW	61	C
23	AW	70	G
25	AY	2	C
25	AY	8	U
25	AY	9	A
25	AY	11	C
25	AY	15	G
25	AY	16	U
25	AY	17	C
25	AY	18	G
25	AY	19	G
25	AY	23	A

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Mol	Chain	Res	Type
25	AY	27	G
25	AY	34	G
25	AY	38	A
25	AY	43	C
25	AY	46	G
25	AY	47	U
25	AY	48	C
25	AY	50	U
25	AY	55	U
25	AY	57	G
25	AY	58	A
25	AY	59	U
25	AY	60	U
25	AY	71	G
25	AY	74	C
36	BA	10	G
36	BA	35	G
36	BA	45	C
36	BA	48	G
36	BA	49	A
36	BA	55	G
36	BA	69	C
36	BA	71	A
36	BA	72	U
36	BA	73	A
36	BA	75	G
36	BA	83	G
36	BA	84	A
36	BA	85	G
36	BA	88	G
36	BA	90	U
36	BA	92	A
36	BA	94	C
36	BA	95	G
36	BA	102	G
36	BA	118	A
36	BA	119	A
36	BA	120	U
36	BA	139(A)	G
36	BA	141	A
36	BA	143(A)	C
36	BA	149	A

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Mol	Chain	Res	Type
36	BA	154	G
36	BA	154(A)	C
36	BA	157	U
36	BA	158	U
36	BA	171	G
36	BA	174	C
36	BA	175	G
36	BA	181	A
36	BA	182	A
36	BA	196	A
36	BA	197	A
36	BA	204	A
36	BA	205	G
36	BA	215	G
36	BA	216	A
36	BA	221	A
36	BA	222	A
36	BA	228	A
36	BA	229	A
36	BA	233	A
36	BA	248	G
36	BA	252	G
36	BA	261	G
36	BA	271(J)	C
36	BA	271(K)	U
36	BA	271(L)	U
36	BA	271(N)	U
36	BA	271(O)	C
36	BA	271(P)	C
36	BA	271(R)	G
36	BA	271(T)	C
36	BA	271(Y)	U
36	BA	272	G
36	BA	272(B)	G
36	BA	272(H)	C
36	BA	272(J)	C
36	BA	275	G
36	BA	279	C
36	BA	283	A
36	BA	284	U
36	BA	286	C
36	BA	287	C

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Mol	Chain	Res	Type
36	BA	311	A
36	BA	316	C
36	BA	329	G
36	BA	330	A
36	BA	332	A
36	BA	333	G
36	BA	352	G
36	BA	353	G
36	BA	358	U
36	BA	362	U
36	BA	363(B)	G
36	BA	363(E)	U
36	BA	363(F)	A
36	BA	364	C
36	BA	365	C
36	BA	372	G
36	BA	386	G
36	BA	388	G
36	BA	405	U
36	BA	406	G
36	BA	411	G
36	BA	412	A
36	BA	428	A
36	BA	444	C
36	BA	448	U
36	BA	451	C
36	BA	456	C
36	BA	457	A
36	BA	470	A
36	BA	475	U
36	BA	481	G
36	BA	482	A
36	BA	505	A
36	BA	508	G
36	BA	509	C
36	BA	512	G
36	BA	530	G
36	BA	531	C
36	BA	532	A
36	BA	533	G
36	BA	542	C
36	BA	543	C

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Mol	Chain	Res	Type
36	BA	547	A
36	BA	548	A
36	BA	549	G
36	BA	551	G
36	BA	552	G
36	BA	556	G
36	BA	563	G
36	BA	573	G
36	BA	588	U
36	BA	604	G
36	BA	607	U
36	BA	613	G
36	BA	614(A)	U
36	BA	614(B)	G
36	BA	615	G
36	BA	627	A
36	BA	637	A
36	BA	645	C
36	BA	646	A
36	BA	652	C
36	BA	656	G
36	BA	686	G
36	BA	708	C
36	BA	722	A
36	BA	730	C
36	BA	753	C
36	BA	762	U
36	BA	764	A
36	BA	776	G
36	BA	782	A
36	BA	784	A
36	BA	785	G
36	BA	790	C
36	BA	791	C
36	BA	792	G
36	BA	805	G
36	BA	812	C
36	BA	819	A
36	BA	827	U
36	BA	828	U
36	BA	830	G
36	BA	846	C

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Mol	Chain	Res	Type
36	BA	848	G
36	BA	856	C
36	BA	857	C
36	BA	859	G
36	BA	866	A
36	BA	886	C
36	BA	890	A
36	BA	896	A
36	BA	897	C
36	BA	904	C
36	BA	910	A
36	BA	917	A
36	BA	926	A
36	BA	932	G
36	BA	933	A
36	BA	941	A
36	BA	945	A
36	BA	946	G
36	BA	958	U
36	BA	959	A
36	BA	961	C
36	BA	965	C
36	BA	974	G
36	BA	975	C
36	BA	975(A)	G
36	BA	983	A
36	BA	991	C
36	BA	996	A
36	BA	1000	A
36	BA	1005	C
36	BA	1012	U
36	BA	1013	C
36	BA	1017	G
36	BA	1022	G
36	BA	1023	U
36	BA	1025	G
36	BA	1026	U
36	BA	1039	G
36	BA	1041	C
36	BA	1044	G
36	BA	1045	A
36	BA	1047	G

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Mol	Chain	Res	Type
36	BA	1049	C
36	BA	1053	C
36	BA	1106	A
36	BA	1110	G
36	BA	1111	A
36	BA	1112	G
36	BA	1113	U
36	BA	1115	G
36	BA	1118	C
36	BA	1126	A
36	BA	1130	U
36	BA	1135	C
36	BA	1136	G
36	BA	1143	A
36	BA	1155	A
36	BA	1159	U
36	BA	1173	G
36	BA	1174	A
36	BA	1175	U
36	BA	1176	G
36	BA	1178	C
36	BA	1195	G
36	BA	1205	U
36	BA	1210	A
36	BA	1211	U
36	BA	1221	C
36	BA	1224	C
36	BA	1236	G
36	BA	1247	A
36	BA	1248	G
36	BA	1250	G
36	BA	1253	A
36	BA	1256	G
36	BA	1271	G
36	BA	1272	A
36	BA	1281	G
36	BA	1300	U
36	BA	1301	A
36	BA	1302	A
36	BA	1314	C
36	BA	1319	G
36	BA	1321	A

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Mol	Chain	Res	Type
36	BA	1329	U
36	BA	1330	C
36	BA	1332	G
36	BA	1345	C
36	BA	1349	A
36	BA	1352	U
36	BA	1359	A
36	BA	1365	A
36	BA	1368	G
36	BA	1379	A
36	BA	1380	G
36	BA	1384	A
36	BA	1385	G
36	BA	1407	C
36	BA	1416	G
36	BA	1417	C
36	BA	1419	A
36	BA	1420	U
36	BA	1421	G
36	BA	1427	A
36	BA	1428	C
36	BA	1437	C
36	BA	1445	A
36	BA	1449	A
36	BA	1450	G
36	BA	1455	G
36	BA	1460	A
36	BA	1461	G
36	BA	1467	C
36	BA	1471	A
36	BA	1475	G
36	BA	1478	G
36	BA	1482	G
36	BA	1485	G
36	BA	1488	G
36	BA	1490	A
36	BA	1493	C
36	BA	1494	A
36	BA	1495	A
36	BA	1496	A
36	BA	1497	U
36	BA	1498	C

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Mol	Chain	Res	Type
36	BA	1502	C
36	BA	1505	C
36	BA	1509	C
36	BA	1509(A)	A
36	BA	1520	G
36	BA	1528(A)	A
36	BA	1529	G
36	BA	1530	C
36	BA	1531	C
36	BA	1532	C
36	BA	1533	G
36	BA	1543	C
36	BA	1544	A
36	BA	1554	A
36	BA	1558	A
36	BA	1559	G
36	BA	1569	A
36	BA	1578	U
36	BA	1579	A
36	BA	1584	C
36	BA	1586	A
36	BA	1588	C
36	BA	1591	G
36	BA	1594	G
36	BA	1603	A
36	BA	1608	A
36	BA	1610	A
36	BA	1616	A
36	BA	1617	C
36	BA	1618	A
36	BA	1640	C
36	BA	1648	C
36	BA	1654	A
36	BA	1674	G
36	BA	1686	C
36	BA	1696	G
36	BA	1698	A
36	BA	1700	A
36	BA	1718	G
36	BA	1722	A
36	BA	1739	U
36	BA	1740	G

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Mol	Chain	Res	Type
36	BA	1744	C
36	BA	1746	G
36	BA	1748	G
36	BA	1763	G
36	BA	1764	G
36	BA	1773	A
36	BA	1780	A
36	BA	1791	A
36	BA	1799	G
36	BA	1800	C
36	BA	1816	G
36	BA	1820	U
36	BA	1829	A
36	BA	1835	G
36	BA	1847	A
36	BA	1858	G
36	BA	1865	G
36	BA	1866	C
36	BA	1877	A
36	BA	1878	G
36	BA	1880	C
36	BA	1882	C
36	BA	1885	A
36	BA	1888	G
36	BA	1889	A
36	BA	1900	A
36	BA	1906	G
36	BA	1929	G
36	BA	1930	G
36	BA	1936	A
36	BA	1938	A
36	BA	1955	U
36	BA	1963	U
36	BA	1967	C
36	BA	1969	A
36	BA	1970	A
36	BA	1971	A
36	BA	1972	A
36	BA	1982	C
36	BA	1987	G
36	BA	1988	C
36	BA	1991	U

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Mol	Chain	Res	Type
36	BA	1993	U
36	BA	1997	G
36	BA	2023	G
36	BA	2031	A
36	BA	2032	G
36	BA	2033	A
36	BA	2034	U
36	BA	2036	C
36	BA	2043	C
36	BA	2055	C
36	BA	2056	G
36	BA	2059	A
36	BA	2060	A
36	BA	2061	G
36	BA	2062	A
36	BA	2069	G
36	BA	2095	C
36	BA	2099	U
36	BA	2103	C
36	BA	2104	G
36	BA	2110	G
36	BA	2111	C
36	BA	2116	G
36	BA	2117	A
36	BA	2118	U
36	BA	2119	A
36	BA	2120	G
36	BA	2124	G
36	BA	2126	A
36	BA	2127	G
36	BA	2131	G
36	BA	2133	G
36	BA	2147	G
36	BA	2165	G
36	BA	2168	G
36	BA	2170	A
36	BA	2172	U
36	BA	2173	A
36	BA	2174	C
36	BA	2179	C
36	BA	2187	G
36	BA	2190	G

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Mol	Chain	Res	Type
36	BA	2192	G
36	BA	2193	G
36	BA	2198	A
36	BA	2200	C
36	BA	2207	G
36	BA	2208	A
36	BA	2219	G
36	BA	2225	A
36	BA	2226	C
36	BA	2238	G
36	BA	2239	G
36	BA	2246	G
36	BA	2251	G
36	BA	2263	C
36	BA	2275	C
36	BA	2283	C
36	BA	2287	A
36	BA	2288	A
36	BA	2289	G
36	BA	2290	G
36	BA	2305	A
36	BA	2307	G
36	BA	2308	G
36	BA	2309	A
36	BA	2311	A
36	BA	2313	C
36	BA	2316	C
36	BA	2319	G
36	BA	2320	A
36	BA	2325	G
36	BA	2334	G
36	BA	2336	A
36	BA	2345	G
36	BA	2349	G
36	BA	2383	G
36	BA	2385	C
36	BA	2388	A
36	BA	2392	A
36	BA	2399	G
36	BA	2402	C
36	BA	2423	U
36	BA	2425	A

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Mol	Chain	Res	Type
36	BA	2429	G
36	BA	2430	A
36	BA	2435	A
36	BA	2439	A
36	BA	2441	C
36	BA	2448	A
36	BA	2465	C
36	BA	2470	G
36	BA	2476	A
36	BA	2478	A
36	BA	2482	G
36	BA	2484	G
36	BA	2491	U
36	BA	2494	G
36	BA	2502	G
36	BA	2505	G
36	BA	2506	U
36	BA	2507	C
36	BA	2518	A
36	BA	2520	C
36	BA	2523	G
36	BA	2529	G
36	BA	2534	A
36	BA	2543	G
36	BA	2554	U
36	BA	2566	A
36	BA	2567	G
36	BA	2573	C
36	BA	2582	G
36	BA	2602	A
36	BA	2611	U
36	BA	2612	C
36	BA	2615	U
36	BA	2630	G
36	BA	2646	C
36	BA	2673	G
36	BA	2682	U
36	BA	2690	C
36	BA	2691	C
36	BA	2702	U
36	BA	2712	U
36	BA	2712(A)	A

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Mol	Chain	Res	Type
36	BA	2713	A
36	BA	2714	G
36	BA	2720	U
36	BA	2726	U
36	BA	2733	A
36	BA	2744	G
36	BA	2752	C
36	BA	2754	U
36	BA	2757	A
36	BA	2759	G
36	BA	2762	G
36	BA	2763	G
36	BA	2765	A
36	BA	2766	G
36	BA	2778	A
36	BA	2780	G
36	BA	2791	C
36	BA	2792	G
36	BA	2794	C
36	BA	2799	C
36	BA	2802	G
36	BA	2803	C
36	BA	2804	C
36	BA	2808	U
36	BA	2820	A
36	BA	2821	A
36	BA	2833	G
36	BA	2834	G
36	BA	2835	A
36	BA	2849	U
36	BA	2864	G
36	BA	2872	G
36	BA	2879	C
36	BA	2893	G
37	BB	2	C
37	BB	3	C
37	BB	8	U
37	BB	13	A
37	BB	15	A
37	BB	16	G
37	BB	22	U
37	BB	27	C

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Mol	Chain	Res	Type
37	BB	42	C
37	BB	45	A
37	BB	53	A
37	BB	67	G
37	BB	73	A
37	BB	88	C
37	BB	110	G
37	BB	116	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	60	A
1	CA	61	G
1	CA	79	G
1	CA	80	G
1	CA	81	U
1	CA	89	C
1	CA	90	U
1	CA	91	C
1	CA	97	G
1	CA	98	G
1	CA	101	A
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	150	C
1	CA	173	U
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	204	U
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	266	G

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Mol	Chain	Res	Type
1	CA	267	C
1	CA	274	A
1	CA	289	G
1	CA	301	G
1	CA	321	A
1	CA	328	C
1	CA	332	G
1	CA	345	C
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	390	C
1	CA	397	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	435	C
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	461	A
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A

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Mol	Chain	Res	Type
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	564	C
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	577	G
1	CA	632	A
1	CA	653	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	723	U
1	CA	731	G
1	CA	749	C
1	CA	793	U
1	CA	794	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	902	G
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	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G

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Mol	Chain	Res	Type
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	982	U
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1001(A)	G
1	CA	1005	A
1	CA	1027	C
1	CA	1030	C
1	CA	1030(A)	G
1	CA	1050	G
1	CA	1054	C
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1113	C
1	CA	1117	G
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1145	C
1	CA	1146	A
1	CA	1152	A
1	CA	1159	U
1	CA	1182	G
1	CA	1196	U
1	CA	1197	G

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Mol	Chain	Res	Type
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1225	A
1	CA	1227	A
1	CA	1238	A
1	CA	1249	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1336	C
1	CA	1347	G
1	CA	1364	U
1	CA	1398	A
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1447	A
1	CA	1452	C
1	CA	1487	G
1	CA	1492	A
1	CA	1497	G
1	CA	1499	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U

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Mol	Chain	Res	Type
1	CA	1507	A
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
22	CV	3	C
22	CV	4	G
22	CV	5	G
22	CV	8	U
22	CV	17	C
22	CV	17(A)	U
22	CV	18	G
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	47	U
22	CV	53	G
22	CV	65	C
22	CV	75	C
22	CV	76	A
23	CW	3	C
23	CW	16	U
23	CW	17	C
23	CW	19	G
23	CW	21	A
23	CW	37	A
23	CW	39	U
23	CW	43	C
23	CW	46	G
23	CW	47	U
23	CW	57	G
23	CW	58	A
23	CW	59	U
23	CW	61	C
23	CW	70	G
25	CY	9	A
25	CY	13	C
25	CY	16	U
25	CY	17	C
25	CY	18	G
25	CY	19	G
25	CY	23	A

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Mol	Chain	Res	Type
25	CY	29	G
25	CY	34	G
25	CY	43	C
25	CY	46	G
25	CY	47	U
25	CY	48	C
25	CY	51	U
25	CY	55	U
25	CY	57	G
25	CY	58	A
25	CY	59	U
25	CY	69	G
25	CY	71	G
25	CY	72	C
25	CY	74	C
36	DA	10	G
36	DA	35	G
36	DA	45	C
36	DA	49	A
36	DA	55	G
36	DA	69	C
36	DA	71	A
36	DA	72	U
36	DA	73	A
36	DA	75	G
36	DA	83	G
36	DA	84	A
36	DA	85	G
36	DA	88	G
36	DA	90	U
36	DA	92	A
36	DA	94	C
36	DA	95	G
36	DA	102	G
36	DA	118	A
36	DA	119	A
36	DA	120	U
36	DA	139(A)	G
36	DA	141	A
36	DA	143(A)	C
36	DA	149	A
36	DA	154	G

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Mol	Chain	Res	Type
36	DA	154(A)	C
36	DA	157	U
36	DA	158	U
36	DA	171	G
36	DA	174	C
36	DA	175	G
36	DA	181	A
36	DA	182	A
36	DA	196	A
36	DA	197	A
36	DA	204	A
36	DA	205	G
36	DA	215	G
36	DA	216	A
36	DA	221	A
36	DA	222	A
36	DA	228	A
36	DA	229	A
36	DA	233	A
36	DA	248	G
36	DA	252	G
36	DA	261	G
36	DA	271(J)	C
36	DA	271(K)	U
36	DA	271(L)	U
36	DA	271(N)	U
36	DA	271(O)	C
36	DA	271(P)	C
36	DA	271(R)	G
36	DA	271(T)	C
36	DA	271(Y)	U
36	DA	272	G
36	DA	272(B)	G
36	DA	272(H)	C
36	DA	272(J)	C
36	DA	275	G
36	DA	279	C
36	DA	283	A
36	DA	284	U
36	DA	286	C
36	DA	287	C
36	DA	311	A

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Mol	Chain	Res	Type
36	DA	316	C
36	DA	329	G
36	DA	330	A
36	DA	332	A
36	DA	333	G
36	DA	352	G
36	DA	353	G
36	DA	358	U
36	DA	362	U
36	DA	363(B)	G
36	DA	363(E)	U
36	DA	363(F)	A
36	DA	364	C
36	DA	365	C
36	DA	372	G
36	DA	386	G
36	DA	388	G
36	DA	405	U
36	DA	406	G
36	DA	411	G
36	DA	412	A
36	DA	428	A
36	DA	444	C
36	DA	448	U
36	DA	451	C
36	DA	456	C
36	DA	457	A
36	DA	470	A
36	DA	475	U
36	DA	481	G
36	DA	482	A
36	DA	505	A
36	DA	508	G
36	DA	509	C
36	DA	512	G
36	DA	530	G
36	DA	531	C
36	DA	532	A
36	DA	533	G
36	DA	542	C
36	DA	543	C
36	DA	547	A

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Mol	Chain	Res	Type
36	DA	548	A
36	DA	549	G
36	DA	551	G
36	DA	552	G
36	DA	556	G
36	DA	563	G
36	DA	573	G
36	DA	588	U
36	DA	604	G
36	DA	607	U
36	DA	613	G
36	DA	614(A)	U
36	DA	614(B)	G
36	DA	615	G
36	DA	620	G
36	DA	627	A
36	DA	637	A
36	DA	645	C
36	DA	646	A
36	DA	652	C
36	DA	656	G
36	DA	686	G
36	DA	708	C
36	DA	722	A
36	DA	730	C
36	DA	753	C
36	DA	762	U
36	DA	764	A
36	DA	776	G
36	DA	782	A
36	DA	784	A
36	DA	785	G
36	DA	790	C
36	DA	791	C
36	DA	792	G
36	DA	805	G
36	DA	812	C
36	DA	819	A
36	DA	827	U
36	DA	828	U
36	DA	830	G
36	DA	848	G

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Mol	Chain	Res	Type
36	DA	856	C
36	DA	857	C
36	DA	859	G
36	DA	866	A
36	DA	886	C
36	DA	890	A
36	DA	896	A
36	DA	897	C
36	DA	904	C
36	DA	910	A
36	DA	917	A
36	DA	926	A
36	DA	932	G
36	DA	933	A
36	DA	941	A
36	DA	945	A
36	DA	946	G
36	DA	958	U
36	DA	959	A
36	DA	961	C
36	DA	965	C
36	DA	974	G
36	DA	975	C
36	DA	975(A)	G
36	DA	983	A
36	DA	991	C
36	DA	996	A
36	DA	1000	A
36	DA	1005	C
36	DA	1012	U
36	DA	1013	C
36	DA	1017	G
36	DA	1022	G
36	DA	1023	U
36	DA	1025	G
36	DA	1026	U
36	DA	1033	U
36	DA	1039	G
36	DA	1041	C
36	DA	1044	G
36	DA	1045	A
36	DA	1047	G

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Mol	Chain	Res	Type
36	DA	1049	C
36	DA	1053	C
36	DA	1106	A
36	DA	1110	G
36	DA	1111	A
36	DA	1112	G
36	DA	1113	U
36	DA	1115	G
36	DA	1118	C
36	DA	1126	A
36	DA	1130	U
36	DA	1135	C
36	DA	1136	G
36	DA	1143	A
36	DA	1155	A
36	DA	1159	U
36	DA	1173	G
36	DA	1174	A
36	DA	1175	U
36	DA	1176	G
36	DA	1178	C
36	DA	1195	G
36	DA	1205	U
36	DA	1210	A
36	DA	1211	U
36	DA	1221	C
36	DA	1224	C
36	DA	1236	G
36	DA	1248	G
36	DA	1250	G
36	DA	1253	A
36	DA	1256	G
36	DA	1271	G
36	DA	1272	A
36	DA	1281	G
36	DA	1300	U
36	DA	1301	A
36	DA	1302	A
36	DA	1314	C
36	DA	1319	G
36	DA	1321	A
36	DA	1325	G

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Mol	Chain	Res	Type
36	DA	1329	U
36	DA	1330	C
36	DA	1332	G
36	DA	1345	C
36	DA	1349	A
36	DA	1352	U
36	DA	1359	A
36	DA	1365	A
36	DA	1368	G
36	DA	1379	A
36	DA	1380	G
36	DA	1384	A
36	DA	1385	G
36	DA	1407	C
36	DA	1416	G
36	DA	1417	C
36	DA	1419	A
36	DA	1420	U
36	DA	1421	G
36	DA	1427	A
36	DA	1428	C
36	DA	1437	C
36	DA	1445	A
36	DA	1449	A
36	DA	1450	G
36	DA	1455	G
36	DA	1460	A
36	DA	1461	G
36	DA	1467	C
36	DA	1471	A
36	DA	1475	G
36	DA	1478	G
36	DA	1482	G
36	DA	1485	G
36	DA	1488	G
36	DA	1490	A
36	DA	1493	C
36	DA	1494	A
36	DA	1495	A
36	DA	1496	A
36	DA	1497	U
36	DA	1498	C

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Mol	Chain	Res	Type
36	DA	1502	C
36	DA	1505	C
36	DA	1509	C
36	DA	1509(A)	A
36	DA	1520	G
36	DA	1528(A)	A
36	DA	1529	G
36	DA	1530	C
36	DA	1531	C
36	DA	1532	C
36	DA	1533	G
36	DA	1543	C
36	DA	1544	A
36	DA	1547	C
36	DA	1554	A
36	DA	1558	A
36	DA	1559	G
36	DA	1569	A
36	DA	1578	U
36	DA	1579	A
36	DA	1584	C
36	DA	1586	A
36	DA	1588	C
36	DA	1591	G
36	DA	1594	G
36	DA	1603	A
36	DA	1608	A
36	DA	1616	A
36	DA	1617	C
36	DA	1618	A
36	DA	1640	C
36	DA	1648	C
36	DA	1654	A
36	DA	1674	G
36	DA	1686	C
36	DA	1696	G
36	DA	1698	A
36	DA	1700	A
36	DA	1718	G
36	DA	1722	A
36	DA	1739	U
36	DA	1740	G

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Mol	Chain	Res	Type
36	DA	1744	C
36	DA	1746	G
36	DA	1748	G
36	DA	1763	G
36	DA	1764	G
36	DA	1773	A
36	DA	1780	A
36	DA	1791	A
36	DA	1799	G
36	DA	1800	C
36	DA	1816	G
36	DA	1820	U
36	DA	1829	A
36	DA	1835	G
36	DA	1838	C
36	DA	1847	A
36	DA	1858	G
36	DA	1865	G
36	DA	1866	C
36	DA	1877	A
36	DA	1878	G
36	DA	1880	C
36	DA	1882	C
36	DA	1885	A
36	DA	1888	G
36	DA	1889	A
36	DA	1900	A
36	DA	1906	G
36	DA	1929	G
36	DA	1930	G
36	DA	1936	A
36	DA	1938	A
36	DA	1955	U
36	DA	1963	U
36	DA	1967	C
36	DA	1969	A
36	DA	1970	A
36	DA	1971	A
36	DA	1972	A
36	DA	1982	C
36	DA	1987	G
36	DA	1988	C

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Mol	Chain	Res	Type
36	DA	1991	U
36	DA	1993	U
36	DA	1997	G
36	DA	2023	G
36	DA	2031	A
36	DA	2032	G
36	DA	2033	A
36	DA	2034	U
36	DA	2036	C
36	DA	2043	C
36	DA	2055	C
36	DA	2056	G
36	DA	2059	A
36	DA	2060	A
36	DA	2061	G
36	DA	2062	A
36	DA	2069	G
36	DA	2095	C
36	DA	2099	U
36	DA	2103	C
36	DA	2104	G
36	DA	2110	G
36	DA	2111	C
36	DA	2116	G
36	DA	2117	A
36	DA	2118	U
36	DA	2119	A
36	DA	2120	G
36	DA	2124	G
36	DA	2126	A
36	DA	2127	G
36	DA	2131	G
36	DA	2133	G
36	DA	2147	G
36	DA	2165	G
36	DA	2168	G
36	DA	2170	A
36	DA	2172	U
36	DA	2173	A
36	DA	2174	C
36	DA	2179	C
36	DA	2187	G

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Mol	Chain	Res	Type
36	DA	2190	G
36	DA	2192	G
36	DA	2193	G
36	DA	2198	A
36	DA	2200	C
36	DA	2207	G
36	DA	2208	A
36	DA	2219	G
36	DA	2225	A
36	DA	2226	C
36	DA	2238	G
36	DA	2239	G
36	DA	2246	G
36	DA	2251	G
36	DA	2263	C
36	DA	2275	C
36	DA	2283	C
36	DA	2287	A
36	DA	2288	A
36	DA	2289	G
36	DA	2290	G
36	DA	2305	A
36	DA	2307	G
36	DA	2308	G
36	DA	2309	A
36	DA	2311	A
36	DA	2313	C
36	DA	2316	C
36	DA	2319	G
36	DA	2320	A
36	DA	2325	G
36	DA	2336	A
36	DA	2345	G
36	DA	2349	G
36	DA	2383	G
36	DA	2385	C
36	DA	2388	A
36	DA	2392	A
36	DA	2399	G
36	DA	2402	C
36	DA	2423	U
36	DA	2425	A

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Mol	Chain	Res	Type
36	DA	2429	G
36	DA	2430	A
36	DA	2435	A
36	DA	2439	A
36	DA	2441	C
36	DA	2448	A
36	DA	2465	C
36	DA	2470	G
36	DA	2476	A
36	DA	2478	A
36	DA	2482	G
36	DA	2484	G
36	DA	2491	U
36	DA	2494	G
36	DA	2502	G
36	DA	2505	G
36	DA	2506	U
36	DA	2507	C
36	DA	2518	A
36	DA	2520	C
36	DA	2523	G
36	DA	2529	G
36	DA	2534	A
36	DA	2543	G
36	DA	2554	U
36	DA	2566	A
36	DA	2567	G
36	DA	2573	C
36	DA	2582	G
36	DA	2602	A
36	DA	2611	U
36	DA	2612	C
36	DA	2615	U
36	DA	2630	G
36	DA	2646	C
36	DA	2673	G
36	DA	2682	U
36	DA	2690	C
36	DA	2691	C
36	DA	2702	U
36	DA	2712	U
36	DA	2712(A)	A

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Mol	Chain	Res	Type
36	DA	2713	A
36	DA	2714	G
36	DA	2720	U
36	DA	2726	U
36	DA	2733	A
36	DA	2744	G
36	DA	2752	C
36	DA	2754	U
36	DA	2757	A
36	DA	2759	G
36	DA	2762	G
36	DA	2763	G
36	DA	2765	A
36	DA	2766	G
36	DA	2778	A
36	DA	2780	G
36	DA	2791	C
36	DA	2792	G
36	DA	2794	C
36	DA	2799	C
36	DA	2802	G
36	DA	2803	C
36	DA	2804	C
36	DA	2808	U
36	DA	2820	A
36	DA	2821	A
36	DA	2833	G
36	DA	2834	G
36	DA	2835	A
36	DA	2849	U
36	DA	2864	G
36	DA	2872	G
36	DA	2879	C
36	DA	2893	G
37	DB	2	C
37	DB	3	C
37	DB	8	U
37	DB	13	A
37	DB	15	A
37	DB	16	G
37	DB	22	U
37	DB	27	C

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Mol	Chain	Res	Type
37	DB	42	C
37	DB	45	A
37	DB	53	A
37	DB	67	G
37	DB	73	A
37	DB	88	C
37	DB	110	G
37	DB	116	G

All (169) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	79	G
1	AA	115	G
1	AA	119	A
1	AA	243	A
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	353	A
1	AA	366	C
1	AA	428	G
1	AA	484	G
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	687	A
1	AA	748	C
1	AA	913	A
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1201	A
1	AA	1285	A
1	AA	1300	G
1	AA	1504	G
1	AA	1529	G
25	AY	54	U

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Mol	Chain	Res	Type
36	BA	71	A
36	BA	74	A
36	BA	197	A
36	BA	214	G
36	BA	221	A
36	BA	272	G
36	BA	283	A
36	BA	331	A
36	BA	332	A
36	BA	387	U
36	BA	474	G
36	BA	481	G
36	BA	542	C
36	BA	587	C
36	BA	603	A
36	BA	614(C)	A
36	BA	752	A
36	BA	790	C
36	BA	856	C
36	BA	945	A
36	BA	1022	G
36	BA	1210	A
36	BA	1286	A
36	BA	1300	U
36	BA	1301	A
36	BA	1378	A
36	BA	1395	A
36	BA	1427	A
36	BA	1558	A
36	BA	1608	A
36	BA	1653	G
36	BA	1686	C
36	BA	1799	G
36	BA	1819	A
36	BA	1987	G
36	BA	1992	G
36	BA	2033	A
36	BA	2111	C
36	BA	2116	G
36	BA	2126	A
36	BA	2171	A
36	BA	2172	U

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Mol	Chain	Res	Type
36	BA	2225	A
36	BA	2263	C
36	BA	2282	G
36	BA	2422	A
36	BA	2481	G
36	BA	2506	U
36	BA	2610	C
36	BA	2689	U
36	BA	2726	U
36	BA	2756	U
36	BA	2763	G
36	BA	2864	G
37	BB	66	A
1	CA	30	U
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A
1	CA	243	A
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	353	A
1	CA	366	C
1	CA	428	G
1	CA	484	G
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	687	A
1	CA	748	C
1	CA	913	A
1	CA	992	U
1	CA	1049	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1285	A
1	CA	1300	G
1	CA	1504	G
22	CV	75	C

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Mol	Chain	Res	Type
36	DA	71	A
36	DA	74	A
36	DA	197	A
36	DA	221	A
36	DA	272	G
36	DA	283	A
36	DA	331	A
36	DA	332	A
36	DA	387	U
36	DA	474	G
36	DA	481	G
36	DA	542	C
36	DA	587	C
36	DA	603	A
36	DA	613	G
36	DA	614(C)	A
36	DA	752	A
36	DA	790	C
36	DA	856	C
36	DA	945	A
36	DA	1022	G
36	DA	1210	A
36	DA	1286	A
36	DA	1300	U
36	DA	1301	A
36	DA	1378	A
36	DA	1395	A
36	DA	1427	A
36	DA	1558	A
36	DA	1608	A
36	DA	1653	G
36	DA	1686	C
36	DA	1799	G
36	DA	1819	A
36	DA	1987	G
36	DA	1992	G
36	DA	2033	A
36	DA	2111	C
36	DA	2116	G
36	DA	2126	A
36	DA	2171	A
36	DA	2172	U

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Mol	Chain	Res	Type
36	DA	2225	A
36	DA	2263	C
36	DA	2282	G
36	DA	2422	A
36	DA	2481	G
36	DA	2506	U
36	DA	2610	C
36	DA	2689	U
36	DA	2726	U
36	DA	2756	U
36	DA	2763	G
36	DA	2864	G
37	DB	66	A

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

6 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
25	PHA	AY	77	25	10,11,11	0.59	0	10,13,13	0.90	1 (10%)
22	5MU	AV	54	22	19,22,23	0.28	0	28,32,35	0.38	0
25	8AN	AY	76	25,36	19,24,25	1.22	2 (10%)	13,35,38	0.77	0
25	8AN	CY	76	25,36	19,24,25	1.23	1 (5%)	13,35,38	0.90	1 (7%)
22	5MU	CV	54	22	19,22,23	0.25	0	28,32,35	0.33	0
25	PHA	CY	77	25	10,11,11	0.53	0	10,13,13	0.71	1 (10%)

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
25	PHA	AY	77	25	-	1/5/6/6	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	AV	54	22	-	0/7/25/26	0/2/2/2
25	8AN	AY	76	25,36	-	0/3/25/26	0/3/3/3
25	8AN	CY	76	25,36	-	0/3/25/26	0/3/3/3
22	5MU	CV	54	22	-	0/7/25/26	0/2/2/2
25	PHA	CY	77	25	-	1/5/6/6	0/1/1/1

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	CY	76	8AN	C3'-N3'	-4.42	1.40	1.47
25	AY	76	8AN	C3'-N3'	-4.37	1.40	1.47
25	AY	76	8AN	C8-N7	-2.02	1.31	1.34

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	AY	77	PHA	CB-CA-C	-2.64	106.52	111.47
25	CY	76	8AN	C5-C6-N6	2.25	123.77	120.35
25	CY	77	PHA	CB-CA-C	-2.06	107.60	111.47

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
25	AY	77	PHA	O-C-CA-CB
25	CY	77	PHA	C-CA-CB-CG

There are no ring outliers.

5 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
25	AY	77	PHA	1	0
22	AV	54	5MU	1	0
25	CY	76	8AN	2	0
22	CV	54	5MU	1	0
25	CY	77	PHA	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1490 ligands modelled in this entry, 1488 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	$\#\|Z\| > 2$
59	PAR	CA	1817	-	45,45,45	1.86	11 (24%)	64,67,67	1.38	7 (10%)
59	PAR	AA	1814	-	45,45,45	1.56	9 (20%)	64,67,67	1.26	6 (9%)

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
59	PAR	CA	1817	-	-	3/18/94/94	0/4/4/4
59	PAR	AA	1814	-	-	5/18/94/94	0/4/4/4

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	CA	1817	PAR	C34-C24	6.08	1.61	1.53
59	CA	1817	PAR	C64-C54	5.62	1.59	1.52
59	AA	1814	PAR	C64-C54	4.48	1.58	1.52
59	CA	1817	PAR	C52-C42	3.64	1.59	1.52
59	AA	1814	PAR	C34-C24	3.32	1.57	1.53
59	AA	1814	PAR	C52-C42	3.12	1.58	1.52
59	CA	1817	PAR	O54-C14	2.96	1.49	1.41
59	AA	1814	PAR	O54-C14	2.96	1.49	1.41
59	CA	1817	PAR	C11-C21	2.86	1.58	1.52
59	AA	1814	PAR	C11-C21	2.69	1.57	1.52
59	AA	1814	PAR	O51-C11	2.52	1.48	1.41
59	CA	1817	PAR	O54-C54	2.41	1.50	1.44
59	CA	1817	PAR	C62-C52	2.29	1.58	1.52
59	CA	1817	PAR	C44-C34	2.24	1.58	1.52
59	AA	1814	PAR	C14-C24	2.21	1.56	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	CA	1817	PAR	C42-C32	2.11	1.57	1.53
59	AA	1814	PAR	O54-C54	2.11	1.49	1.44
59	CA	1817	PAR	O51-C11	2.08	1.47	1.41
59	CA	1817	PAR	O11-C42	2.03	1.49	1.43
59	AA	1814	PAR	C31-C21	2.01	1.56	1.53

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	CA	1817	PAR	C14-O54-C54	4.49	122.51	113.69
59	CA	1817	PAR	O54-C54-C64	4.19	113.81	106.01
59	AA	1814	PAR	O54-C54-C64	3.89	113.26	106.01
59	CA	1817	PAR	O52-C13-C23	3.84	115.93	107.96
59	AA	1814	PAR	C14-O54-C54	3.67	120.89	113.69
59	CA	1817	PAR	O11-C11-C21	3.50	114.25	108.22
59	CA	1817	PAR	O33-C14-C24	3.44	114.13	108.22
59	AA	1814	PAR	O33-C14-C24	3.42	114.11	108.22
59	AA	1814	PAR	O52-C13-C23	3.16	114.52	107.96
59	AA	1814	PAR	O11-C11-C21	3.14	113.63	108.22
59	AA	1814	PAR	C11-O51-C51	2.48	118.56	113.69
59	CA	1817	PAR	C11-O51-C51	2.45	118.50	113.69
59	CA	1817	PAR	O52-C13-O43	-2.20	109.05	111.43

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
59	AA	1814	PAR	C23-C13-O52-C52
59	AA	1814	PAR	O43-C43-C53-O53
59	AA	1814	PAR	C33-C43-C53-O53
59	AA	1814	PAR	O43-C13-O52-C52
59	CA	1817	PAR	C44-C54-C64-N64
59	CA	1817	PAR	O54-C14-O33-C33
59	CA	1817	PAR	C52-C42-O11-C11
59	AA	1814	PAR	C43-C33-O33-C14

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	CA	1817	PAR	3	0

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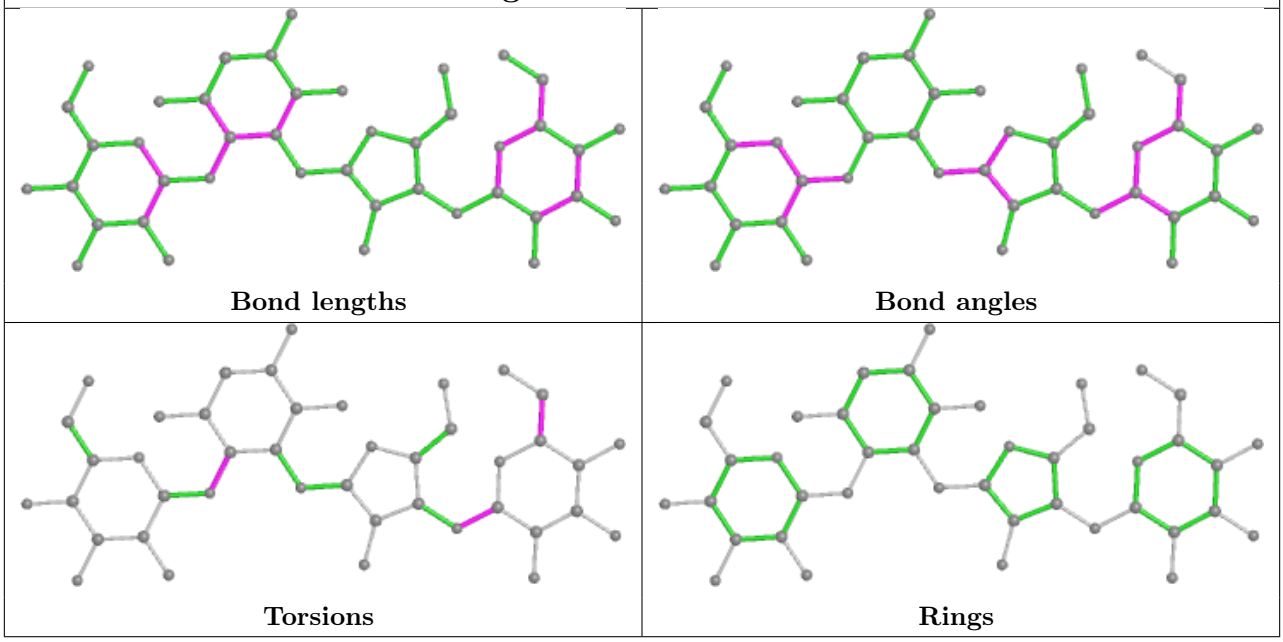
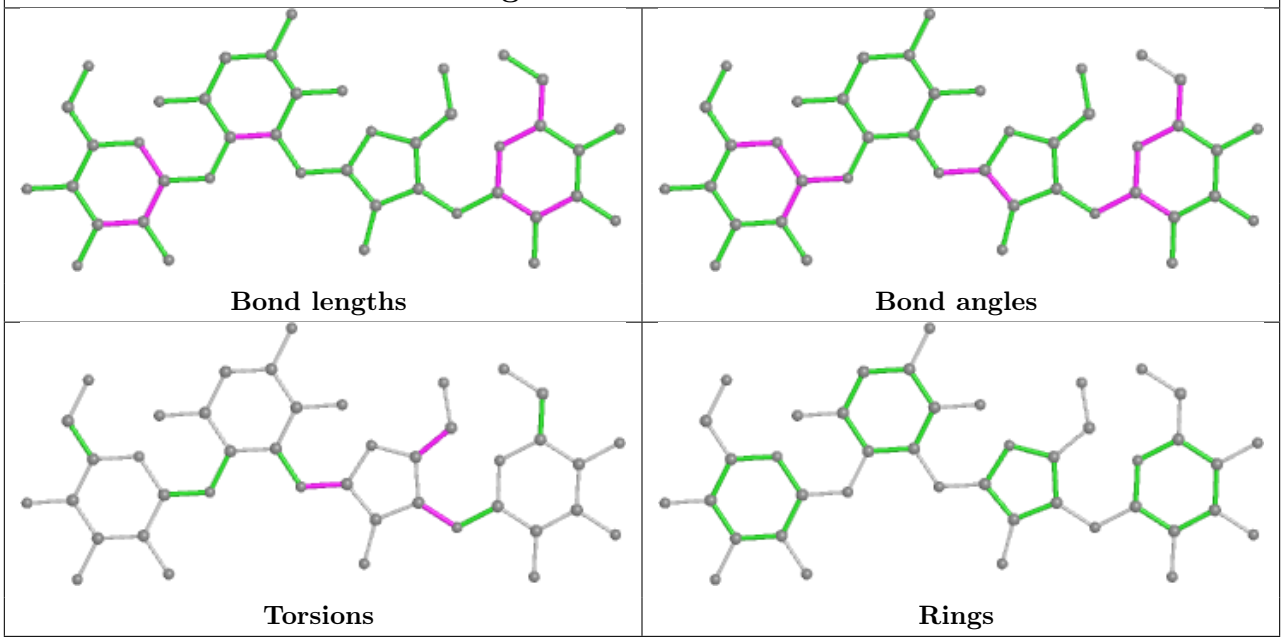
Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	AA	1814	PAR	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand PAR CA 1817



Ligand PAR AA 1814



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
13	AM	5
13	CM	5
9	CI	2
9	AI	2
42	DG	1
32	D6	1
32	B6	1
42	BG	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	DG	112:PRO	C	113:ARG	N	6.74
1	D6	46:HIS	C	47:THR	N	5.22
1	B6	46:HIS	C	47:THR	N	5.21
1	AM	112:GLY	C	113:PRO	N	4.65
1	CM	112:GLY	C	113:PRO	N	4.62

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AM	97:PRO	C	98:VAL	N	4.40
1	CM	97:PRO	C	98:VAL	N	4.37
1	BG	112:PRO	C	113:ARG	N	3.74
1	CM	69:GLU	C	70:LEU	N	3.52
1	AM	69:GLU	C	70:LEU	N	3.51
1	AM	118:ALA	C	119:GLY	N	3.01
1	CM	118:ALA	C	119:GLY	N	3.01
1	CI	53:VAL	C	54:ASP	N	2.73
1	AI	53:VAL	C	54:ASP	N	2.71
1	CM	65:LYS	C	66:LEU	N	2.65
1	CI	104:ARG	C	105:ASP	N	2.64
1	AM	65:LYS	C	66:LEU	N	2.61
1	AI	104:ARG	C	105:ASP	N	2.60

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%)	-0.21	22 (1%) 73 72	56, 99, 180, 200	0
1	CA	1504/1522 (98%)	-0.06	21 (1%) 75 75	55, 119, 194, 200	0
2	AB	235/256 (91%)	0.18	15 (6%) 19 19	65, 132, 188, 200	0
2	CB	235/256 (91%)	0.69	26 (11%) 5 5	83, 158, 197, 200	0
3	AC	207/239 (86%)	-0.09	2 (0%) 82 82	72, 120, 172, 200	0
3	CC	207/239 (86%)	0.37	14 (6%) 17 17	83, 147, 188, 200	0
4	AD	208/209 (99%)	-0.16	1 (0%) 91 91	59, 97, 139, 199	0
4	CD	208/209 (99%)	0.06	3 (1%) 75 75	70, 115, 158, 194	0
5	AE	151/162 (93%)	-0.20	1 (0%) 87 88	51, 99, 134, 164	0
5	CE	151/162 (93%)	0.23	4 (2%) 56 53	67, 116, 165, 199	0
6	AF	101/101 (100%)	-0.21	1 (0%) 82 82	69, 108, 147, 198	0
6	CF	101/101 (100%)	-0.05	2 (1%) 65 64	67, 107, 154, 167	0
7	AG	155/156 (99%)	0.34	12 (7%) 13 12	73, 120, 164, 188	0
7	CG	155/156 (99%)	0.69	21 (13%) 3 3	90, 155, 196, 200	0
8	AH	138/138 (100%)	-0.01	2 (1%) 75 75	65, 102, 141, 173	0
8	CH	138/138 (100%)	0.22	6 (4%) 35 34	74, 121, 168, 200	0
9	AI	127/128 (99%)	0.42	8 (6%) 20 20	86, 139, 185, 198	0
9	CI	127/128 (99%)	1.63	40 (31%) 0 0	83, 170, 200, 200	0
10	AJ	99/105 (94%)	0.75	16 (16%) 1 2	81, 139, 195, 200	0
10	CJ	99/105 (94%)	1.98	40 (40%) 0 0	92, 170, 195, 200	0
11	AK	119/129 (92%)	0.12	4 (3%) 45 43	65, 100, 162, 200	0
11	CK	119/129 (92%)	0.42	8 (6%) 17 17	68, 118, 177, 200	0
12	AL	125/135 (92%)	0.15	6 (4%) 30 28	56, 93, 136, 200	0
12	CL	125/135 (92%)	0.16	5 (4%) 38 36	60, 90, 157, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	125/126 (99%)	0.63	17 (13%) 3 2	86, 123, 177, 200	0
13	CM	125/126 (99%)	1.10	31 (24%) 0 0	100, 161, 200, 200	0
14	AN	60/61 (98%)	0.39	3 (5%) 28 27	72, 117, 161, 173	0
14	CN	60/61 (98%)	0.71	6 (10%) 7 7	84, 144, 185, 200	0
15	AO	88/89 (98%)	0.03	0 100 100	52, 92, 144, 159	0
15	CO	88/89 (98%)	0.10	0 100 100	63, 107, 147, 155	0
16	AP	84/88 (95%)	0.11	1 (1%) 79 78	67, 87, 142, 154	0
16	CP	84/88 (95%)	0.44	6 (7%) 16 16	76, 113, 167, 192	0
17	AQ	100/105 (95%)	-0.03	1 (1%) 82 82	63, 95, 133, 147	0
17	CQ	100/105 (95%)	0.13	1 (1%) 82 82	73, 118, 154, 200	0
18	AR	70/88 (79%)	-0.04	1 (1%) 75 75	71, 104, 153, 170	0
18	CR	70/88 (79%)	0.13	1 (1%) 75 75	71, 110, 158, 170	0
19	AS	79/93 (84%)	0.82	12 (15%) 2 2	85, 136, 188, 200	0
19	CS	79/93 (84%)	1.05	15 (18%) 1 1	107, 160, 198, 200	0
20	AT	99/106 (93%)	0.36	6 (6%) 21 20	63, 105, 167, 199	0
20	CT	99/106 (93%)	0.77	12 (12%) 4 3	80, 128, 184, 200	0
21	AU	25/27 (92%)	1.72	9 (36%) 0 0	85, 125, 162, 187	0
21	CU	25/27 (92%)	3.98	19 (76%) 0 0	87, 142, 197, 200	0
22	AV	76/77 (98%)	-0.47	0 100 100	68, 102, 144, 189	0
22	CV	76/77 (98%)	-0.35	0 100 100	63, 116, 168, 182	0
23	AW	76/76 (100%)	1.34	15 (19%) 1 1	107, 196, 200, 200	0
23	CW	76/76 (100%)	2.53	42 (55%) 0 0	128, 199, 200, 200	0
24	AX	10/10 (100%)	0.15	1 (10%) 7 7	62, 94, 148, 162	0
24	CX	10/10 (100%)	0.65	1 (10%) 7 7	92, 111, 183, 192	0
25	AY	75/77 (97%)	1.15	16 (21%) 0 1	57, 187, 200, 200	0
25	CY	75/77 (97%)	1.20	11 (14%) 2 2	64, 189, 200, 200	0
26	B0	84/85 (98%)	0.50	4 (4%) 30 28	63, 94, 144, 189	0
26	D0	84/85 (98%)	0.67	7 (8%) 11 11	76, 127, 170, 191	0
27	B1	94/98 (95%)	0.11	4 (4%) 35 34	47, 77, 135, 155	0
27	D1	94/98 (95%)	0.06	0 100 100	49, 80, 138, 157	0
28	B2	71/72 (98%)	-0.09	2 (2%) 53 51	68, 99, 133, 184	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	D2	71/72 (98%)	0.30	4 (5%) 24 23	61, 105, 152, 190	0
29	B3	60/60 (100%)	0.42	4 (6%) 17 17	72, 108, 152, 188	0
29	D3	60/60 (100%)	0.89	5 (8%) 11 11	75, 134, 178, 200	0
30	B4	31/71 (43%)	-0.14	0 100 100	87, 126, 171, 176	0
30	D4	31/71 (43%)	0.95	5 (16%) 1 2	118, 175, 194, 200	0
31	B5	59/60 (98%)	0.35	6 (10%) 6 6	52, 100, 190, 200	0
31	D5	59/60 (98%)	0.09	3 (5%) 28 26	43, 99, 189, 200	0
32	B6	45/54 (83%)	4.65	37 (82%) 0 0	109, 171, 197, 200	0
32	D6	45/54 (83%)	5.02	40 (88%) 0 0	146, 183, 200, 200	0
33	B7	49/49 (100%)	0.13	1 (2%) 65 64	49, 65, 124, 185	0
33	D7	49/49 (100%)	0.29	5 (10%) 6 6	37, 62, 124, 198	0
34	B8	64/65 (98%)	0.28	1 (1%) 72 70	51, 87, 151, 173	0
34	D8	64/65 (98%)	0.83	8 (12%) 3 3	75, 110, 159, 200	0
35	B9	36/37 (97%)	3.01	25 (69%) 0 0	117, 148, 189, 200	0
35	D9	36/37 (97%)	4.10	33 (91%) 0 0	101, 145, 182, 197	0
36	BA	2807/2822 (99%)	-0.12	57 (2%) 65 64	48, 87, 188, 200	0
36	DA	2807/2822 (99%)	-0.05	79 (2%) 53 51	35, 94, 191, 200	0
37	BB	119/122 (97%)	-0.44	0 100 100	88, 121, 165, 179	0
37	DB	119/122 (97%)	0.17	2 (1%) 70 68	114, 168, 197, 200	0
38	BC	191/229 (83%)	2.81	118 (61%) 0 0	119, 183, 200, 200	0
38	DC	191/229 (83%)	3.82	143 (74%) 0 0	149, 184, 200, 200	0
39	BD	272/276 (98%)	-0.23	1 (0%) 92 93	39, 71, 116, 164	0
39	DD	272/276 (98%)	-0.18	1 (0%) 92 93	31, 69, 114, 173	0
40	BE	205/206 (99%)	0.23	10 (4%) 29 27	47, 96, 160, 200	0
40	DE	205/206 (99%)	0.04	8 (3%) 39 37	47, 90, 159, 199	0
41	BF	208/210 (99%)	-0.20	3 (1%) 75 75	43, 89, 164, 200	0
41	DF	208/210 (99%)	0.28	14 (6%) 17 17	44, 120, 179, 200	0
42	BG	181/182 (99%)	-0.04	7 (3%) 39 37	68, 118, 162, 194	0
42	DG	181/182 (99%)	0.88	32 (17%) 1 1	105, 163, 200, 200	0
43	BH	160/180 (88%)	1.32	49 (30%) 0 0	98, 160, 199, 200	0
43	DH	160/180 (88%)	0.51	12 (7%) 14 13	65, 135, 186, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BI	146/148 (98%)	0.41	9 (6%) 20 20	62, 122, 180, 199	0
44	DI	146/148 (98%)	1.95	50 (34%) 0 0	54, 152, 200, 200	0
45	BN	139/140 (99%)	0.19	3 (2%) 62 60	69, 110, 162, 198	0
45	DN	139/140 (99%)	0.08	3 (2%) 62 60	65, 107, 161, 190	0
46	BO	122/122 (100%)	-0.13	1 (0%) 86 86	53, 85, 116, 134	0
46	DO	122/122 (100%)	-0.21	0 100 100	48, 75, 110, 131	0
47	BP	146/150 (97%)	0.47	10 (6%) 17 17	46, 105, 171, 200	0
47	DP	146/150 (97%)	1.02	23 (15%) 2 2	60, 130, 184, 200	0
48	BQ	141/141 (100%)	0.23	6 (4%) 35 34	64, 103, 160, 200	0
48	DQ	141/141 (100%)	0.27	8 (5%) 23 23	55, 109, 156, 200	0
49	BR	117/118 (99%)	-0.09	0 100 100	53, 85, 130, 157	0
49	DR	117/118 (99%)	-0.02	0 100 100	49, 91, 138, 150	0
50	BS	99/112 (88%)	0.31	4 (4%) 38 36	65, 115, 170, 200	0
50	DS	99/112 (88%)	1.45	29 (29%) 0 0	113, 164, 199, 200	0
51	BT	138/146 (94%)	0.06	10 (7%) 15 15	55, 102, 175, 200	0
51	DT	138/146 (94%)	-0.03	3 (2%) 62 60	62, 101, 178, 200	0
52	BU	117/118 (99%)	0.10	2 (1%) 70 68	52, 95, 146, 198	0
52	DU	117/118 (99%)	0.21	2 (1%) 70 68	59, 103, 156, 200	0
53	BV	101/101 (100%)	0.28	4 (3%) 38 36	66, 120, 158, 200	0
53	DV	101/101 (100%)	0.51	5 (4%) 28 27	57, 136, 175, 200	0
54	BW	113/113 (100%)	-0.12	0 100 100	48, 85, 143, 200	0
54	DW	113/113 (100%)	-0.03	3 (2%) 54 52	57, 93, 155, 200	0
55	BX	93/96 (96%)	-0.17	1 (1%) 80 81	56, 86, 120, 156	0
55	DX	93/96 (96%)	0.02	1 (1%) 80 81	57, 95, 135, 152	0
56	BY	101/110 (91%)	1.14	17 (16%) 1 1	67, 115, 183, 200	0
56	DY	101/110 (91%)	1.31	25 (24%) 0 0	62, 134, 192, 200	0
57	BZ	177/206 (85%)	0.82	27 (15%) 2 2	80, 150, 200, 200	0
57	DZ	177/206 (85%)	1.16	47 (26%) 0 0	94, 164, 200, 200	0
All	All	21244/22004 (96%)	0.26	1530 (7%) 15 15	31, 108, 192, 200	0

All (1530) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
48	BQ	140	ALA	20.5
25	CY	17	C	19.2
38	DC	172	HIS	18.4
13	AM	123	ALA	17.9
29	D3	1	MET	14.7
13	AM	124	PRO	14.1
28	D2	72	ALA	13.1
1	AA	82	U	12.5
56	BY	61	ILE	12.4
31	D5	60	VAL	12.3
38	DC	179	SER	11.9
21	CU	26	LYS	11.7
38	DC	180	PHE	11.7
38	DC	148	ASN	11.5
44	DI	120	ILE	11.5
11	CK	129	SER	11.2
23	CW	35	A	11.1
32	B6	13	CYS	11.1
25	AY	17	C	11.0
44	DI	119	PRO	10.9
1	AA	89	C	10.8
56	DY	51	VAL	10.8
48	DQ	140	ALA	10.8
32	B6	42	TRP	10.8
38	DC	43	VAL	10.6
13	CM	123	ALA	10.5
38	DC	171	ILE	10.4
23	AW	34	G	10.2
38	BC	80	GLY	10.1
32	B6	14	THR	10.1
56	BY	51	VAL	10.0
7	CG	82	GLY	9.9
32	D6	20	ASN	9.8
32	D6	26	ASN	9.7
43	BH	171	LEU	9.7
44	DI	88	ILE	9.7
21	CU	25	LYS	9.6
1	AA	81	U	9.5
44	DI	59	ALA	9.5
7	AG	84	ASN	9.5
38	DC	202	GLU	9.5
23	CW	20	U	9.4
1	AA	83	U	9.4

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Mol	Chain	Res	Type	RSRZ
19	CS	82	GLY	9.2
44	DI	92	VAL	9.2
2	CB	7	VAL	9.1
44	DI	84	GLY	9.1
32	D6	37	ARG	9.1
38	BC	179	SER	9.0
32	D6	13	CYS	8.9
35	D9	30	PRO	8.9
38	DC	178	ALA	8.9
35	D9	12	ASP	8.9
50	BS	60	GLY	8.8
23	CW	34	G	8.8
43	DH	44	VAL	8.7
32	B6	47	THR	8.7
38	BC	157	LYS	8.7
53	DV	36	PRO	8.7
38	BC	165	ASN	8.5
13	AM	84	ILE	8.4
56	DY	52	SER	8.4
44	DI	108	THR	8.4
57	BZ	113	ALA	8.3
57	DZ	179	ASP	8.3
12	AL	129	ALA	8.2
35	D9	29	ASN	8.2
44	DI	143	SER	8.2
32	D6	21	TYR	8.2
36	BA	2116	G	8.2
38	DC	107	TRP	8.1
47	DP	119	GLU	8.1
38	DC	173	ALA	8.0
44	DI	67	ARG	7.9
44	DI	94	ALA	7.9
38	DC	150	GLY	7.9
38	BC	133	PRO	7.9
32	D6	22	ALA	7.8
25	CY	16	U	7.8
23	CW	36	A	7.8
32	B6	16	CYS	7.8
13	CM	6	GLY	7.8
38	DC	46	LYS	7.8
56	BY	45	VAL	7.8
10	CJ	71	LEU	7.7

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Mol	Chain	Res	Type	RSRZ
44	DI	90	GLY	7.7
36	DA	2802	G	7.7
38	BC	132	GLY	7.7
38	DC	51	PRO	7.7
57	BZ	107	THR	7.7
56	DY	61	ILE	7.6
9	CI	9	ARG	7.6
21	CU	19	GLY	7.6
38	BC	57	ASN	7.5
38	BC	90	GLY	7.5
25	AY	18	G	7.5
32	B6	20	ASN	7.4
38	DC	177	LYS	7.4
38	DC	62	VAL	7.4
38	DC	72	VAL	7.3
32	D6	49	HIS	7.3
44	DI	56	LYS	7.3
1	AA	88	A	7.3
38	DC	55	ASP	7.3
32	D6	40	CYS	7.3
29	B3	1	MET	7.3
43	DH	171	LEU	7.3
43	DH	42	ARG	7.2
32	B6	29	ASN	7.2
47	DP	149	GLU	7.2
13	AM	125	ARG	7.2
56	DY	59	GLY	7.2
47	DP	150	ALA	7.2
38	DC	176	GLY	7.1
36	DA	2116	G	7.1
38	DC	216	THR	7.1
38	DC	69	GLY	7.1
42	DG	32	PRO	7.1
32	D6	12	GLU	7.1
57	BZ	115	GLY	7.0
44	DI	144	VAL	7.0
40	BE	69	LYS	7.0
32	D6	47	THR	7.0
43	BH	96	ALA	7.0
44	DI	107	VAL	7.0
38	BC	176	GLY	7.0
43	BH	169	VAL	7.0

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Mol	Chain	Res	Type	RSRZ
19	AS	81	ARG	7.0
32	D6	48	VAL	7.0
32	D6	24	GLU	7.0
38	BC	87	GLU	7.0
32	B6	36	LEU	7.0
10	AJ	10	GLY	6.9
38	DC	19	VAL	6.9
32	B6	50	ARG	6.9
38	BC	83	ILE	6.9
32	D6	43	CYS	6.9
21	CU	9	ARG	6.9
32	B6	23	THR	6.9
32	D6	51	GLU	6.9
32	D6	53	LYS	6.9
57	DZ	175	VAL	6.9
38	DC	71	GLN	6.9
1	CA	89	C	6.9
38	BC	89	ALA	6.9
35	B9	25	VAL	6.8
41	DF	1	MET	6.8
35	B9	14	CYS	6.8
10	CJ	72	VAL	6.7
57	BZ	179	ASP	6.7
35	D9	28	GLU	6.7
38	BC	110	PHE	6.7
56	BY	44	ILE	6.7
36	BA	2802	G	6.6
13	AM	7	VAL	6.6
57	BZ	141	VAL	6.6
35	D9	32	HIS	6.6
38	DC	193	ILE	6.6
57	DZ	112	ARG	6.6
38	DC	68	LEU	6.6
50	DS	54	LEU	6.6
21	CU	23	PRO	6.6
38	DC	203	GLY	6.5
38	DC	44	HIS	6.5
38	DC	158	ALA	6.5
23	CW	33	U	6.5
57	DZ	121	HIS	6.4
7	AG	85	TYR	6.4
35	D9	23	VAL	6.4

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Mol	Chain	Res	Type	RSRZ
36	DA	1509	C	6.4
32	B6	31	PRO	6.4
38	DC	199	HIS	6.4
12	AL	128	ALA	6.4
25	AY	16	U	6.4
57	BZ	175	VAL	6.4
13	CM	124	PRO	6.4
47	DP	118	GLY	6.4
38	DC	149	ILE	6.3
42	DG	138	GLN	6.3
52	BU	118	GLY	6.3
24	CX	13	A	6.3
50	DS	50	SER	6.3
44	DI	134	PRO	6.3
36	DA	2141	G	6.2
44	DI	85	GLU	6.2
57	BZ	112	ARG	6.2
44	DI	66	GLU	6.2
19	CS	69	HIS	6.2
1	CA	88	A	6.2
47	DP	120	ALA	6.2
2	CB	132	LYS	6.2
42	DG	88	ILE	6.2
35	B9	9	ARG	6.2
43	DH	169	VAL	6.2
50	DS	48	LEU	6.1
32	B6	26	ASN	6.1
35	D9	11	CYS	6.1
31	B5	2	ALA	6.0
1	AA	80	G	6.0
32	B6	49	HIS	6.0
19	AS	82	GLY	6.0
38	BC	109	ASP	6.0
38	DC	63	SER	6.0
35	B9	13	LYS	6.0
50	DS	31	SER	6.0
57	DZ	111	VAL	5.9
44	DI	125	GLU	5.9
25	CY	19	G	5.9
38	DC	88	GLU	5.9
44	DI	70	GLU	5.9
38	DC	52	ARG	5.9

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Mol	Chain	Res	Type	RSRZ
56	BY	49	VAL	5.9
56	DY	53	PRO	5.9
13	CM	126	LYS	5.9
56	BY	60	PHE	5.9
38	DC	166	ASP	5.8
38	DC	154	ARG	5.8
38	BC	178	ALA	5.8
57	DZ	173	ALA	5.8
36	DA	2145	C	5.7
42	DG	87	PRO	5.7
9	CI	10	ARG	5.7
38	BC	177	LYS	5.7
38	BC	158	ALA	5.7
38	DC	120	MET	5.7
23	AW	35	A	5.7
38	BC	78	ALA	5.6
10	CJ	70	ARG	5.6
47	DP	137	LYS	5.6
7	CG	81	GLY	5.6
42	DG	35	GLU	5.6
38	BC	60	GLY	5.6
38	DC	92	ASP	5.6
32	B6	12	GLU	5.6
38	DC	151	GLU	5.6
56	BY	50	ARG	5.6
32	B6	51	GLU	5.6
43	BH	24	VAL	5.6
11	CK	128	ALA	5.6
38	BC	56	GLN	5.6
9	CI	8	GLY	5.6
32	D6	36	LEU	5.5
19	CS	81	ARG	5.5
21	CU	24	ARG	5.5
38	BC	92	ASP	5.5
38	DC	162	GLU	5.5
36	BA	2796	U	5.5
53	DV	99	ILE	5.5
31	B5	59	GLU	5.5
38	DC	163	PHE	5.5
32	D6	17	LYS	5.5
38	DC	133	PRO	5.5
23	CW	1	G	5.4

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Mol	Chain	Res	Type	RSRZ
9	CI	7	THR	5.4
32	D6	14	THR	5.4
9	CI	82	ALA	5.4
2	CB	202	PRO	5.4
7	CG	156	TRP	5.4
36	BA	2146	C	5.4
38	DC	18	LYS	5.4
50	DS	82	ILE	5.4
32	B6	17	LYS	5.4
9	AI	8	GLY	5.4
36	DA	2144	U	5.4
35	D9	31	LYS	5.4
47	DP	88	LEU	5.4
38	DC	121	GLY	5.4
56	BY	59	GLY	5.3
36	DA	2115	G	5.3
32	B6	19	ARG	5.3
38	DC	188	ASN	5.3
13	CM	102	ARG	5.3
38	DC	38	ASP	5.3
38	DC	200	LYS	5.3
36	BA	883	G	5.3
40	BE	204	ALA	5.3
13	AM	6	GLY	5.3
1	CA	1286	A	5.3
38	DC	21	THR	5.3
44	DI	71	ILE	5.2
13	CM	125	ARG	5.2
10	CJ	10	GLY	5.2
36	BA	2795	G	5.2
38	DC	85	GLU	5.2
38	DC	157	LYS	5.2
38	DC	49	ILE	5.1
38	BC	19	VAL	5.1
10	CJ	33	GLN	5.1
1	CA	80	G	5.1
51	DT	2	ASN	5.1
35	D9	37	GLY	5.1
21	CU	18	TYR	5.1
32	D6	39	TYR	5.1
35	D9	9	ARG	5.1
40	BE	205	ALA	5.1

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Mol	Chain	Res	Type	RSRZ
32	D6	16	CYS	5.1
38	BC	174	PRO	5.1
10	AJ	34	VAL	5.1
38	DC	187	ASP	5.1
1	CA	1531	A	5.0
57	BZ	176	PRO	5.0
56	BY	47	LYS	5.0
17	AQ	101	ARG	5.0
38	DC	61	THR	5.0
36	DA	2181	G	5.0
36	DA	2113	U	5.0
43	BH	103	LEU	5.0
38	BC	91	ALA	5.0
1	CA	81	U	5.0
25	CY	14	A	5.0
2	CB	135	GLN	5.0
32	D6	31	PRO	5.0
50	DS	49	VAL	5.0
1	CA	1001(A)	G	5.0
38	DC	211	SER	4.9
38	DC	87	GLU	4.9
56	BY	46	LYS	4.9
36	BA	2117	A	4.9
44	DI	130	TYR	4.9
13	AM	122	LYS	4.9
38	BC	70	LYS	4.9
38	DC	174	PRO	4.9
38	DC	191	ALA	4.9
56	DY	48	ALA	4.9
56	BY	2	ARG	4.9
57	BZ	108	PRO	4.9
14	AN	2	ALA	4.9
38	BC	68	LEU	4.9
42	DG	34	LEU	4.9
32	D6	11	LEU	4.9
32	D6	25	LYS	4.9
51	BT	2	ASN	4.9
38	BC	105	ASP	4.8
35	D9	10	ILE	4.8
44	DI	63	ALA	4.8
19	AS	43	GLU	4.8
38	DC	93	TYR	4.8

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Mol	Chain	Res	Type	RSRZ
38	BC	61	THR	4.8
36	DA	884	C	4.8
43	BH	54	ARG	4.8
32	B6	24	GLU	4.8
36	DA	2110	G	4.8
7	CG	37	ASN	4.8
32	B6	41	PRO	4.8
36	BA	2799	C	4.8
38	DC	67	GLY	4.8
32	D6	34	LEU	4.8
36	BA	1509	C	4.8
10	CJ	98	ILE	4.8
20	AT	99	LEU	4.8
38	BC	77	ILE	4.8
38	DC	192	PHE	4.8
38	DC	45	ALA	4.7
20	CT	98	PRO	4.7
43	BH	170	ARG	4.7
38	DC	47	LEU	4.7
43	BH	41	MET	4.7
38	BC	20	TYR	4.7
38	BC	125	SER	4.7
36	DA	2114	A	4.7
38	DC	81	GLU	4.7
32	B6	39	TYR	4.7
38	DC	142	ALA	4.7
38	DC	57	ASN	4.7
13	CM	5	ALA	4.7
38	BC	85	GLU	4.7
44	DI	146	ALA	4.7
50	DS	33	LYS	4.6
20	CT	92	LEU	4.6
40	DE	76	ARG	4.6
32	B6	21	TYR	4.6
10	CJ	97	GLU	4.6
38	DC	181	PRO	4.6
44	DI	110	ASP	4.6
7	AG	83	ALA	4.6
7	AG	81	GLY	4.6
10	CJ	37	PRO	4.6
28	D2	70	GLN	4.6
36	DA	888	C	4.6

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Mol	Chain	Res	Type	RSRZ
38	BC	38	ASP	4.6
17	CQ	101	ARG	4.6
19	CS	47	HIS	4.6
38	DC	64	LEU	4.6
38	DC	204	ALA	4.6
25	CY	18	G	4.6
36	DA	2796	U	4.6
38	BC	148	ASN	4.5
38	DC	170	ALA	4.5
32	D6	42	TRP	4.5
47	DP	85	LEU	4.5
57	DZ	102	LEU	4.5
38	BC	130	ILE	4.5
10	AJ	31	GLY	4.5
38	BC	122	ALA	4.5
36	DA	275	G	4.5
36	DA	2132	U	4.5
10	CJ	23	ILE	4.5
48	DQ	141	GLN	4.5
38	DC	119	VAL	4.5
35	B9	8	LYS	4.5
35	D9	13	LYS	4.5
25	AY	19	G	4.5
57	BZ	114	GLY	4.5
27	B1	85	LEU	4.5
38	DC	201	PRO	4.5
57	DZ	177	PRO	4.5
32	B6	22	ALA	4.5
1	CA	82	U	4.5
38	DC	169	GLY	4.5
32	D6	29	ASN	4.5
38	BC	86	ALA	4.5
25	CY	15	G	4.5
36	BA	2139	C	4.5
36	BA	888	C	4.4
9	CI	104	ARG	4.4
12	CL	128	ALA	4.4
10	CJ	39	PRO	4.4
38	DC	22	ILE	4.4
36	BA	896	A	4.4
43	BH	35	VAL	4.4
43	BH	105	LEU	4.4

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Mol	Chain	Res	Type	RSRZ
38	DC	208	PHE	4.4
36	DA	2136	C	4.4
36	BA	652	C	4.4
36	BA	2110	G	4.4
36	DA	2120	G	4.4
56	DY	2	ARG	4.4
38	BC	101	GLN	4.4
7	AG	2	ALA	4.4
7	CG	123	GLU	4.4
44	BI	65	ALA	4.4
36	DA	2123	G	4.3
11	AK	128	ALA	4.3
13	CM	43	THR	4.3
38	BC	46	LYS	4.3
9	CI	96	LEU	4.3
19	CS	68	GLY	4.3
21	AU	24	ARG	4.3
21	CU	2	GLY	4.3
35	D9	7	VAL	4.3
38	DC	90	GLY	4.3
38	DC	156	ILE	4.3
38	DC	84	LYS	4.3
35	D9	22	ARG	4.3
38	BC	79	LYS	4.3
52	DU	118	GLY	4.3
28	B2	43	GLN	4.3
35	D9	25	VAL	4.3
23	CW	21	A	4.3
11	AK	127	LYS	4.3
31	D5	2	ALA	4.3
38	BC	134	ARG	4.3
50	DS	34	HIS	4.3
36	BA	2145	C	4.3
42	DG	69	ALA	4.3
28	D2	71	ASN	4.3
35	B9	7	VAL	4.3
36	DA	885	C	4.2
36	DA	2799	C	4.2
21	CU	22	ARG	4.2
10	CJ	4	ILE	4.2
44	DI	97	ILE	4.2
38	DC	184	LYS	4.2

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Mol	Chain	Res	Type	RSRZ
47	BP	149	GLU	4.2
20	CT	99	LEU	4.2
23	AW	17	C	4.2
9	CI	85	LEU	4.2
34	D8	32	LEU	4.2
19	AS	66	MET	4.2
50	DS	58	LEU	4.2
35	B9	27	CYS	4.2
38	BC	108	MET	4.2
56	BY	48	ALA	4.2
38	DC	50	ASP	4.2
10	AJ	32	ALA	4.2
3	CC	193	TYR	4.2
13	CM	101	GLN	4.2
21	CU	17	THR	4.2
43	BH	48	GLY	4.2
43	BH	47	GLU	4.2
42	BG	82	LEU	4.2
38	BC	102	LYS	4.2
23	CW	71	G	4.1
9	CI	32	ASP	4.1
13	CM	65	LYS	4.1
38	DC	86	ALA	4.1
23	CW	44	G	4.1
14	CN	60	SER	4.1
23	CW	17	C	4.1
38	BC	27	ARG	4.1
38	BC	59	ARG	4.1
35	B9	11	CYS	4.1
36	BA	884	C	4.1
38	DC	66	HIS	4.1
11	AK	129	SER	4.1
35	D9	20	HIS	4.1
26	D0	27	GLU	4.1
21	CU	10	ARG	4.1
38	BC	95	GLY	4.1
38	DC	185	LEU	4.1
56	DY	17	SER	4.1
38	DC	37	PHE	4.1
2	CB	129	GLU	4.1
32	B6	40	CYS	4.1
38	DC	195	ALA	4.1

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Mol	Chain	Res	Type	RSRZ
44	DI	122	GLU	4.1
25	AY	70	G	4.1
38	BC	39	GLU	4.0
42	DG	75	LYS	4.0
50	BS	59	LYS	4.0
36	DA	2146	C	4.0
7	CG	40	ALA	4.0
12	CL	129	ALA	4.0
44	DI	127	VAL	4.0
38	BC	45	ALA	4.0
21	CU	21	TYR	4.0
47	DP	82	GLY	4.0
38	BC	52	ARG	4.0
42	DG	49	ASP	4.0
32	D6	32	ASN	4.0
38	DC	194	ARG	4.0
20	AT	101	GLY	4.0
2	AB	128	GLU	4.0
25	AY	14	A	4.0
43	BH	65	HIS	4.0
2	CB	41	ILE	4.0
25	CY	13	C	4.0
57	DZ	178	GLU	4.0
42	DG	90	LEU	4.0
9	CI	125	TYR	4.0
48	BQ	141	GLN	4.0
9	CI	30	GLY	4.0
7	CG	3	ARG	4.0
55	DX	92	LEU	3.9
1	AA	1030(B)	C	3.9
43	BH	40	GLU	3.9
57	DZ	97	GLU	3.9
38	BC	51	PRO	3.9
38	DC	39	GLU	3.9
32	D6	52	VAL	3.9
23	CW	37	A	3.9
36	DA	2135	A	3.9
38	BC	136	LEU	3.9
21	AU	18	TYR	3.9
10	CJ	19	SER	3.9
38	DC	189	ILE	3.9
7	AG	82	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
2	CB	214	ILE	3.9
19	CS	49	ILE	3.9
42	DG	89	GLY	3.9
33	D7	48	LYS	3.9
1	CA	91	C	3.9
7	CG	5	ARG	3.9
38	DC	20	TYR	3.9
1	AA	84	U	3.9
35	B9	24	TYR	3.9
38	BC	93	TYR	3.9
45	DN	129	PRO	3.9
13	AM	24	GLY	3.9
32	B6	46	HIS	3.9
2	AB	41	ILE	3.9
38	DC	186	ALA	3.9
38	BC	145	VAL	3.9
57	BZ	177	PRO	3.9
35	D9	8	LYS	3.9
38	BC	81	GLU	3.9
38	DC	224	ILE	3.9
33	B7	48	LYS	3.9
35	D9	33	LYS	3.9
36	DA	2165	G	3.9
36	BA	2140	C	3.8
32	D6	50	ARG	3.8
44	DI	74	ASN	3.8
25	AY	15	G	3.8
36	DA	2178	C	3.8
56	DY	56	PRO	3.8
40	BE	54	GLN	3.8
7	AG	80	VAL	3.8
10	CJ	32	ALA	3.8
23	AW	36	A	3.8
35	B9	23	VAL	3.8
38	BC	131	LEU	3.8
2	CB	152	PHE	3.8
20	AT	103	GLY	3.8
38	DC	34	THR	3.8
19	AS	29	ARG	3.8
23	AW	1	G	3.8
29	D3	2	PRO	3.8
36	DA	896	A	3.8

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Mol	Chain	Res	Type	RSRZ
23	CW	5	G	3.8
31	B5	60	VAL	3.8
43	BH	55	PRO	3.8
35	B9	12	ASP	3.8
43	BH	19	VAL	3.8
35	B9	5	ALA	3.8
56	DY	50	ARG	3.8
36	BA	2148	G	3.8
23	CW	47	U	3.8
7	CG	4	ARG	3.8
43	BH	66	GLY	3.8
19	AS	46	GLY	3.8
29	D3	8	LEU	3.7
9	AI	15	ALA	3.7
36	DA	2142	C	3.7
25	CY	20	U	3.7
13	CM	84	ILE	3.7
38	BC	106	GLY	3.7
38	DC	190	ARG	3.7
43	BH	29	PRO	3.7
32	D6	19	ARG	3.7
10	CJ	3	LYS	3.7
38	DC	215	THR	3.7
25	AY	4	C	3.7
32	B6	9	LEU	3.7
13	CM	4	ILE	3.7
56	BY	58	GLY	3.7
36	BA	2141	G	3.7
44	DI	145	VAL	3.7
36	BA	229	A	3.7
32	B6	52	VAL	3.7
43	BH	56	SER	3.7
38	DC	59	ARG	3.7
13	CM	47	ASP	3.6
38	BC	166	ASP	3.6
38	BC	224	ILE	3.6
38	BC	193	ILE	3.6
57	BZ	111	VAL	3.6
18	CR	51	LEU	3.6
36	BA	1173	G	3.6
36	BA	2154	G	3.6
11	CK	127	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
50	DS	53	SER	3.6
38	DC	122	ALA	3.6
32	B6	32	ASN	3.6
38	BC	96	GLY	3.6
42	DG	11	TYR	3.6
2	CB	130	ARG	3.6
38	BC	76	ALA	3.6
44	DI	55	ALA	3.6
51	BT	115	ARG	3.6
2	CB	131	PRO	3.6
26	B0	76	GLY	3.6
44	DI	69	LYS	3.6
32	B6	35	GLU	3.6
47	DP	89	ALA	3.6
36	BA	2156	G	3.6
52	BU	117	GLN	3.6
19	CS	17	GLU	3.6
38	DC	80	GLY	3.6
36	DA	2140	C	3.6
36	BA	2147	G	3.6
48	BQ	105	GLU	3.6
57	DZ	161	VAL	3.6
31	B5	58	LEU	3.6
10	CJ	34	VAL	3.5
43	BH	20	ALA	3.5
12	CL	127	GLU	3.5
32	D6	9	LEU	3.5
9	CI	33	PHE	3.5
38	DC	108	MET	3.5
56	DY	55	TYR	3.5
44	DI	73	GLU	3.5
10	CJ	38	ILE	3.5
10	CJ	21	GLN	3.5
35	B9	37	GLY	3.5
36	BA	2155	G	3.5
36	BA	2137	C	3.5
32	D6	41	PRO	3.5
35	B9	34	GLN	3.5
10	CJ	20	ALA	3.5
38	DC	76	ALA	3.5
25	AY	22	G	3.5
44	DI	89	TYR	3.5

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Mol	Chain	Res	Type	RSRZ
38	BC	74	VAL	3.5
35	D9	18	ARG	3.5
38	BC	88	GLU	3.5
36	BA	2144	U	3.5
20	AT	104	LEU	3.5
35	B9	16	VAL	3.5
43	DH	45	VAL	3.5
11	AK	12	ARG	3.5
47	BP	147	LEU	3.5
40	BE	10	GLY	3.5
36	DA	2179	C	3.4
32	D6	46	HIS	3.4
42	DG	146	TYR	3.4
36	DA	2108	C	3.4
38	DC	70	LYS	3.4
50	DS	52	SER	3.4
1	AA	1024	G	3.4
20	CT	85	MET	3.4
38	BC	213	TYR	3.4
38	BC	103	ILE	3.4
41	DF	24	LEU	3.4
36	DA	2109	U	3.4
47	BP	150	ALA	3.4
36	DA	2147	G	3.4
21	CU	5	ASP	3.4
35	D9	17	ILE	3.4
9	CI	12	GLU	3.4
35	B9	29	ASN	3.4
2	CB	128	GLU	3.4
25	CY	70	G	3.4
32	D6	23	THR	3.4
50	DS	55	ALA	3.4
44	DI	106	GLY	3.4
9	AI	85	LEU	3.4
32	B6	37	ARG	3.4
57	BZ	104	PHE	3.4
9	CI	106	ALA	3.4
10	CJ	96	ILE	3.4
50	DS	68	GLN	3.4
23	CW	15	G	3.4
10	CJ	69	ASN	3.4
11	CK	15	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
12	AL	28	LYS	3.4
13	CM	121	LYS	3.4
21	AU	26	LYS	3.4
40	BE	76	ARG	3.4
38	DC	213	TYR	3.4
10	CJ	6	ILE	3.4
10	CJ	28	ARG	3.4
38	DC	217	THR	3.4
32	B6	30	THR	3.3
21	CU	14	TRP	3.3
47	DP	122	PRO	3.3
10	CJ	24	VAL	3.3
57	DZ	128	VAL	3.3
51	BT	91	ARG	3.3
47	DP	5	ASP	3.3
44	DI	101	LEU	3.3
32	B6	44	ARG	3.3
36	DA	2139	C	3.3
42	DG	48	GLU	3.3
50	BS	54	LEU	3.3
38	BC	94	VAL	3.3
36	DA	2170	A	3.3
36	BA	1530	C	3.3
41	BF	12	LEU	3.3
43	BH	44	VAL	3.3
47	BP	104	GLY	3.3
5	CE	24	ARG	3.3
2	CB	188	ALA	3.3
12	CL	28	LYS	3.3
7	CG	85	TYR	3.3
50	DS	56	LEU	3.3
36	DA	363(F)	A	3.3
42	BG	49	ASP	3.3
32	B6	28	ARG	3.3
38	DC	106	GLY	3.3
36	DA	2160	G	3.3
37	DB	54	G	3.3
36	BA	1531	C	3.3
47	DP	91	PHE	3.3
57	DZ	134	PRO	3.3
35	B9	28	GLU	3.3
47	DP	64	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
38	DC	206	GLY	3.3
43	BH	43	VAL	3.3
43	DH	123	PHE	3.3
41	DF	133	ASN	3.2
12	AL	127	GLU	3.2
9	CI	102	LEU	3.2
43	BH	61	HIS	3.2
19	CS	66	MET	3.2
43	BH	102	ALA	3.2
23	CW	52	G	3.2
23	CW	53	G	3.2
41	BF	1	MET	3.2
7	CG	84	ASN	3.2
10	CJ	36	GLY	3.2
41	DF	170	LEU	3.2
57	DZ	123	ASP	3.2
38	DC	182	PRO	3.2
57	DZ	133	ILE	3.2
23	CW	6	G	3.2
38	BC	99	ILE	3.2
38	BC	72	VAL	3.2
1	AA	1026	G	3.2
2	AB	133	LYS	3.2
9	CI	19	LEU	3.2
13	AM	112	GLY	3.2
57	BZ	12	GLY	3.2
38	BC	173	ALA	3.2
38	DC	54	SER	3.2
4	AD	209	ARG	3.2
7	AG	4	ARG	3.2
38	BC	49	ILE	3.2
1	AA	1030(A)	G	3.2
44	DI	139	GLN	3.2
23	CW	46	G	3.2
56	BY	88	LYS	3.2
50	DS	105	ALA	3.2
38	BC	53	ARG	3.2
56	DY	54	LYS	3.2
10	CJ	100	THR	3.2
50	DS	30	ARG	3.2
57	DZ	159	PRO	3.2
57	BZ	128	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
8	CH	54	ASP	3.2
32	B6	15	GLU	3.2
38	DC	105	ASP	3.2
1	CA	1030(B)	C	3.1
11	CK	12	ARG	3.1
23	CW	60	U	3.1
7	CG	117	ALA	3.1
42	DG	137	GLU	3.1
35	D9	15	LYS	3.1
35	D9	14	CYS	3.1
47	DP	84	ASN	3.1
44	DI	116	LEU	3.1
38	BC	67	GLY	3.1
40	BE	72	VAL	3.1
38	BC	25	ALA	3.1
21	CU	11	GLY	3.1
54	DW	113	LYS	3.1
23	CW	16	U	3.1
26	D0	74	ARG	3.1
23	CW	67	C	3.1
5	CE	31	LEU	3.1
7	CG	62	PHE	3.1
23	CW	4	C	3.1
50	DS	46	VAL	3.1
32	D6	33	LYS	3.1
56	DY	102	CYS	3.1
36	BA	2109	U	3.1
32	D6	35	GLU	3.1
34	D8	33	ASN	3.1
43	BH	111	HIS	3.1
43	DH	57	ASP	3.1
2	CB	121	LEU	3.1
35	D9	26	ILE	3.1
38	BC	84	LYS	3.1
57	BZ	144	LEU	3.1
38	BC	71	GLN	3.1
38	DC	77	ILE	3.1
43	BH	46	GLU	3.1
10	CJ	73	ASP	3.1
35	B9	6	SER	3.1
36	DA	2130	U	3.1
48	DQ	16	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
50	DS	47	THR	3.1
13	AM	98	VAL	3.1
36	DA	2134	A	3.1
42	DG	95	ARG	3.1
26	D0	42	GLY	3.1
57	DZ	174	VAL	3.1
35	B9	32	HIS	3.1
38	DC	73	ARG	3.1
10	AJ	33	GLN	3.0
13	CM	64	TRP	3.0
38	DC	183	GLU	3.0
23	CW	24	G	3.0
35	D9	4	ARG	3.0
36	BA	2151	G	3.0
57	DZ	150	LEU	3.0
1	AA	1030	C	3.0
38	BC	63	SER	3.0
36	DA	1026	U	3.0
43	BH	15	VAL	3.0
7	CG	155	ARG	3.0
28	B2	72	ALA	3.0
13	CM	88	ARG	3.0
13	AM	120	LYS	3.0
35	B9	33	LYS	3.0
36	DA	12	U	3.0
38	DC	207	THR	3.0
33	D7	47	ARG	3.0
36	BA	2152	G	3.0
36	DA	2310	A	3.0
10	CJ	74	ILE	3.0
44	BI	7	GLU	3.0
47	DP	87	ASP	3.0
47	DP	138	LEU	3.0
38	BC	139	ASN	3.0
36	BA	882	G	3.0
21	AU	23	PRO	3.0
42	DG	17	PRO	3.0
2	CB	96	ARG	3.0
9	CI	37	PHE	3.0
7	CG	83	ALA	3.0
38	BC	100	ILE	3.0
57	DZ	113	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
57	DZ	147	GLY	3.0
56	DY	85	VAL	3.0
29	B3	2	PRO	3.0
13	CM	120	LYS	3.0
36	DA	1508	A	3.0
34	D8	65	GLU	3.0
43	DH	167	GLU	3.0
9	CI	99	LEU	3.0
9	CI	105	ASP	3.0
57	DZ	144	LEU	3.0
1	AA	1001(A)	G	3.0
21	AU	25	LYS	3.0
23	CW	19	G	3.0
25	AY	6	G	3.0
36	BA	2801(A)	A	3.0
56	DY	89	PHE	3.0
38	DC	98	GLU	3.0
48	DQ	99	PRO	3.0
38	DC	53	ARG	2.9
45	BN	61	ARG	2.9
42	DG	37	VAL	2.9
36	BA	2801	A	2.9
38	DC	48	GLY	2.9
23	AW	32	U	2.9
20	CT	45	GLN	2.9
36	BA	2161	C	2.9
10	CJ	27	ALA	2.9
40	DE	72	VAL	2.9
57	DZ	125	LEU	2.9
36	DA	2104	G	2.9
44	BI	87	LYS	2.9
2	AB	40	HIS	2.9
2	CB	201	ILE	2.9
4	CD	3	ARG	2.9
10	AJ	54	PHE	2.9
24	AX	13	A	2.9
47	BP	90	ARG	2.9
57	DZ	114	GLY	2.9
13	CM	118	ALA	2.9
43	BH	98	LEU	2.9
34	B8	64	TYR	2.9
1	CA	723	U	2.9

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Mol	Chain	Res	Type	RSRZ
38	DC	74	VAL	2.9
38	DC	205	LYS	2.9
42	BG	86	MET	2.9
42	DG	86	MET	2.9
46	BO	58	VAL	2.9
25	AY	20	U	2.9
19	CS	39	THR	2.9
42	DG	93	THR	2.9
2	CB	157	ARG	2.9
50	DS	36	TYR	2.9
14	AN	60	SER	2.9
1	CA	1030(D)	A	2.9
38	BC	69	GLY	2.9
43	BH	33	LEU	2.9
7	AG	86	GLN	2.9
26	D0	85	ALA	2.9
1	CA	1356	G	2.9
36	DA	2795	G	2.9
38	DC	60	GLY	2.9
36	BA	2135	A	2.9
43	BH	23	ARG	2.9
36	DA	2129	C	2.9
23	AW	16	U	2.9
38	DC	145	VAL	2.9
1	CA	1030(C)	G	2.9
23	CW	28	G	2.9
32	B6	18	ARG	2.9
51	BT	137	LYS	2.9
38	BC	64	LEU	2.9
38	DC	159	GLY	2.9
42	DG	70	VAL	2.8
14	CN	12	ARG	2.8
36	DA	2177	C	2.8
38	DC	56	GLN	2.8
41	DF	167	ALA	2.8
42	DG	33	ARG	2.8
10	AJ	90	LEU	2.8
36	BA	2133	G	2.8
1	CA	1030	C	2.8
12	CL	64	TYR	2.8
26	D0	26	TYR	2.8
38	DC	23	ASP	2.8

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Mol	Chain	Res	Type	RSRZ
9	AI	4	TYR	2.8
9	CI	46	ALA	2.8
31	D5	59	GLU	2.8
50	DS	37	ALA	2.8
1	CA	204	U	2.8
36	DA	2138	C	2.8
43	BH	36	PRO	2.8
57	DZ	167	PRO	2.8
41	DF	156	LEU	2.8
10	CJ	68	HIS	2.8
44	BI	4	ILE	2.8
1	AA	1030(C)	G	2.8
2	AB	140	HIS	2.8
13	CM	122	LYS	2.8
45	BN	36	GLY	2.8
53	BV	48	GLY	2.8
42	DG	178	PHE	2.8
10	AJ	29	ARG	2.8
10	AJ	80	LYS	2.8
10	CJ	5	ARG	2.8
33	D7	49	ARG	2.8
43	BH	25	LYS	2.8
43	DH	65	HIS	2.8
3	CC	12	LEU	2.8
38	BC	35	ALA	2.8
38	BC	204	ALA	2.8
38	DC	65	PRO	2.8
3	CC	91	LEU	2.8
56	DY	60	PHE	2.8
47	DP	90	ARG	2.8
23	CW	50	U	2.8
38	DC	197	GLU	2.8
26	D0	50	ASN	2.8
36	DA	2166	G	2.8
38	BC	37	PHE	2.8
43	BH	101	ARG	2.8
36	DA	2801	A	2.8
35	D9	24	TYR	2.8
41	DF	168	ARG	2.8
47	DP	114	ILE	2.7
29	B3	60	GLU	2.7
9	CI	50	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
38	BC	47	LEU	2.7
9	CI	22	GLY	2.7
25	AY	21	A	2.7
36	BA	1174	A	2.7
38	BC	192	PHE	2.7
43	BH	51	ARG	2.7
57	BZ	116	VAL	2.7
3	CC	190	ARG	2.7
1	AA	1031	G	2.7
41	DF	134	GLY	2.7
38	BC	58	VAL	2.7
13	AM	121	LYS	2.7
31	B5	56	LYS	2.7
8	AH	129	VAL	2.7
23	AW	47	U	2.7
10	AJ	4	ILE	2.7
19	CS	28	LYS	2.7
36	BA	2104	G	2.7
38	BC	194	ARG	2.7
51	BT	1	MET	2.7
56	DY	86	ARG	2.7
43	BH	123	PHE	2.7
9	CI	4	TYR	2.7
35	B9	15	LYS	2.7
35	D9	19	ARG	2.7
10	AJ	76	ASN	2.7
45	DN	3	THR	2.7
21	CU	16	GLY	2.7
25	AY	5	G	2.7
36	DA	1177	A	2.7
50	DS	87	PHE	2.7
20	CT	80	ARG	2.7
44	DI	57	ARG	2.7
40	DE	53	PRO	2.7
13	CM	46	LYS	2.7
38	BC	126	LYS	2.7
38	DC	91	ALA	2.7
57	DZ	120	ILE	2.7
57	DZ	162	GLU	2.7
1	CA	1027	C	2.7
19	AS	69	HIS	2.7
23	AW	20	U	2.7

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Mol	Chain	Res	Type	RSRZ
2	CB	133	LYS	2.7
9	CI	127	LYS	2.7
16	CP	12	LYS	2.7
30	D4	54	LYS	2.7
35	D9	35	ARG	2.7
38	DC	94	VAL	2.7
50	BS	58	LEU	2.7
57	BZ	163	LEU	2.7
35	B9	20	HIS	2.7
57	DZ	104	PHE	2.7
1	AA	1036	G	2.7
1	CA	1002	G	2.7
8	CH	129	VAL	2.7
50	DS	16	ASN	2.7
53	BV	94	LEU	2.7
33	D7	1	MET	2.7
57	DZ	127	LYS	2.7
56	BY	52	SER	2.7
57	DZ	106	GLY	2.7
35	B9	10	ILE	2.7
42	BG	2	PRO	2.7
19	CS	57	HIS	2.7
47	DP	95	VAL	2.7
44	DI	141	LYS	2.7
9	AI	7	THR	2.7
36	DA	1531	C	2.7
1	AA	1034	G	2.7
13	CM	7	VAL	2.7
57	DZ	116	VAL	2.6
1	AA	1027	C	2.6
13	CM	27	LYS	2.6
25	CY	3	C	2.6
32	D6	38	LYS	2.6
35	B9	26	ILE	2.6
38	DC	209	LEU	2.6
56	DY	5	MET	2.6
34	D8	64	TYR	2.6
9	CI	3	GLN	2.6
45	DN	1	MET	2.6
10	CJ	90	LEU	2.6
47	DP	130	PHE	2.6
2	AB	116	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
3	CC	2	GLY	2.6
38	BC	97	GLU	2.6
38	DC	132	GLY	2.6
44	DI	62	LYS	2.6
19	AS	39	THR	2.6
20	CT	100	ILE	2.6
35	B9	17	ILE	2.6
25	AY	45	U	2.6
36	BA	1026	U	2.6
47	DP	27	HIS	2.6
5	AE	29	GLY	2.6
5	CE	154	GLY	2.6
7	AG	5	ARG	2.6
10	AJ	59	SER	2.6
38	DC	198	ALA	2.6
48	BQ	139	GLU	2.6
3	CC	200	ALA	2.6
20	CT	48	LYS	2.6
41	BF	133	ASN	2.6
10	CJ	15	THR	2.6
8	CH	130	GLY	2.6
38	BC	121	GLY	2.6
39	DD	34	VAL	2.6
16	CP	19	ILE	2.6
57	DZ	118	GLN	2.6
3	AC	179	ARG	2.6
43	BH	128	PRO	2.6
23	AW	33	U	2.6
44	DI	109	ILE	2.6
51	BT	39	ARG	2.6
10	CJ	26	ALA	2.6
39	BD	33	LEU	2.6
43	DH	59	ARG	2.6
13	CM	2	ALA	2.6
57	BZ	166	SER	2.6
57	DZ	138	GLU	2.6
3	CC	196	LEU	2.6
9	CI	103	THR	2.6
50	DS	29	PHE	2.6
2	AB	129	GLU	2.6
3	CC	205	GLY	2.6
51	BT	92	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
56	DY	97	ARG	2.6
3	CC	155	GLY	2.5
36	BA	2169	A	2.5
36	DA	2121	G	2.5
20	CT	104	LEU	2.5
19	CS	65	ASN	2.5
56	DY	83	THR	2.5
9	CI	20	ARG	2.5
43	BH	87	LEU	2.5
2	CB	70	PHE	2.5
14	CN	38	GLY	2.5
23	CW	2	C	2.5
11	CK	50	TYR	2.5
35	D9	5	ALA	2.5
3	CC	198	VAL	2.5
36	DA	2112	G	2.5
38	BC	75	LEU	2.5
51	DT	115	ARG	2.5
2	CB	126	GLU	2.5
35	D9	16	VAL	2.5
44	BI	58	LEU	2.5
36	BA	2153	G	2.5
38	DC	83	ILE	2.5
9	CI	6	GLY	2.5
23	AW	45	U	2.5
56	DY	88	LYS	2.5
41	DF	33	LEU	2.5
57	DZ	155	LEU	2.5
21	AU	17	THR	2.5
32	D6	18	ARG	2.5
38	DC	146	GLY	2.5
53	BV	5	VAL	2.5
1	AA	1257	U	2.5
9	AI	87	GLN	2.5
3	CC	206	GLU	2.5
20	CT	87	LYS	2.5
23	CW	38	A	2.5
7	AG	6	ARG	2.5
38	BC	175	VAL	2.5
41	DF	25	PRO	2.5
16	CP	4	ILE	2.5
40	DE	41	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
38	BC	98	GLU	2.5
10	CJ	66	ARG	2.5
14	CN	10	ALA	2.5
20	CT	97	ALA	2.5
41	DF	126	VAL	2.5
23	CW	58	A	2.5
43	BH	21	PRO	2.5
36	DA	2180	U	2.5
13	CM	60	VAL	2.5
21	AU	2	GLY	2.5
38	BC	142	ALA	2.5
20	AT	98	PRO	2.5
38	BC	187	ASP	2.5
36	BA	2134	A	2.5
36	DA	2801(A)	A	2.5
9	AI	86	VAL	2.5
38	BC	40	THR	2.5
35	D9	34	GLN	2.5
2	CB	10	LEU	2.4
42	DG	60	LEU	2.4
23	CW	66	U	2.4
38	DC	153	ILE	2.4
10	AJ	35	SER	2.4
32	B6	25	LYS	2.4
36	DA	2131	G	2.4
38	DC	123	VAL	2.4
43	BH	26	VAL	2.4
38	BC	144	THR	2.4
18	AR	31	LEU	2.4
42	DG	135	LEU	2.4
44	DI	105	HIS	2.4
38	BC	159	GLY	2.4
7	CG	79	ARG	2.4
36	BA	2138	C	2.4
36	DA	886	C	2.4
23	CW	39	U	2.4
47	DP	81	GLN	2.4
51	DT	1	MET	2.4
19	CS	67	VAL	2.4
52	DU	82	GLY	2.4
57	DZ	163	LEU	2.4
21	CU	6	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
14	CN	34	TYR	2.4
34	D8	35	GLN	2.4
53	DV	96	ILE	2.4
23	CW	11	C	2.4
38	BC	65	PRO	2.4
38	DC	136	LEU	2.4
36	DA	229	A	2.4
36	DA	2117	A	2.4
7	CG	116	ALA	2.4
38	BC	18	LYS	2.4
38	DC	26	ALA	2.4
32	D6	28	ARG	2.4
54	DW	65	LEU	2.4
1	CA	1243	C	2.4
9	CI	101	PHE	2.4
43	DH	170	ARG	2.4
6	CF	67	MET	2.4
57	BZ	174	VAL	2.4
9	CI	18	PHE	2.4
9	CI	53	VAL	2.4
42	DG	66	GLN	2.4
55	BX	92	LEU	2.4
32	B6	45	LYS	2.4
56	BY	92	ASN	2.4
57	DZ	69	THR	2.4
2	AB	137	ARG	2.4
48	DQ	6	ARG	2.4
2	AB	138	LEU	2.4
9	CI	95	LYS	2.4
5	CE	19	MET	2.4
3	CC	16	ARG	2.4
7	AG	78	ARG	2.4
50	DS	32	LEU	2.4
36	BA	1509(A)	A	2.4
53	BV	64	HIS	2.4
56	DY	44	ILE	2.4
19	AS	67	VAL	2.4
29	D3	6	VAL	2.4
36	DA	2150	U	2.4
43	BH	32	GLU	2.4
51	BT	135	ALA	2.3
56	BY	56	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
44	DI	35	LEU	2.3
36	DA	2103	C	2.3
38	BC	41	VAL	2.3
38	BC	163	PHE	2.3
41	DF	23	ASP	2.3
13	CM	97	PRO	2.3
14	CN	30	ALA	2.3
38	BC	26	ALA	2.3
38	DC	25	ALA	2.3
38	BC	48	GLY	2.3
40	DE	69	LYS	2.3
13	AM	69	GLU	2.3
36	BA	2136	C	2.3
36	DA	652	C	2.3
2	CB	215	LEU	2.3
10	CJ	75	ILE	2.3
51	BT	106	SER	2.3
57	BZ	139	VAL	2.3
36	DA	2156	G	2.3
57	DZ	101	PRO	2.3
30	D4	66	HIS	2.3
38	BC	164	ARG	2.3
47	BP	89	ALA	2.3
10	AJ	72	VAL	2.3
36	DA	2183	C	2.3
2	CB	195	ASP	2.3
19	AS	40	ILE	2.3
57	DZ	126	VAL	2.3
10	CJ	77	PRO	2.3
34	D8	63	PRO	2.3
23	AW	56	C	2.3
23	CW	25	C	2.3
32	B6	33	LYS	2.3
36	DA	2803	C	2.3
23	CW	63	G	2.3
43	BH	129	THR	2.3
57	BZ	146	ILE	2.3
2	AB	21	ARG	2.3
38	DC	24	GLU	2.3
4	CD	120	LEU	2.3
2	AB	136	VAL	2.3
4	CD	209	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
12	AL	29	GLY	2.3
13	AM	102	ARG	2.3
16	CP	7	ALA	2.3
48	BQ	60	ARG	2.3
57	DZ	105	VAL	2.3
27	B1	22	GLY	2.3
38	DC	135	GLY	2.3
23	AW	21	A	2.3
2	CB	222	ILE	2.3
38	DC	89	ALA	2.3
36	DA	1043	C	2.3
21	AU	5	ASP	2.3
57	BZ	162	GLU	2.3
9	CI	21	PRO	2.3
7	CG	78	ARG	2.3
1	AA	1129	C	2.3
23	CW	59	U	2.3
38	BC	34	THR	2.3
10	CJ	8	LEU	2.3
53	DV	70	ILE	2.3
40	BE	132	HIS	2.3
43	BH	49	VAL	2.3
1	CA	1190	G	2.2
57	DZ	115	GLY	2.2
29	D3	44	ARG	2.2
27	B1	58	ILE	2.2
50	DS	39	ILE	2.2
13	CM	53	VAL	2.2
7	CG	46	ALA	2.2
20	AT	50	GLU	2.2
36	BA	363(F)	A	2.2
34	D8	48	PHE	2.2
27	B1	36	GLY	2.2
38	DC	125	SER	2.2
6	CF	48	LEU	2.2
38	BC	120	MET	2.2
38	DC	218	MET	2.2
41	DF	194	MET	2.2
30	D4	36	VAL	2.2
42	DG	109	VAL	2.2
44	BI	86	THR	2.2
48	BQ	32	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
43	BH	38	SER	2.2
57	DZ	90	VAL	2.2
9	CI	88	TYR	2.2
10	AJ	91	PRO	2.2
34	D8	34	TRP	2.2
42	DG	29	TRP	2.2
44	DI	30	LEU	2.2
26	B0	69	PHE	2.2
11	CK	80	VAL	2.2
38	DC	223	ARG	2.2
19	AS	12	ASP	2.2
13	CM	56	LEU	2.2
1	AA	204	U	2.2
35	D9	27	CYS	2.2
38	DC	222	VAL	2.2
44	BI	103	ARG	2.2
9	AI	62	TYR	2.2
36	DA	883	G	2.2
38	BC	150	GLY	2.2
26	B0	50	ASN	2.2
38	BC	140	PRO	2.2
38	BC	182	PRO	2.2
43	DH	21	PRO	2.2
44	BI	5	LEU	2.2
47	BP	64	LYS	2.2
42	DG	73	ALA	2.2
44	BI	68	LEU	2.2
12	AL	19	ARG	2.2
13	CM	92	HIS	2.2
50	DS	35	ILE	2.2
57	BZ	161	VAL	2.2
8	CH	115	SER	2.2
2	AB	118	LEU	2.2
9	CI	55	ALA	2.2
23	CW	14	A	2.2
36	BA	1508	A	2.2
36	DA	1174	A	2.2
40	BE	174	ASP	2.2
44	DI	137	PRO	2.2
8	CH	95	VAL	2.2
36	BA	2142	C	2.2
38	BC	127	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
42	DG	19	LEU	2.2
43	BH	97	ARG	2.2
57	BZ	173	ALA	2.2
57	DZ	79	ARG	2.2
40	DE	54	GLN	2.2
14	AN	8	GLU	2.2
38	BC	22	ILE	2.2
8	AH	119	LEU	2.2
47	BP	110	TYR	2.2
36	DA	2159	G	2.2
44	DI	1	MET	2.2
48	DQ	132	VAL	2.2
13	AM	85	GLY	2.2
6	AF	101	ALA	2.1
9	CI	122	ALA	2.1
42	DG	26	GLN	2.1
42	BG	126	ASP	2.1
36	DA	2133	G	2.1
36	DA	2155	G	2.1
7	CG	103	TRP	2.1
48	DQ	32	TYR	2.1
54	DW	74	ALA	2.1
2	AB	7	VAL	2.1
11	CK	11	LYS	2.1
26	B0	13	GLY	2.1
3	AC	193	TYR	2.1
36	BA	1171	G	2.1
36	BA	2149	G	2.1
36	DA	1176	G	2.1
9	CI	110	GLU	2.1
2	AB	125	PRO	2.1
10	CJ	35	SER	2.1
1	AA	723	U	2.1
36	DA	1530	C	2.1
7	CG	131	LYS	2.1
13	CM	19	LEU	2.1
42	BG	127	GLY	2.1
2	CB	53	ARG	2.1
2	CB	122	PHE	2.1
36	BA	2113	U	2.1
38	DC	134	ARG	2.1
50	DS	41	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
29	B3	57	GLU	2.1
42	DG	160	VAL	2.1
13	AM	76	ALA	2.1
36	DA	2122	U	2.1
43	BH	52	VAL	2.1
44	DI	133	HIS	2.1
36	DA	2163	C	2.1
51	BT	46	GLU	2.1
57	DZ	27	VAL	2.1
35	D9	36	GLN	2.1
44	DI	16	GLY	2.1
53	DV	42	GLY	2.1
16	AP	35	LYS	2.1
21	AU	9	ARG	2.1
38	BC	200	LYS	2.1
43	BH	85	LYS	2.1
19	AS	74	PHE	2.1
3	CC	207	VAL	2.1
41	DF	12	LEU	2.1
47	BP	18	ARG	2.1
57	DZ	89	PHE	2.1
31	B5	53	ALA	2.1
57	DZ	139	VAL	2.1
3	CC	101	LEU	2.1
1	CA	994	A	2.1
36	DA	2158	A	2.1
10	CJ	47	PHE	2.1
40	DE	151	TYR	2.1
47	BP	98	GLU	2.1
57	BZ	178	GLU	2.1
26	D0	41	ARG	2.1
43	BH	37	VAL	2.1
56	DY	72	VAL	2.1
23	CW	32	U	2.1
13	CM	3	ARG	2.1
2	CB	68	ILE	2.1
23	AW	4	C	2.1
23	CW	49	C	2.1
36	DA	352	G	2.1
9	CI	64	THR	2.1
25	CY	47	U	2.1
30	D4	50	THR	2.1

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Mol	Chain	Res	Type	RSRZ
32	D6	44	ARG	2.1
50	DS	23	ARG	2.1
56	DY	71	LYS	2.1
57	DZ	4	ARG	2.1
9	CI	67	GLY	2.1
2	AB	90	MET	2.1
21	CU	12	LYS	2.0
30	D4	60	GLU	2.0
38	BC	222	VAL	2.0
13	AM	119	GLY	2.0
13	CM	96	LEU	2.0
57	BZ	95	PRO	2.0
38	DC	96	GLY	2.0
16	CP	13	HIS	2.0
57	DZ	154	ASP	2.0
8	CH	58	TYR	2.0
19	CS	79	THR	2.0
28	D2	18	PRO	2.0
38	DC	152	ILE	2.0
20	CT	81	LYS	2.0
23	CW	8	U	2.0
36	BA	275	G	2.0
19	CS	12	ASP	2.0
16	CP	32	TYR	2.0
36	DA	1046	A	2.0
50	DS	26	LEU	2.0
35	D9	21	GLY	2.0
38	BC	135	GLY	2.0
44	DI	11	ASN	2.0
23	CW	10	G	2.0
37	DB	117	G	2.0
38	BC	162	GLU	2.0
57	DZ	149	SER	2.0
40	DE	75	VAL	2.0
42	BG	182	LYS	2.0
38	BC	73	ARG	2.0
38	BC	206	GLY	2.0
40	BE	56	PRO	2.0
10	CJ	61	GLU	2.0
25	AY	60	U	2.0
33	D7	46	VAL	2.0
9	CI	79	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
43	BH	95	ARG	2.0
43	BH	130	ARG	2.0
44	DI	140	LEU	2.0
48	DQ	107	ALA	2.0
23	CW	27	G	2.0
36	BA	2160	G	2.0
25	AY	73	A	2.0
36	DA	2143	C	2.0
38	DC	139	ASN	2.0
45	BN	3	THR	2.0
56	DY	64	GLU	2.0
23	AW	13	C	2.0
23	CW	3	C	2.0
36	BA	2105	C	2.0
36	BA	2129	C	2.0
10	AJ	28	ARG	2.0
21	CU	15	ARG	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	5MU	CV	54	21/22	0.82	0.27	173,181,194,194	0
22	5MU	AV	54	21/22	0.91	0.14	104,135,151,151	0
25	PHA	AY	77	11/11	0.94	0.34	60,62,65,66	0
25	PHA	CY	77	11/11	0.94	0.46	60,62,65,66	0
25	8AN	CY	76	22/23	0.95	0.22	37,58,79,189	0
25	8AN	AY	76	22/23	0.95	0.18	37,58,79,189	0

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
58	MG	BA	3288	1/1	-0.16	2.52	88,88,88,88	1
58	MG	CW	114	1/1	-0.08	0.33	108,108,108,108	1
58	MG	AA	1688	1/1	-0.01	0.33	118,118,118,118	0
58	MG	DA	3443	1/1	0.01	0.22	111,111,111,111	0
58	MG	DB	201	1/1	0.01	0.30	135,135,135,135	0
58	MG	CA	1719	1/1	0.08	0.26	112,112,112,112	0
58	MG	AA	1666	1/1	0.08	0.92	122,122,122,122	0
58	MG	DA	3327	1/1	0.11	0.73	106,106,106,106	1
58	MG	BA	3424	1/1	0.15	0.55	107,107,107,107	0
58	MG	BA	3450	1/1	0.16	0.25	125,125,125,125	0
58	MG	DA	3213	1/1	0.18	0.49	124,124,124,124	0
58	MG	BA	3336	1/1	0.18	0.74	105,105,105,105	1
58	MG	DA	3360	1/1	0.21	1.08	97,97,97,97	1
58	MG	DA	3103	1/1	0.24	1.05	102,102,102,102	1
58	MG	CA	1626	1/1	0.24	0.87	119,119,119,119	0
58	MG	BA	3009	1/1	0.26	1.95	109,109,109,109	0
58	MG	DA	3273	1/1	0.26	0.76	155,155,155,155	0
58	MG	BA	3305	1/1	0.30	1.07	112,112,112,112	0
58	MG	BA	3285	1/1	0.31	0.97	112,112,112,112	0
58	MG	BA	3050	1/1	0.31	0.76	84,84,84,84	0
58	MG	BB	213	1/1	0.32	0.97	148,148,148,148	0
58	MG	AA	1725	1/1	0.32	0.31	77,77,77,77	0
58	MG	AA	1763	1/1	0.32	1.06	114,114,114,114	1
58	MG	CA	1722	1/1	0.32	0.16	106,106,106,106	0
58	MG	DA	3448	1/1	0.33	0.12	97,97,97,97	0
58	MG	CW	103	1/1	0.33	0.48	119,119,119,119	0
58	MG	AA	1789	1/1	0.34	0.56	152,152,152,152	0
58	MG	CA	1783	1/1	0.34	1.21	100,100,100,100	0
58	MG	DA	3434	1/1	0.35	0.76	107,107,107,107	1
58	MG	CE	201	1/1	0.35	0.28	132,132,132,132	0
58	MG	DA	3166	1/1	0.36	0.96	104,104,104,104	0
58	MG	BA	3213	1/1	0.36	0.56	109,109,109,109	0
58	MG	CA	1801	1/1	0.36	0.40	128,128,128,128	0
58	MG	CA	1663	1/1	0.36	0.32	127,127,127,127	0
58	MG	DA	3357	1/1	0.36	0.24	111,111,111,111	0
58	MG	DA	3358	1/1	0.38	0.36	102,102,102,102	0
58	MG	BA	3104	1/1	0.38	0.63	65,65,65,65	1
58	MG	AA	1762	1/1	0.38	1.01	76,76,76,76	1
58	MG	CA	1688	1/1	0.39	1.02	115,115,115,115	0
58	MG	BA	3242	1/1	0.39	1.09	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3345	1/1	0.40	0.28	110,110,110,110	1
58	MG	AW	117	1/1	0.41	1.09	134,134,134,134	0
58	MG	CA	1739	1/1	0.41	0.73	109,109,109,109	0
58	MG	CA	1636	1/1	0.42	0.19	103,103,103,103	1
58	MG	CA	1680	1/1	0.42	0.77	83,83,83,83	1
58	MG	CA	1751	1/1	0.43	0.89	128,128,128,128	0
58	MG	BA	3234	1/1	0.44	0.67	115,115,115,115	0
58	MG	AA	1670	1/1	0.44	0.32	95,95,95,95	0
58	MG	CA	1772	1/1	0.44	0.67	101,101,101,101	0
58	MG	BA	3130	1/1	0.45	0.87	92,92,92,92	1
58	MG	DA	3264	1/1	0.45	1.03	98,98,98,98	0
58	MG	CA	1731	1/1	0.45	0.42	142,142,142,142	0
58	MG	BA	3446	1/1	0.45	0.19	92,92,92,92	0
58	MG	DA	3346	1/1	0.46	1.11	109,109,109,109	0
58	MG	CA	1724	1/1	0.46	0.67	91,91,91,91	1
58	MG	CW	115	1/1	0.46	0.36	139,139,139,139	0
58	MG	CA	1810	1/1	0.46	0.76	95,95,95,95	0
58	MG	DA	3411	1/1	0.47	0.29	115,115,115,115	1
58	MG	CA	1726	1/1	0.47	0.26	65,65,65,65	0
58	MG	AA	1773	1/1	0.47	0.22	71,71,71,71	0
58	MG	DA	3447	1/1	0.47	1.49	87,87,87,87	1
58	MG	AA	1676	1/1	0.47	0.32	95,95,95,95	0
58	MG	DA	3227	1/1	0.47	0.40	91,91,91,91	0
58	MG	BA	3340	1/1	0.48	0.38	97,97,97,97	1
58	MG	CA	1649	1/1	0.48	0.48	82,82,82,82	0
58	MG	AA	1772	1/1	0.48	0.46	100,100,100,100	1
58	MG	CW	105	1/1	0.48	0.20	123,123,123,123	0
58	MG	DA	3262	1/1	0.49	0.89	96,96,96,96	0
58	MG	AW	110	1/1	0.49	0.59	77,77,77,77	1
58	MG	BA	3223	1/1	0.49	0.48	82,82,82,82	0
58	MG	DA	3219	1/1	0.49	0.44	102,102,102,102	0
58	MG	CA	1682	1/1	0.49	0.54	83,83,83,83	0
58	MG	AA	1652	1/1	0.50	0.43	107,107,107,107	0
58	MG	BA	3187	1/1	0.50	0.16	98,98,98,98	0
58	MG	AA	1696	1/1	0.51	0.83	103,103,103,103	0
58	MG	DA	3395	1/1	0.51	0.34	73,73,73,73	1
58	MG	B2	601	1/1	0.51	0.53	68,68,68,68	1
58	MG	DA	3151	1/1	0.51	0.54	94,94,94,94	0
58	MG	AA	1608	1/1	0.52	0.96	110,110,110,110	0
58	MG	AA	1700	1/1	0.52	0.53	90,90,90,90	0
58	MG	DA	3344	1/1	0.52	0.49	72,72,72,72	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DB	213	1/1	0.52	0.60	102,102,102,102	0
58	MG	AA	1602	1/1	0.53	0.52	91,91,91,91	0
58	MG	DA	3420	1/1	0.53	0.38	66,66,66,66	0
58	MG	BA	3309	1/1	0.53	0.31	94,94,94,94	0
58	MG	DA	3223	1/1	0.53	0.38	82,82,82,82	0
58	MG	DN	202	1/1	0.53	0.76	97,97,97,97	0
58	MG	BA	3259	1/1	0.54	0.48	91,91,91,91	0
58	MG	CA	1627	1/1	0.54	0.87	97,97,97,97	0
58	MG	CW	108	1/1	0.54	0.48	130,130,130,130	0
58	MG	DB	214	1/1	0.54	0.66	94,94,94,94	1
58	MG	CA	1716	1/1	0.54	0.74	83,83,83,83	0
58	MG	CA	1678	1/1	0.55	0.28	109,109,109,109	0
58	MG	DA	3209	1/1	0.55	0.64	105,105,105,105	0
58	MG	BA	3221	1/1	0.55	0.47	72,72,72,72	0
58	MG	DA	3351	1/1	0.55	0.52	79,79,79,79	1
58	MG	BA	3345	1/1	0.55	0.60	93,93,93,93	1
58	MG	BA	3389	1/1	0.55	0.33	107,107,107,107	0
58	MG	DA	3161	1/1	0.56	0.62	131,131,131,131	0
58	MG	AA	1661	1/1	0.56	0.18	83,83,83,83	0
58	MG	DA	3304	1/1	0.56	0.59	88,88,88,88	0
58	MG	BA	3347	1/1	0.56	0.54	85,85,85,85	1
58	MG	AD	301	1/1	0.56	0.23	84,84,84,84	0
58	MG	AA	1745	1/1	0.56	1.51	121,121,121,121	0
58	MG	CV	105	1/1	0.56	0.81	110,110,110,110	0
58	MG	DA	3224	1/1	0.56	0.97	99,99,99,99	1
58	MG	BA	3291	1/1	0.56	0.16	90,90,90,90	0
58	MG	DA	3255	1/1	0.56	0.41	96,96,96,96	0
58	MG	DA	3156	1/1	0.56	0.52	94,94,94,94	0
58	MG	DA	3102	1/1	0.57	0.80	107,107,107,107	0
58	MG	CA	1730	1/1	0.57	1.30	111,111,111,111	0
58	MG	CA	1639	1/1	0.57	0.46	140,140,140,140	0
58	MG	DA	3265	1/1	0.57	0.51	69,69,69,69	0
58	MG	BB	202	1/1	0.57	0.50	97,97,97,97	1
58	MG	CA	1661	1/1	0.58	0.50	98,98,98,98	0
58	MG	AA	1743	1/1	0.58	0.73	86,86,86,86	0
58	MG	BA	3422	1/1	0.58	0.28	67,67,67,67	0
58	MG	BA	3249	1/1	0.59	0.36	57,57,57,57	0
58	MG	DA	3445	1/1	0.59	0.08	98,98,98,98	0
58	MG	CA	1635	1/1	0.59	0.31	81,81,81,81	0
58	MG	DA	3178	1/1	0.59	0.55	125,125,125,125	0
58	MG	DA	3183	1/1	0.59	0.30	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1685	1/1	0.59	0.49	101,101,101,101	0
58	MG	BA	3260	1/1	0.59	0.60	102,102,102,102	1
58	MG	AW	112	1/1	0.59	0.18	107,107,107,107	1
58	MG	DA	3196	1/1	0.60	0.56	82,82,82,82	0
58	MG	BA	3164	1/1	0.60	0.47	84,84,84,84	0
58	MG	CA	1774	1/1	0.60	0.23	63,63,63,63	0
58	MG	AA	1655	1/1	0.60	0.87	89,89,89,89	0
58	MG	CA	1701	1/1	0.60	0.58	113,113,113,113	0
58	MG	DA	3301	1/1	0.60	0.76	91,91,91,91	0
58	MG	AA	1662	1/1	0.60	0.22	95,95,95,95	0
58	MG	DA	3191	1/1	0.60	0.25	75,75,75,75	0
58	MG	DA	3234	1/1	0.60	1.45	91,91,91,91	0
58	MG	DA	3231	1/1	0.61	0.38	85,85,85,85	0
58	MG	DA	3005	1/1	0.61	1.01	138,138,138,138	0
58	MG	CA	1643	1/1	0.61	0.41	95,95,95,95	0
58	MG	DA	3374	1/1	0.61	0.21	72,72,72,72	0
58	MG	BX	102	1/1	0.61	0.46	97,97,97,97	0
58	MG	BA	3394	1/1	0.61	1.27	105,105,105,105	0
58	MG	CA	1770	1/1	0.61	0.50	121,121,121,121	0
58	MG	DA	3159	1/1	0.61	0.35	74,74,74,74	0
58	MG	BA	3428	1/1	0.62	0.80	90,90,90,90	0
58	MG	DA	3291	1/1	0.62	0.22	105,105,105,105	0
58	MG	BA	3163	1/1	0.62	1.05	132,132,132,132	0
58	MG	AA	1780	1/1	0.62	0.52	84,84,84,84	0
58	MG	DA	3311	1/1	0.62	0.64	93,93,93,93	0
58	MG	BA	3295	1/1	0.62	0.65	89,89,89,89	0
58	MG	BA	3298	1/1	0.62	0.35	91,91,91,91	0
58	MG	AA	1730	1/1	0.62	0.49	93,93,93,93	0
58	MG	DA	3250	1/1	0.62	0.18	82,82,82,82	0
58	MG	BA	3278	1/1	0.62	0.49	119,119,119,119	0
58	MG	BA	3423	1/1	0.62	0.11	125,125,125,125	1
58	MG	CA	1816	1/1	0.62	1.29	102,102,102,102	0
58	MG	AA	1796	1/1	0.62	0.13	106,106,106,106	1
58	MG	CA	1647	1/1	0.63	0.51	94,94,94,94	0
58	MG	AA	1765	1/1	0.63	0.67	116,116,116,116	0
58	MG	CA	1762	1/1	0.63	0.53	60,60,60,60	1
58	MG	DA	3440	1/1	0.63	0.10	77,77,77,77	0
58	MG	BA	3436	1/1	0.64	0.21	60,60,60,60	1
58	MG	DA	3334	1/1	0.64	0.48	107,107,107,107	1
58	MG	DA	3364	1/1	0.64	0.45	95,95,95,95	0
58	MG	AV	105	1/1	0.64	0.52	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3089	1/1	0.64	0.21	61,61,61,61	0
58	MG	BA	3034	1/1	0.64	0.47	73,73,73,73	0
58	MG	BA	3431	1/1	0.64	0.32	124,124,124,124	0
58	MG	DA	3426	1/1	0.64	0.51	88,88,88,88	0
58	MG	DA	3317	1/1	0.64	0.22	88,88,88,88	1
58	MG	DA	3197	1/1	0.65	0.15	89,89,89,89	1
58	MG	BA	3355	1/1	0.65	0.49	63,63,63,63	1
58	MG	DA	3325	1/1	0.65	0.21	90,90,90,90	0
58	MG	CA	1743	1/1	0.65	0.48	128,128,128,128	0
58	MG	D1	101	1/1	0.65	0.61	113,113,113,113	0
58	MG	AA	1734	1/1	0.65	0.41	92,92,92,92	0
58	MG	AA	1704	1/1	0.65	0.14	87,87,87,87	0
58	MG	DA	3179	1/1	0.66	0.22	109,109,109,109	0
58	MG	BA	3160	1/1	0.66	0.21	61,61,61,61	0
58	MG	CA	1677	1/1	0.66	0.21	88,88,88,88	0
58	MG	BA	3214	1/1	0.66	0.29	97,97,97,97	0
58	MG	BA	3013	1/1	0.66	0.60	80,80,80,80	0
58	MG	AA	1606	1/1	0.66	0.24	76,76,76,76	0
58	MG	BA	3270	1/1	0.66	0.27	74,74,74,74	0
58	MG	CA	1697	1/1	0.66	0.23	87,87,87,87	0
58	MG	BB	219	1/1	0.66	0.26	89,89,89,89	1
58	MG	DA	3449	1/1	0.66	0.10	92,92,92,92	0
58	MG	CA	1710	1/1	0.66	1.36	127,127,127,127	0
58	MG	DA	3309	1/1	0.66	0.34	89,89,89,89	0
58	MG	BA	3351	1/1	0.66	1.07	125,125,125,125	0
58	MG	AA	1629	1/1	0.66	0.21	87,87,87,87	0
58	MG	AA	1601	1/1	0.67	0.24	92,92,92,92	0
58	MG	BB	204	1/1	0.67	0.23	103,103,103,103	0
58	MG	BA	3158	1/1	0.67	0.57	97,97,97,97	0
58	MG	BA	3220	1/1	0.67	0.13	80,80,80,80	1
58	MG	CA	1773	1/1	0.67	0.47	82,82,82,82	1
58	MG	BA	3070	1/1	0.67	0.87	116,116,116,116	0
58	MG	BA	3074	1/1	0.67	0.28	75,75,75,75	0
58	MG	AA	1693	1/1	0.67	1.61	109,109,109,109	1
58	MG	CA	1808	1/1	0.67	0.10	107,107,107,107	0
58	MG	AA	1635	1/1	0.67	0.48	94,94,94,94	0
58	MG	DA	3043	1/1	0.67	0.41	111,111,111,111	0
58	MG	DA	3375	1/1	0.67	0.22	106,106,106,106	0
58	MG	DA	3380	1/1	0.67	0.44	85,85,85,85	1
58	MG	DA	3251	1/1	0.67	0.18	95,95,95,95	0
58	MG	DA	3348	1/1	0.68	0.52	94,94,94,94	0
58	MG	BA	3404	1/1	0.68	0.50	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	CA	1705	1/1	0.68	0.21	76,76,76,76	0
58	MG	CW	116	1/1	0.68	0.22	103,103,103,103	1
58	MG	AG	201	1/1	0.68	1.31	127,127,127,127	0
58	MG	AA	1672	1/1	0.68	0.31	87,87,87,87	0
58	MG	DA	3171	1/1	0.68	1.84	88,88,88,88	0
58	MG	DA	3175	1/1	0.68	0.33	87,87,87,87	0
58	MG	AA	1808	1/1	0.68	0.50	101,101,101,101	0
58	MG	BA	3276	1/1	0.68	0.22	68,68,68,68	0
58	MG	DB	202	1/1	0.68	1.14	113,113,113,113	1
58	MG	DA	3409	1/1	0.68	0.27	141,141,141,141	0
58	MG	DA	3410	1/1	0.68	0.96	99,99,99,99	0
58	MG	AA	1711	1/1	0.68	0.22	85,85,85,85	0
58	MG	BA	3296	1/1	0.69	0.33	83,83,83,83	0
58	MG	BA	3287	1/1	0.69	0.74	92,92,92,92	1
58	MG	BA	3200	1/1	0.69	0.20	52,52,52,52	0
58	MG	BB	208	1/1	0.69	0.10	103,103,103,103	0
58	MG	DA	3277	1/1	0.69	0.16	104,104,104,104	0
58	MG	AA	1769	1/1	0.69	0.46	74,74,74,74	0
58	MG	DA	3148	1/1	0.69	0.39	88,88,88,88	0
58	MG	BA	3316	1/1	0.69	0.49	81,81,81,81	0
58	MG	BA	3363	1/1	0.69	0.37	116,116,116,116	0
58	MG	AA	1799	1/1	0.69	0.46	117,117,117,117	0
58	MG	BA	3339	1/1	0.69	0.48	120,120,120,120	1
58	MG	CA	1673	1/1	0.70	0.28	92,92,92,92	0
58	MG	DA	3279	1/1	0.70	0.78	92,92,92,92	0
58	MG	AA	1812	1/1	0.70	0.46	93,93,93,93	0
58	MG	BA	3148	1/1	0.70	0.24	59,59,59,59	1
58	MG	CA	1629	1/1	0.70	0.22	89,89,89,89	0
58	MG	BA	3199	1/1	0.70	0.23	73,73,73,73	0
58	MG	BA	3228	1/1	0.70	0.62	107,107,107,107	1
58	MG	BA	3233	1/1	0.70	0.11	98,98,98,98	0
58	MG	AA	1747	1/1	0.70	0.39	85,85,85,85	1
58	MG	BB	214	1/1	0.70	0.48	92,92,92,92	0
58	MG	AA	1650	1/1	0.70	0.24	66,66,66,66	0
58	MG	DA	3335	1/1	0.70	0.42	87,87,87,87	1
58	MG	AA	1742	1/1	0.70	0.25	96,96,96,96	0
58	MG	DN	201	1/1	0.70	1.46	95,95,95,95	0
58	MG	CA	1621	1/1	0.70	0.20	91,91,91,91	0
58	MG	BA	3453	1/1	0.71	0.40	114,114,114,114	0
58	MG	DA	3323	1/1	0.71	0.23	105,105,105,105	1
58	MG	DA	3141	1/1	0.71	1.03	102,102,102,102	0
58	MG	BA	3141	1/1	0.71	0.22	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3331	1/1	0.71	0.97	116,116,116,116	1
58	MG	AA	1783	1/1	0.71	0.52	144,144,144,144	0
58	MG	DA	3377	1/1	0.71	0.12	89,89,89,89	0
58	MG	D7	102	1/1	0.71	0.64	73,73,73,73	1
58	MG	BA	3403	1/1	0.71	0.38	58,58,58,58	0
58	MG	AA	1631	1/1	0.71	0.49	109,109,109,109	0
58	MG	DA	3198	1/1	0.71	0.54	106,106,106,106	0
58	MG	DA	3071	1/1	0.71	0.23	73,73,73,73	0
58	MG	DB	216	1/1	0.71	0.59	108,108,108,108	0
58	MG	DA	3414	1/1	0.71	0.79	130,130,130,130	0
58	MG	CA	1672	1/1	0.71	0.46	86,86,86,86	0
58	MG	BA	3202	1/1	0.72	0.28	80,80,80,80	1
58	MG	DA	3252	1/1	0.72	0.27	65,65,65,65	0
58	MG	CA	1618	1/1	0.72	1.10	109,109,109,109	0
58	MG	CA	1665	1/1	0.72	0.33	64,64,64,64	0
58	MG	BA	3447	1/1	0.72	0.39	104,104,104,104	0
58	MG	CV	108	1/1	0.72	0.54	67,67,67,67	1
58	MG	DA	3035	1/1	0.72	0.50	78,78,78,78	0
58	MG	BA	3341	1/1	0.72	0.46	112,112,112,112	0
58	MG	AA	1618	1/1	0.72	0.69	106,106,106,106	0
58	MG	CW	106	1/1	0.72	0.24	106,106,106,106	0
58	MG	DA	3298	1/1	0.72	0.27	50,50,50,50	0
58	MG	BA	3401	1/1	0.72	0.65	119,119,119,119	0
58	MG	CA	1651	1/1	0.72	0.43	85,85,85,85	0
58	MG	DA	3144	1/1	0.72	0.40	68,68,68,68	0
58	MG	DA	3088	1/1	0.73	0.44	83,83,83,83	0
58	MG	BA	3331	1/1	0.73	0.20	119,119,119,119	0
58	MG	AA	1695	1/1	0.73	0.26	62,62,62,62	0
58	MG	DA	3107	1/1	0.73	0.32	95,95,95,95	0
58	MG	AA	1647	1/1	0.73	0.14	94,94,94,94	0
58	MG	BA	3362	1/1	0.73	0.29	90,90,90,90	0
58	MG	DA	3399	1/1	0.73	0.74	131,131,131,131	0
58	MG	AA	1760	1/1	0.73	0.44	66,66,66,66	0
58	MG	AA	1779	1/1	0.73	0.34	72,72,72,72	1
58	MG	CA	1609	1/1	0.73	0.37	109,109,109,109	0
58	MG	BA	3279	1/1	0.73	0.36	105,105,105,105	0
58	MG	DA	3070	1/1	0.73	0.12	54,54,54,54	0
58	MG	DA	3423	1/1	0.73	0.57	117,117,117,117	0
58	MG	CA	1675	1/1	0.73	0.68	116,116,116,116	0
58	MG	BA	3232	1/1	0.74	0.67	101,101,101,101	0
58	MG	CK	201	1/1	0.74	0.61	95,95,95,95	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AW	103	1/1	0.74	0.22	100,100,100,100	0
58	MG	DA	3332	1/1	0.74	0.18	100,100,100,100	0
58	MG	BA	3170	1/1	0.74	0.12	65,65,65,65	0
58	MG	BA	3238	1/1	0.74	0.58	67,67,67,67	0
58	MG	BB	209	1/1	0.74	0.23	114,114,114,114	0
58	MG	BA	3329	1/1	0.74	0.13	88,88,88,88	1
58	MG	AW	104	1/1	0.74	0.25	98,98,98,98	1
58	MG	AA	1788	1/1	0.74	0.45	81,81,81,81	0
58	MG	AA	1668	1/1	0.74	0.34	66,66,66,66	0
58	MG	BA	3227	1/1	0.74	0.35	73,73,73,73	0
58	MG	CA	1687	1/1	0.74	0.63	84,84,84,84	0
58	MG	AA	1813	1/1	0.74	0.39	101,101,101,101	0
58	MG	DA	3435	1/1	0.75	0.20	59,59,59,59	0
58	MG	DA	3195	1/1	0.75	0.31	96,96,96,96	0
58	MG	BA	3183	1/1	0.75	0.22	122,122,122,122	0
58	MG	DA	3249	1/1	0.75	0.33	83,83,83,83	0
58	MG	CX	101	1/1	0.75	0.20	83,83,83,83	0
58	MG	BA	3409	1/1	0.75	0.10	95,95,95,95	0
58	MG	BA	3429	1/1	0.75	0.67	87,87,87,87	0
58	MG	CA	1613	1/1	0.75	0.28	68,68,68,68	0
58	MG	CA	1617	1/1	0.75	0.71	73,73,73,73	0
58	MG	DA	3220	1/1	0.75	1.42	97,97,97,97	0
58	MG	BA	3230	1/1	0.75	0.32	82,82,82,82	0
58	MG	CA	1619	1/1	0.75	0.78	119,119,119,119	0
58	MG	DA	3330	1/1	0.75	0.46	97,97,97,97	0
58	MG	BA	3269	1/1	0.75	0.54	85,85,85,85	0
58	MG	DA	3287	1/1	0.76	0.36	77,77,77,77	0
58	MG	AV	103	1/1	0.76	0.17	102,102,102,102	0
58	MG	AW	101	1/1	0.76	0.52	73,73,73,73	1
58	MG	DA	3241	1/1	0.76	0.57	60,60,60,60	0
58	MG	DA	3303	1/1	0.76	1.03	97,97,97,97	0
58	MG	BA	3235	1/1	0.76	0.53	82,82,82,82	0
58	MG	CA	1638	1/1	0.76	0.46	82,82,82,82	0
58	MG	BA	3377	1/1	0.76	0.55	94,94,94,94	0
58	MG	DA	3205	1/1	0.76	0.57	81,81,81,81	0
58	MG	BA	3262	1/1	0.76	0.17	81,81,81,81	0
58	MG	BA	3308	1/1	0.76	0.86	97,97,97,97	0
58	MG	BA	3209	1/1	0.76	0.23	49,49,49,49	0
58	MG	DA	3379	1/1	0.76	0.37	66,66,66,66	0
58	MG	BA	3176	1/1	0.76	0.21	62,62,62,62	0
58	MG	DA	3387	1/1	0.76	0.23	63,63,63,63	0
58	MG	DA	3391	1/1	0.76	0.65	86,86,86,86	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3272	1/1	0.76	0.52	92,92,92,92	0
58	MG	BB	217	1/1	0.76	0.43	121,121,121,121	0
58	MG	CA	1742	1/1	0.76	0.61	94,94,94,94	0
58	MG	DA	3283	1/1	0.76	0.49	66,66,66,66	1
58	MG	AA	1689	1/1	0.77	0.21	106,106,106,106	0
58	MG	BA	3236	1/1	0.77	0.38	67,67,67,67	0
58	MG	BA	3284	1/1	0.77	0.40	77,77,77,77	0
58	MG	AA	1697	1/1	0.77	0.18	92,92,92,92	0
58	MG	CA	1737	1/1	0.77	0.45	95,95,95,95	1
58	MG	DA	3336	1/1	0.77	0.42	75,75,75,75	1
58	MG	AA	1616	1/1	0.77	0.34	74,74,74,74	0
58	MG	BA	3192	1/1	0.77	0.36	124,124,124,124	0
58	MG	AE	201	1/1	0.77	0.13	110,110,110,110	0
58	MG	DA	3428	1/1	0.77	0.13	91,91,91,91	0
58	MG	DA	3146	1/1	0.77	0.28	58,58,58,58	1
58	MG	AA	1694	1/1	0.77	0.42	22,22,22,22	1
58	MG	BA	3346	1/1	0.77	0.23	76,76,76,76	1
58	MG	AA	1624	1/1	0.77	0.12	74,74,74,74	0
58	MG	BA	3231	1/1	0.77	0.30	114,114,114,114	0
58	MG	BA	3206	1/1	0.77	0.23	63,63,63,63	0
58	MG	DA	3370	1/1	0.77	1.79	74,74,74,74	1
58	MG	CA	1612	1/1	0.77	0.43	116,116,116,116	0
58	MG	CA	1780	1/1	0.77	0.86	81,81,81,81	1
58	MG	DA	3313	1/1	0.77	0.63	73,73,73,73	0
58	MG	BA	3307	1/1	0.77	0.19	104,104,104,104	0
58	MG	CA	1784	1/1	0.77	0.35	78,78,78,78	0
58	MG	AA	1764	1/1	0.77	0.08	94,94,94,94	0
58	MG	DB	217	1/1	0.77	0.66	110,110,110,110	1
58	MG	DA	3388	1/1	0.77	0.36	94,94,94,94	0
58	MG	B5	102	1/1	0.77	0.90	73,73,73,73	1
58	MG	BA	3375	1/1	0.78	0.76	58,58,58,58	1
58	MG	BA	3150	1/1	0.78	0.45	73,73,73,73	0
58	MG	BA	3381	1/1	0.78	0.10	108,108,108,108	0
58	MG	DA	3036	1/1	0.78	0.18	94,94,94,94	0
58	MG	BB	218	1/1	0.78	0.44	78,78,78,78	1
58	MG	DA	3245	1/1	0.78	0.55	64,64,64,64	0
58	MG	AA	1785	1/1	0.78	0.27	70,70,70,70	0
58	MG	BA	3001	1/1	0.78	0.32	71,71,71,71	0
58	MG	BA	3004	1/1	0.78	0.47	109,109,109,109	0
58	MG	CA	1644	1/1	0.78	0.24	72,72,72,72	0
58	MG	DA	3376	1/1	0.78	0.34	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3253	1/1	0.78	0.42	72,72,72,72	1
58	MG	AA	1723	1/1	0.78	0.39	85,85,85,85	1
58	MG	BA	3290	1/1	0.78	0.29	51,51,51,51	0
58	MG	CA	1650	1/1	0.78	0.42	98,98,98,98	0
58	MG	BB	201	1/1	0.78	0.81	94,94,94,94	0
58	MG	BA	3321	1/1	0.78	0.42	102,102,102,102	0
58	MG	AA	1683	1/1	0.78	0.35	72,72,72,72	0
58	MG	DA	3398	1/1	0.78	0.23	57,57,57,57	0
58	MG	AA	1626	1/1	0.78	0.31	99,99,99,99	0
58	MG	AA	1731	1/1	0.78	0.12	64,64,64,64	0
58	MG	CA	1799	1/1	0.78	0.17	89,89,89,89	0
58	MG	BA	3445	1/1	0.79	0.25	84,84,84,84	0
58	MG	CA	1660	1/1	0.79	0.29	91,91,91,91	0
58	MG	DA	3259	1/1	0.79	0.16	70,70,70,70	0
58	MG	BA	3327	1/1	0.79	0.14	123,123,123,123	0
58	MG	AA	1658	1/1	0.79	0.37	58,58,58,58	1
58	MG	AW	116	1/1	0.79	0.58	129,129,129,129	1
58	MG	CA	1747	1/1	0.79	0.16	67,67,67,67	0
58	MG	DA	3246	1/1	0.79	0.51	53,53,53,53	0
58	MG	DA	3421	1/1	0.79	0.24	107,107,107,107	1
58	MG	AA	1753	1/1	0.79	0.38	81,81,81,81	0
58	MG	AW	119	1/1	0.79	0.15	98,98,98,98	0
58	MG	CA	1763	1/1	0.79	0.67	93,93,93,93	1
58	MG	DA	3390	1/1	0.79	0.30	112,112,112,112	0
58	MG	AA	1604	1/1	0.79	0.42	99,99,99,99	0
58	MG	AA	1632	1/1	0.80	0.14	64,64,64,64	0
58	MG	AA	1686	1/1	0.80	0.33	75,75,75,75	0
58	MG	BA	3349	1/1	0.80	0.46	76,76,76,76	1
58	MG	CA	1725	1/1	0.80	0.49	131,131,131,131	0
58	MG	BA	3071	1/1	0.80	0.33	70,70,70,70	0
58	MG	BA	3253	1/1	0.80	0.37	85,85,85,85	0
58	MG	BA	3002	1/1	0.80	0.28	71,71,71,71	0
58	MG	AA	1771	1/1	0.80	0.41	73,73,73,73	0
58	MG	BA	3328	1/1	0.80	0.47	116,116,116,116	1
58	MG	BA	3289	1/1	0.80	0.21	93,93,93,93	0
58	MG	DA	3319	1/1	0.80	0.44	105,105,105,105	1
58	MG	CA	1603	1/1	0.80	0.37	88,88,88,88	0
58	MG	CA	1745	1/1	0.80	0.55	96,96,96,96	0
58	MG	AA	1718	1/1	0.80	0.17	150,150,150,150	0
58	MG	BA	3267	1/1	0.80	0.23	66,66,66,66	0
58	MG	CA	1755	1/1	0.80	0.23	105,105,105,105	0
58	MG	BA	3108	1/1	0.80	0.24	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3333	1/1	0.80	0.20	130,130,130,130	0
58	MG	BA	3113	1/1	0.80	0.89	82,82,82,82	0
58	MG	CA	1767	1/1	0.80	0.43	76,76,76,76	0
58	MG	AA	1691	1/1	0.80	0.30	54,54,54,54	0
58	MG	DA	3282	1/1	0.80	0.36	73,73,73,73	1
58	MG	AA	1752	1/1	0.80	0.47	104,104,104,104	0
58	MG	CA	1653	1/1	0.81	0.52	110,110,110,110	0
58	MG	CA	1656	1/1	0.81	0.63	74,74,74,74	0
58	MG	CA	1658	1/1	0.81	1.44	103,103,103,103	0
58	MG	AA	1612	1/1	0.81	0.33	80,80,80,80	0
58	MG	BA	3419	1/1	0.81	0.77	93,93,93,93	0
58	MG	DA	3314	1/1	0.81	0.39	72,72,72,72	0
58	MG	BA	3177	1/1	0.81	0.14	55,55,55,55	0
58	MG	BA	3292	1/1	0.81	0.24	65,65,65,65	0
58	MG	CA	1813	1/1	0.81	0.56	96,96,96,96	0
58	MG	DA	3117	1/1	0.81	0.63	69,69,69,69	0
58	MG	CA	1815	1/1	0.81	0.53	68,68,68,68	0
58	MG	BA	3142	1/1	0.81	0.41	77,77,77,77	0
58	MG	BA	3365	1/1	0.81	0.61	76,76,76,76	1
58	MG	AA	1740	1/1	0.81	0.43	81,81,81,81	1
58	MG	CV	102	1/1	0.81	0.12	89,89,89,89	1
58	MG	BA	3191	1/1	0.81	0.27	71,71,71,71	0
58	MG	AV	108	1/1	0.81	0.18	67,67,67,67	1
58	MG	AA	1728	1/1	0.81	0.26	69,69,69,69	0
58	MG	BN	201	1/1	0.81	0.93	79,79,79,79	0
58	MG	CA	1750	1/1	0.81	0.28	109,109,109,109	0
58	MG	CA	1686	1/1	0.81	0.37	80,80,80,80	0
58	MG	BP	202	1/1	0.81	0.29	14,14,14,14	1
58	MG	AA	1719	1/1	0.81	0.27	91,91,91,91	0
58	MG	DA	3181	1/1	0.81	0.61	74,74,74,74	0
58	MG	CA	1690	1/1	0.81	0.12	122,122,122,122	0
58	MG	CW	119	1/1	0.81	0.37	108,108,108,108	0
58	MG	AA	1643	1/1	0.81	0.22	65,65,65,65	0
58	MG	BA	3123	1/1	0.81	0.21	46,46,46,46	0
58	MG	BA	3451	1/1	0.81	0.11	85,85,85,85	0
58	MG	CA	1709	1/1	0.81	0.73	96,96,96,96	0
58	MG	DA	3297	1/1	0.81	0.15	84,84,84,84	0
58	MG	DA	3201	1/1	0.81	0.65	55,55,55,55	0
58	MG	AA	1802	1/1	0.81	0.21	110,110,110,110	0
58	MG	DX	103	1/1	0.81	0.24	112,112,112,112	0
58	MG	AX	104	1/1	0.82	0.64	71,71,71,71	1
58	MG	AA	1791	1/1	0.82	0.48	60,60,60,60	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1755	1/1	0.82	0.42	83,83,83,83	0
58	MG	CA	1729	1/1	0.82	0.35	81,81,81,81	0
58	MG	DA	3430	1/1	0.82	0.22	106,106,106,106	0
58	MG	CA	1601	1/1	0.82	0.29	49,49,49,49	0
58	MG	DA	3293	1/1	0.82	0.51	52,52,52,52	0
58	MG	DA	3296	1/1	0.82	1.24	66,66,66,66	1
58	MG	DA	3216	1/1	0.82	0.16	78,78,78,78	1
58	MG	DA	3009	1/1	0.82	0.29	44,44,44,44	0
58	MG	DA	3389	1/1	0.82	0.28	42,42,42,42	1
58	MG	CA	1659	1/1	0.82	0.39	64,64,64,64	1
58	MG	DA	3258	1/1	0.82	0.28	66,66,66,66	0
58	MG	CA	1732	1/1	0.82	0.11	66,66,66,66	0
58	MG	DA	3189	1/1	0.82	0.39	77,77,77,77	0
58	MG	AA	1790	1/1	0.82	0.98	28,28,28,28	1
58	MG	DA	3401	1/1	0.82	0.34	68,68,68,68	0
58	MG	DA	3049	1/1	0.82	0.89	83,83,83,83	0
58	MG	DA	3269	1/1	0.82	0.18	65,65,65,65	0
58	MG	BA	3275	1/1	0.82	0.13	61,61,61,61	0
58	MG	DA	3318	1/1	0.82	0.35	122,122,122,122	0
58	MG	CW	117	1/1	0.82	0.73	125,125,125,125	0
58	MG	BA	3149	1/1	0.83	0.42	116,116,116,116	0
58	MG	DA	3093	1/1	0.83	0.38	50,50,50,50	0
58	MG	AA	1638	1/1	0.83	0.54	115,115,115,115	0
58	MG	CA	1775	1/1	0.83	0.14	69,69,69,69	0
58	MG	DA	3254	1/1	0.83	0.28	123,123,123,123	0
58	MG	CA	1615	1/1	0.83	0.17	81,81,81,81	0
58	MG	BA	3157	1/1	0.83	0.45	78,78,78,78	1
58	MG	DA	3128	1/1	0.83	0.27	65,65,65,65	0
58	MG	BA	3271	1/1	0.83	0.08	114,114,114,114	0
58	MG	BA	3255	1/1	0.83	0.19	102,102,102,102	0
58	MG	BA	3378	1/1	0.83	0.49	65,65,65,65	1
58	MG	BA	3313	1/1	0.83	0.24	38,38,38,38	0
58	MG	BA	3386	1/1	0.83	0.09	63,63,63,63	0
58	MG	BA	3273	1/1	0.83	0.32	76,76,76,76	0
58	MG	BA	3393	1/1	0.83	0.34	101,101,101,101	1
58	MG	BA	3256	1/1	0.83	0.39	61,61,61,61	0
58	MG	DA	3018	1/1	0.83	0.53	51,51,51,51	0
58	MG	CA	1756	1/1	0.83	0.22	59,59,59,59	0
58	MG	DA	3289	1/1	0.83	0.19	73,73,73,73	0
58	MG	AA	1778	1/1	0.83	0.23	84,84,84,84	0
58	MG	BA	3350	1/1	0.83	0.34	105,105,105,105	0
58	MG	DD	302	1/1	0.83	0.37	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3060	1/1	0.83	0.27	72,72,72,72	0
58	MG	CA	1606	1/1	0.83	0.35	66,66,66,66	0
58	MG	BA	3181	1/1	0.83	0.47	67,67,67,67	0
58	MG	BA	3055	1/1	0.84	0.16	33,33,33,33	0
58	MG	BA	3006	1/1	0.84	0.37	104,104,104,104	0
58	MG	DA	3404	1/1	0.84	0.21	51,51,51,51	0
58	MG	DA	3408	1/1	0.84	1.02	106,106,106,106	0
58	MG	DA	3154	1/1	0.84	0.29	101,101,101,101	0
58	MG	DA	3341	1/1	0.84	0.48	78,78,78,78	1
58	MG	BA	3257	1/1	0.84	0.28	46,46,46,46	1
58	MG	BA	3061	1/1	0.84	0.28	38,38,38,38	0
58	MG	CA	1645	1/1	0.84	0.41	78,78,78,78	0
58	MG	BA	3153	1/1	0.84	0.62	118,118,118,118	0
58	MG	DA	3167	1/1	0.84	0.12	79,79,79,79	0
58	MG	DA	3040	1/1	0.84	0.13	78,78,78,78	0
58	MG	CA	1764	1/1	0.84	0.14	87,87,87,87	0
58	MG	BA	3314	1/1	0.84	0.33	74,74,74,74	0
58	MG	DA	3362	1/1	0.84	0.17	111,111,111,111	0
58	MG	DA	3363	1/1	0.84	0.08	114,114,114,114	0
58	MG	DA	3059	1/1	0.84	0.76	84,84,84,84	0
58	MG	DA	3180	1/1	0.84	0.14	79,79,79,79	0
58	MG	DA	3372	1/1	0.84	0.26	106,106,106,106	0
58	MG	CA	1727	1/1	0.84	0.45	80,80,80,80	0
58	MG	BA	3432	1/1	0.84	0.13	57,57,57,57	0
58	MG	AA	1761	1/1	0.84	0.64	83,83,83,83	1
58	MG	AA	1774	1/1	0.84	0.15	70,70,70,70	0
58	MG	AW	114	1/1	0.84	0.67	91,91,91,91	1
58	MG	DB	205	1/1	0.84	0.32	58,58,58,58	1
58	MG	AA	1776	1/1	0.84	0.14	94,94,94,94	0
58	MG	CA	1691	1/1	0.84	0.15	67,67,67,67	0
58	MG	DB	215	1/1	0.84	0.14	64,64,64,64	1
58	MG	BA	3300	1/1	0.84	0.11	80,80,80,80	0
58	MG	BA	3302	1/1	0.84	0.17	56,56,56,56	0
58	MG	DA	3135	1/1	0.84	0.36	52,52,52,52	0
58	MG	BA	3304	1/1	0.84	0.34	95,95,95,95	0
58	MG	CA	1805	1/1	0.84	0.18	59,59,59,59	1
58	MG	CA	1602	1/1	0.84	0.15	64,64,64,64	0
58	MG	AW	118	1/1	0.85	0.44	103,103,103,103	1
58	MG	CW	107	1/1	0.85	0.13	91,91,91,91	1
58	MG	BF	301	1/1	0.85	0.19	70,70,70,70	0
58	MG	AA	1709	1/1	0.85	1.05	119,119,119,119	0
58	MG	BA	3005	1/1	0.85	0.48	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1758	1/1	0.85	0.35	70,70,70,70	1
58	MG	BA	3186	1/1	0.85	0.20	63,63,63,63	0
58	MG	BA	3121	1/1	0.85	0.20	82,82,82,82	0
58	MG	CA	1684	1/1	0.85	0.26	67,67,67,67	0
58	MG	BA	3065	1/1	0.85	0.35	59,59,59,59	0
58	MG	DA	3299	1/1	0.85	0.20	119,119,119,119	0
58	MG	BA	3323	1/1	0.85	0.16	83,83,83,83	1
58	MG	CA	1804	1/1	0.85	0.12	85,85,85,85	0
58	MG	BA	3325	1/1	0.85	0.38	104,104,104,104	1
58	MG	BA	3411	1/1	0.85	0.63	95,95,95,95	0
58	MG	DA	3033	1/1	0.85	0.30	91,91,91,91	0
58	MG	BA	3128	1/1	0.85	0.24	37,37,37,37	0
58	MG	CA	1614	1/1	0.85	0.31	71,71,71,71	0
58	MG	BB	205	1/1	0.85	1.13	45,45,45,45	1
58	MG	AA	1807	1/1	0.85	0.37	71,71,71,71	1
58	MG	CA	1753	1/1	0.85	0.13	74,74,74,74	0
58	MG	DA	3321	1/1	0.85	0.28	100,100,100,100	0
58	MG	CA	1708	1/1	0.85	0.52	81,81,81,81	0
58	MG	AA	1675	1/1	0.85	0.30	69,69,69,69	0
58	MG	CV	104	1/1	0.85	0.24	85,85,85,85	1
58	MG	BA	3373	1/1	0.85	0.68	56,56,56,56	1
58	MG	AA	1712	1/1	0.85	0.46	67,67,67,67	0
58	MG	BA	3174	1/1	0.85	1.34	77,77,77,77	0
58	MG	CW	104	1/1	0.85	0.44	108,108,108,108	1
58	MG	DA	3199	1/1	0.85	0.31	68,68,68,68	0
58	MG	DX	102	1/1	0.85	0.73	68,68,68,68	0
58	MG	BA	3261	1/1	0.85	0.19	79,79,79,79	0
58	MG	AA	1609	1/1	0.86	0.24	58,58,58,58	0
58	MG	DA	3140	1/1	0.86	0.26	64,64,64,64	0
58	MG	CW	121	1/1	0.86	0.53	125,125,125,125	0
58	MG	CA	1671	1/1	0.86	0.35	79,79,79,79	0
58	MG	AA	1660	1/1	0.86	0.49	90,90,90,90	0
58	MG	BA	3337	1/1	0.86	0.08	116,116,116,116	0
58	MG	BA	3367	1/1	0.86	0.59	107,107,107,107	0
58	MG	BA	3371	1/1	0.86	0.27	81,81,81,81	0
58	MG	BA	3161	1/1	0.86	0.42	68,68,68,68	0
58	MG	BA	3299	1/1	0.86	0.26	68,68,68,68	0
58	MG	DA	3230	1/1	0.86	0.52	119,119,119,119	0
58	MG	DA	3431	1/1	0.86	0.22	137,137,137,137	0
58	MG	BA	3317	1/1	0.86	0.25	117,117,117,117	0
58	MG	DA	3163	1/1	0.86	0.36	84,84,84,84	0
58	MG	BA	3319	1/1	0.86	0.39	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1620	1/1	0.86	1.10	91,91,91,91	0
58	MG	DA	3170	1/1	0.86	0.14	46,46,46,46	1
58	MG	AA	1748	1/1	0.86	0.12	76,76,76,76	0
58	MG	DA	3048	1/1	0.86	0.35	44,44,44,44	0
58	MG	BA	3166	1/1	0.86	0.27	71,71,71,71	0
58	MG	AA	1803	1/1	0.86	0.15	33,33,33,33	1
58	MG	DA	3069	1/1	0.86	0.20	79,79,79,79	0
58	MG	BA	3437	1/1	0.86	0.15	75,75,75,75	0
58	MG	DB	208	1/1	0.86	0.15	87,87,87,87	0
58	MG	DB	211	1/1	0.86	0.62	69,69,69,69	1
58	MG	DA	3320	1/1	0.86	0.15	101,101,101,101	1
58	MG	AA	1805	1/1	0.86	0.60	88,88,88,88	1
58	MG	BA	3396	1/1	0.86	0.34	78,78,78,78	1
58	MG	CA	1789	1/1	0.86	0.31	61,61,61,61	0
58	MG	CW	109	1/1	0.86	0.16	57,57,57,57	1
58	MG	CA	1797	1/1	0.86	0.54	111,111,111,111	0
58	MG	CA	1744	1/1	0.86	0.72	75,75,75,75	0
58	MG	BA	3293	1/1	0.86	0.30	75,75,75,75	0
58	MG	DV	202	1/1	0.86	0.39	63,63,63,63	1
58	MG	CA	1634	1/1	0.86	0.14	97,97,97,97	0
58	MG	DA	3275	1/1	0.86	0.29	57,57,57,57	0
58	MG	CA	1779	1/1	0.87	0.28	121,121,121,121	0
58	MG	DA	3393	1/1	0.87	0.56	89,89,89,89	0
58	MG	BB	211	1/1	0.87	0.99	75,75,75,75	1
58	MG	BA	3353	1/1	0.87	0.32	89,89,89,89	0
58	MG	AW	120	1/1	0.87	0.22	92,92,92,92	1
58	MG	BA	3154	1/1	0.87	0.36	106,106,106,106	1
58	MG	CA	1679	1/1	0.87	0.23	86,86,86,86	1
58	MG	BA	3023	1/1	0.87	0.26	71,71,71,71	0
58	MG	CX	102	1/1	0.87	0.09	95,95,95,95	0
58	MG	AA	1744	1/1	0.87	0.27	84,84,84,84	0
58	MG	D2	101	1/1	0.87	0.27	73,73,73,73	0
58	MG	AA	1692	1/1	0.87	0.59	61,61,61,61	0
58	MG	BA	3198	1/1	0.87	0.24	61,61,61,61	0
58	MG	CA	1807	1/1	0.87	0.50	62,62,62,62	1
58	MG	DA	3013	1/1	0.87	0.25	67,67,67,67	0
58	MG	AA	1707	1/1	0.87	0.45	66,66,66,66	0
58	MG	DA	3032	1/1	0.87	0.28	69,69,69,69	0
58	MG	AA	1633	1/1	0.87	0.14	75,75,75,75	0
58	MG	BA	3201	1/1	0.87	0.31	59,59,59,59	0
58	MG	CA	1749	1/1	0.87	0.52	87,87,87,87	0
58	MG	AA	1645	1/1	0.87	0.44	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3237	1/1	0.87	0.43	78,78,78,78	0
58	MG	DA	3268	1/1	0.87	0.20	79,79,79,79	0
58	MG	AA	1687	1/1	0.87	0.33	105,105,105,105	0
58	MG	DA	3187	1/1	0.87	0.28	71,71,71,71	0
58	MG	AA	1615	1/1	0.87	0.15	63,63,63,63	0
58	MG	BA	3344	1/1	0.87	0.21	46,46,46,46	1
58	MG	DA	3194	1/1	0.87	0.30	84,84,84,84	0
58	MG	BA	3244	1/1	0.87	0.36	75,75,75,75	0
58	MG	AA	1619	1/1	0.87	0.47	78,78,78,78	0
58	MG	CA	1712	1/1	0.87	0.16	128,128,128,128	0
58	MG	BA	3398	1/1	0.87	0.12	113,113,113,113	0
58	MG	BA	3007	1/1	0.87	0.53	66,66,66,66	0
58	MG	BA	3217	1/1	0.87	0.46	79,79,79,79	0
58	MG	DA	3203	1/1	0.87	0.30	50,50,50,50	0
58	MG	AA	1669	1/1	0.87	0.42	82,82,82,82	0
58	MG	BA	3151	1/1	0.87	0.38	64,64,64,64	0
58	MG	BA	3410	1/1	0.87	0.28	113,113,113,113	0
58	MG	DA	3120	1/1	0.87	0.32	81,81,81,81	0
58	MG	DA	3302	1/1	0.87	0.10	86,86,86,86	0
58	MG	DA	3218	1/1	0.87	0.19	75,75,75,75	0
58	MG	DA	3127	1/1	0.87	0.20	65,65,65,65	0
58	MG	CW	110	1/1	0.87	0.30	85,85,85,85	1
58	MG	DA	3115	1/1	0.88	0.15	36,36,36,36	0
58	MG	DA	3206	1/1	0.88	0.29	55,55,55,55	0
58	MG	AA	1767	1/1	0.88	0.28	44,44,44,44	1
58	MG	DA	3300	1/1	0.88	0.34	63,63,63,63	0
58	MG	CA	1785	1/1	0.88	0.42	85,85,85,85	0
58	MG	DA	3124	1/1	0.88	0.20	63,63,63,63	0
58	MG	CA	1787	1/1	0.88	0.09	56,56,56,56	0
58	MG	AA	1656	1/1	0.88	0.10	68,68,68,68	0
58	MG	CA	1791	1/1	0.88	0.86	27,27,27,27	1
58	MG	AA	1677	1/1	0.88	0.44	96,96,96,96	0
58	MG	BA	3294	1/1	0.88	0.16	85,85,85,85	0
58	MG	BA	3263	1/1	0.88	0.10	77,77,77,77	0
58	MG	AA	1702	1/1	0.88	0.24	57,57,57,57	0
58	MG	BA	3100	1/1	0.88	0.54	43,43,43,43	0
58	MG	AA	1703	1/1	0.88	0.10	45,45,45,45	0
58	MG	DA	3003	1/1	0.88	0.41	79,79,79,79	0
58	MG	BA	3380	1/1	0.88	0.07	66,66,66,66	0
58	MG	DA	3322	1/1	0.88	0.35	100,100,100,100	1
58	MG	DA	3006	1/1	0.88	0.27	87,87,87,87	0
58	MG	AA	1678	1/1	0.88	0.32	93,93,93,93	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3162	1/1	0.88	0.22	65,65,65,65	0
58	MG	AA	1797	1/1	0.88	0.33	137,137,137,137	0
58	MG	DA	3165	1/1	0.88	0.08	100,100,100,100	0
58	MG	BA	3118	1/1	0.88	0.38	53,53,53,53	0
58	MG	AA	1679	1/1	0.88	0.15	49,49,49,49	1
58	MG	AA	1729	1/1	0.88	0.48	104,104,104,104	0
58	MG	AA	1681	1/1	0.88	0.37	69,69,69,69	0
58	MG	AA	1682	1/1	0.88	0.16	75,75,75,75	0
58	MG	BA	3400	1/1	0.88	0.14	67,67,67,67	0
58	MG	DA	3343	1/1	0.88	0.40	89,89,89,89	1
58	MG	DA	3042	1/1	0.88	0.56	76,76,76,76	0
58	MG	BA	3136	1/1	0.88	0.17	64,64,64,64	0
58	MG	CV	107	1/1	0.88	0.20	66,66,66,66	0
58	MG	DA	3347	1/1	0.88	0.09	71,71,71,71	0
58	MG	CA	1769	1/1	0.88	0.21	122,122,122,122	0
58	MG	DA	3056	1/1	0.88	0.18	48,48,48,48	0
58	MG	CA	1616	1/1	0.88	0.09	75,75,75,75	0
58	MG	BB	203	1/1	0.88	0.13	134,134,134,134	0
58	MG	BA	3173	1/1	0.88	0.32	72,72,72,72	1
58	MG	DA	3361	1/1	0.88	0.36	71,71,71,71	0
58	MG	AA	1766	1/1	0.88	0.33	74,74,74,74	0
58	MG	AW	108	1/1	0.88	0.16	143,143,143,143	0
58	MG	DA	3286	1/1	0.88	0.19	53,53,53,53	0
58	MG	BA	3144	1/1	0.88	0.44	68,68,68,68	0
58	MG	DA	3100	1/1	0.88	0.61	71,71,71,71	0
58	MG	DA	3290	1/1	0.88	0.59	64,64,64,64	0
58	MG	BB	210	1/1	0.88	0.28	50,50,50,50	1
58	MG	BA	3178	1/1	0.88	0.30	67,67,67,67	0
58	MG	CW	112	1/1	0.88	0.17	81,81,81,81	1
60	ZN	D9	101	1/1	0.88	0.24	196,196,196,196	0
58	MG	DA	3142	1/1	0.89	0.93	125,125,125,125	0
58	MG	AA	1641	1/1	0.89	0.08	65,65,65,65	0
58	MG	AA	1751	1/1	0.89	0.27	75,75,75,75	0
58	MG	AA	1614	1/1	0.89	0.18	76,76,76,76	0
58	MG	DA	3226	1/1	0.89	0.33	121,121,121,121	0
58	MG	DA	3305	1/1	0.89	0.33	60,60,60,60	0
58	MG	DA	3308	1/1	0.89	0.26	48,48,48,48	0
58	MG	BA	3413	1/1	0.89	0.18	105,105,105,105	1
58	MG	CA	1631	1/1	0.89	0.32	88,88,88,88	0
58	MG	BA	3416	1/1	0.89	1.92	95,95,95,95	0
58	MG	DA	3157	1/1	0.89	0.25	47,47,47,47	1
58	MG	DA	3239	1/1	0.89	0.23	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AW	105	1/1	0.89	0.13	116,116,116,116	0
58	MG	CA	1748	1/1	0.89	0.24	88,88,88,88	1
58	MG	DA	3028	1/1	0.89	0.32	63,63,63,63	0
58	MG	CA	1814	1/1	0.89	0.70	115,115,115,115	1
58	MG	DA	3164	1/1	0.89	0.35	63,63,63,63	0
58	MG	AA	1782	1/1	0.89	0.59	71,71,71,71	0
58	MG	BA	3369	1/1	0.89	0.32	96,96,96,96	0
58	MG	DA	3326	1/1	0.89	0.32	134,134,134,134	0
58	MG	BA	3072	1/1	0.89	0.49	67,67,67,67	0
58	MG	DA	3424	1/1	0.89	0.21	53,53,53,53	0
58	MG	BA	3245	1/1	0.89	0.55	81,81,81,81	0
58	MG	BA	3274	1/1	0.89	0.12	54,54,54,54	0
58	MG	BA	3159	1/1	0.89	0.30	52,52,52,52	1
58	MG	CA	1761	1/1	0.89	0.63	94,94,94,94	0
58	MG	BA	3132	1/1	0.89	0.27	36,36,36,36	0
58	MG	CA	1648	1/1	0.89	0.23	108,108,108,108	0
58	MG	CW	102	1/1	0.89	1.00	98,98,98,98	1
58	MG	BA	3433	1/1	0.89	0.14	121,121,121,121	0
58	MG	BA	3301	1/1	0.89	0.72	67,67,67,67	1
58	MG	DA	3270	1/1	0.89	0.12	44,44,44,44	0
58	MG	AA	1794	1/1	0.89	0.20	70,70,70,70	0
58	MG	CA	1711	1/1	0.89	0.08	95,95,95,95	0
58	MG	BA	3443	1/1	0.89	0.34	100,100,100,100	0
58	MG	CA	1715	1/1	0.89	0.14	80,80,80,80	0
58	MG	B2	602	1/1	0.89	0.31	112,112,112,112	0
58	MG	DA	3356	1/1	0.89	0.69	78,78,78,78	1
58	MG	BA	3343	1/1	0.89	0.38	55,55,55,55	1
58	MG	BA	3280	1/1	0.89	0.08	87,87,87,87	0
58	MG	BA	3282	1/1	0.89	0.19	121,121,121,121	0
58	MG	AA	1622	1/1	0.89	0.23	45,45,45,45	0
58	MG	BA	3103	1/1	0.89	0.28	68,68,68,68	0
58	MG	BA	3286	1/1	0.89	0.43	66,66,66,66	0
58	MG	DA	3292	1/1	0.89	0.48	49,49,49,49	0
58	MG	CA	1670	1/1	0.89	0.85	84,84,84,84	0
58	MG	DA	3295	1/1	0.89	0.16	85,85,85,85	0
58	MG	AV	106	1/1	0.89	0.15	119,119,119,119	0
58	MG	BA	3172	1/1	0.89	0.25	78,78,78,78	0
58	MG	CA	1795	1/1	0.89	0.21	55,55,55,55	0
58	MG	AA	1639	1/1	0.89	0.20	57,57,57,57	0
58	MG	DA	3266	1/1	0.90	0.09	87,87,87,87	0
58	MG	DA	3016	1/1	0.90	0.18	74,74,74,74	0
58	MG	BA	3044	1/1	0.90	0.50	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AU	101	1/1	0.90	0.53	117,117,117,117	0
58	MG	AA	1659	1/1	0.90	0.83	88,88,88,88	0
58	MG	BA	3332	1/1	0.90	0.15	138,138,138,138	0
58	MG	BA	3207	1/1	0.90	0.09	59,59,59,59	0
58	MG	AA	1708	1/1	0.90	0.46	93,93,93,93	0
58	MG	DA	3417	1/1	0.90	0.32	71,71,71,71	0
58	MG	BA	3029	1/1	0.90	0.40	63,63,63,63	0
58	MG	DA	3210	1/1	0.90	0.15	145,145,145,145	0
58	MG	BA	3131	1/1	0.90	0.09	60,60,60,60	0
58	MG	DA	3155	1/1	0.90	0.20	53,53,53,53	1
58	MG	DA	3217	1/1	0.90	0.47	109,109,109,109	0
58	MG	BA	3189	1/1	0.90	0.33	54,54,54,54	0
58	MG	CA	1717	1/1	0.90	0.11	67,67,67,67	0
58	MG	DA	3158	1/1	0.90	0.39	51,51,51,51	0
58	MG	BA	3421	1/1	0.90	0.24	110,110,110,110	0
58	MG	CA	1757	1/1	0.90	0.40	76,76,76,76	0
58	MG	CA	1759	1/1	0.90	0.88	88,88,88,88	1
58	MG	BA	3218	1/1	0.90	0.21	87,87,87,87	0
58	MG	AA	1786	1/1	0.90	0.24	55,55,55,55	0
58	MG	CW	120	1/1	0.90	0.29	117,117,117,117	1
58	MG	BA	3134	1/1	0.90	0.28	70,70,70,70	0
58	MG	CA	1681	1/1	0.90	0.13	69,69,69,69	0
58	MG	BA	3156	1/1	0.90	0.69	89,89,89,89	0
58	MG	BA	3224	1/1	0.90	0.36	96,96,96,96	0
58	MG	BA	3226	1/1	0.90	0.34	33,33,33,33	0
58	MG	DB	207	1/1	0.90	0.07	79,79,79,79	0
58	MG	DA	3248	1/1	0.90	0.30	62,62,62,62	0
58	MG	DA	3104	1/1	0.90	0.26	60,60,60,60	0
58	MG	BA	3254	1/1	0.90	0.18	74,74,74,74	0
58	MG	DA	3112	1/1	0.90	0.32	70,70,70,70	0
58	MG	CA	1655	1/1	0.90	0.11	99,99,99,99	0
58	MG	DA	3182	1/1	0.90	0.40	65,65,65,65	0
58	MG	DA	3004	1/1	0.90	0.34	54,54,54,54	0
58	MG	DA	3118	1/1	0.90	0.10	29,29,29,29	0
58	MG	DA	3257	1/1	0.90	0.17	99,99,99,99	0
58	MG	CA	1736	1/1	0.90	0.28	73,73,73,73	0
58	MG	DA	3122	1/1	0.90	0.20	49,49,49,49	0
58	MG	BA	3036	1/1	0.90	0.72	90,90,90,90	0
58	MG	BA	3326	1/1	0.90	0.61	111,111,111,111	1
60	ZN	B9	101	1/1	0.90	0.50	199,199,199,199	0
58	MG	BA	3042	1/1	0.90	0.14	35,35,35,35	0
58	MG	AA	1673	1/1	0.91	0.27	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3407	1/1	0.91	0.39	82,82,82,82	0
58	MG	AA	1726	1/1	0.91	0.32	65,65,65,65	0
58	MG	DA	3074	1/1	0.91	0.12	40,40,40,40	0
58	MG	AA	1727	1/1	0.91	0.16	62,62,62,62	0
58	MG	DA	3403	1/1	0.91	0.50	72,72,72,72	0
58	MG	BA	3372	1/1	0.91	0.82	105,105,105,105	0
58	MG	CW	118	1/1	0.91	0.14	95,95,95,95	1
58	MG	CA	1652	1/1	0.91	0.18	113,113,113,113	0
58	MG	CA	1803	1/1	0.91	0.06	70,70,70,70	0
58	MG	AA	1705	1/1	0.91	0.12	35,35,35,35	0
58	MG	BA	3079	1/1	0.91	0.17	28,28,28,28	0
58	MG	DA	3109	1/1	0.91	0.22	43,43,43,43	0
58	MG	BA	3417	1/1	0.91	0.28	49,49,49,49	0
58	MG	BA	3418	1/1	0.91	0.30	61,61,61,61	0
58	MG	AA	1746	1/1	0.91	0.11	57,57,57,57	0
58	MG	D7	101	1/1	0.91	0.18	51,51,51,51	0
58	MG	DA	3272	1/1	0.91	0.22	51,51,51,51	0
58	MG	BA	3025	1/1	0.91	0.33	42,42,42,42	0
58	MG	BB	207	1/1	0.91	0.09	81,81,81,81	0
58	MG	CA	1662	1/1	0.91	0.12	114,114,114,114	0
58	MG	DA	3278	1/1	0.91	0.05	116,116,116,116	0
58	MG	AA	1715	1/1	0.91	0.26	63,63,63,63	0
58	MG	DA	3436	1/1	0.91	0.23	60,60,60,60	0
58	MG	DA	3437	1/1	0.91	0.36	52,52,52,52	0
58	MG	AA	1621	1/1	0.91	0.13	55,55,55,55	0
58	MG	DA	3133	1/1	0.91	0.18	52,52,52,52	0
58	MG	DA	3284	1/1	0.91	0.24	70,70,70,70	0
58	MG	DA	3008	1/1	0.91	0.83	70,70,70,70	0
58	MG	CA	1668	1/1	0.91	0.09	80,80,80,80	0
58	MG	DA	3012	1/1	0.91	0.61	70,70,70,70	0
58	MG	CA	1720	1/1	0.91	0.14	79,79,79,79	0
58	MG	AA	1636	1/1	0.91	0.16	44,44,44,44	1
58	MG	DA	3017	1/1	0.91	0.20	58,58,58,58	0
58	MG	BA	3426	1/1	0.91	0.37	76,76,76,76	0
58	MG	DA	3022	1/1	0.91	0.16	69,69,69,69	0
58	MG	DA	3222	1/1	0.91	0.38	39,39,39,39	0
58	MG	AW	102	1/1	0.91	0.16	78,78,78,78	1
58	MG	AA	1721	1/1	0.91	0.22	55,55,55,55	0
58	MG	CW	101	1/1	0.91	0.41	94,94,94,94	1
58	MG	DA	3034	1/1	0.91	0.24	54,54,54,54	0
58	MG	BB	216	1/1	0.91	0.30	94,94,94,94	1
58	MG	AA	1787	1/1	0.91	0.23	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1735	1/1	0.91	0.25	58,58,58,58	0
58	MG	AW	106	1/1	0.91	0.27	103,103,103,103	0
58	MG	DV	201	1/1	0.91	0.33	95,95,95,95	0
58	MG	AA	1738	1/1	0.91	0.58	89,89,89,89	0
58	MG	BA	3064	1/1	0.91	0.36	39,39,39,39	0
58	MG	BA	3442	1/1	0.91	0.09	67,67,67,67	0
58	MG	AA	1653	1/1	0.91	0.54	82,82,82,82	1
58	MG	CA	1741	1/1	0.91	0.32	130,130,130,130	1
58	MG	BA	3182	1/1	0.92	0.30	107,107,107,107	0
58	MG	DA	3238	1/1	0.92	0.53	135,135,135,135	0
58	MG	BA	3035	1/1	0.92	0.18	70,70,70,70	0
58	MG	CA	1781	1/1	0.92	0.36	82,82,82,82	0
58	MG	DA	3050	1/1	0.92	0.57	45,45,45,45	0
58	MG	BA	3101	1/1	0.92	0.37	58,58,58,58	0
58	MG	AA	1674	1/1	0.92	0.44	63,63,63,63	0
58	MG	DA	3064	1/1	0.92	0.48	61,61,61,61	0
58	MG	AA	1690	1/1	0.92	0.20	69,69,69,69	0
58	MG	DA	3168	1/1	0.92	0.17	62,62,62,62	0
58	MG	AW	111	1/1	0.92	0.10	24,24,24,24	1
58	MG	CA	1620	1/1	0.92	0.61	65,65,65,65	0
58	MG	BA	3110	1/1	0.92	0.31	47,47,47,47	0
58	MG	BA	3111	1/1	0.92	0.17	38,38,38,38	0
58	MG	DA	3091	1/1	0.92	0.53	84,84,84,84	0
58	MG	BA	3277	1/1	0.92	0.12	58,58,58,58	0
58	MG	BA	3352	1/1	0.92	0.58	70,70,70,70	0
58	MG	BA	3310	1/1	0.92	0.41	36,36,36,36	0
58	MG	CA	1633	1/1	0.92	0.10	73,73,73,73	0
58	MG	DA	3425	1/1	0.92	0.12	76,76,76,76	0
58	MG	AA	1617	1/1	0.92	0.50	66,66,66,66	0
58	MG	AA	1714	1/1	0.92	0.25	86,86,86,86	0
58	MG	D2	102	1/1	0.92	0.41	50,50,50,50	1
58	MG	AA	1634	1/1	0.92	0.14	106,106,106,106	0
58	MG	AA	1806	1/1	0.92	0.07	68,68,68,68	0
58	MG	AA	1644	1/1	0.92	0.13	57,57,57,57	0
58	MG	DA	3342	1/1	0.92	0.17	62,62,62,62	1
58	MG	BB	215	1/1	0.92	0.20	88,88,88,88	1
58	MG	DA	3274	1/1	0.92	0.23	141,141,141,141	0
58	MG	DA	3441	1/1	0.92	0.44	74,74,74,74	0
58	MG	DA	3119	1/1	0.92	0.18	50,50,50,50	0
58	MG	AA	1775	1/1	0.92	0.04	68,68,68,68	0
58	MG	BA	3208	1/1	0.92	0.21	59,59,59,59	0
58	MG	BA	3165	1/1	0.92	0.15	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3349	1/1	0.92	0.16	103,103,103,103	0
58	MG	DA	3280	1/1	0.92	0.53	107,107,107,107	0
58	MG	DA	3204	1/1	0.92	0.09	33,33,33,33	0
58	MG	CA	1703	1/1	0.92	0.36	71,71,71,71	0
58	MG	BA	3014	1/1	0.92	0.11	40,40,40,40	0
58	MG	AA	1664	1/1	0.92	0.24	55,55,55,55	0
58	MG	CV	103	1/1	0.92	0.09	89,89,89,89	0
58	MG	BA	3430	1/1	0.92	0.16	92,92,92,92	0
58	MG	AA	1720	1/1	0.92	0.14	56,56,56,56	0
58	MG	AA	1640	1/1	0.92	0.54	56,56,56,56	0
58	MG	DA	3027	1/1	0.92	0.35	50,50,50,50	0
58	MG	BA	3139	1/1	0.92	0.29	59,59,59,59	0
58	MG	DA	3147	1/1	0.92	0.25	105,105,105,105	0
58	MG	BA	3033	1/1	0.92	0.32	63,63,63,63	0
58	MG	BA	3333	1/1	0.92	0.37	79,79,79,79	1
58	MG	CA	1605	1/1	0.92	0.12	72,72,72,72	0
58	MG	BA	3222	1/1	0.92	0.07	57,57,57,57	0
58	MG	BA	3085	1/1	0.92	0.20	49,49,49,49	0
58	MG	BA	3088	1/1	0.92	0.29	69,69,69,69	0
58	MG	AA	1680	1/1	0.92	0.13	79,79,79,79	0
58	MG	DA	3233	1/1	0.92	0.22	50,50,50,50	0
58	MG	BA	3180	1/1	0.93	0.26	93,93,93,93	0
58	MG	BA	3037	1/1	0.93	0.14	61,61,61,61	0
58	MG	BA	3334	1/1	0.93	0.11	137,137,137,137	0
58	MG	AA	1698	1/1	0.93	0.28	61,61,61,61	0
58	MG	DA	3240	1/1	0.93	0.32	51,51,51,51	0
58	MG	BA	3297	1/1	0.93	0.57	51,51,51,51	0
58	MG	AA	1625	1/1	0.93	0.20	39,39,39,39	0
58	MG	BA	3185	1/1	0.93	0.18	69,69,69,69	0
58	MG	AW	109	1/1	0.93	0.15	50,50,50,50	1
58	MG	CW	111	1/1	0.93	0.73	89,89,89,89	1
58	MG	DA	3405	1/1	0.93	0.66	129,129,129,129	0
58	MG	DA	3407	1/1	0.93	0.29	140,140,140,140	0
58	MG	BA	3399	1/1	0.93	0.21	70,70,70,70	1
58	MG	CW	113	1/1	0.93	0.24	41,41,41,41	1
58	MG	BA	3449	1/1	0.93	0.46	107,107,107,107	1
58	MG	AA	1701	1/1	0.93	0.34	61,61,61,61	0
58	MG	DA	3177	1/1	0.93	0.14	103,103,103,103	0
58	MG	AA	1710	1/1	0.93	0.12	82,82,82,82	0
58	MG	AA	1722	1/1	0.93	0.18	67,67,67,67	0
58	MG	BA	3120	1/1	0.93	0.29	87,87,87,87	0
58	MG	DA	3422	1/1	0.93	0.29	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	AA	1627	1/1	0.93	0.57	74,74,74,74	0
58	MG	DA	3260	1/1	0.93	0.09	29,29,29,29	0
58	MG	AV	104	1/1	0.93	0.37	98,98,98,98	1
58	MG	CA	1674	1/1	0.93	0.55	89,89,89,89	0
58	MG	CA	1734	1/1	0.93	0.21	144,144,144,144	1
58	MG	CA	1796	1/1	0.93	0.09	51,51,51,51	1
58	MG	AA	1642	1/1	0.93	0.20	34,34,34,34	0
58	MG	DA	3338	1/1	0.93	0.19	123,123,123,123	0
58	MG	DA	3340	1/1	0.93	0.68	63,63,63,63	1
58	MG	BA	3017	1/1	0.93	0.22	69,69,69,69	0
58	MG	BA	3412	1/1	0.93	0.28	67,67,67,67	0
58	MG	BA	3018	1/1	0.93	0.14	80,80,80,80	0
58	MG	BA	3204	1/1	0.93	0.15	51,51,51,51	0
58	MG	AA	1768	1/1	0.93	0.33	100,100,100,100	0
58	MG	AA	1754	1/1	0.93	0.17	114,114,114,114	0
58	MG	DA	3200	1/1	0.93	0.45	57,57,57,57	0
58	MG	BA	3167	1/1	0.93	0.44	55,55,55,55	0
58	MG	DA	3202	1/1	0.93	0.06	38,38,38,38	0
58	MG	CA	1746	1/1	0.93	0.21	87,87,87,87	0
58	MG	DA	3354	1/1	0.93	0.24	110,110,110,110	0
58	MG	DB	204	1/1	0.93	0.77	148,148,148,148	0
58	MG	BA	3320	1/1	0.93	0.07	40,40,40,40	0
58	MG	DB	206	1/1	0.93	0.19	78,78,78,78	0
58	MG	BA	3250	1/1	0.93	0.48	65,65,65,65	0
58	MG	AA	1770	1/1	0.93	0.21	55,55,55,55	0
58	MG	DB	210	1/1	0.93	0.20	51,51,51,51	1
58	MG	BA	3137	1/1	0.93	0.33	61,61,61,61	0
58	MG	DA	3137	1/1	0.93	0.44	39,39,39,39	0
58	MG	AA	1713	1/1	0.93	0.21	82,82,82,82	0
58	MG	CA	1752	1/1	0.93	0.16	94,94,94,94	0
58	MG	CL	201	1/1	0.93	0.54	51,51,51,51	0
58	MG	DA	3143	1/1	0.93	0.72	63,63,63,63	0
58	MG	CA	1693	1/1	0.93	0.29	74,74,74,74	0
58	MG	DE	302	1/1	0.93	0.53	83,83,83,83	0
58	MG	DA	3024	1/1	0.93	0.30	37,37,37,37	0
58	MG	AA	1628	1/1	0.93	0.31	71,71,71,71	0
58	MG	DN	203	1/1	0.93	0.12	109,109,109,109	1
58	MG	BA	3094	1/1	0.93	0.40	63,63,63,63	0
58	MG	AA	1809	1/1	0.93	0.20	88,88,88,88	0
58	MG	AA	1657	1/1	0.93	0.37	73,73,73,73	0
58	MG	CA	1706	1/1	0.93	0.18	56,56,56,56	0
59	PAR	AA	1814	42/42	0.93	0.22	80,85,103,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BW	201	1/1	0.93	0.37	120,120,120,120	0
58	MG	BX	101	1/1	0.93	0.30	69,69,69,69	0
58	MG	DA	3129	1/1	0.94	0.12	58,58,58,58	1
58	MG	DA	3130	1/1	0.94	0.13	80,80,80,80	0
58	MG	DA	3131	1/1	0.94	0.27	40,40,40,40	0
58	MG	AA	1781	1/1	0.94	0.20	89,89,89,89	0
58	MG	CA	1630	1/1	0.94	0.23	81,81,81,81	0
58	MG	CA	1702	1/1	0.94	0.32	88,88,88,88	0
58	MG	BA	3382	1/1	0.94	0.32	86,86,86,86	0
58	MG	BA	3003	1/1	0.94	0.39	68,68,68,68	0
58	MG	BA	3387	1/1	0.94	0.18	107,107,107,107	0
58	MG	CA	1777	1/1	0.94	0.30	99,99,99,99	0
58	MG	CA	1707	1/1	0.94	0.09	82,82,82,82	0
58	MG	BA	3098	1/1	0.94	0.33	45,45,45,45	0
58	MG	BA	3145	1/1	0.94	0.46	61,61,61,61	0
58	MG	BA	3184	1/1	0.94	0.08	52,52,52,52	0
58	MG	DA	3149	1/1	0.94	0.48	73,73,73,73	0
58	MG	DA	3002	1/1	0.94	0.10	63,63,63,63	0
58	MG	AW	113	1/1	0.94	0.23	45,45,45,45	1
58	MG	CA	1640	1/1	0.94	0.60	61,61,61,61	0
58	MG	CA	1713	1/1	0.94	0.23	54,54,54,54	0
58	MG	CA	1788	1/1	0.94	0.07	75,75,75,75	0
58	MG	DA	3267	1/1	0.94	0.37	79,79,79,79	0
58	MG	BA	3283	1/1	0.94	0.06	100,100,100,100	0
58	MG	CA	1790	1/1	0.94	0.10	84,84,84,84	0
58	MG	DA	3010	1/1	0.94	0.09	51,51,51,51	0
58	MG	DA	3271	1/1	0.94	0.09	62,62,62,62	0
58	MG	AA	1737	1/1	0.94	0.30	78,78,78,78	0
58	MG	CA	1792	1/1	0.94	0.22	70,70,70,70	1
58	MG	CA	1794	1/1	0.94	0.77	77,77,77,77	0
58	MG	AW	115	1/1	0.94	0.15	130,130,130,130	0
58	MG	AA	1665	1/1	0.94	0.48	55,55,55,55	0
58	MG	BA	3402	1/1	0.94	0.42	59,59,59,59	0
58	MG	BA	3105	1/1	0.94	0.44	55,55,55,55	0
58	MG	DA	3169	1/1	0.94	0.05	52,52,52,52	0
58	MG	DA	3026	1/1	0.94	0.47	49,49,49,49	0
58	MG	CA	1800	1/1	0.94	0.23	108,108,108,108	0
58	MG	DA	3174	1/1	0.94	0.15	77,77,77,77	0
58	MG	CA	1723	1/1	0.94	0.08	47,47,47,47	0
58	MG	DA	3176	1/1	0.94	0.16	49,49,49,49	0
58	MG	DA	3413	1/1	0.94	0.27	96,96,96,96	0
58	MG	DA	3288	1/1	0.94	0.27	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	CA	1802	1/1	0.94	0.11	70,70,70,70	1
58	MG	BB	212	1/1	0.94	0.12	59,59,59,59	1
58	MG	BA	3107	1/1	0.94	0.30	46,46,46,46	0
58	MG	BA	3195	1/1	0.94	0.27	48,48,48,48	0
58	MG	BA	3243	1/1	0.94	0.30	45,45,45,45	0
58	MG	BA	3196	1/1	0.94	0.39	60,60,60,60	0
58	MG	BA	3052	1/1	0.94	0.59	134,134,134,134	1
58	MG	DA	3184	1/1	0.94	0.26	56,56,56,56	0
58	MG	BA	3247	1/1	0.94	0.16	33,33,33,33	0
58	MG	DA	3429	1/1	0.94	0.14	80,80,80,80	0
58	MG	AA	1699	1/1	0.94	0.20	106,106,106,106	0
58	MG	BA	3059	1/1	0.94	0.22	45,45,45,45	0
58	MG	BA	3252	1/1	0.94	0.12	46,46,46,46	0
58	MG	BA	3010	1/1	0.94	0.24	40,40,40,40	0
58	MG	DA	3058	1/1	0.94	0.23	49,49,49,49	0
58	MG	AA	1759	1/1	0.94	0.22	70,70,70,70	1
58	MG	DA	3438	1/1	0.94	0.67	97,97,97,97	0
58	MG	DA	3060	1/1	0.94	0.49	35,35,35,35	0
58	MG	BA	3203	1/1	0.94	0.49	86,86,86,86	0
58	MG	CA	1666	1/1	0.94	0.47	75,75,75,75	0
58	MG	BA	3063	1/1	0.94	0.25	20,20,20,20	0
58	MG	AA	1800	1/1	0.94	0.22	59,59,59,59	1
58	MG	DA	3073	1/1	0.94	0.33	55,55,55,55	0
58	MG	AA	1801	1/1	0.94	0.09	71,71,71,71	0
58	MG	BA	3124	1/1	0.94	0.40	40,40,40,40	0
58	MG	BA	3356	1/1	0.94	0.30	67,67,67,67	0
58	MG	AA	1741	1/1	0.94	0.45	72,72,72,72	0
58	MG	BA	3129	1/1	0.94	0.46	63,63,63,63	0
58	MG	BA	3169	1/1	0.94	0.17	83,83,83,83	0
58	MG	AA	1732	1/1	0.94	0.20	64,64,64,64	1
58	MG	DA	3324	1/1	0.94	0.29	104,104,104,104	1
58	MG	DB	209	1/1	0.94	0.09	117,117,117,117	0
58	MG	BA	3171	1/1	0.94	0.14	59,59,59,59	0
58	MG	AA	1804	1/1	0.94	0.16	49,49,49,49	0
58	MG	B5	101	1/1	0.94	0.36	50,50,50,50	0
58	MG	DA	3110	1/1	0.94	0.17	38,38,38,38	0
58	MG	DA	3221	1/1	0.94	0.31	43,43,43,43	0
58	MG	BA	3439	1/1	0.94	0.34	52,52,52,52	0
58	MG	BA	3031	1/1	0.94	0.31	35,35,35,35	0
58	MG	AA	1671	1/1	0.94	0.41	61,61,61,61	0
58	MG	CA	1760	1/1	0.94	0.19	85,85,85,85	1
58	MG	DF	301	1/1	0.94	0.22	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3318	1/1	0.94	0.37	110,110,110,110	0
58	MG	DA	3229	1/1	0.94	0.12	101,101,101,101	0
58	MG	BA	3086	1/1	0.94	0.32	36,36,36,36	0
58	MG	CA	1622	1/1	0.94	0.14	36,36,36,36	0
58	MG	AA	1605	1/1	0.94	0.13	53,53,53,53	0
58	MG	DA	3126	1/1	0.94	0.22	24,24,24,24	0
58	MG	DA	3235	1/1	0.94	0.22	44,44,44,44	0
58	MG	DA	3236	1/1	0.94	0.42	37,37,37,37	0
59	PAR	CA	1817	42/42	0.94	0.23	72,78,95,100	0
58	MG	BA	3448	1/1	0.94	0.05	67,67,67,67	0
58	MG	CA	1768	1/1	0.94	0.29	65,65,65,65	1
58	MG	DA	3185	1/1	0.95	0.20	40,40,40,40	0
58	MG	DA	3186	1/1	0.95	0.16	49,49,49,49	0
58	MG	CA	1728	1/1	0.95	0.10	86,86,86,86	0
58	MG	BA	3168	1/1	0.95	0.12	72,72,72,72	0
58	MG	BA	3358	1/1	0.95	0.17	60,60,60,60	0
58	MG	DA	3193	1/1	0.95	0.16	62,62,62,62	0
58	MG	DA	3105	1/1	0.95	0.39	52,52,52,52	0
58	MG	BA	3452	1/1	0.95	0.37	114,114,114,114	1
58	MG	D1	102	1/1	0.95	0.09	54,54,54,54	1
58	MG	BA	3405	1/1	0.95	0.36	53,53,53,53	0
58	MG	DA	3392	1/1	0.95	0.32	74,74,74,74	0
58	MG	DA	3111	1/1	0.95	0.21	44,44,44,44	0
58	MG	BA	3360	1/1	0.95	0.14	60,60,60,60	0
58	MG	AA	1733	1/1	0.95	0.19	91,91,91,91	1
58	MG	BA	3194	1/1	0.95	0.12	43,43,43,43	0
58	MG	BA	3330	1/1	0.95	0.30	114,114,114,114	1
58	MG	AA	1717	1/1	0.95	0.32	48,48,48,48	0
58	MG	DA	3294	1/1	0.95	0.57	63,63,63,63	0
58	MG	BA	3125	1/1	0.95	0.20	64,64,64,64	0
58	MG	DA	3121	1/1	0.95	0.29	44,44,44,44	0
58	MG	BA	3126	1/1	0.95	0.53	47,47,47,47	0
58	MG	DA	3123	1/1	0.95	0.42	40,40,40,40	0
58	MG	AV	102	1/1	0.95	0.13	85,85,85,85	1
58	MG	BA	3306	1/1	0.95	0.48	67,67,67,67	0
58	MG	DA	3412	1/1	0.95	0.20	109,109,109,109	0
58	MG	DA	3214	1/1	0.95	0.10	131,131,131,131	0
58	MG	AA	1810	1/1	0.95	0.30	36,36,36,36	0
58	MG	DA	3415	1/1	0.95	0.37	70,70,70,70	0
58	MG	DA	3416	1/1	0.95	0.28	114,114,114,114	0
58	MG	BA	3376	1/1	0.95	0.21	68,68,68,68	1
58	MG	DA	3419	1/1	0.95	0.13	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3338	1/1	0.95	0.09	121,121,121,121	0
58	MG	B7	101	1/1	0.95	1.07	73,73,73,73	1
58	MG	CA	1689	1/1	0.95	0.14	138,138,138,138	0
58	MG	DA	3132	1/1	0.95	0.17	34,34,34,34	0
58	MG	BA	3379	1/1	0.95	0.20	110,110,110,110	0
58	MG	CA	1637	1/1	0.95	0.21	40,40,40,40	0
58	MG	DA	3020	1/1	0.95	0.33	15,15,15,15	0
58	MG	AA	1811	1/1	0.95	0.15	93,93,93,93	0
58	MG	CA	1754	1/1	0.95	0.10	93,93,93,93	0
58	MG	DA	3228	1/1	0.95	0.49	75,75,75,75	0
58	MG	CA	1695	1/1	0.95	0.37	49,49,49,49	1
58	MG	BA	3075	1/1	0.95	0.17	36,36,36,36	0
58	MG	CA	1699	1/1	0.95	0.14	44,44,44,44	0
58	MG	DA	3030	1/1	0.95	0.21	24,24,24,24	0
58	MG	BA	3342	1/1	0.95	0.34	92,92,92,92	0
58	MG	BA	3383	1/1	0.95	0.19	89,89,89,89	0
58	MG	CV	106	1/1	0.95	0.11	93,93,93,93	0
58	MG	BD	301	1/1	0.95	0.16	44,44,44,44	0
58	MG	BE	301	1/1	0.95	0.21	30,30,30,30	0
58	MG	CA	1646	1/1	0.95	0.24	64,64,64,64	0
58	MG	DA	3041	1/1	0.95	0.30	56,56,56,56	0
58	MG	AW	107	1/1	0.95	0.09	74,74,74,74	1
58	MG	AA	1750	1/1	0.95	0.74	97,97,97,97	0
58	MG	BO	201	1/1	0.95	0.22	44,44,44,44	0
58	MG	AA	1757	1/1	0.95	0.13	71,71,71,71	0
58	MG	DB	203	1/1	0.95	0.06	89,89,89,89	0
58	MG	BA	3390	1/1	0.95	0.19	57,57,57,57	0
58	MG	DA	3051	1/1	0.95	0.11	110,110,110,110	1
58	MG	BA	3392	1/1	0.95	0.26	79,79,79,79	0
58	MG	BA	3264	1/1	0.95	0.09	27,27,27,27	0
58	MG	BA	3162	1/1	0.95	0.17	51,51,51,51	0
58	MG	AA	1646	1/1	0.95	0.21	47,47,47,47	0
58	MG	DA	3256	1/1	0.95	0.27	82,82,82,82	1
58	MG	DA	3063	1/1	0.95	0.38	35,35,35,35	0
58	MG	CA	1657	1/1	0.95	0.15	78,78,78,78	0
58	MG	BA	3444	1/1	0.95	0.09	90,90,90,90	0
58	MG	BA	3212	1/1	0.95	0.19	75,75,75,75	0
58	MG	DA	3261	1/1	0.95	0.37	32,32,32,32	0
58	MG	DA	3173	1/1	0.95	0.15	46,46,46,46	0
58	MG	CA	1721	1/1	0.95	0.34	94,94,94,94	0
58	MG	DA	3072	1/1	0.95	0.40	31,31,31,31	0
58	MG	BA	3116	1/1	0.95	0.16	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	CA	1607	1/1	0.95	0.11	52,52,52,52	0
58	MG	DA	3082	1/1	0.95	0.26	37,37,37,37	0
58	MG	DA	3085	1/1	0.95	0.56	60,60,60,60	0
58	MG	DA	3087	1/1	0.95	0.25	45,45,45,45	0
58	MG	AX	103	1/1	0.95	0.21	98,98,98,98	0
58	MG	DX	101	1/1	0.95	0.23	51,51,51,51	0
58	MG	DA	3365	1/1	0.95	0.19	135,135,135,135	1
58	MG	DA	3366	1/1	0.95	0.15	77,77,77,77	0
58	MG	CA	1611	1/1	0.95	0.23	61,61,61,61	0
58	MG	BA	3092	1/1	0.95	0.56	100,100,100,100	0
58	MG	DA	3373	1/1	0.95	0.28	78,78,78,78	1
58	MG	AA	1667	1/1	0.95	0.09	56,56,56,56	0
58	MG	AA	1623	1/1	0.96	0.17	106,106,106,106	0
58	MG	DA	3047	1/1	0.96	0.34	27,27,27,27	0
58	MG	CA	1667	1/1	0.96	0.11	147,147,147,147	0
58	MG	BA	3056	1/1	0.96	0.13	53,53,53,53	0
58	MG	DA	3402	1/1	0.96	0.13	178,178,178,178	0
58	MG	AA	1630	1/1	0.96	0.18	84,84,84,84	0
58	MG	CA	1624	1/1	0.96	0.33	99,99,99,99	0
58	MG	DA	3054	1/1	0.96	0.33	45,45,45,45	0
58	MG	CA	1625	1/1	0.96	0.20	40,40,40,40	0
58	MG	BA	3030	1/1	0.96	0.32	70,70,70,70	0
58	MG	CA	1786	1/1	0.96	0.07	53,53,53,53	0
58	MG	BA	3095	1/1	0.96	0.26	40,40,40,40	0
58	MG	CA	1628	1/1	0.96	0.34	80,80,80,80	0
58	MG	B1	101	1/1	0.96	0.08	29,29,29,29	1
58	MG	BA	3434	1/1	0.96	0.15	90,90,90,90	0
58	MG	CA	1733	1/1	0.96	0.07	49,49,49,49	1
58	MG	AA	1613	1/1	0.96	0.37	53,53,53,53	0
58	MG	CA	1632	1/1	0.96	0.09	73,73,73,73	0
58	MG	AA	1716	1/1	0.96	0.07	46,46,46,46	0
58	MG	BA	3225	1/1	0.96	0.35	38,38,38,38	0
58	MG	DA	3076	1/1	0.96	0.26	48,48,48,48	0
58	MG	DA	3078	1/1	0.96	0.19	24,24,24,24	0
58	MG	DA	3243	1/1	0.96	0.16	45,45,45,45	0
58	MG	DA	3080	1/1	0.96	0.17	35,35,35,35	0
58	MG	DA	3081	1/1	0.96	0.29	96,96,96,96	0
58	MG	BA	3440	1/1	0.96	0.41	93,93,93,93	0
58	MG	DA	3083	1/1	0.96	0.16	32,32,32,32	0
58	MG	CA	1685	1/1	0.96	0.10	101,101,101,101	0
58	MG	AA	1663	1/1	0.96	0.20	31,31,31,31	0
58	MG	DA	3172	1/1	0.96	0.27	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	D5	101	1/1	0.96	0.16	51,51,51,51	0
58	MG	DA	3433	1/1	0.96	0.09	94,94,94,94	1
58	MG	BN	202	1/1	0.96	0.12	97,97,97,97	1
58	MG	AA	1793	1/1	0.96	0.39	106,106,106,106	0
58	MG	DA	3095	1/1	0.96	0.13	33,33,33,33	0
58	MG	DA	3097	1/1	0.96	0.30	53,53,53,53	0
58	MG	DA	3099	1/1	0.96	0.52	45,45,45,45	0
58	MG	BP	201	1/1	0.96	0.14	66,66,66,66	0
58	MG	AA	1749	1/1	0.96	0.42	117,117,117,117	0
58	MG	CA	1641	1/1	0.96	0.12	39,39,39,39	0
58	MG	DA	3444	1/1	0.96	0.07	70,70,70,70	0
58	MG	CA	1692	1/1	0.96	0.12	92,92,92,92	0
58	MG	DA	3446	1/1	0.96	0.08	51,51,51,51	0
58	MG	BV	201	1/1	0.96	0.54	101,101,101,101	0
58	MG	BA	3229	1/1	0.96	0.12	117,117,117,117	0
58	MG	CA	1811	1/1	0.96	0.15	165,165,165,165	0
58	MG	BA	3106	1/1	0.96	0.42	52,52,52,52	0
58	MG	BA	3266	1/1	0.96	0.16	64,64,64,64	0
58	MG	BA	3368	1/1	0.96	0.18	74,74,74,74	0
58	MG	DA	3113	1/1	0.96	0.42	42,42,42,42	0
58	MG	DA	3014	1/1	0.96	0.27	28,28,28,28	0
58	MG	AA	1648	1/1	0.96	0.15	95,95,95,95	0
58	MG	AA	1706	1/1	0.96	0.06	63,63,63,63	0
58	MG	BA	3143	1/1	0.96	0.17	90,90,90,90	0
58	MG	BA	3049	1/1	0.96	0.31	35,35,35,35	0
58	MG	BA	3076	1/1	0.96	0.29	40,40,40,40	0
58	MG	CA	1608	1/1	0.96	0.21	80,80,80,80	0
58	MG	CA	1654	1/1	0.96	0.27	76,76,76,76	1
58	MG	BA	3414	1/1	0.96	0.12	78,78,78,78	0
58	MG	BA	3077	1/1	0.96	0.28	55,55,55,55	0
58	MG	BA	3303	1/1	0.96	0.32	89,89,89,89	0
58	MG	BA	3078	1/1	0.96	0.15	23,23,23,23	0
58	MG	DB	218	1/1	0.96	0.15	82,82,82,82	1
58	MG	BA	3020	1/1	0.96	0.34	41,41,41,41	0
58	MG	BA	3119	1/1	0.96	0.06	24,24,24,24	0
58	MG	DA	3207	1/1	0.96	0.09	60,60,60,60	0
58	MG	DA	3378	1/1	0.96	0.28	72,72,72,72	0
58	MG	DA	3208	1/1	0.96	0.10	76,76,76,76	0
58	MG	CA	1771	1/1	0.96	0.12	47,47,47,47	0
58	MG	DA	3382	1/1	0.96	0.14	59,59,59,59	0
58	MG	DA	3385	1/1	0.96	0.23	138,138,138,138	0
58	MG	BA	3082	1/1	0.96	0.24	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3211	1/1	0.96	0.31	61,61,61,61	0
58	MG	DA	3212	1/1	0.96	0.13	60,60,60,60	0
58	MG	BA	3210	1/1	0.96	0.22	43,43,43,43	0
58	MG	AX	101	1/1	0.96	0.18	85,85,85,85	0
58	MG	DA	3136	1/1	0.96	0.29	44,44,44,44	0
58	MG	BA	3053	1/1	0.96	0.25	18,18,18,18	0
58	MG	AA	1739	1/1	0.97	0.24	102,102,102,102	0
58	MG	DA	3371	1/1	0.97	0.10	98,98,98,98	1
58	MG	DA	3065	1/1	0.97	0.17	41,41,41,41	0
58	MG	BA	3087	1/1	0.97	0.17	47,47,47,47	0
58	MG	CA	1766	1/1	0.97	0.21	44,44,44,44	0
58	MG	BA	3258	1/1	0.97	0.22	100,100,100,100	0
58	MG	AA	1649	1/1	0.97	0.32	53,53,53,53	0
58	MG	BA	3022	1/1	0.97	0.40	64,64,64,64	0
58	MG	BV	202	1/1	0.97	0.18	136,136,136,136	1
58	MG	AA	1684	1/1	0.97	0.16	97,97,97,97	0
58	MG	BA	3093	1/1	0.97	0.29	37,37,37,37	0
58	MG	DA	3079	1/1	0.97	0.24	22,22,22,22	0
58	MG	BA	3388	1/1	0.97	0.16	66,66,66,66	0
58	MG	DA	3386	1/1	0.97	0.20	49,49,49,49	0
58	MG	BA	3438	1/1	0.97	0.33	71,71,71,71	0
58	MG	BA	3188	1/1	0.97	0.13	47,47,47,47	0
58	MG	BA	3039	1/1	0.97	0.22	45,45,45,45	0
58	MG	DA	3276	1/1	0.97	0.21	75,75,75,75	0
58	MG	BA	3265	1/1	0.97	0.36	32,32,32,32	0
58	MG	BA	3127	1/1	0.97	0.15	35,35,35,35	0
58	MG	BA	3040	1/1	0.97	0.15	33,33,33,33	0
58	MG	CA	1782	1/1	0.97	0.31	160,160,160,160	0
58	MG	DA	3092	1/1	0.97	0.29	29,29,29,29	0
58	MG	CX	103	1/1	0.97	0.08	97,97,97,97	0
58	MG	CA	1718	1/1	0.97	0.24	71,71,71,71	0
58	MG	DA	3285	1/1	0.97	0.07	36,36,36,36	0
58	MG	DA	3188	1/1	0.97	0.18	123,123,123,123	0
58	MG	BA	3395	1/1	0.97	0.34	70,70,70,70	0
58	MG	BA	3067	1/1	0.97	0.28	34,34,34,34	0
58	MG	DA	3192	1/1	0.97	0.21	65,65,65,65	0
58	MG	BA	3099	1/1	0.97	0.11	59,59,59,59	0
58	MG	D2	103	1/1	0.97	0.17	78,78,78,78	0
58	MG	AA	1798	1/1	0.97	0.17	135,135,135,135	0
58	MG	BA	3026	1/1	0.97	0.20	52,52,52,52	0
58	MG	CA	1664	1/1	0.97	0.25	40,40,40,40	0
58	MG	DA	3001	1/1	0.97	0.09	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	DA	3108	1/1	0.97	0.12	32,32,32,32	0
58	MG	BA	3133	1/1	0.97	0.27	56,56,56,56	0
58	MG	BA	3046	1/1	0.97	0.25	64,64,64,64	0
58	MG	BA	3073	1/1	0.97	0.42	36,36,36,36	0
58	MG	DA	3418	1/1	0.97	0.14	60,60,60,60	0
58	MG	BA	3047	1/1	0.97	0.29	34,34,34,34	0
58	MG	BA	3315	1/1	0.97	0.40	100,100,100,100	1
58	MG	DA	3007	1/1	0.97	0.45	40,40,40,40	0
58	MG	DA	3116	1/1	0.97	0.28	30,30,30,30	0
58	MG	BA	3406	1/1	0.97	0.13	38,38,38,38	0
58	MG	BA	3138	1/1	0.97	0.37	37,37,37,37	0
58	MG	DA	3307	1/1	0.97	0.29	30,30,30,30	0
58	MG	CA	1798	1/1	0.97	0.06	89,89,89,89	1
58	MG	DA	3427	1/1	0.97	0.19	133,133,133,133	0
58	MG	BA	3048	1/1	0.97	0.42	32,32,32,32	0
58	MG	DA	3310	1/1	0.97	0.27	110,110,110,110	1
58	MG	BA	3240	1/1	0.97	0.32	32,32,32,32	0
58	MG	DA	3312	1/1	0.97	0.18	101,101,101,101	0
58	MG	DA	3432	1/1	0.97	0.10	91,91,91,91	0
58	MG	CA	1623	1/1	0.97	0.10	74,74,74,74	0
58	MG	CA	1735	1/1	0.97	0.12	74,74,74,74	0
58	MG	DA	3315	1/1	0.97	0.06	29,29,29,29	0
58	MG	CA	1676	1/1	0.97	0.27	88,88,88,88	0
58	MG	DA	3215	1/1	0.97	0.10	82,82,82,82	0
58	MG	DA	3125	1/1	0.97	0.44	53,53,53,53	0
58	MG	BB	206	1/1	0.97	0.30	130,130,130,130	0
58	MG	DA	3019	1/1	0.97	0.27	21,21,21,21	0
58	MG	DA	3442	1/1	0.97	0.13	71,71,71,71	0
58	MG	CA	1738	1/1	0.97	0.37	95,95,95,95	0
58	MG	BA	3205	1/1	0.97	0.27	59,59,59,59	0
58	MG	CA	1740	1/1	0.97	0.25	132,132,132,132	0
58	MG	CA	1809	1/1	0.97	0.17	56,56,56,56	1
58	MG	BA	3028	1/1	0.97	0.25	45,45,45,45	0
58	MG	BA	3366	1/1	0.97	0.29	60,60,60,60	0
58	MG	CA	1812	1/1	0.97	0.22	39,39,39,39	0
58	MG	DA	3031	1/1	0.97	0.18	31,31,31,31	0
58	MG	AA	1784	1/1	0.97	0.14	66,66,66,66	0
58	MG	BA	3415	1/1	0.97	0.15	80,80,80,80	0
58	MG	CA	1683	1/1	0.97	0.19	84,84,84,84	0
58	MG	BA	3109	1/1	0.97	0.04	28,28,28,28	0
58	MG	DA	3232	1/1	0.97	0.38	55,55,55,55	0
58	MG	AA	1724	1/1	0.97	0.17	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3370	1/1	0.97	0.34	110,110,110,110	1
58	MG	DA	3145	1/1	0.97	0.44	36,36,36,36	0
58	MG	BA	3248	1/1	0.97	0.08	22,22,22,22	0
58	MG	BA	3420	1/1	0.97	0.26	93,93,93,93	0
58	MG	BA	3015	1/1	0.97	0.30	47,47,47,47	0
58	MG	DA	3044	1/1	0.97	0.37	66,66,66,66	0
58	MG	DA	3150	1/1	0.97	0.10	46,46,46,46	0
58	MG	BA	3080	1/1	0.97	0.22	32,32,32,32	0
58	MG	DA	3152	1/1	0.97	0.15	65,65,65,65	1
58	MG	DA	3153	1/1	0.97	0.16	45,45,45,45	1
58	MG	DD	301	1/1	0.97	0.26	27,27,27,27	0
58	MG	DA	3350	1/1	0.97	0.16	65,65,65,65	1
58	MG	BA	3179	1/1	0.97	0.10	48,48,48,48	0
58	MG	DA	3353	1/1	0.97	0.20	58,58,58,58	0
58	MG	BA	3032	1/1	0.97	0.17	68,68,68,68	0
58	MG	BA	3215	1/1	0.97	0.37	51,51,51,51	0
58	MG	BA	3427	1/1	0.97	0.28	106,106,106,106	0
58	MG	CA	1696	1/1	0.97	0.24	59,59,59,59	0
58	MG	CA	1758	1/1	0.97	0.08	110,110,110,110	0
58	MG	DA	3160	1/1	0.97	0.19	96,96,96,96	0
58	MG	BF	302	1/1	0.97	0.18	93,93,93,93	0
58	MG	CA	1698	1/1	0.97	0.10	106,106,106,106	0
58	MG	AA	1611	1/1	0.97	0.21	48,48,48,48	0
58	MG	DA	3062	1/1	0.97	0.33	13,13,13,13	0
58	MG	CA	1700	1/1	0.97	0.14	102,102,102,102	0
58	MG	DA	3367	1/1	0.97	0.50	127,127,127,127	0
58	MG	DA	3384	1/1	0.98	0.25	67,67,67,67	0
58	MG	AA	1795	1/1	0.98	0.08	91,91,91,91	1
58	MG	CA	1714	1/1	0.98	0.48	102,102,102,102	0
58	MG	AA	1756	1/1	0.98	0.49	64,64,64,64	0
58	MG	CA	1610	1/1	0.98	0.20	46,46,46,46	0
58	MG	BA	3152	1/1	0.98	0.14	30,30,30,30	0
58	MG	BA	3397	1/1	0.98	0.19	112,112,112,112	1
58	MG	DA	3037	1/1	0.98	0.17	32,32,32,32	0
58	MG	DA	3038	1/1	0.98	0.24	53,53,53,53	0
58	MG	BA	3041	1/1	0.98	0.09	78,78,78,78	0
58	MG	BA	3027	1/1	0.98	0.33	25,25,25,25	0
58	MG	DA	3396	1/1	0.98	0.07	83,83,83,83	0
58	MG	DA	3397	1/1	0.98	0.09	48,48,48,48	1
58	MG	CA	1776	1/1	0.98	0.04	72,72,72,72	0
58	MG	BA	3155	1/1	0.98	0.10	31,31,31,31	1
58	MG	DA	3400	1/1	0.98	0.51	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3122	1/1	0.98	0.17	30,30,30,30	0
58	MG	DA	3046	1/1	0.98	0.25	30,30,30,30	0
58	MG	BA	3090	1/1	0.98	0.26	40,40,40,40	0
58	MG	CA	1669	1/1	0.98	0.30	118,118,118,118	0
58	MG	DA	3134	1/1	0.98	0.14	32,32,32,32	0
58	MG	DA	3406	1/1	0.98	0.08	87,87,87,87	1
58	MG	AV	101	1/1	0.98	0.24	34,34,34,34	0
58	MG	BA	3268	1/1	0.98	0.28	73,73,73,73	0
58	MG	BA	3045	1/1	0.98	0.16	69,69,69,69	0
58	MG	DA	3306	1/1	0.98	0.18	45,45,45,45	1
58	MG	DA	3139	1/1	0.98	0.16	106,106,106,106	0
58	MG	DA	3052	1/1	0.98	0.21	9,9,9,9	0
58	MG	BA	3193	1/1	0.98	0.47	56,56,56,56	0
58	MG	DA	3055	1/1	0.98	0.13	44,44,44,44	0
58	MG	BA	3069	1/1	0.98	0.42	31,31,31,31	0
58	MG	BA	3408	1/1	0.98	0.20	64,64,64,64	1
58	MG	DA	3225	1/1	0.98	0.13	115,115,115,115	0
58	MG	BA	3357	1/1	0.98	0.08	56,56,56,56	0
58	MG	BA	3311	1/1	0.98	0.33	71,71,71,71	1
58	MG	DA	3061	1/1	0.98	0.28	43,43,43,43	0
58	MG	BA	3312	1/1	0.98	0.34	32,32,32,32	0
58	MG	AA	1777	1/1	0.98	0.33	57,57,57,57	0
58	MG	BA	3096	1/1	0.98	0.11	33,33,33,33	0
58	MG	BA	3197	1/1	0.98	0.38	71,71,71,71	0
58	MG	DA	3066	1/1	0.98	0.20	22,22,22,22	0
58	MG	DA	3067	1/1	0.98	0.22	31,31,31,31	0
58	MG	DA	3068	1/1	0.98	0.27	22,22,22,22	0
58	MG	AX	102	1/1	0.98	0.13	85,85,85,85	0
58	MG	DA	3237	1/1	0.98	0.35	40,40,40,40	0
58	MG	BA	3016	1/1	0.98	0.17	50,50,50,50	0
58	MG	AA	1736	1/1	0.98	0.36	60,60,60,60	1
58	MG	AA	1637	1/1	0.98	0.20	44,44,44,44	0
58	MG	BA	3051	1/1	0.98	0.54	45,45,45,45	0
58	MG	DA	3242	1/1	0.98	0.30	22,22,22,22	0
58	MG	BA	3241	1/1	0.98	0.25	31,31,31,31	0
58	MG	DA	3244	1/1	0.98	0.12	22,22,22,22	0
58	MG	DA	3075	1/1	0.98	0.20	33,33,33,33	0
58	MG	DA	3337	1/1	0.98	0.11	82,82,82,82	0
58	MG	DA	3439	1/1	0.98	0.15	65,65,65,65	1
58	MG	BA	3281	1/1	0.98	0.27	54,54,54,54	0
58	MG	DA	3339	1/1	0.98	0.41	85,85,85,85	1
58	MG	BA	3324	1/1	0.98	0.28	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3374	1/1	0.98	0.20	95,95,95,95	0
58	MG	AA	1607	1/1	0.98	0.12	50,50,50,50	0
58	MG	BA	3021	1/1	0.98	0.37	24,24,24,24	0
58	MG	BA	3054	1/1	0.98	0.23	38,38,38,38	0
58	MG	CA	1642	1/1	0.98	0.37	52,52,52,52	0
58	MG	DA	3084	1/1	0.98	0.22	35,35,35,35	0
58	MG	AA	1654	1/1	0.98	0.22	129,129,129,129	0
58	MG	DA	3450	1/1	0.98	0.20	120,120,120,120	1
58	MG	DA	3451	1/1	0.98	0.15	105,105,105,105	0
58	MG	DA	3086	1/1	0.98	0.19	29,29,29,29	0
58	MG	BA	3246	1/1	0.98	0.29	24,24,24,24	0
58	MG	AV	107	1/1	0.98	0.55	76,76,76,76	0
58	MG	BA	3140	1/1	0.98	0.15	75,75,75,75	0
58	MG	DA	3352	1/1	0.98	0.10	52,52,52,52	0
58	MG	DA	3011	1/1	0.98	0.32	27,27,27,27	0
58	MG	BA	3081	1/1	0.98	0.13	46,46,46,46	0
58	MG	DA	3355	1/1	0.98	0.10	37,37,37,37	0
58	MG	DA	3094	1/1	0.98	0.27	43,43,43,43	0
58	MG	BA	3175	1/1	0.98	0.29	70,70,70,70	0
58	MG	BA	3384	1/1	0.98	0.49	83,83,83,83	0
58	MG	DA	3098	1/1	0.98	0.23	60,60,60,60	0
58	MG	DA	3015	1/1	0.98	0.17	45,45,45,45	0
58	MG	BA	3058	1/1	0.98	0.32	49,49,49,49	0
58	MG	DA	3101	1/1	0.98	0.12	71,71,71,71	0
58	MG	CA	1704	1/1	0.98	0.07	41,41,41,41	0
58	MG	BA	3083	1/1	0.98	0.34	47,47,47,47	0
58	MG	BA	3112	1/1	0.98	0.11	35,35,35,35	0
58	MG	BA	3084	1/1	0.98	0.16	39,39,39,39	0
58	MG	DA	3021	1/1	0.98	0.40	59,59,59,59	0
58	MG	BA	3114	1/1	0.98	0.49	44,44,44,44	0
58	MG	DA	3190	1/1	0.98	0.44	49,49,49,49	0
58	MG	DA	3023	1/1	0.98	0.52	61,61,61,61	0
58	MG	CA	1604	1/1	0.98	0.13	107,107,107,107	0
58	MG	DA	3025	1/1	0.98	0.18	42,42,42,42	0
58	MG	BA	3391	1/1	0.98	0.15	33,33,33,33	0
58	MG	DA	3281	1/1	0.98	0.28	65,65,65,65	0
58	MG	CA	1765	1/1	0.98	0.17	114,114,114,114	0
58	MG	BA	3038	1/1	0.98	0.23	35,35,35,35	0
58	MG	DA	3029	1/1	0.98	0.23	25,25,25,25	0
58	MG	DA	3381	1/1	0.98	0.16	149,149,149,149	0
58	MG	BA	3219	1/1	0.98	0.10	106,106,106,106	0
60	ZN	CD	301	1/1	0.98	0.28	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	ZN	CN	101	1/1	0.98	0.16	109,109,109,109	0
58	MG	DA	3383	1/1	0.98	0.11	76,76,76,76	0
58	MG	DA	3089	1/1	0.99	0.26	45,45,45,45	0
58	MG	DA	3090	1/1	0.99	0.42	25,25,25,25	0
58	MG	BA	3091	1/1	0.99	0.39	34,34,34,34	0
58	MG	BA	3359	1/1	0.99	0.13	92,92,92,92	0
58	MG	BA	3008	1/1	0.99	0.37	31,31,31,31	0
58	MG	DA	3368	1/1	0.99	0.11	57,57,57,57	1
58	MG	DA	3369	1/1	0.99	0.10	117,117,117,117	0
58	MG	DA	3045	1/1	0.99	0.27	50,50,50,50	0
58	MG	BA	3361	1/1	0.99	0.08	107,107,107,107	1
58	MG	DA	3096	1/1	0.99	0.19	43,43,43,43	0
58	MG	CV	101	1/1	0.99	0.20	25,25,25,25	0
58	MG	CA	1778	1/1	0.99	0.48	68,68,68,68	0
58	MG	BA	3024	1/1	0.99	0.40	36,36,36,36	0
58	MG	BA	3043	1/1	0.99	0.27	63,63,63,63	0
58	MG	DA	3316	1/1	0.99	0.28	41,41,41,41	0
58	MG	BA	3435	1/1	0.99	0.08	80,80,80,80	1
58	MG	BA	3364	1/1	0.99	0.12	96,96,96,96	1
58	MG	DA	3263	1/1	0.99	0.34	57,57,57,57	0
58	MG	DA	3053	1/1	0.99	0.18	31,31,31,31	0
58	MG	BA	3066	1/1	0.99	0.14	39,39,39,39	0
58	MG	AA	1610	1/1	0.99	0.17	43,43,43,43	0
58	MG	DA	3106	1/1	0.99	0.36	36,36,36,36	0
58	MG	BA	3251	1/1	0.99	0.10	58,58,58,58	1
58	MG	DA	3057	1/1	0.99	0.28	18,18,18,18	0
58	MG	BA	3097	1/1	0.99	0.16	46,46,46,46	0
58	MG	BA	3441	1/1	0.99	0.10	61,61,61,61	1
58	MG	DA	3328	1/1	0.99	0.15	103,103,103,103	0
58	MG	DA	3329	1/1	0.99	0.27	83,83,83,83	1
58	MG	BA	3335	1/1	0.99	0.10	89,89,89,89	1
58	MG	BA	3115	1/1	0.99	0.54	42,42,42,42	0
58	MG	BA	3135	1/1	0.99	0.15	34,34,34,34	0
58	MG	DA	3394	1/1	0.99	0.20	48,48,48,48	1
58	MG	DA	3114	1/1	0.99	0.46	33,33,33,33	0
58	MG	BA	3068	1/1	0.99	0.33	40,40,40,40	0
58	MG	BA	3117	1/1	0.99	0.34	38,38,38,38	0
58	MG	AA	1792	1/1	0.99	0.10	78,78,78,78	0
58	MG	BA	3011	1/1	0.99	0.10	42,42,42,42	0
58	MG	BA	3057	1/1	0.99	0.22	35,35,35,35	0
58	MG	DB	212	1/1	0.99	0.05	30,30,30,30	1
58	MG	BA	3102	1/1	0.99	0.23	49,49,49,49	0

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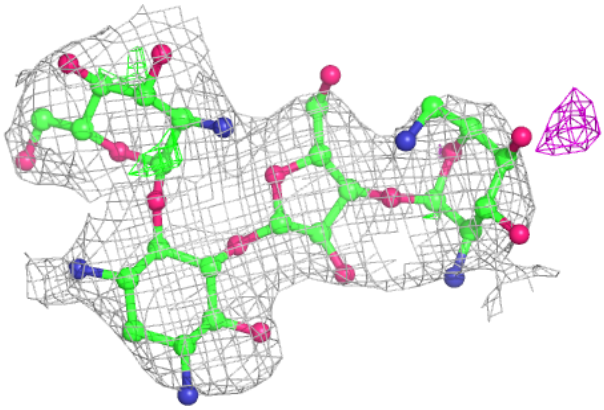
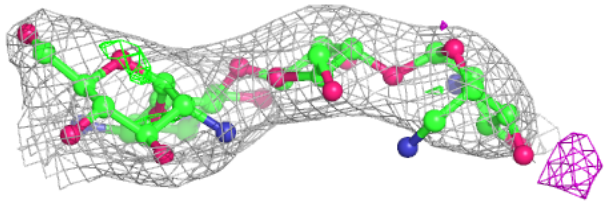
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	BA	3019	1/1	0.99	0.43	41,41,41,41	0
58	MG	BA	3012	1/1	0.99	0.24	27,27,27,27	0
58	MG	BA	3211	1/1	0.99	0.20	55,55,55,55	0
58	MG	AA	1651	1/1	0.99	0.27	95,95,95,95	0
58	MG	BA	3348	1/1	0.99	0.09	78,78,78,78	1
58	MG	AA	1603	1/1	0.99	0.15	101,101,101,101	0
58	MG	BA	3239	1/1	0.99	0.14	48,48,48,48	0
58	MG	DE	301	1/1	0.99	0.39	38,38,38,38	0
58	MG	BA	3385	1/1	0.99	0.12	88,88,88,88	1
58	MG	DA	3077	1/1	0.99	0.21	16,16,16,16	0
58	MG	CA	1806	1/1	0.99	0.18	29,29,29,29	0
58	MG	BA	3190	1/1	0.99	0.19	41,41,41,41	0
58	MG	BA	3322	1/1	0.99	0.25	42,42,42,42	0
58	MG	BA	3146	1/1	0.99	0.39	31,31,31,31	0
58	MG	BA	3354	1/1	0.99	0.17	50,50,50,50	1
58	MG	BA	3425	1/1	0.99	0.17	108,108,108,108	0
58	MG	BA	3216	1/1	0.99	0.20	90,90,90,90	0
58	MG	BA	3147	1/1	0.99	0.23	20,20,20,20	0
58	MG	DA	3138	1/1	0.99	0.14	25,25,25,25	0
58	MG	DA	3039	1/1	0.99	0.28	45,45,45,45	0
60	ZN	AD	302	1/1	0.99	0.27	56,56,56,56	0
60	ZN	AN	101	1/1	0.99	0.17	106,106,106,106	0
58	MG	DA	3359	1/1	0.99	0.17	84,84,84,84	1
58	MG	CA	1694	1/1	0.99	0.14	124,124,124,124	1
58	MG	DA	3247	1/1	0.99	0.14	96,96,96,96	1
58	MG	BA	3062	1/1	0.99	0.33	32,32,32,32	0
58	MG	CA	1793	1/1	1.00	0.11	103,103,103,103	0

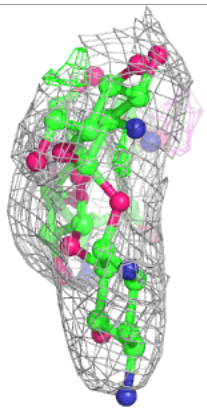
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around PAR AA 1814:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

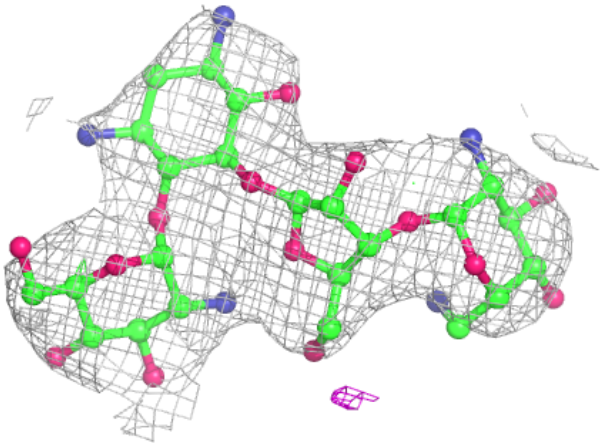


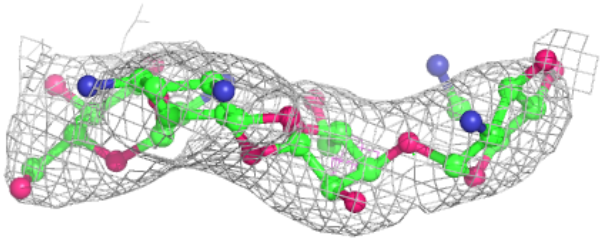


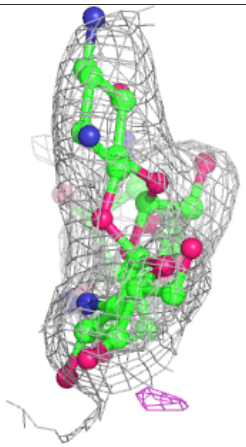


Electron density around PAR CA 1817:

$2mF_o$-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 (i)

There are no such residues in this entry.