



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 1, 2020 – 08:43 am BST

PDB ID : 4V5D
Title : Structure of the *Thermus thermophilus* 70S ribosome in complex with mRNA, paromomycin, acylated A- and P-site tRNAs, and E-site tRNA.
Authors : Voorhees, R.M.; Weixlbaumer, A.; Loakes, D.; Kelley, A.C.; Ramakrishnan, V.
Deposited on : 2009-03-24
Resolution : 3.50 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

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

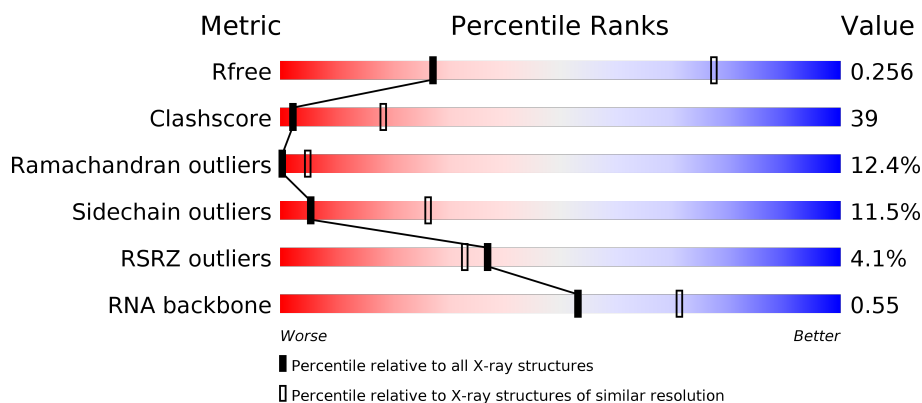
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 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	1659 (3.60-3.40)
Clashscore	141614	1036 (3.58-3.42)
Ramachandran outliers	138981	1005 (3.58-3.42)
Sidechain outliers	138945	1006 (3.58-3.42)
RSRZ outliers	127900	1559 (3.60-3.40)
RNA backbone	3102	1002 (4.00-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	<div> <div>2%</div> <div>27% 60% 11%</div> </div>
1	CA	1522	<div> <div>2%</div> <div>26% 61% 11%</div> </div>
2	AB	256	<div> <div>3%</div> <div>17% 58% 14% 8%</div> </div>
2	CB	256	<div> <div>2%</div> <div>17% 58% 14% 8%</div> </div>

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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	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	AY	77	
22	CV	77	
22	CY	77	
23	AW	76	
23	CW	76	
24	AX	11	
24	CX	11	
25	B0	85	
25	D0	85	
26	B1	98	
26	D1	98	

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

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Mol	Chain	Length	Quality of chain
39	DE	206	
40	BF	210	
40	DF	210	
41	BG	182	
41	DG	182	
42	BH	180	
42	DH	180	
43	BI	148	
43	DI	148	
44	BN	140	
44	DN	140	
45	BO	122	
45	DO	122	
46	BP	150	
46	DP	150	
47	BQ	141	
47	DQ	141	
48	BR	118	
48	DR	118	
49	BS	112	
49	DS	112	
50	BT	146	
50	DT	146	
51	BU	118	
51	DU	118	

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Mol	Chain	Length	Quality of chain
52	BV	101	
52	DV	101	
53	BW	113	
53	DW	113	
54	BX	96	
54	DX	96	
55	BY	110	
55	DY	110	
56	BZ	206	
56	DZ	206	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	AA	1603	-	-	-	X
57	MG	AA	1616	-	-	-	X
57	MG	AA	1622	-	-	-	X
57	MG	AA	1625	-	-	-	X
57	MG	AA	1641	-	-	-	X
57	MG	AA	1646	-	-	-	X
57	MG	AA	1651	-	-	-	X
57	MG	AA	1653	-	-	-	X
57	MG	AA	1657	-	-	-	X
57	MG	AA	1661	-	-	-	X
57	MG	AA	1666	-	-	-	X
57	MG	AA	1667	-	-	-	X
57	MG	AA	1672	-	-	-	X
57	MG	AA	1673	-	-	-	X
57	MG	AA	1679	-	-	-	X
57	MG	AA	1681	-	-	-	X
57	MG	AA	1689	-	-	-	X
57	MG	AA	1700	-	-	-	X
57	MG	AA	1701	-	-	-	X
57	MG	AA	1702	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	AA	1706	-	-	-	X
57	MG	AA	1715	-	-	-	X
57	MG	AA	1721	-	-	-	X
57	MG	AA	1727	-	-	-	X
57	MG	AA	1732	-	-	-	X
57	MG	AA	1733	-	-	-	X
57	MG	AA	1734	-	-	-	X
57	MG	AA	1737	-	-	-	X
57	MG	AA	1741	-	-	-	X
57	MG	AA	1743	-	-	-	X
57	MG	AA	1744	-	-	-	X
57	MG	AA	1751	-	-	-	X
57	MG	AA	1757	-	-	-	X
57	MG	AA	1761	-	-	-	X
57	MG	AA	1769	-	-	-	X
57	MG	AA	1795	-	-	-	X
57	MG	AA	1796	-	-	-	X
57	MG	AA	1798	-	-	-	X
57	MG	AD	301	-	-	-	X
57	MG	AG	201	-	-	-	X
57	MG	AV	103	-	-	-	X
57	MG	AV	104	-	-	-	X
57	MG	AW	105	-	-	-	X
57	MG	AW	107	-	-	-	X
57	MG	BA	3006	-	-	-	X
57	MG	BA	3047	-	-	-	X
57	MG	BA	3067	-	-	-	X
57	MG	BA	3101	-	-	-	X
57	MG	BA	3138	-	-	-	X
57	MG	BA	3151	-	-	-	X
57	MG	BA	3152	-	-	-	X
57	MG	BA	3155	-	-	-	X
57	MG	BA	3158	-	-	-	X
57	MG	BA	3160	-	-	-	X
57	MG	BA	3177	-	-	-	X
57	MG	BA	3179	-	-	-	X
57	MG	BA	3195	-	-	-	X
57	MG	BA	3196	-	-	-	X
57	MG	BA	3223	-	-	-	X
57	MG	BA	3225	-	-	-	X
57	MG	BA	3230	-	-	-	X
57	MG	BA	3235	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3237	-	-	-	X
57	MG	BA	3241	-	-	-	X
57	MG	BA	3267	-	-	-	X
57	MG	BA	3270	-	-	-	X
57	MG	BA	3295	-	-	-	X
57	MG	BA	3297	-	-	-	X
57	MG	BA	3324	-	-	-	X
57	MG	BA	3327	-	-	-	X
57	MG	BA	3331	-	-	-	X
57	MG	BA	3339	-	-	-	X
57	MG	BA	3340	-	-	-	X
57	MG	BA	3345	-	-	-	X
57	MG	BA	3349	-	-	-	X
57	MG	BA	3353	-	-	-	X
57	MG	BA	3371	-	-	-	X
57	MG	BA	3373	-	-	-	X
57	MG	BA	3376	-	-	-	X
57	MG	BA	3383	-	-	-	X
57	MG	BA	3399	-	-	-	X
57	MG	BA	3419	-	-	-	X
57	MG	BB	214	-	-	-	X
57	MG	BN	201	-	-	-	X
57	MG	BU	201	-	-	-	X
57	MG	CA	1602	-	-	-	X
57	MG	CA	1609	-	-	-	X
57	MG	CA	1613	-	-	-	X
57	MG	CA	1617	-	-	-	X
57	MG	CA	1622	-	-	-	X
57	MG	CA	1623	-	-	-	X
57	MG	CA	1625	-	-	-	X
57	MG	CA	1640	-	-	-	X
57	MG	CA	1644	-	-	-	X
57	MG	CA	1645	-	-	-	X
57	MG	CA	1647	-	-	-	X
57	MG	CA	1649	-	-	-	X
57	MG	CA	1652	-	-	-	X
57	MG	CA	1654	-	-	-	X
57	MG	CA	1655	-	-	-	X
57	MG	CA	1656	-	-	-	X
57	MG	CA	1666	-	-	-	X
57	MG	CA	1668	-	-	-	X
57	MG	CA	1673	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	CA	1674	-	-	-	X
57	MG	CA	1676	-	-	-	X
57	MG	CA	1678	-	-	-	X
57	MG	CA	1680	-	-	-	X
57	MG	CA	1682	-	-	-	X
57	MG	CA	1683	-	-	-	X
57	MG	CA	1688	-	-	-	X
57	MG	CA	1690	-	-	-	X
57	MG	CA	1701	-	-	-	X
57	MG	CA	1706	-	-	-	X
57	MG	CA	1716	-	-	-	X
57	MG	CA	1721	-	-	-	X
57	MG	CA	1726	-	-	-	X
57	MG	CA	1727	-	-	-	X
57	MG	CA	1728	-	-	-	X
57	MG	CA	1735	-	-	-	X
57	MG	CA	1739	-	-	-	X
57	MG	CA	1745	-	-	-	X
57	MG	CA	1746	-	-	-	X
57	MG	CA	1754	-	-	-	X
57	MG	CA	1759	-	-	-	X
57	MG	CA	1761	-	-	-	X
57	MG	CA	1771	-	-	-	X
57	MG	CA	1780	-	-	-	X
57	MG	CA	1795	-	-	-	X
57	MG	CL	201	-	-	-	X
57	MG	D7	101	-	-	-	X
57	MG	D7	102	-	-	-	X
57	MG	DA	3004	-	-	-	X
57	MG	DA	3006	-	-	-	X
57	MG	DA	3032	-	-	-	X
57	MG	DA	3049	-	-	-	X
57	MG	DA	3072	-	-	-	X
57	MG	DA	3090	-	-	-	X
57	MG	DA	3106	-	-	-	X
57	MG	DA	3108	-	-	-	X
57	MG	DA	3111	-	-	-	X
57	MG	DA	3122	-	-	-	X
57	MG	DA	3128	-	-	-	X
57	MG	DA	3136	-	-	-	X
57	MG	DA	3139	-	-	-	X
57	MG	DA	3152	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3153	-	-	-	X
57	MG	DA	3157	-	-	-	X
57	MG	DA	3160	-	-	-	X
57	MG	DA	3166	-	-	-	X
57	MG	DA	3170	-	-	-	X
57	MG	DA	3188	-	-	-	X
57	MG	DA	3192	-	-	-	X
57	MG	DA	3197	-	-	-	X
57	MG	DA	3202	-	-	-	X
57	MG	DA	3210	-	-	-	X
57	MG	DA	3222	-	-	-	X
57	MG	DA	3227	-	-	-	X
57	MG	DA	3229	-	-	-	X
57	MG	DA	3239	-	-	-	X
57	MG	DA	3243	-	-	-	X
57	MG	DA	3246	-	-	-	X
57	MG	DA	3260	-	-	-	X
57	MG	DA	3262	-	-	-	X
57	MG	DA	3276	-	-	-	X
57	MG	DA	3279	-	-	-	X
57	MG	DA	3289	-	-	-	X
57	MG	DA	3290	-	-	-	X
57	MG	DA	3296	-	-	-	X
57	MG	DA	3299	-	-	-	X
57	MG	DA	3304	-	-	-	X
57	MG	DA	3307	-	-	-	X
57	MG	DA	3319	-	-	-	X
57	MG	DA	3321	-	-	-	X
57	MG	DA	3324	-	-	-	X
57	MG	DA	3328	-	-	-	X
57	MG	DA	3340	-	-	-	X
57	MG	DA	3353	-	-	-	X
57	MG	DA	3358	-	-	-	X
57	MG	DA	3367	-	-	-	X
57	MG	DA	3369	-	-	-	X
57	MG	DA	3370	-	-	-	X
57	MG	DA	3372	-	-	-	X
57	MG	DA	3379	-	-	-	X
57	MG	DA	3389	-	-	-	X
57	MG	DA	3392	-	-	-	X
57	MG	DA	3393	-	-	-	X
57	MG	DA	3405	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DB	203	-	-	-	X
57	MG	DB	213	-	-	-	X
57	MG	DF	302	-	-	-	X
57	MG	DN	201	-	-	-	X
57	MG	DX	102	-	-	-	X
57	MG	DX	103	-	-	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 296042 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 AND A-SITE PHE-TRNA PHE.

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

- 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	11	Total	C	N	O	P	0	0	0
			227	104	39	74	10			
24	CX	11	Total	C	N	O	P	0	0	0
			227	104	39	74	10			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

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

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

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

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

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

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

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

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L31.

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

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

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

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L33.

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

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

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L34.

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

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L35.

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

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L36.

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

- Molecule 35 is a RNA chain called 23S RIBOSOMAL RNA.

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

- Molecule 36 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BC	191	Total	C	N	O	0	0	1
			1140	689	221	230			
37	DC	191	Total	C	N	O	0	0	1
			1142	691	221	230			

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L2.

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

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L3.

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

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L4.

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

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L5.

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

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L6.

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

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L9.

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

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L13.

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

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L14.

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

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L15.

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

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L16.

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

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

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L17.

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

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L18.

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

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

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

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L20.

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

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L21.

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

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L22.

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

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L23.

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

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L24.

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

- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L25.

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BA	422	Total	Mg	0	0
			422	422		
57	CA	199	Total	Mg	0	0
			199	199		
57	DF	2	Total	Mg	0	0
			2	2		
57	CV	5	Total	Mg	0	0
			5	5		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	D2	3	Total 3	Mg 3	0	0
57	BE	1	Total 1	Mg 1	0	0
57	AW	8	Total 8	Mg 8	0	0
57	B1	1	Total 1	Mg 1	0	0
57	AN	1	Total 1	Mg 1	0	0
57	AX	2	Total 2	Mg 2	0	0
57	CN	1	Total 1	Mg 1	0	0
57	DN	1	Total 1	Mg 1	0	0
57	DC	1	Total 1	Mg 1	0	0
57	DD	2	Total 2	Mg 2	0	0
57	B5	2	Total 2	Mg 2	0	0
57	BB	14	Total 14	Mg 14	0	0
57	DO	1	Total 1	Mg 1	0	0
57	AE	1	Total 1	Mg 1	0	0
57	BF	1	Total 1	Mg 1	0	0
57	AV	5	Total 5	Mg 5	0	0
57	BX	2	Total 2	Mg 2	0	0
57	B2	2	Total 2	Mg 2	0	0
57	AA	198	Total 198	Mg 198	0	0
57	D7	2	Total 2	Mg 2	0	0
57	CX	3	Total 3	Mg 3	0	0

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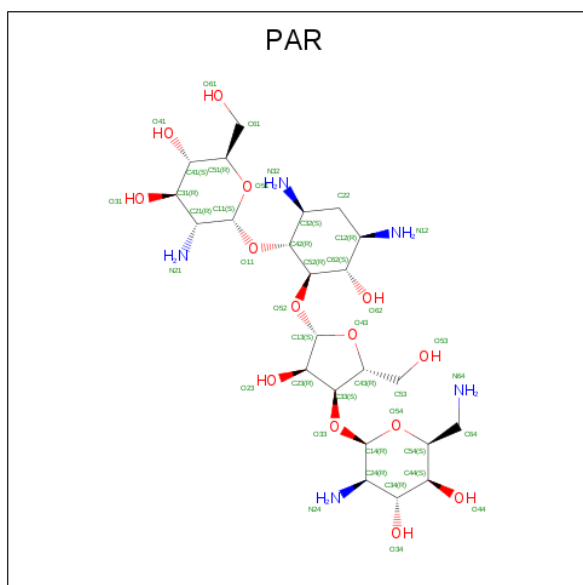
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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57	BU	1	Total 1	Mg 1	0	0
57	AD	1	Total 1	Mg 1	0	0
57	BN	1	Total 1	Mg 1	0	0
57	AI	1	Total 1	Mg 1	0	0
57	DS	1	Total 1	Mg 1	0	0
57	DE	1	Total 1	Mg 1	0	0
57	DX	3	Total 3	Mg 3	0	0
57	DA	421	Total 421	Mg 421	0	0
57	B7	1	Total 1	Mg 1	0	0
57	AL	2	Total 2	Mg 2	0	0
57	BV	1	Total 1	Mg 1	0	0
57	AG	1	Total 1	Mg 1	0	0
57	BO	1	Total 1	Mg 1	0	0
57	D1	1	Total 1	Mg 1	0	0
57	CI	1	Total 1	Mg 1	0	0
57	CW	7	Total 7	Mg 7	0	0
57	D5	2	Total 2	Mg 2	0	0
57	BD	2	Total 2	Mg 2	0	0
57	B0	1	Total 1	Mg 1	0	0
57	CE	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	CL	1	Total	Mg	0	0
			1	1		
57	DB	13	Total	Mg	0	0
			13	13		

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



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

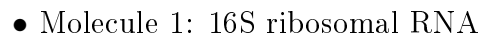
- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

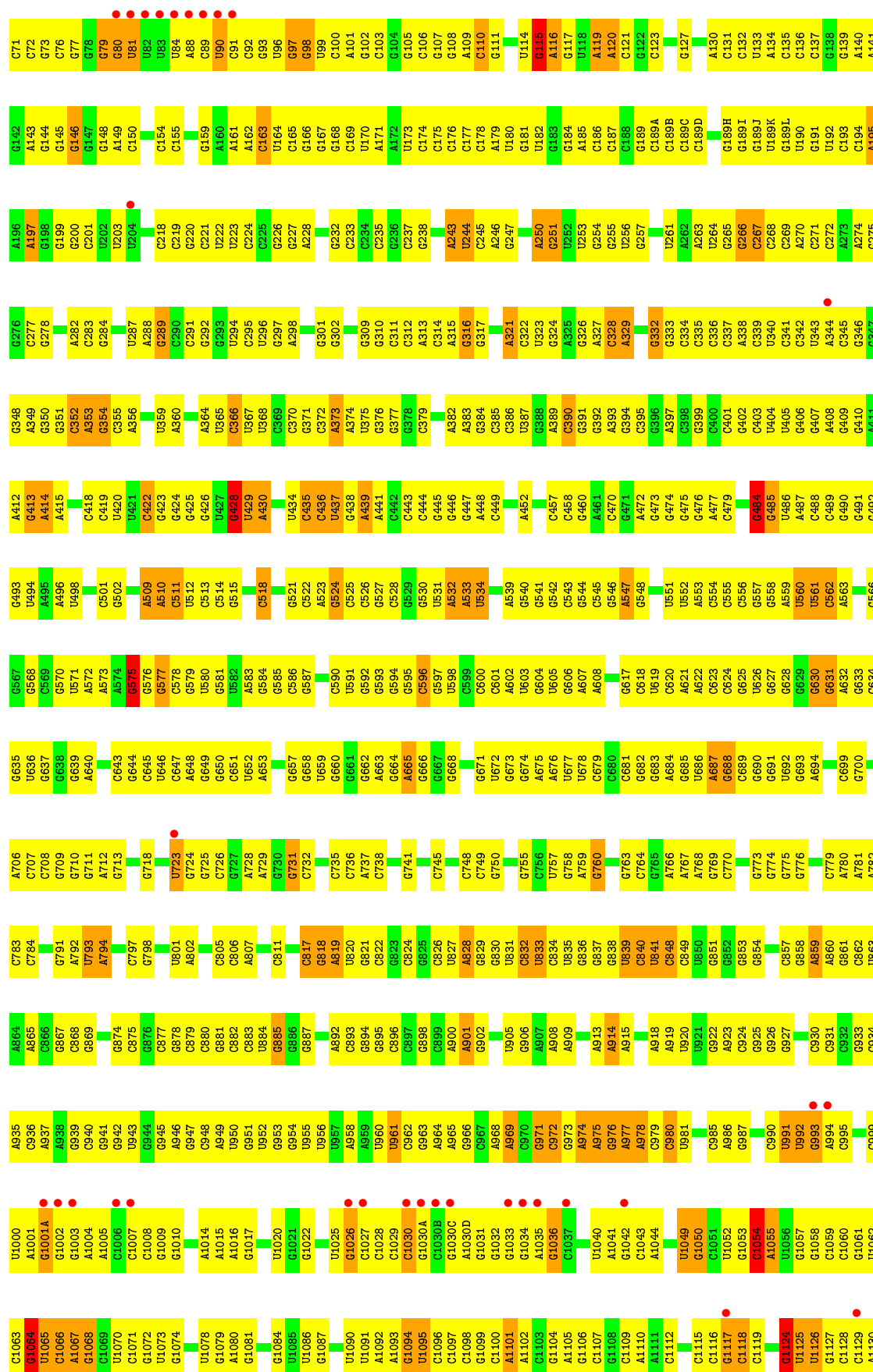
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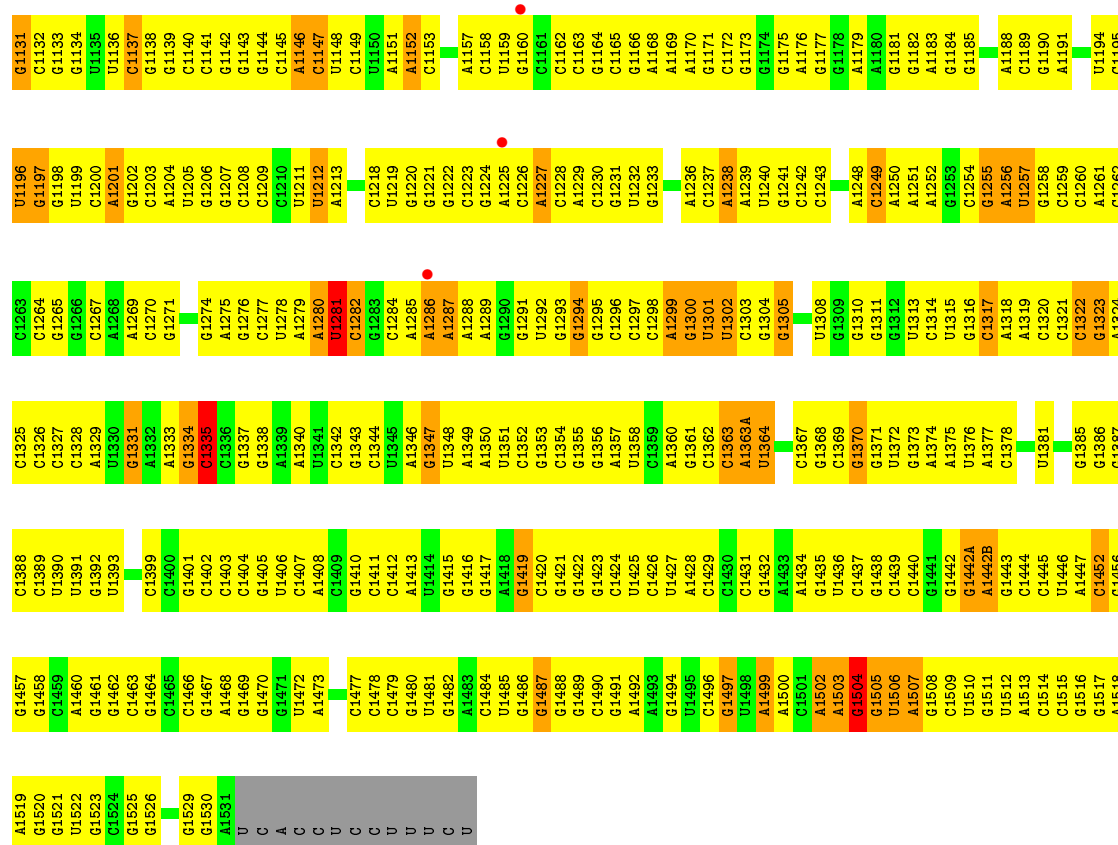
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AD	1	Total	Zn	0	0
			1	1		

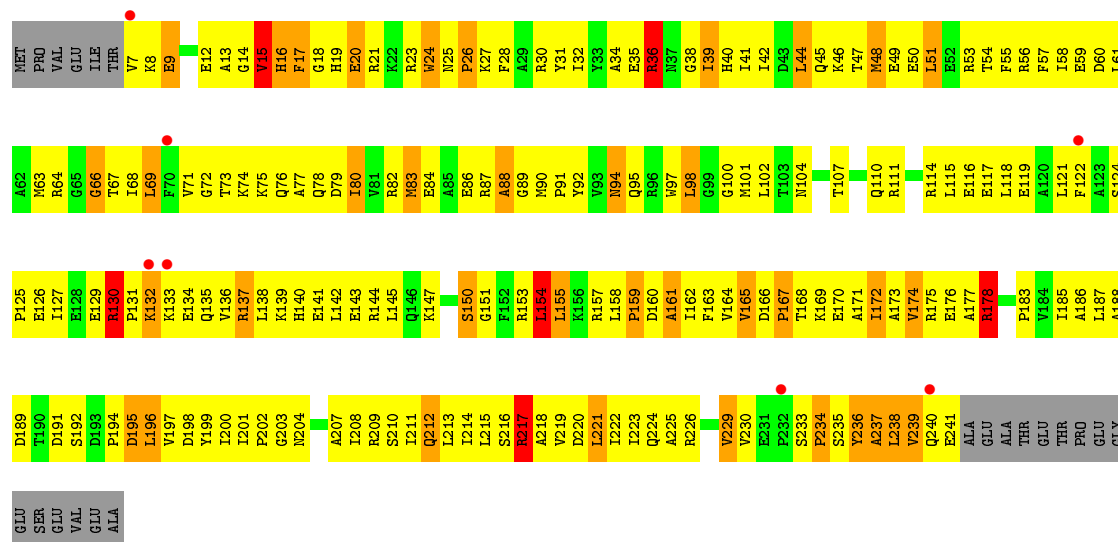


U	U	U	U	G	U	U5	66		G9	A10	G15	A16	U17	C18	G19	U20	G21	G22	C23	U24	C25	A26	G27	G28	G29	U30	A31	A32	A33	C34	C35	C36	U37	C38	C39	C40	G41	G42	C43	G44		C48		A51	G52	A53		U56	G57	C58	A59	A60	G61	U62		G66	C67	G68
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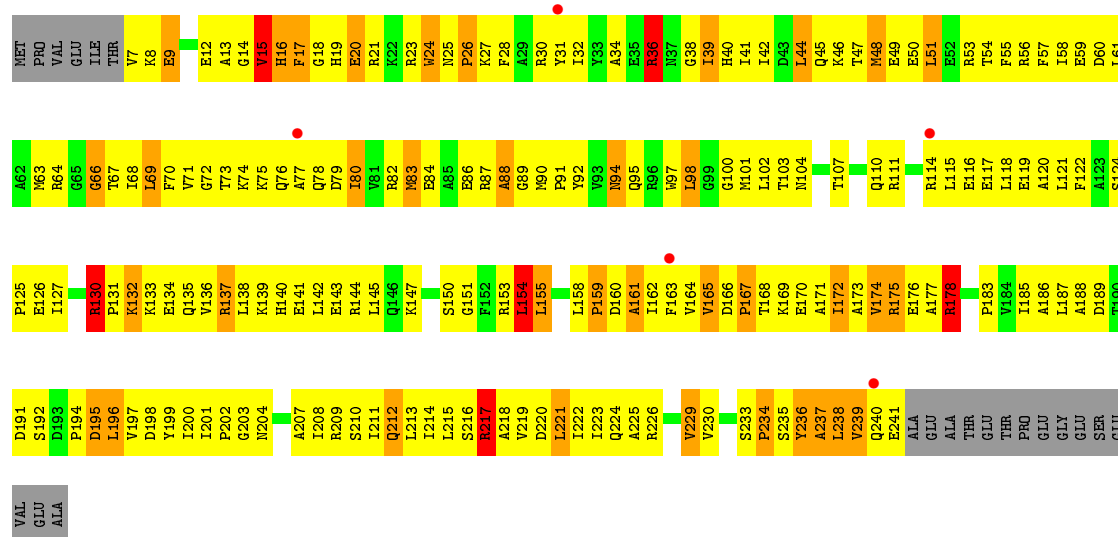


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

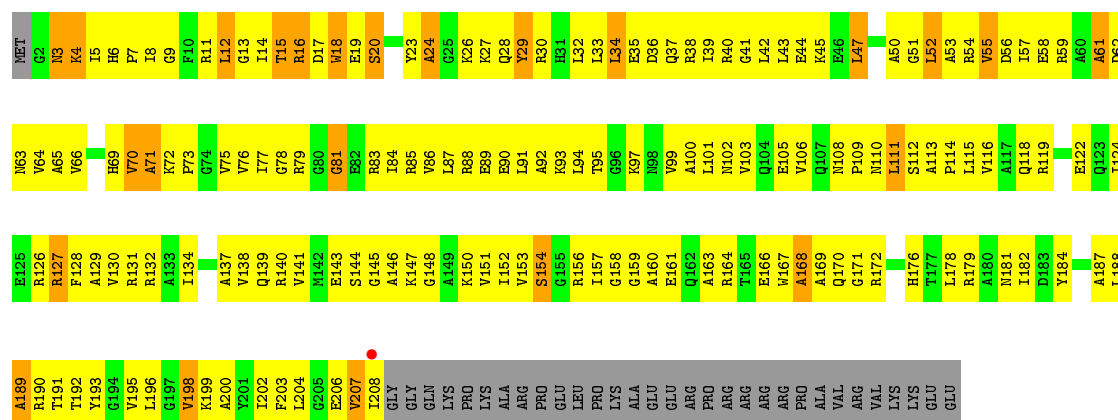


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

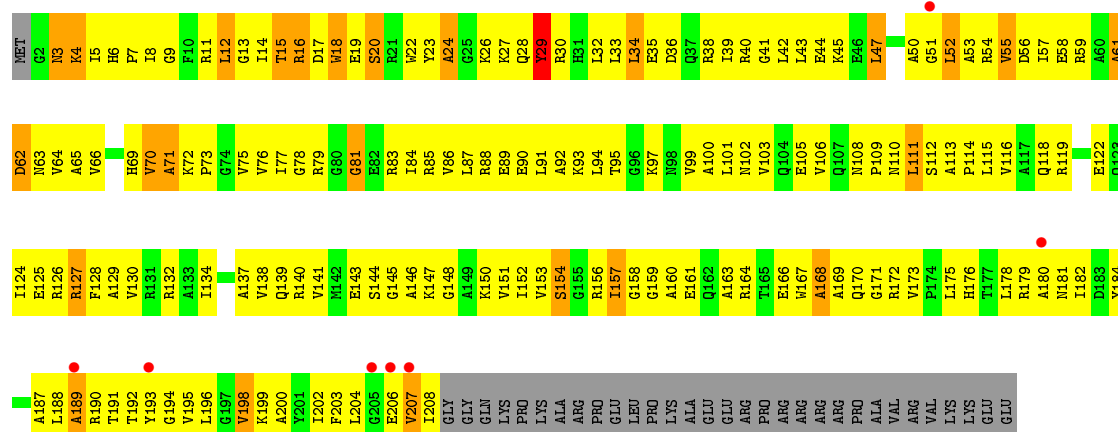
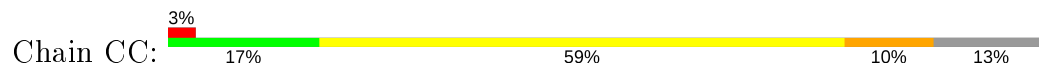




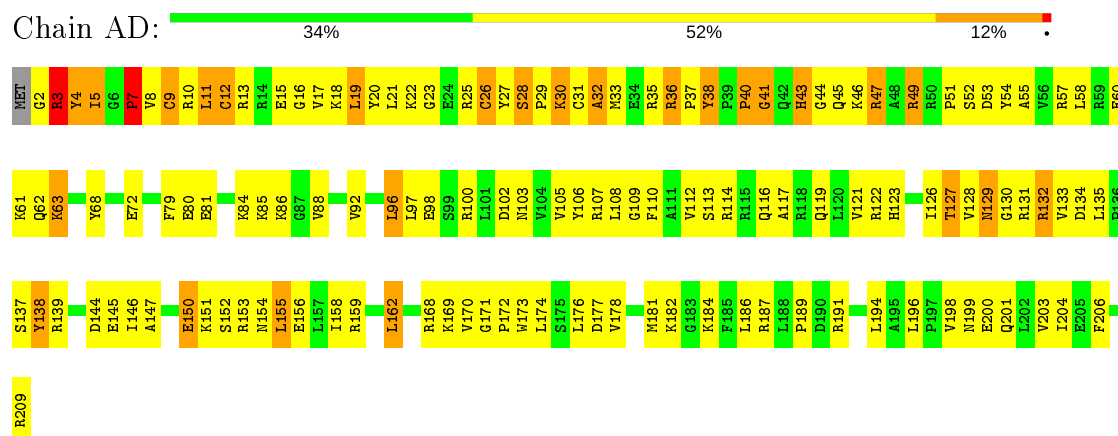
• Molecule 3: 30S RIBOSOMAL PROTEIN S3



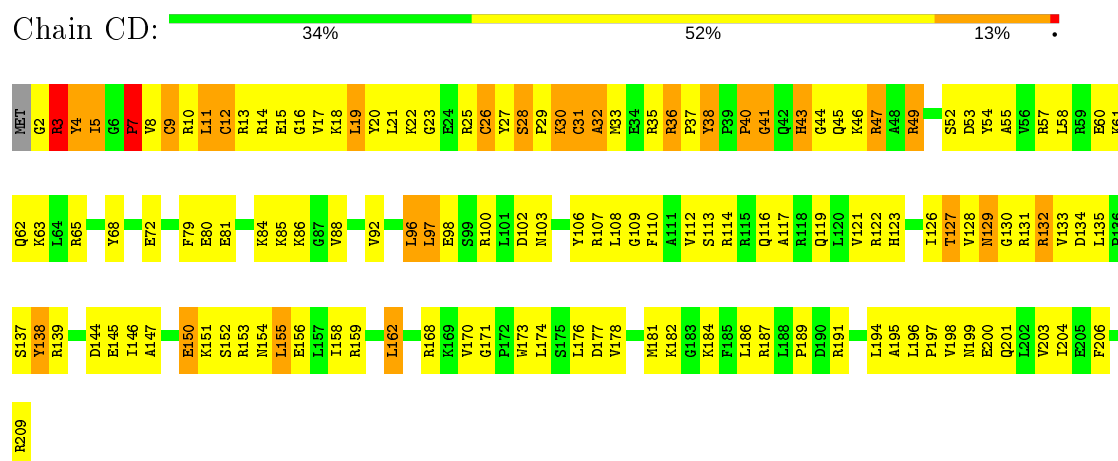
• Molecule 3: 30S RIBOSOMAL PROTEIN S3



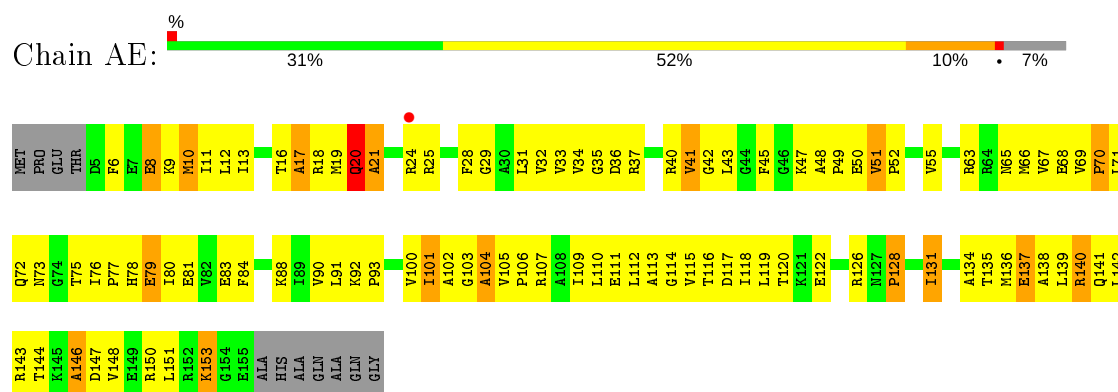
● Molecule 4: 30S RIBOSOMAL PROTEIN S4



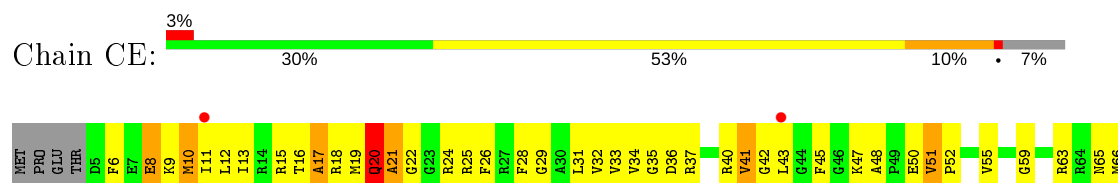
● Molecule 4: 30S RIBOSOMAL PROTEIN S4



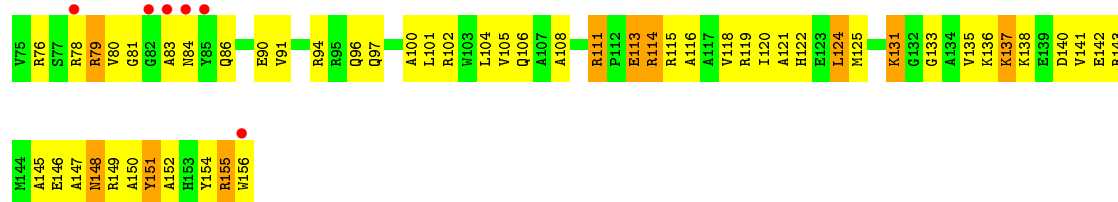
● Molecule 5: 30S RIBOSOMAL PROTEIN S5



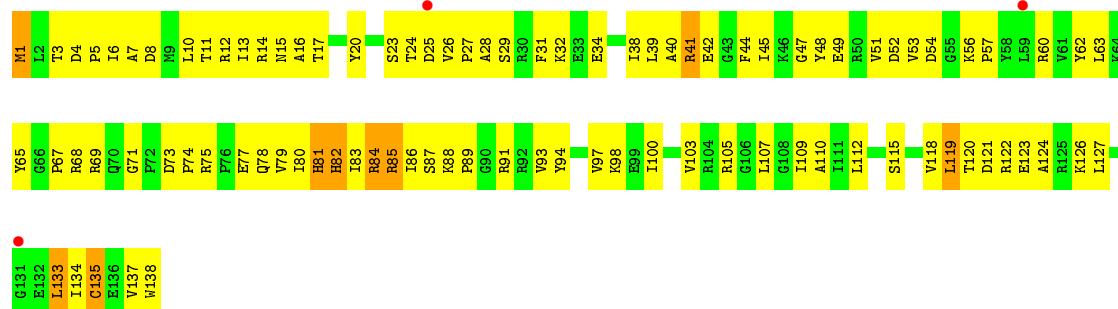
● Molecule 5: 30S RIBOSOMAL PROTEIN S5



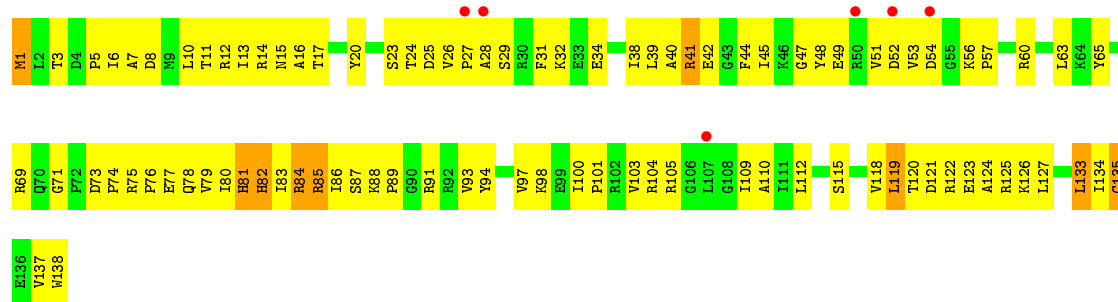




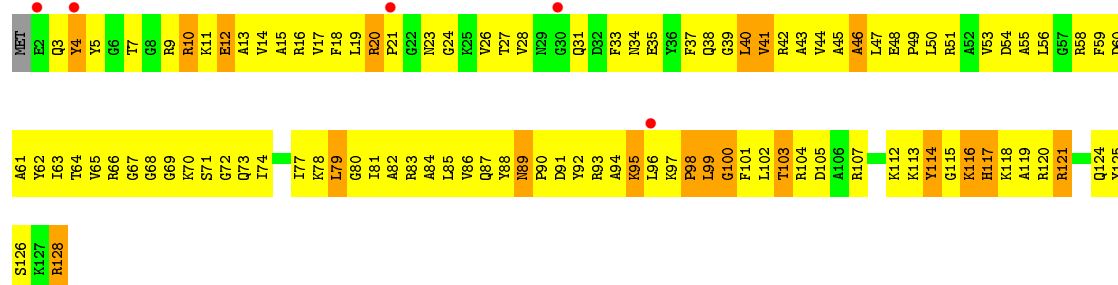
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



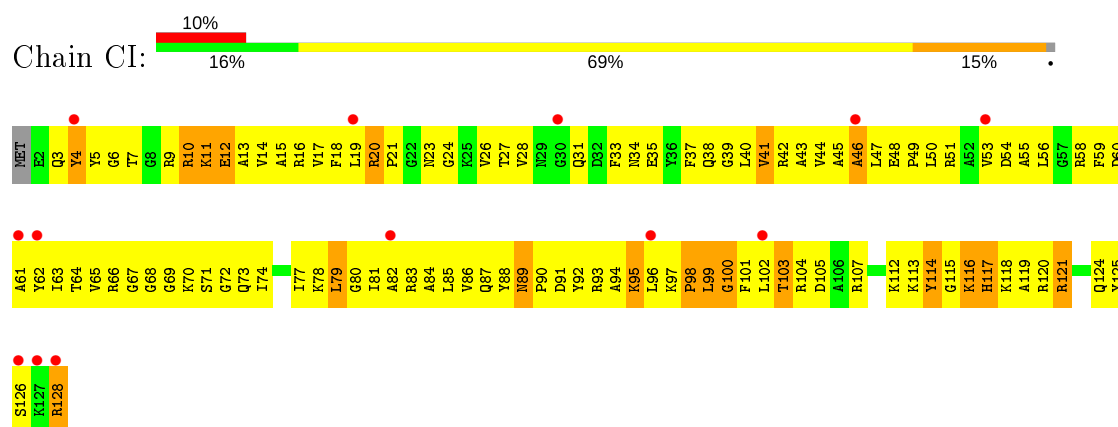
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



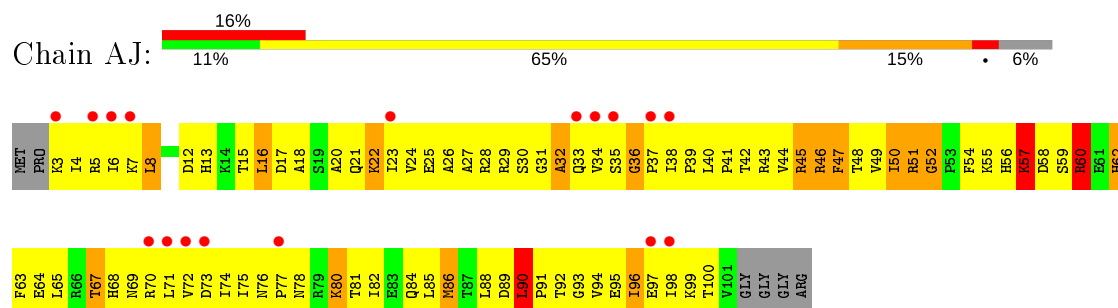
• Molecule 9: 30S RIBOSOMAL PROTEIN S9



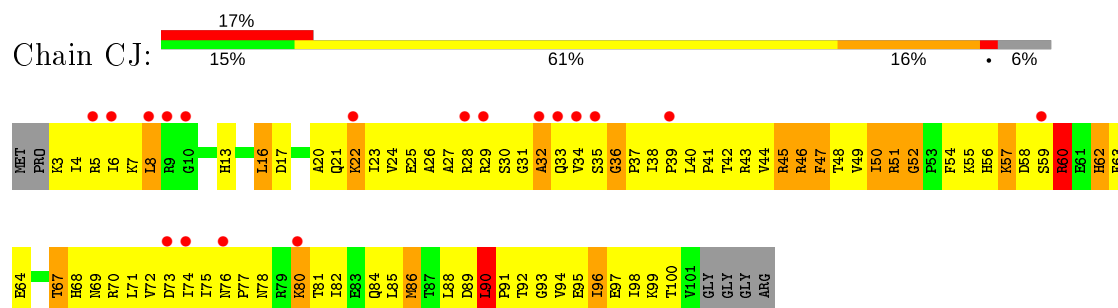
• Molecule 9: 30S RIBOSOMAL PROTEIN S9



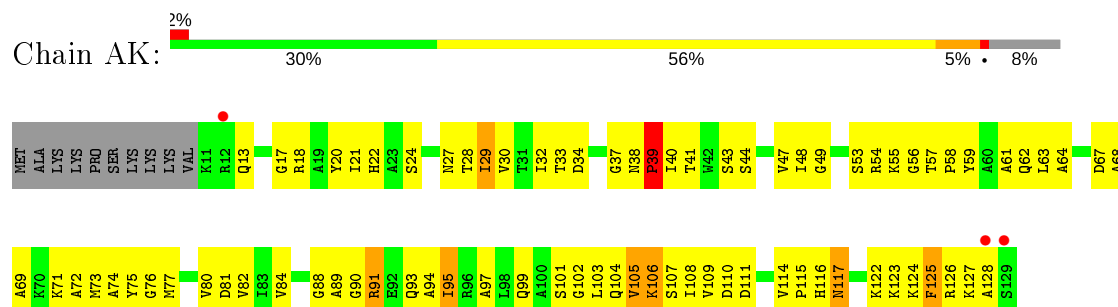
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



• Molecule 10: 30S RIBOSOMAL PROTEIN S10

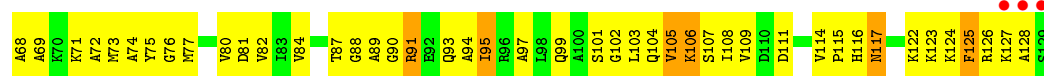


• Molecule 11: 30S RIBOSOMAL PROTEIN S11

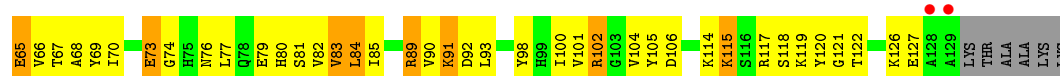


• Molecule 11: 30S RIBOSOMAL PROTEIN S11

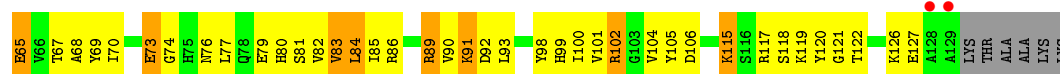
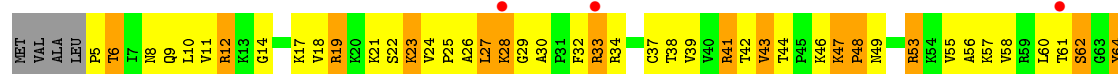




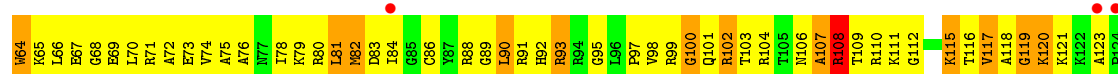
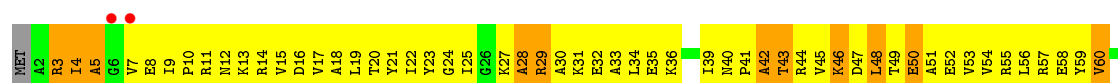
• Molecule 12: 30S RIBOSOMAL PROTEIN S12



• Molecule 12: 30S RIBOSOMAL PROTEIN S12



• Molecule 13: 30S RIBOSOMAL PROTEIN S13

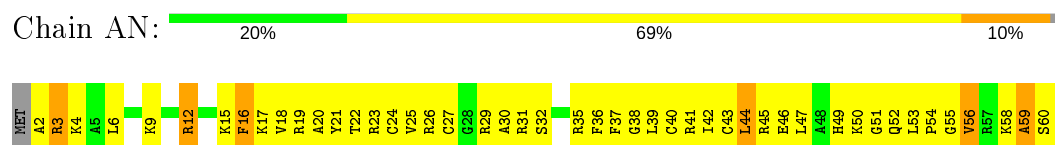


• Molecule 13: 30S RIBOSOMAL PROTEIN S13

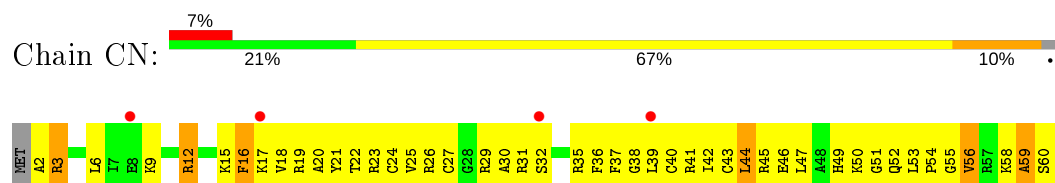




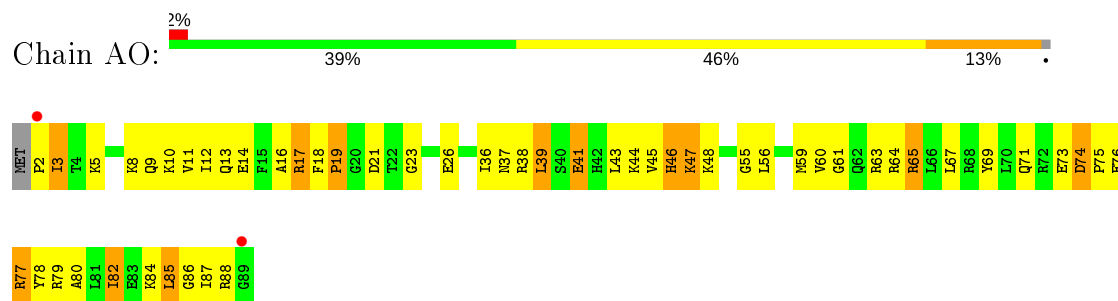
• Molecule 14: 30S RIBOSOMAL PROTEIN S14



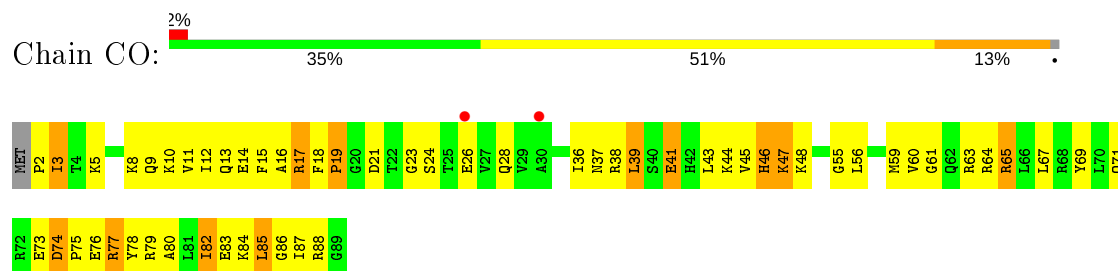
• Molecule 14: 30S RIBOSOMAL PROTEIN S14



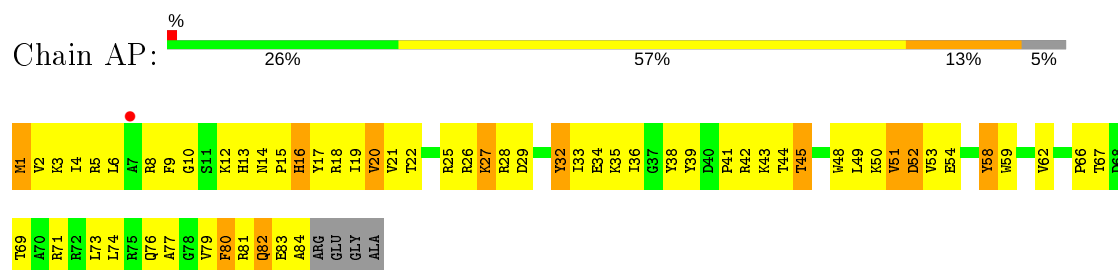
• Molecule 15: 30S RIBOSOMAL PROTEIN S15



• Molecule 15: 30S RIBOSOMAL PROTEIN S15

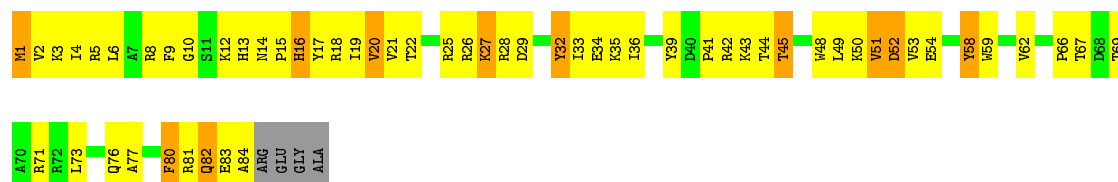


• Molecule 16: 30S RIBOSOMAL PROTEIN S16



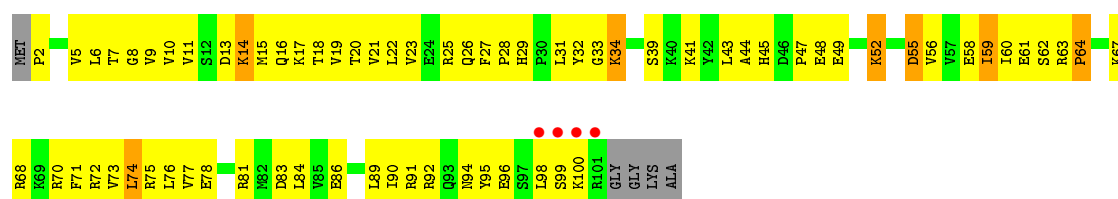
● Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CP: 



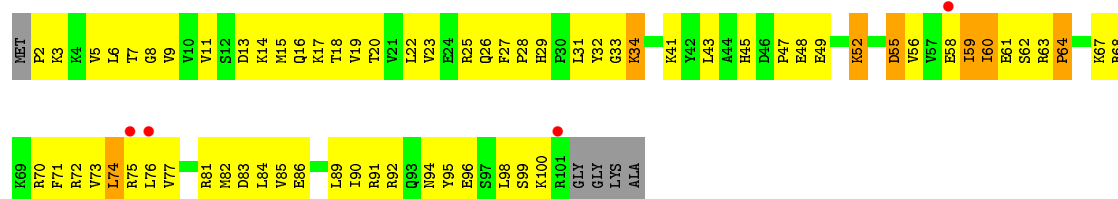
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AQ: 




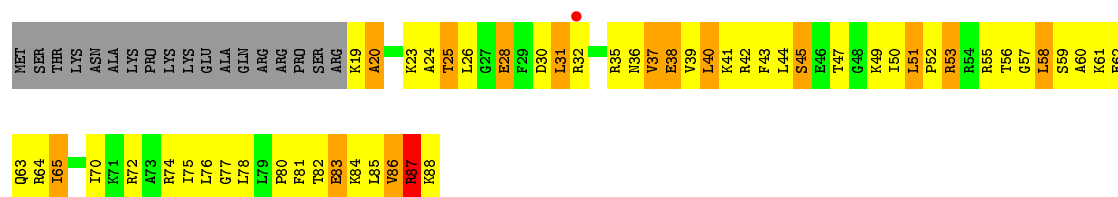
● Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CO₂:

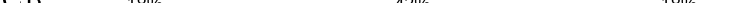


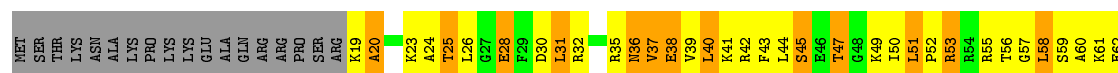
- Molecule 18: 30S RIBOSOMAL PROTEIN S18

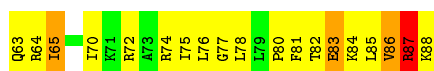
Chain AR: 



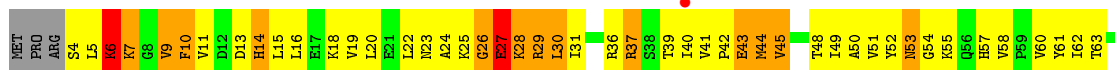
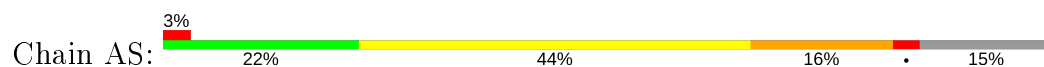
● Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CR: 

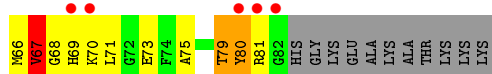
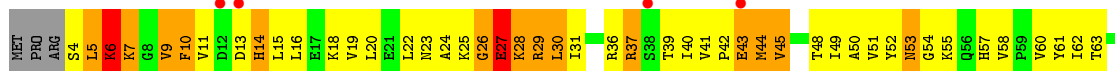
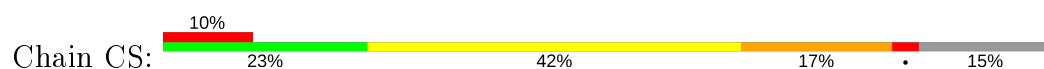




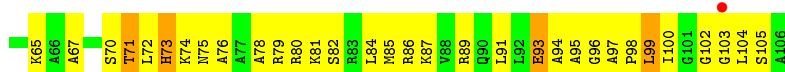
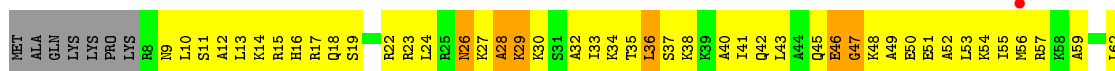
• Molecule 19: 30S RIBOSOMAL PROTEIN S19



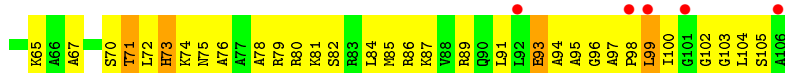
• Molecule 19: 30S RIBOSOMAL PROTEIN S19



• Molecule 20: 30S RIBOSOMAL PROTEIN S20



• Molecule 20: 30S RIBOSOMAL PROTEIN S20



• Molecule 21: 30S RIBOSOMAL PROTEIN THX

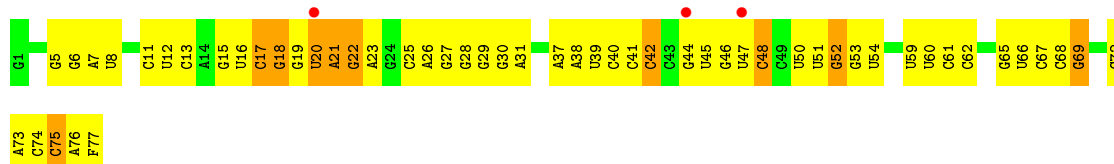




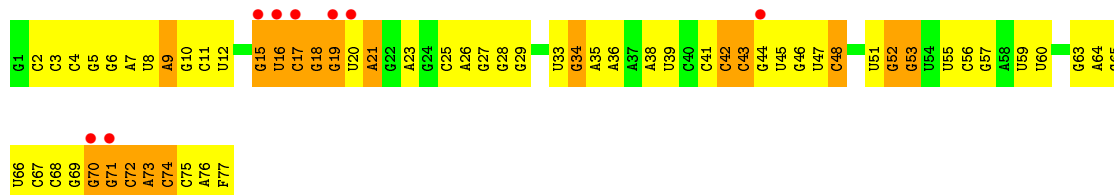
- Molecule 21: 30S RIBOSOMAL PROTEIN THX



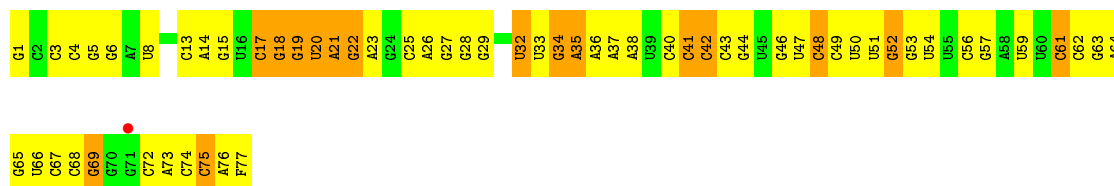
- Molecule 22: P AND A-SITE PHE-TRNA PHE



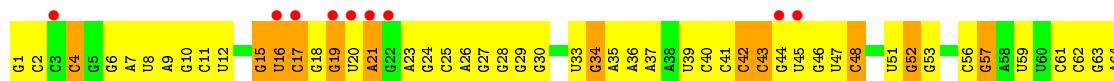
- Molecule 22: P AND A-SITE PHE-TRNA PHE

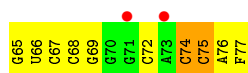


- Molecule 22: P AND A-SITE PHE-TRNA PHE



- Molecule 22: P AND A-SITE PHE-TRNA PHE





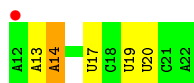
- Molecule 23: E-SITE TRNA PHE



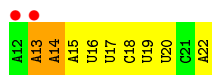
- Molecule 23: E-SITE TRNA PHE



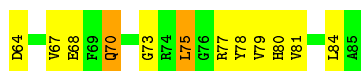
- Molecule 24: MRNA



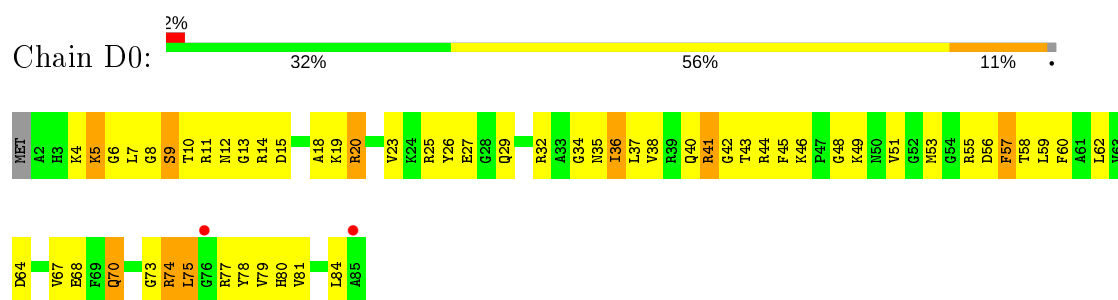
- Molecule 24: MRNA



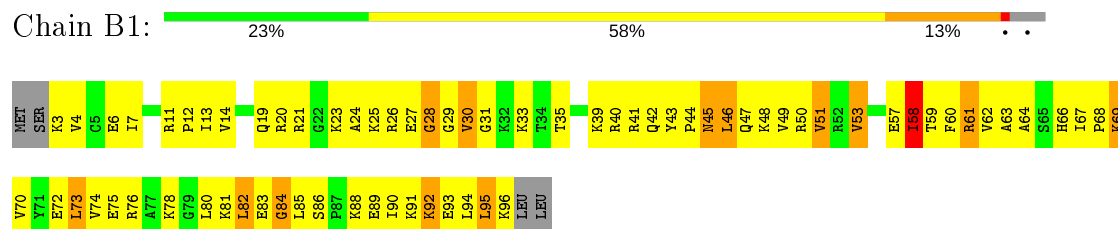
- Molecule 25: 50S RIBOSOMAL PROTEIN L27



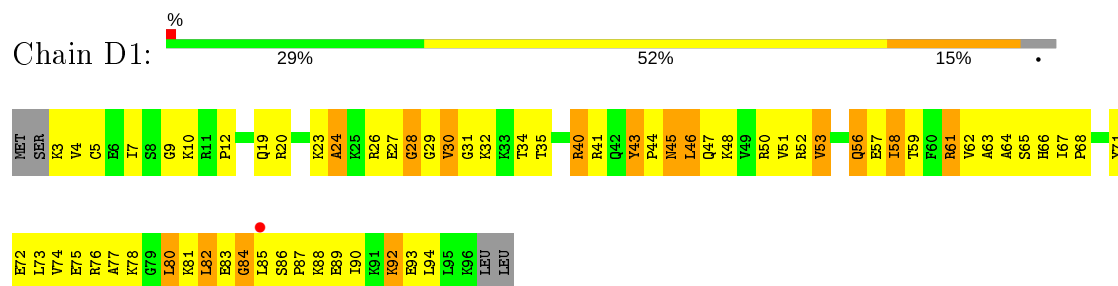
- Molecule 25: 50S RIBOSOMAL PROTEIN L27



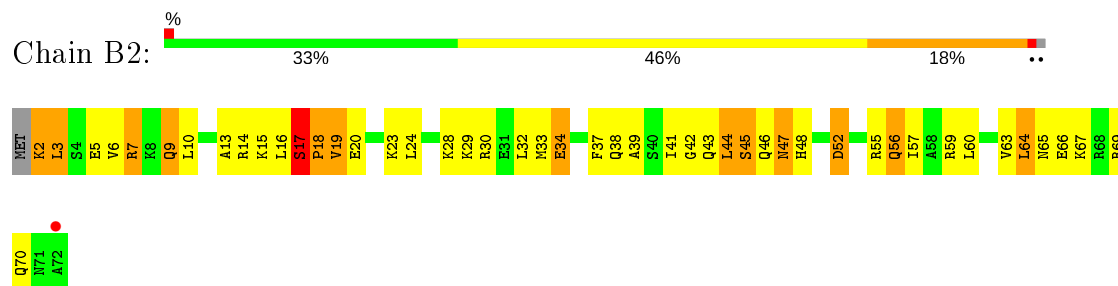
• Molecule 26: 50S RIBOSOMAL PROTEIN L28



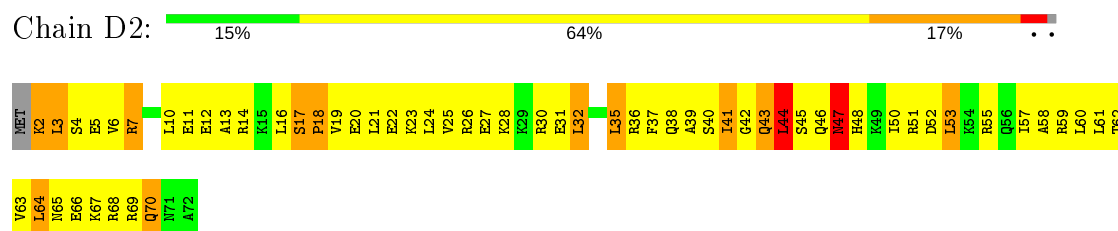
• Molecule 26: 50S RIBOSOMAL PROTEIN L28



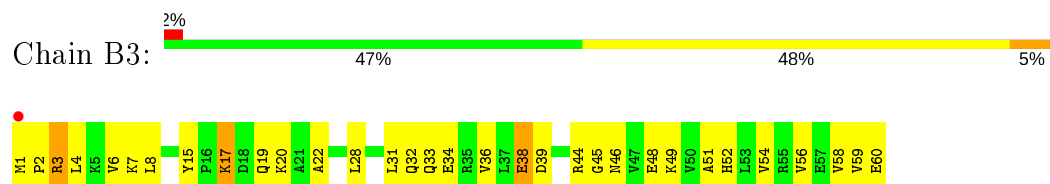
• Molecule 27: 50S RIBOSOMAL PROTEIN L29



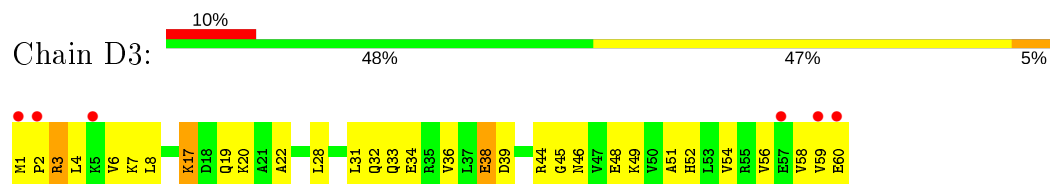
• Molecule 27: 50S RIBOSOMAL PROTEIN L29



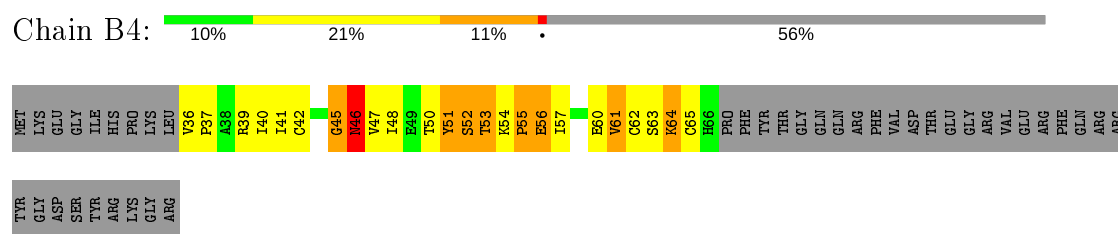
• Molecule 28: 50S RIBOSOMAL PROTEIN L30



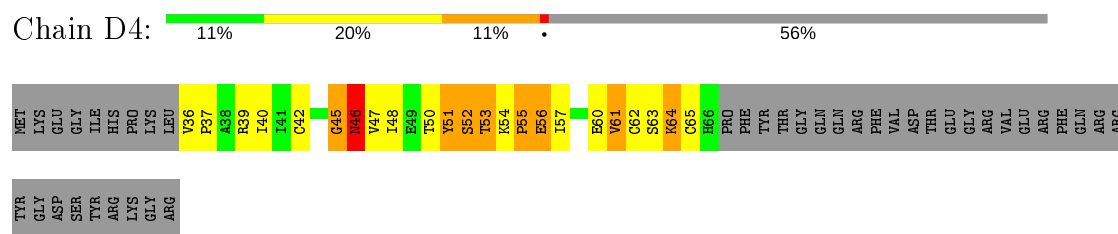
- Molecule 28: 50S RIBOSOMAL PROTEIN L30



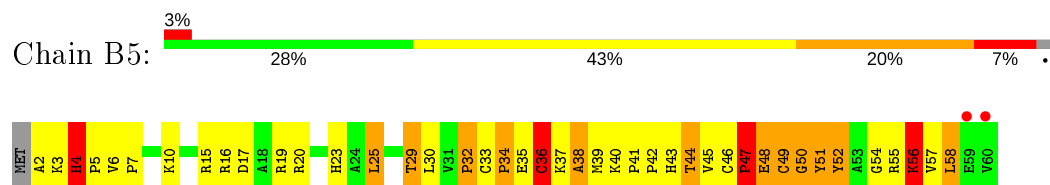
- Molecule 29: 50S RIBOSOMAL PROTEIN L31



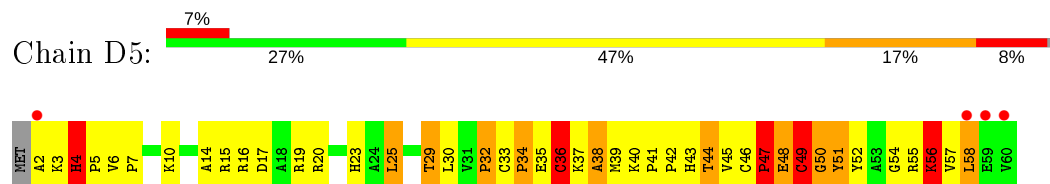
- Molecule 29: 50S RIBOSOMAL PROTEIN L31



- Molecule 30: 50S RIBOSOMAL PROTEIN L32

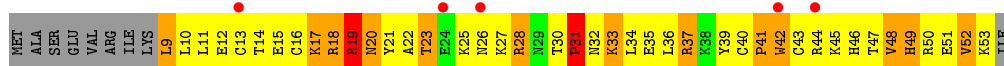


- Molecule 30: 50S RIBOSOMAL PROTEIN L32

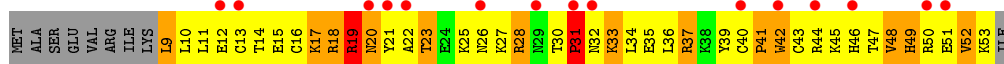


- Molecule 31: 50S RIBOSOMAL PROTEIN L33





• Molecule 31: 50S RIBOSOMAL PROTEIN L33



• Molecule 32: 50S RIBOSOMAL PROTEIN L34



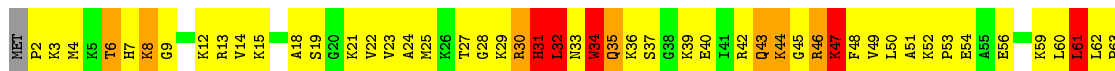
• Molecule 32: 50S RIBOSOMAL PROTEIN L34



• Molecule 33: 50S RIBOSOMAL PROTEIN L35



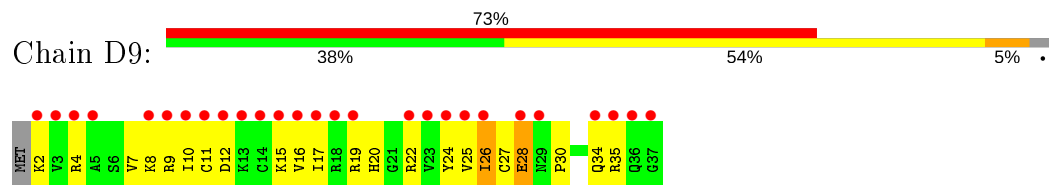
• Molecule 33: 50S RIBOSOMAL PROTEIN L35



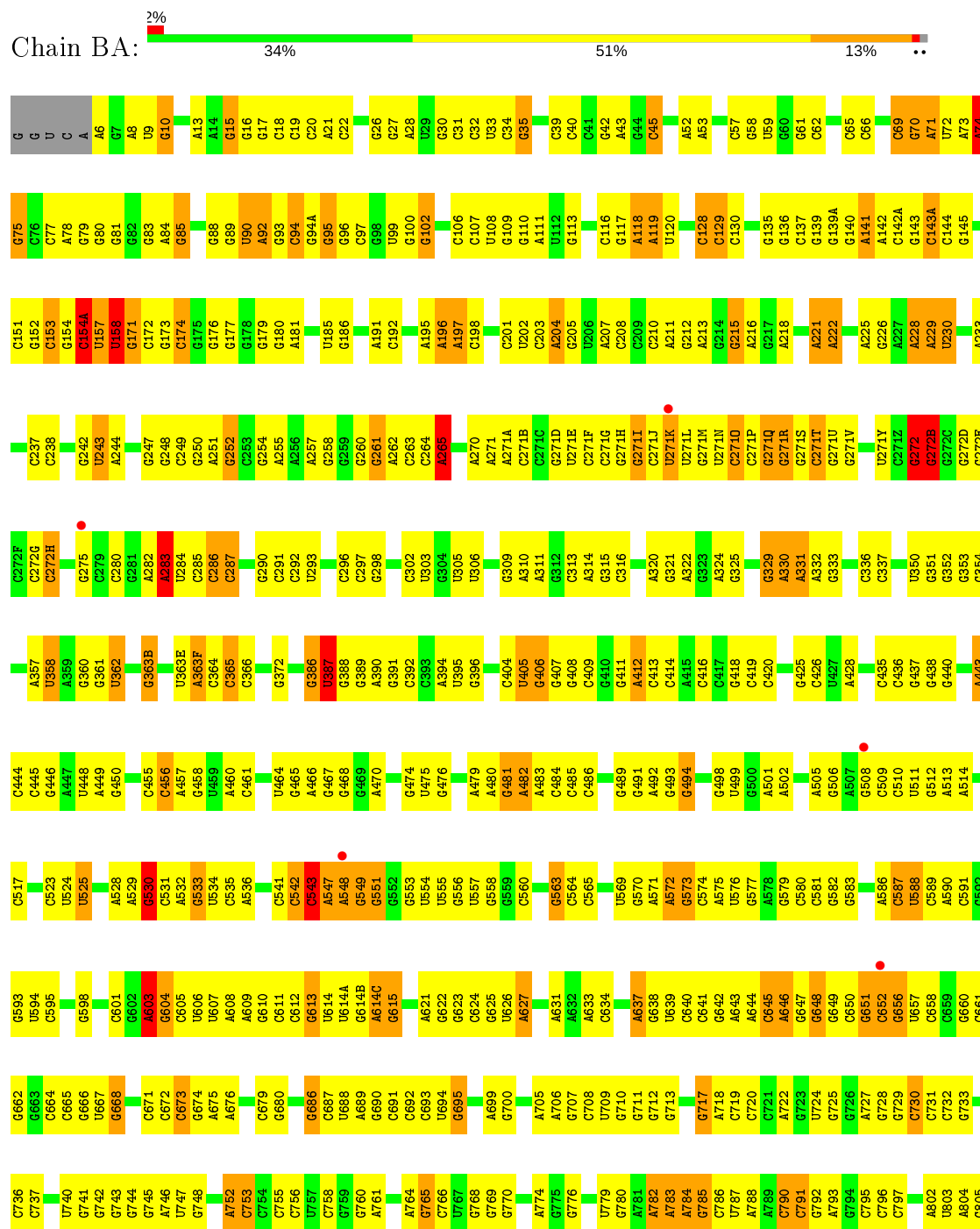
• Molecule 34: 50S RIBOSOMAL PROTEIN L36



- Molecule 34: 50S RIBOSOMAL PROTEIN L36

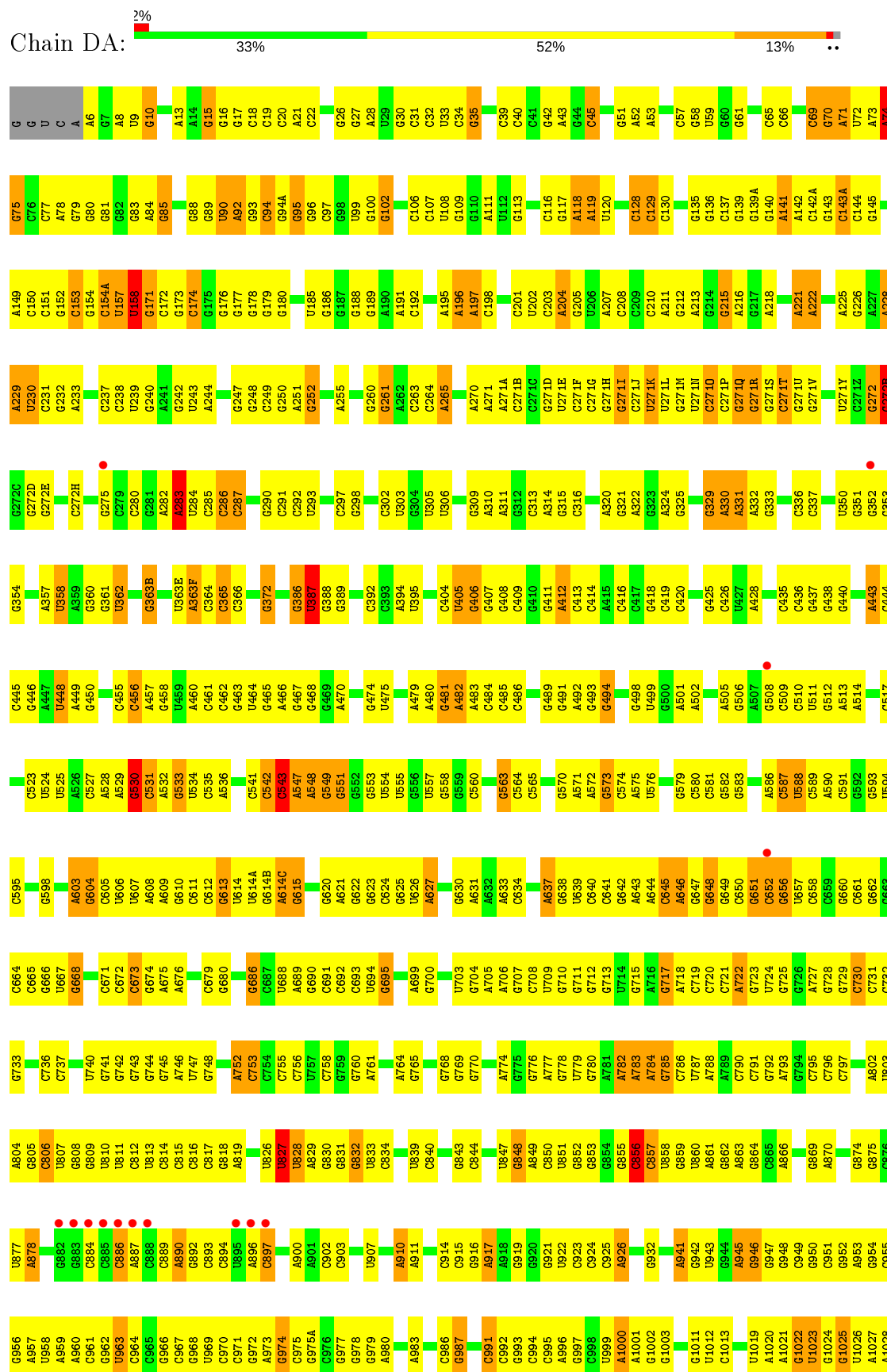


- Molecule 35: 23S RIBOSOMAL RNA

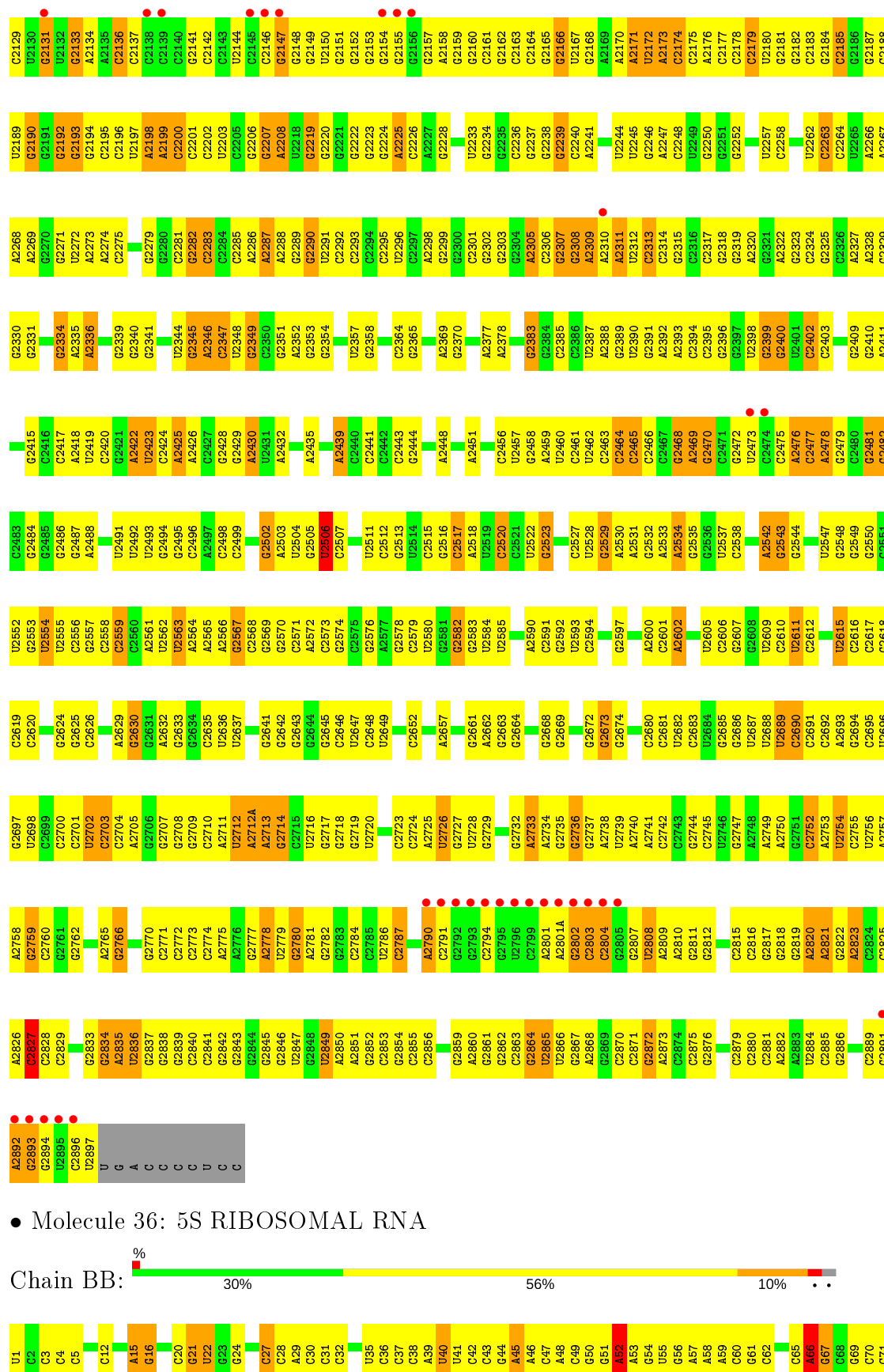


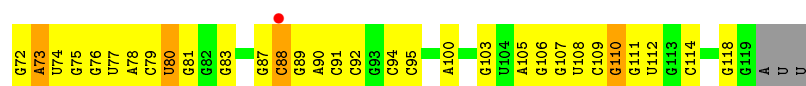
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C1844	G1776	C1687	C1608	U1518	C1451	C1378	G1303	G1224	G1153	U1034	C961	G881	G808
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G1846	U1778	A1689	A1609	G1520	U1453	G1380	G1309	G1227	A1155	G1036	U963	U810	G812
A1847	U1779	A1690	A1610	G1525	G1455	C1384	G1310	G1231	A1156	C1038	C964	U811	U811
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A1853	A1783	A1614	A1614	A1528	G1459	U1334	C1314	U1234	G1162	G1042	U970	C815	C815
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G1855	A1785	A1616	A1616	G1529	U1396	A1395	U1316	U1240	G1164	G1044	G972	C817	C817
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G1891	C1799	C1652	C1652	C1574	C1500	C1435	G1357	G1281	G1206	G1139	A1020	G946	G946
G1892	U1799	C1653	C1653	C1575	U1501	C1436	U1358	A1286	A1210	U1140	A1021	C947	C947
G1893	C1799	C1654	C1654	C1576	C1502	C1437	A1359	U1287	G1211	U1141	U1022	C951	C951
G1894	U1799	C1655	C1655	C1577	C1503	C1438	G1360	U1288	G1212	U1142	U1023	G952	G952
G1895	C1799	C1656	C1656	C1578	C1504	C1439	G1361	U1289	A1143	G1144	G1025	A870	A870
G1896	U1799	C1657	C1657	C1579	C1505	C1440	U1362	U1290	G1215	C1145	U1026	G874	G874
G1897	C1799	C1658	C1658	C1580	C1506	C1441	G1363	U1291	G1216	C1146	A1027	G875	G875
G1898	U1799	C1659	C1659	C1581	C1507	C1442	A1364	U1292	A1220	C1147	A1028	C876	C876
G1899	C1799	C1660	C1660	C1582	C1508	C1443	G1365	C1293	C1221	G1150	A1029	U958	U958
G1900	U1799	C1661	C1661	C1583	C1509	C1444	A1366	C1294	G1217	C1151	C1150	C1150	C1150
G1901	C1799	C1662	C1662	C1584	A1509A	C1445	G1367	C1295	C1222	C1152	C1151	C1151	C1151
G1902	U1799	C1663	C1663	C1585	C1510	C1446	A1368	C1296	C1223	C1153	C1152	C1152	C1152
G1903	C1799	C1664	C1664	C1586	C1511	C1447	G1369	C1297	C1224	C1154	C1153	C1153	C1153
G1904	U1799	C1665	C1665	C1587	C1512	C1448	A1370	C1298	C1225	C1155	C1154	C1154	C1154
G1905	C1799	C1666	C1666	C1588	C1513	C1449	G1371	C1299	C1226	C1156	C1155	C1155	C1155
G1906	U1799	C1667	C1667	C1589	C1514	C1450	A1372	C1300	C1227	C1157	C1156	C1156	C1156
G1907	C1799	C1668	C1668	C1590	C1515	C1451	G1373	C1301	C1228	C1158	C1157	C1157	C1157
G1908	U1799	C1669	C1669	C1591	C1516	C1452	A1374	U1302	C1229	C1159	C1158	C1158	C1158
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G1911	C1799	C1672	C1672	C1594	C1519	C1455	G1377	U1305	C1232	C1162	C1161	C1161	C1161
G1912	U1799	C1673	C1673	C1595	C1520	C1456	A1378	U1306	C1233	C1163	C1162	C1162	C1162
G1913	C1799	C1674	C1674	C1596	C1521	C1457	G1379	U1307	C1234	C1164	C1163	C1163	C1163
G1914	U1799	C1675	C1675	C1597	C1522	C1458	A1380	U1308	C1235	C1165	C1164	C1164	C1164
G1915	C1799	C1676	C1676	C1598	C1523	C1459	G1381	U1309	C1236	C1166	C1165	C1165	C1165
G1916	U1799	C1677	C1677	C1599	C1524	C1460	A1382	U1310	C1237	C1167	C1166	C1166	C1166
G1917	C1799	C1678	C1678	C1600	C1525	C1461	G1383	U1311	C1238	C1168	C1167	C1167	C1167
G1918	U1799	C1679	C1679	C1601	C1526	C1462	A1384	U1312	C1239	C1169	C1168	C1168	C1168
G1919	C1799	C1680	C1680	C1602	C1527	C1463	G1385	U1313	C1240	C1170	C1169	C1169	C1169
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G1922	U1799	C1683	C1683	C1605	C1530	C1466	A1388	U1316	C1243	C1173	C1172	C1172	C1172
G1923	C1799	C1684	C1684	C1606	C1531	C1467	G1389	U1317	C1244	C1174	C1173	C1173	C1173
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G1926	U1799	C1687	C1687	C1609	C1534	C1470	A1392	U1320	C1247	C1177	C1176	C1176	C1176
G1927	C1799	C1688	C1688	C1610	C1535	C1471	G1393	U1321	C1248	C1178	C1177	C1177	C1177
G1928	U1799	C1689	C1689	C1611	C1536	C1472	A1394	U1322	C1249	C1179	C1178	C1178	C1178
G1929	C1799	C1690	C1690	C1612	C1537	C1473	G1395	U1323	C1250	C1180	C1179	C1179	C1179
G1930	U1799	C1691	C1691	C1613	C1538	C1474	A1396	U1324	C1251	C1181	C1180	C1180	C1180
G1931	C1799	C1692	C1692	C1614	C1539	C1475	G1397	U1325	C1252	C1182	C1181	C1181	C1181
G1932	U1799	C1693	C1693	C1615	C1540	C1476	A1398	U1326	C1253	C1183	C1182	C1182	C1182
G1933	C1799	C1694	C1694	C1616	C1541	C1477	G1399	U1327	C1254	C1184	C1183	C1183	C1183
G1934	U1799	C1695	C1695	C1617	C1542	C1478	A1400	U1328	C1255	C1185	C1184	C1184	C1184
G1935	C1799	C1696	C1696	C1618	C1543	C1479	G1401	U1329	C1256	C1186	C1185	C1185	C1185
G1936	U1799	C1697	C1697	C1619	C1544	C1480	A1402	U1330</					

- Molecule 35: 23S RIBOSOMAL RNA



A2059	C1982	C1908	G1763	U1671	C1592	C1509	G1440	C1363	C1290	G1216	C1146	A1029
A2060	C1983	C1909	G1764	U1671	G1593	C1509	G1441	G1364	C1291	G1216	C1147	U1032
G2061	G1984	G1910	G1765	G1674	G1594	A1509A	G1442	A1365	U1292	A1220	C1150	U1033
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C2063	A1986	A1912	C1767	A1676	C1598	G1510	G1444	G1368	U1294	C1221A	G1152	U1035
C2064	G1987	A1913	C1767	A1677	C1599	G1511	A1445	G1369	C1295	C1222	C1153	G1036
C2065	G1988	C1914	C1771	G1678	C1599	G1511	C1445A	A1373	G1299	C1223	C1154	G1037
C2066	G1989	U1915	C1772	U1679	C1600	G1518	C1446	G1374	U1300	C1224	A1155	C1038
U2068	C1990	A1916	U1772	U1680	C1601	G1519	G1447	G1375	A1301	G1227	A1156	U1039
G2069	G1991	U1917	A1773	G1681	U1602	G1520	A1448	C1376	A1302	G1227	A1157	C1040
G2070	U1993	A1918	C1774	G1682	U1603	G1520	A1449	C1377	A1302	G1227	C1158	G1041
A2071	U1993	G1844	U1775	C1685	C1607	G1525	G1450	G1377	G1309	G1231	G1158	G1042
G2072	G1987	G1845	G1776	C1686	A1608	G1526	C1450A	A1378	G1310	G1232	C1161	C1043
C2073	G1988	G1846	U1777	C1686	A1608	G1527	C1451	A1379	G1310	C1233	C1162	G1044
G2074	G1989	A1847	U1778	U1687	A1609	A1528	A1452	G1380	G1311	U1234	G1163	G1045
G2075	G2000	A1848	U1779	U1688	A1610	G1529	U1453	U1312	G1312	U1235	G1164	A1046
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C2081	G2013	G1852	C1782	C1691	G1613	C1531	G1459	C1386	G1315	A1242	U1167	C1049
A2082	C2008	A1853	A1783	U1692	A1614	C1532	A1460	A1395	U1316	G1243	G1168	A1050
G2083	G2009	A1854	A1784	G1696	C1615	G1533	A1461	U1396	A1317	G1244	G1169	G1051
U2086	G2010	G1855	A1785	A1616	C1616	C1543	G1464	G1397	G1318	G1245	G1170	G1052
G2087	U2011	G1856	A1786	G1697	C1617	A1544	C1464	G1400	G1320	A1246	G1171	C1053
G2088	G2012	G1857	A1787	A1698	A1618	G1547	C1467	G1401	A1321	A1247	G1173	A1106
U2089	A2014	G1858	C1788	A1700	G1626	C1548	C1468	C1402	G1327	G1248	A1174	G1107
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U2092	U2017	G1861	A1791	G1707	U1629	C1551	A1471	U1405	U1329	A1252	A1177	C1110
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U2095	U1943	C1795	C1710	C1711	C1638	G1555	A1474	C1408	G1333	C1257	C1180	U1113
G2096	U1944	U1796	C1711	C1712	U1639	G1555	C1474	C1409	C1334	G1258	C1181	G1114
C2097	U1945	C1797	C1712	U1713	C1640	A1558	G1478	C1410	U1335	G1259	G1182	G1115
U2099	G2023	A1876	U1713	U1713	A1641	G1559	G1479	C1411	A1336	G1260	G1191	A1126
G2100	G2024	A1877	G1714	A1641	G1642	A1559	G1480	A1412	A1337	G1261	G1192	A1127
C2101	C2025	C1878	G1715	G1715	G1642	C1565	U1481	G1413	G1337	C1261	G1193	G1117
U2102	C2026	G1879	G1718	G1719	G1647	A1566	U1482	G1414	G1338	A1262	G1186	U2102
C2103	U1952	C1880	G1718	G1719	G1648	A1567	G1484	G1416	G1339	U1263	G1187	C1123
G2104	U1955	C1881	U1720	U1720	C1648	G1568	G1485	C1417	U1340	G1264	U1188	C1124
C2107	A2030	C1882	G1721	G1721	G1651	G1569	A1486	G1418	U1341	A1265	G1190	G1125
C2108	A2031	G1883	A1722	U1739	A1652	A1570	G1487	A1419	G1344	G1266	G1191	A1126
G2109	G2032	A1884	U1739	U1739	G1653	A1571	G1488	U1420	G1345	U1267	G1192	A1127
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G2110	U2034	C1886	G1742	G1742	A1655	G1573	A1490	G1424	G1347	A1269	A1194	U2109
C2111	G2035	C1887	C1743	C1744	C1656	C1574	G1491	G1425	G1348	G1270	G1195	G1133
G2112	C2036	G1888	G1743	C1744	C1657	C1574	G1492	G1426	A1349	A1272	C1201	U1132
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A2114	G2038	G1816	A1741	G1742	U1659	A1579	A1494	A1428	C1351	A1275	G1203	G1136
G2115	A1890	G1817	G1747	G1747	C1660	A1580	A1495	G1429	U1352	A1278	U1204	G1137
C2116	G1896	U1818	G1747A	G1748	G1661	G1581	A1496	U1431	A1353	A1279	G1205	G1138
A2117	G1897	A1819	G1748	G1748	C1662	U1582	A1497	U1431	A1354	G1279	C1208	C1139
C2043	U1898	C1820	C1751	C1751	C1663	A1583	U1497	U1431	G1355	G1281	G1208	U1141
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C2053	G1901	G1826	G1754	C1754	A1666	A1587	C1503	G1485	G1358	A1286	U1211	A1142A
G1973	C1902	G1827	A1755	A1755	G1667	C1588	U1503	G1486	A1359	A1287	G1212	A1144
C2055	G1903	C1827	A1756	G1756	A1668	U1589	C1504	C1437	A1359	U1288	G1212	A1144
A2126	G2056	G1828	A1756	G1756	A1668	U1589	C1504	C1437	A1359	U1288	G1212	A1144
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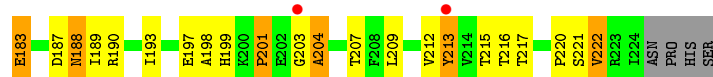
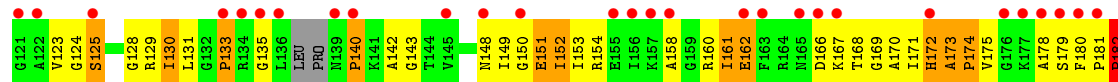
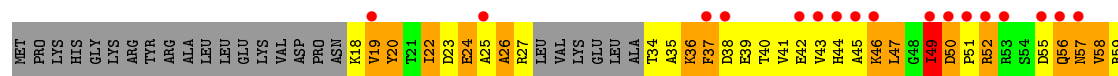




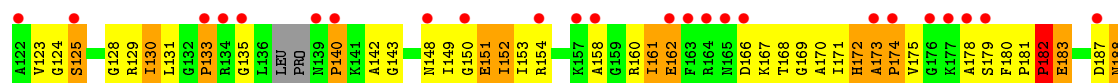
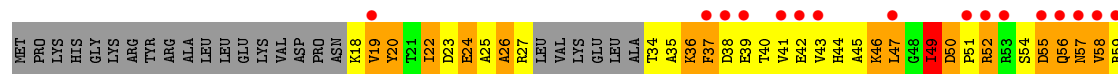
• Molecule 36: 5S RIBOSOMAL RNA



• Molecule 37: 50S RIBOSOMAL PROTEIN L1

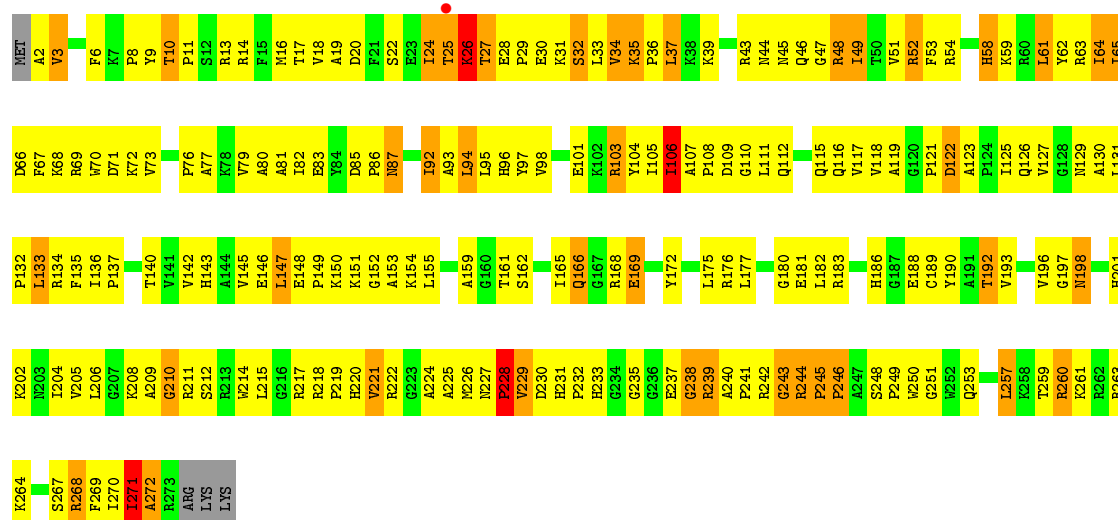


• Molecule 37: 50S RIBOSOMAL PROTEIN L1



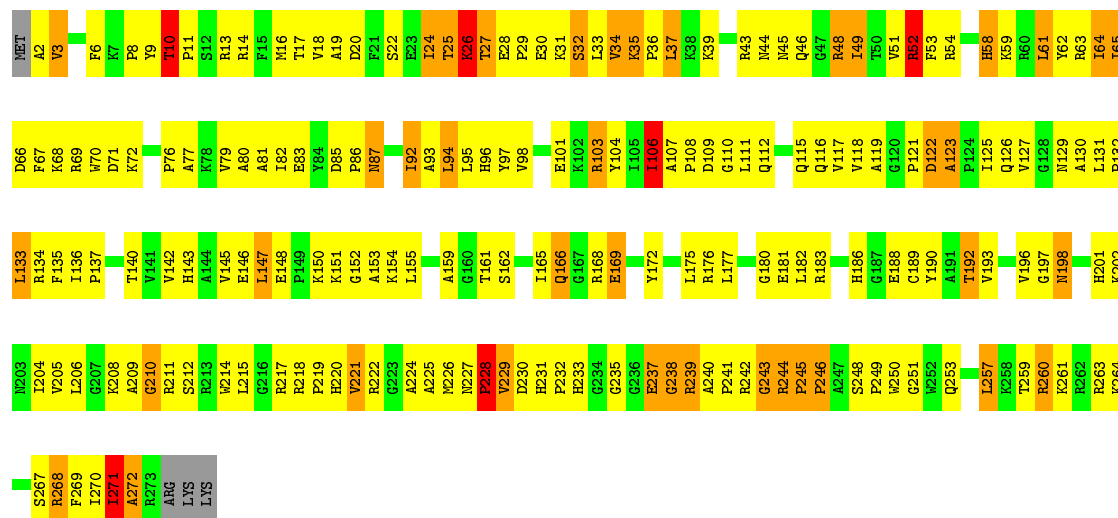
• Molecule 38: 50S RIBOSOMAL PROTEIN L2

Chain BD: 



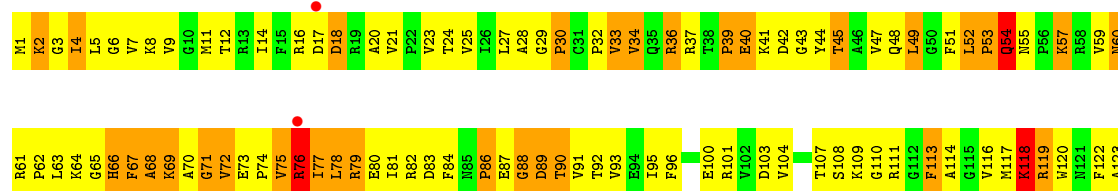
• Molecule 38: 50S RIBOSOMAL PROTEIN L2

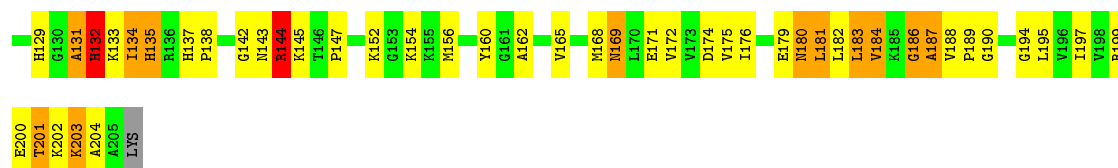
Chain DD: 



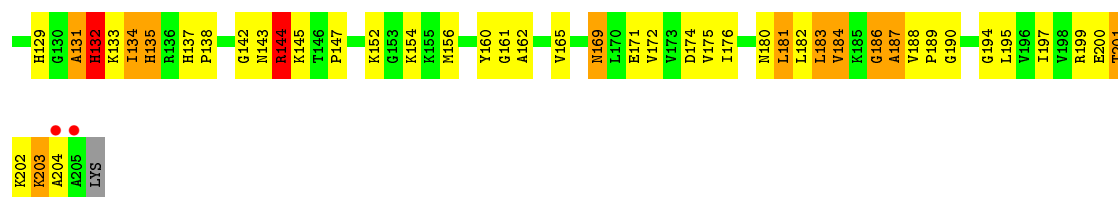
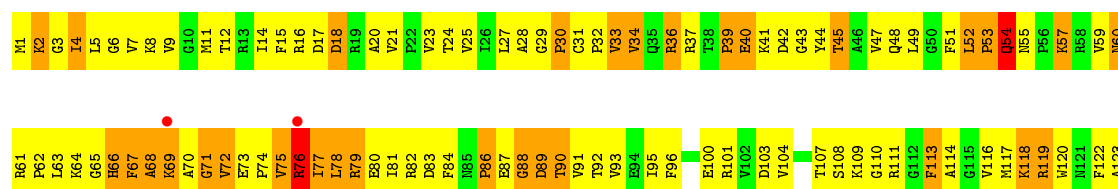
• Molecule 39: 50S RIBOSOMAL PROTEIN L3

Chain BE: 

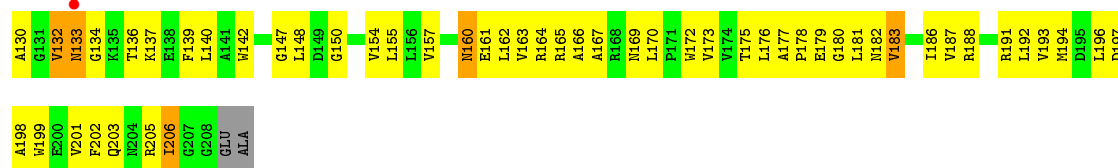
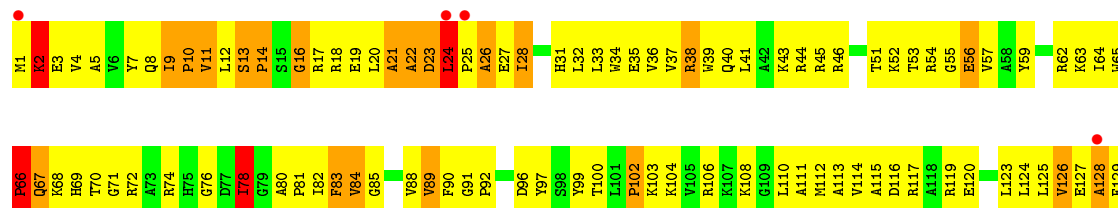




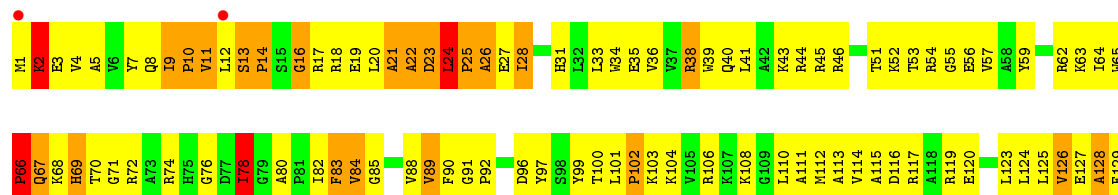
• Molecule 39: 50S RIBOSOMAL PROTEIN L3

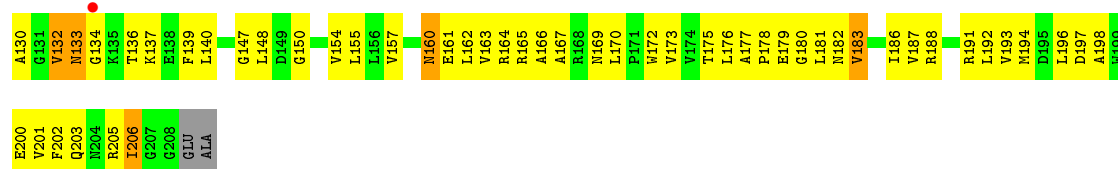


• Molecule 40: 50S RIBOSOMAL PROTEIN L4

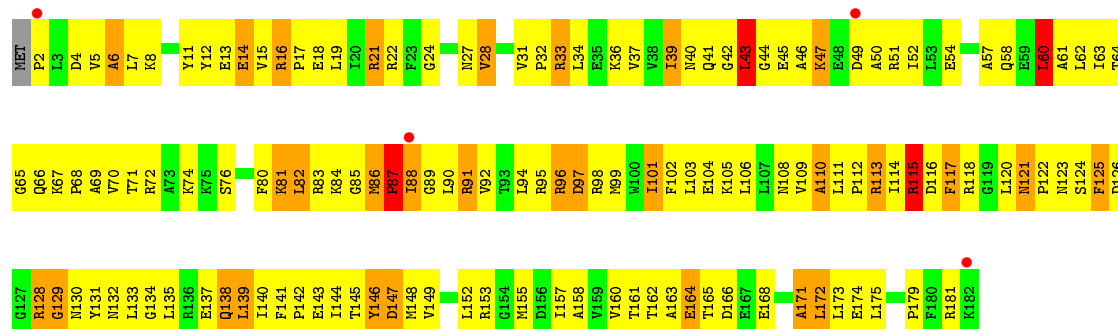


• Molecule 40: 50S RIBOSOMAL PROTEIN L4

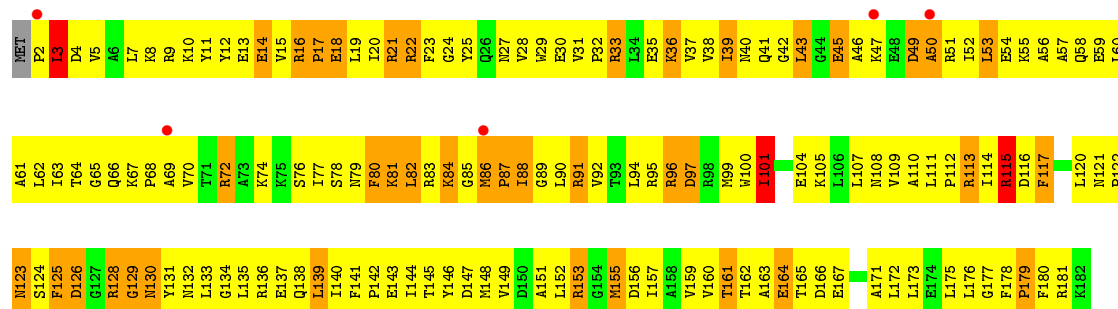
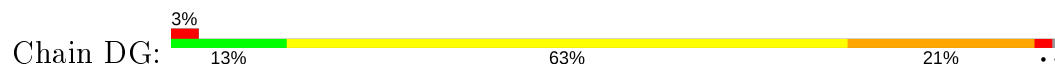




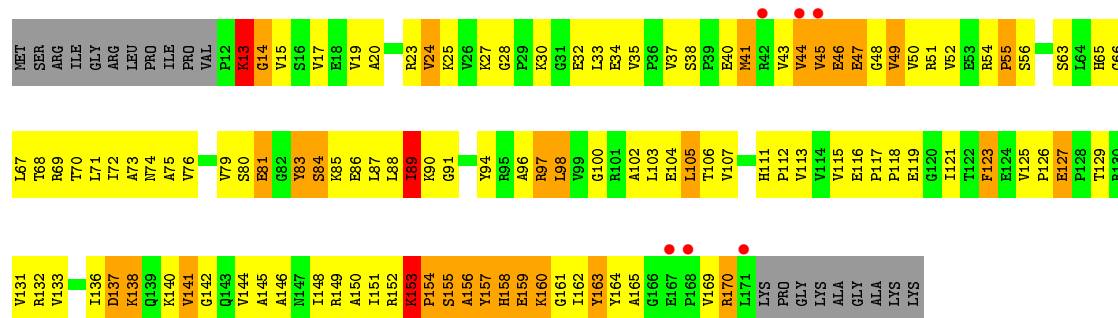
● Molecule 41: 50S RIBOSOMAL PROTEIN L5



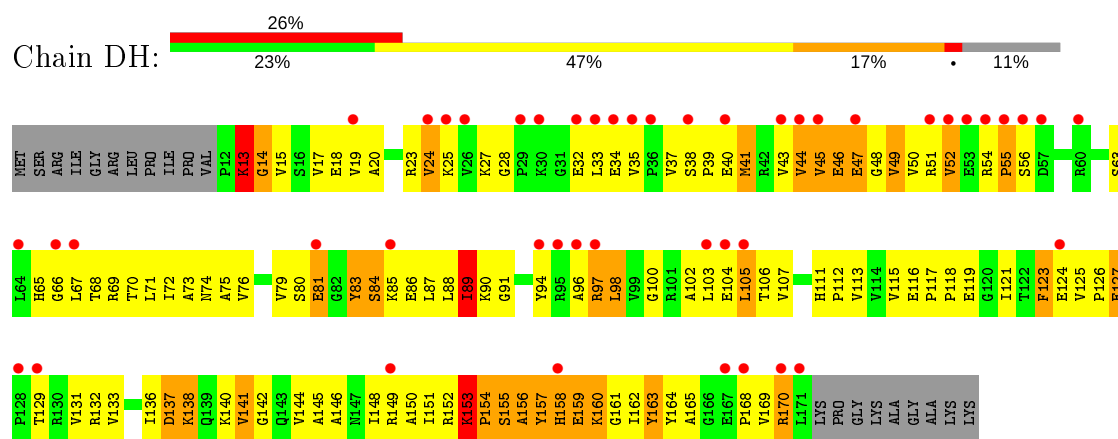
● Molecule 41: 50S RIBOSOMAL PROTEIN L5



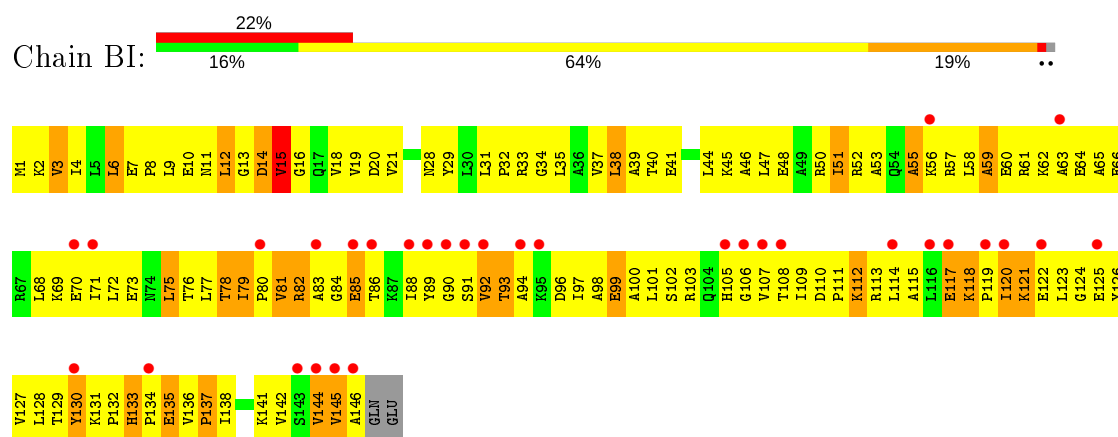
● Molecule 42: 50S RIBOSOMAL PROTEIN L6



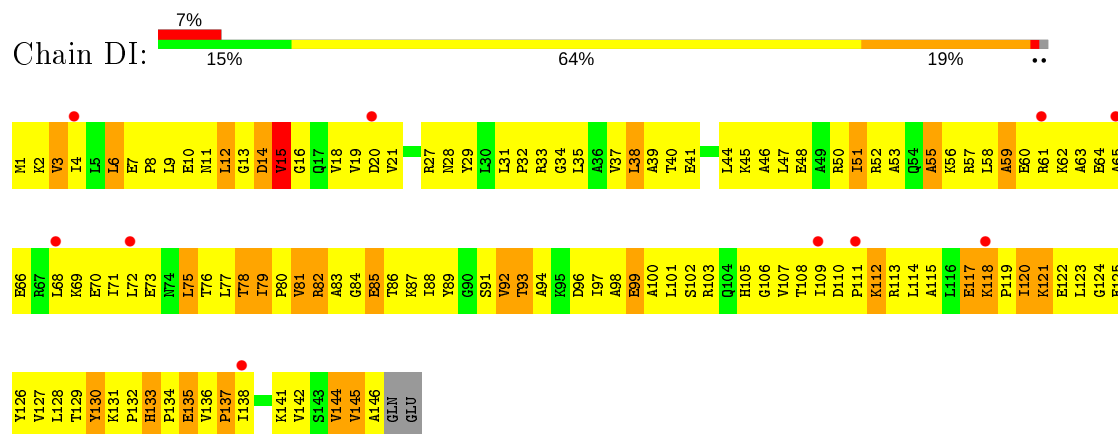
● Molecule 42: 50S RIBOSOMAL PROTEIN L6



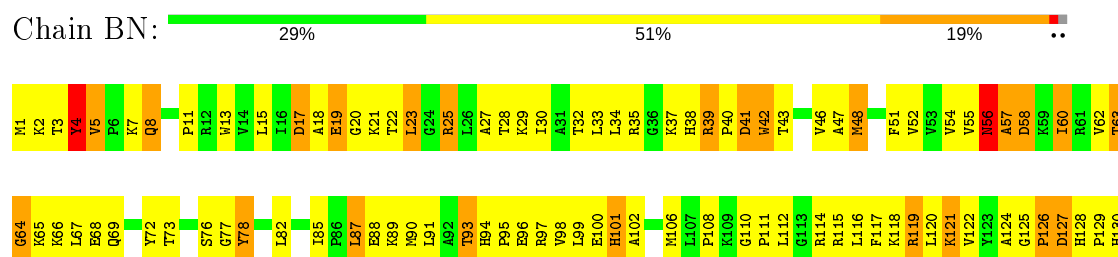
• Molecule 43: 50S RIBOSOMAL PROTEIN L9



• Molecule 43: 50S RIBOSOMAL PROTEIN L9

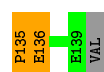
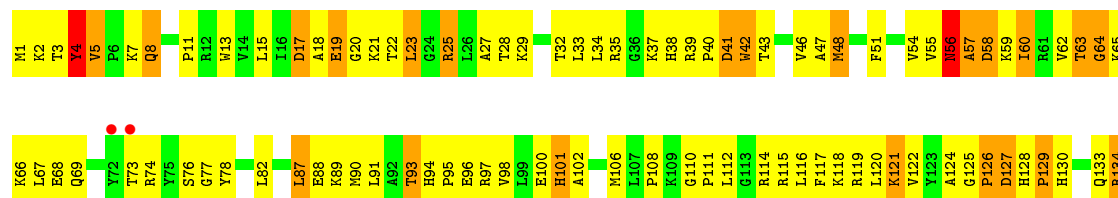


• Molecule 44: 50S RIBOSOMAL PROTEIN L13

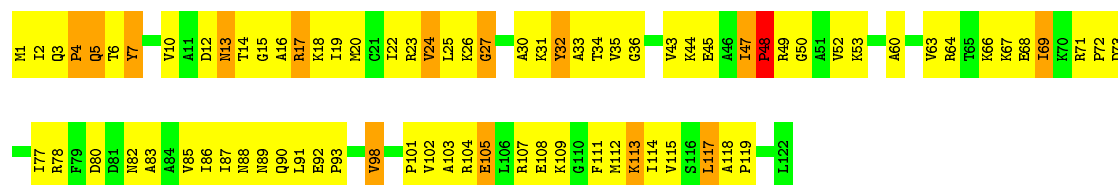




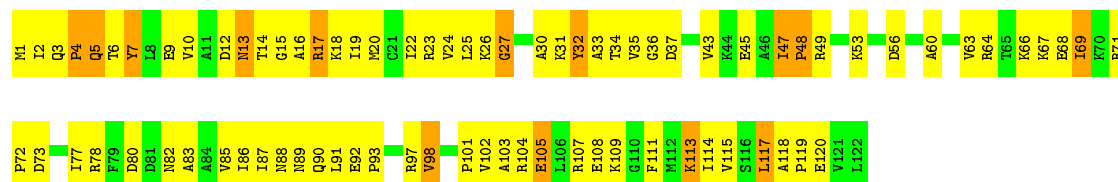
• Molecule 44: 50S RIBOSOMAL PROTEIN L13



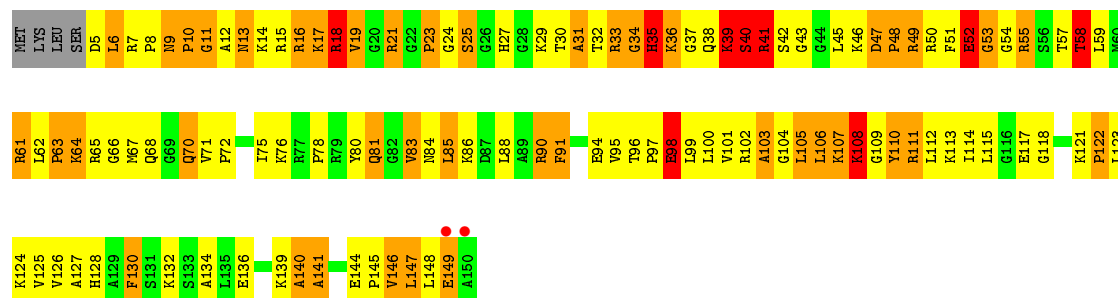
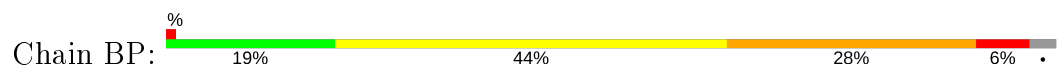
• Molecule 45: 50S RIBOSOMAL PROTEIN L14



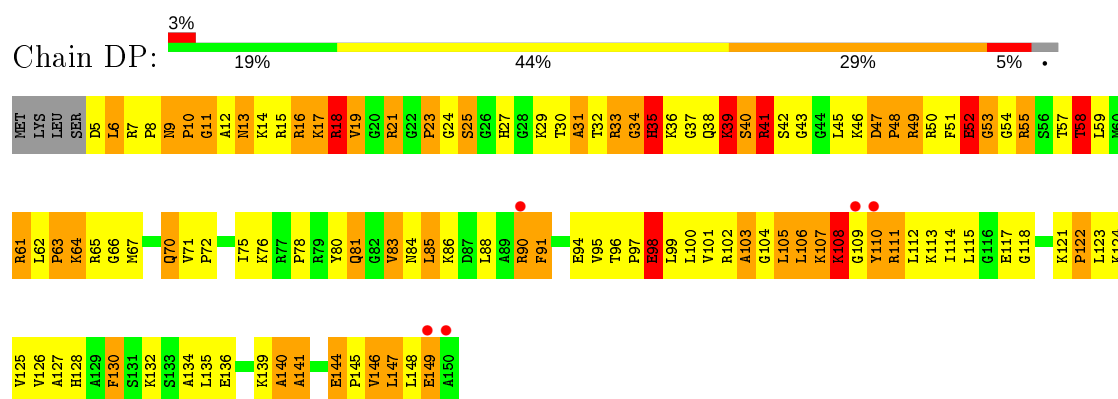
• Molecule 45: 50S RIBOSOMAL PROTEIN L14



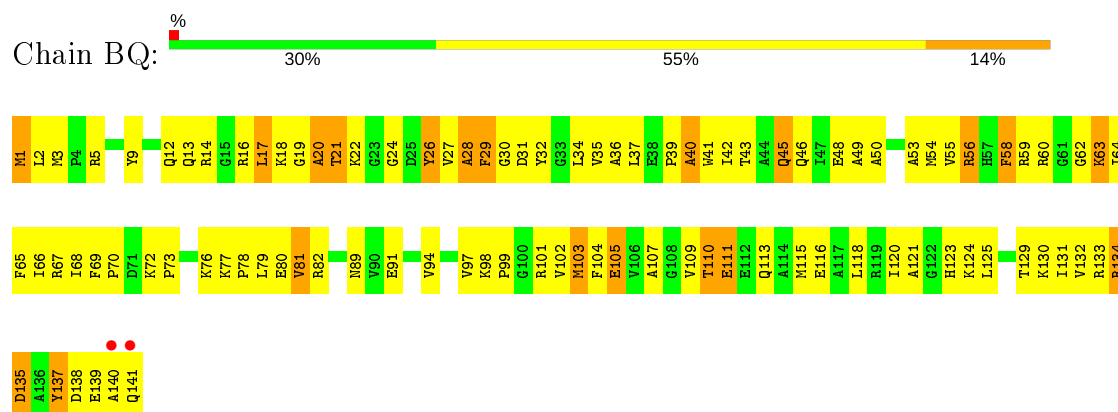
• Molecule 46: 50S RIBOSOMAL PROTEIN L15



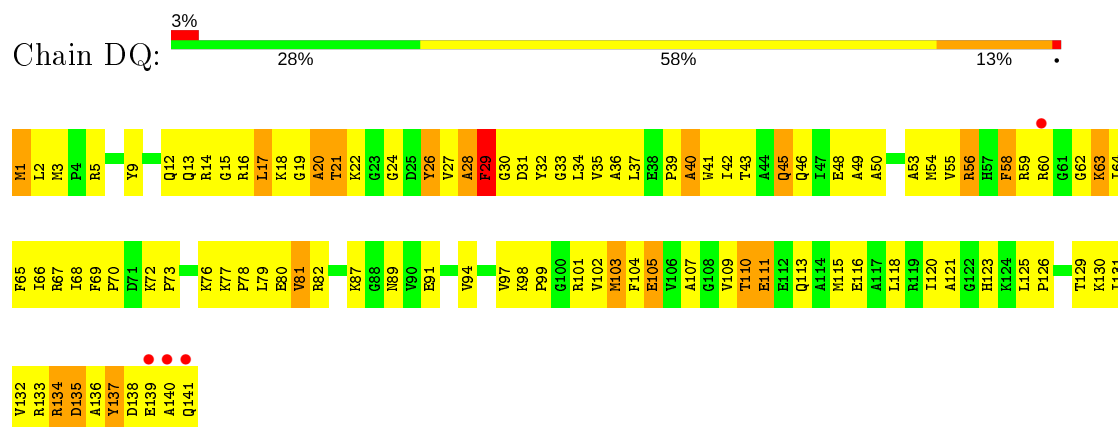
• Molecule 46: 50S RIBOSOMAL PROTEIN L15



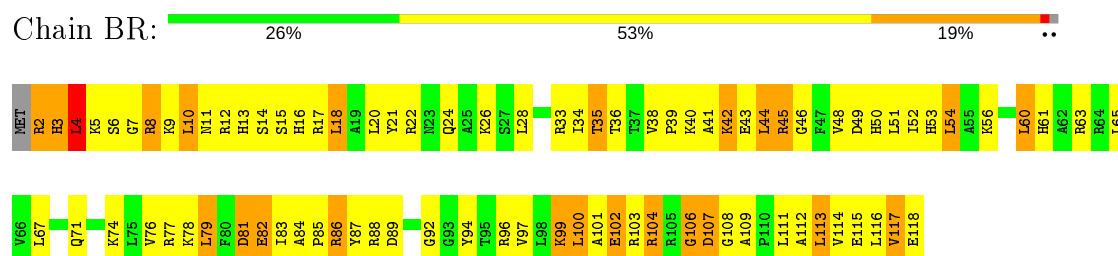
• Molecule 47: 50S RIBOSOMAL PROTEIN L16



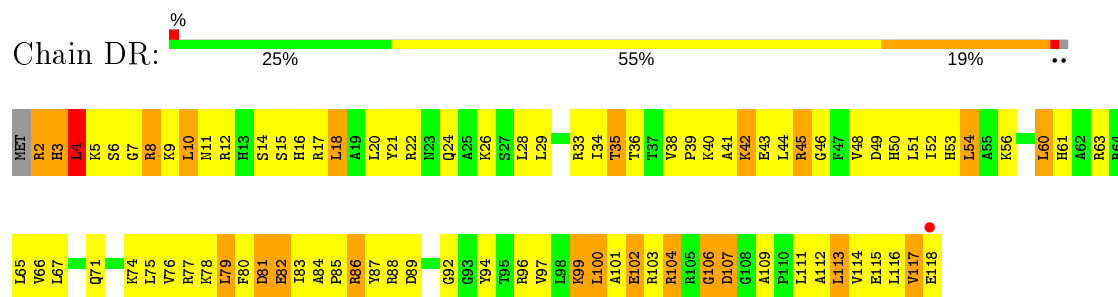
• Molecule 47: 50S RIBOSOMAL PROTEIN L16



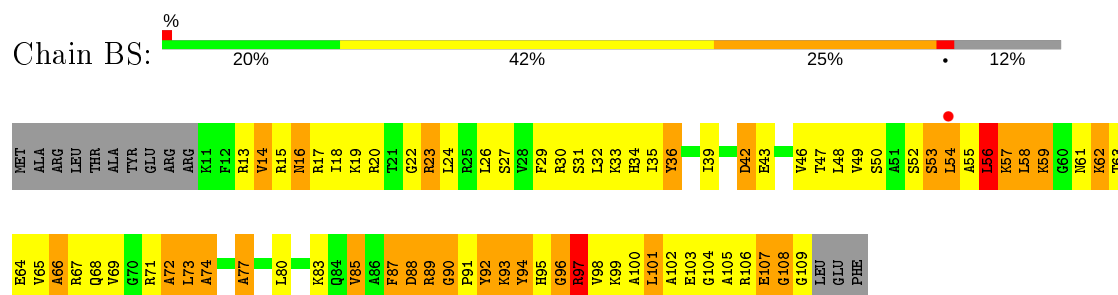
• Molecule 48: 50S RIBOSOMAL PROTEIN L17



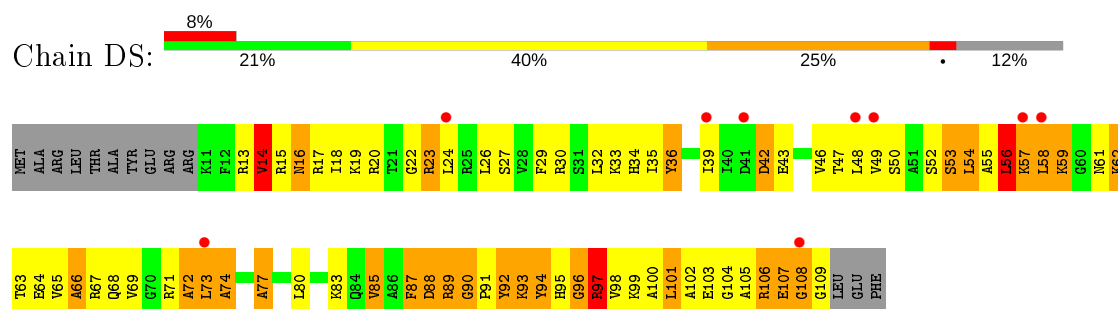
• Molecule 48: 50S RIBOSOMAL PROTEIN L17



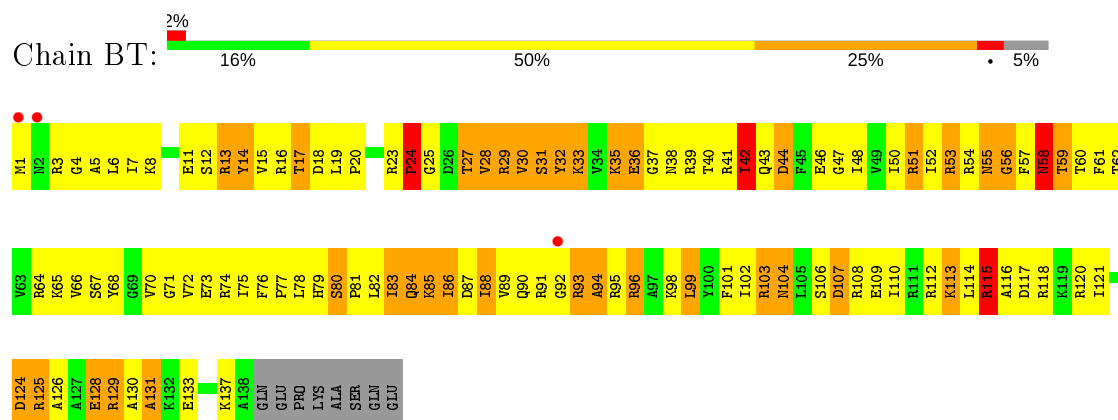
• Molecule 49: 50S RIBOSOMAL PROTEIN L18



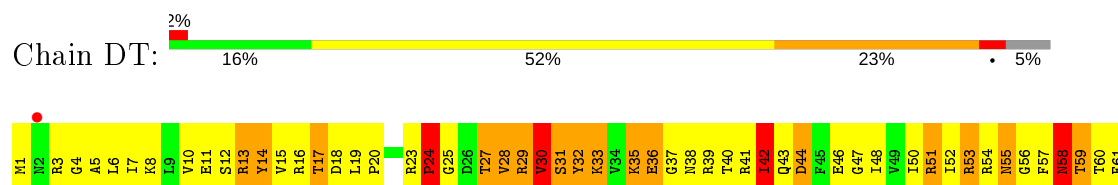
• Molecule 49: 50S RIBOSOMAL PROTEIN L18

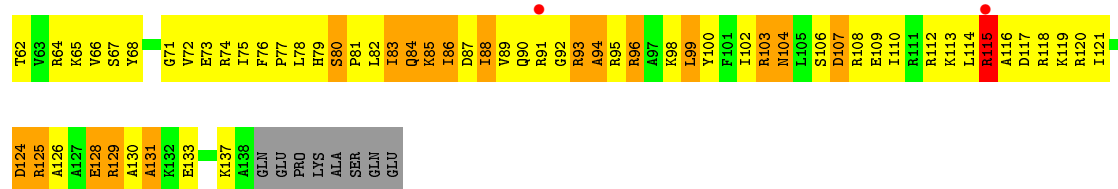


• Molecule 50: 50S RIBOSOMAL PROTEIN L19

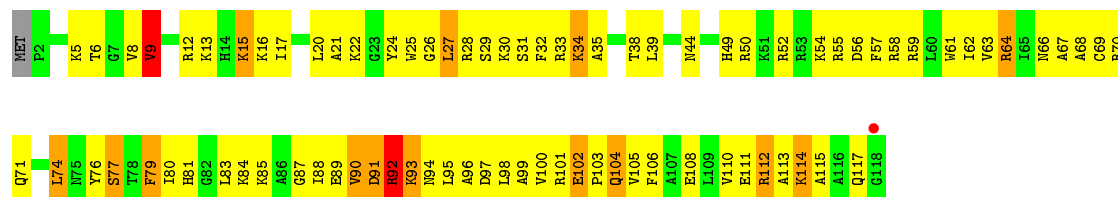


• Molecule 50: 50S RIBOSOMAL PROTEIN L19

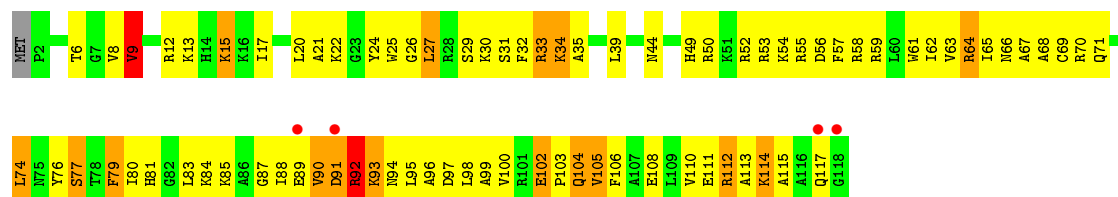




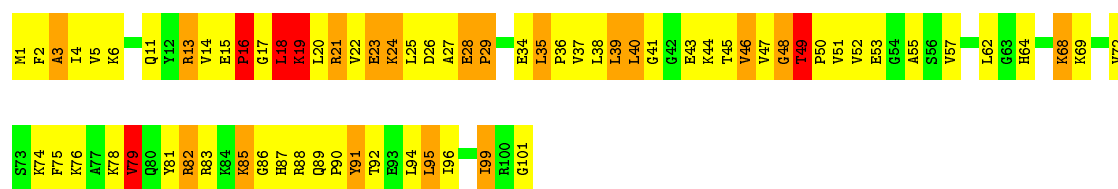
- Molecule 51: 50S RIBOSOMAL PROTEIN L20



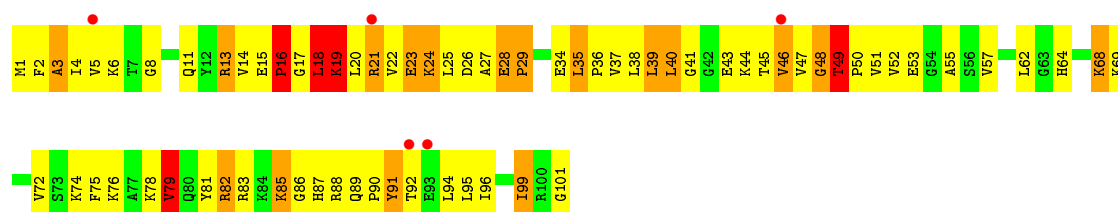
- Molecule 51: 50S RIBOSOMAL PROTEIN L20



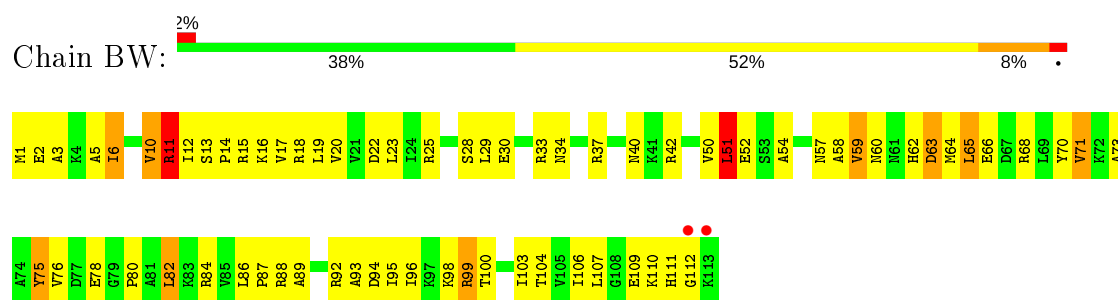
- Molecule 52: 50S RIBOSOMAL PROTEIN L21



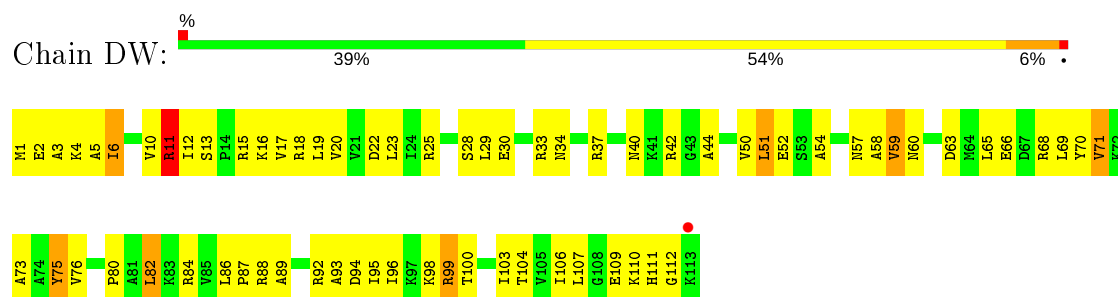
- Molecule 52: 50S RIBOSOMAL PROTEIN L21



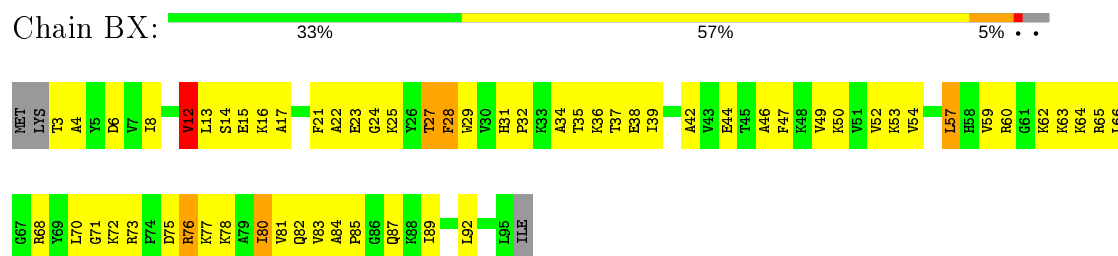
- Molecule 53: 50S RIBOSOMAL PROTEIN L22



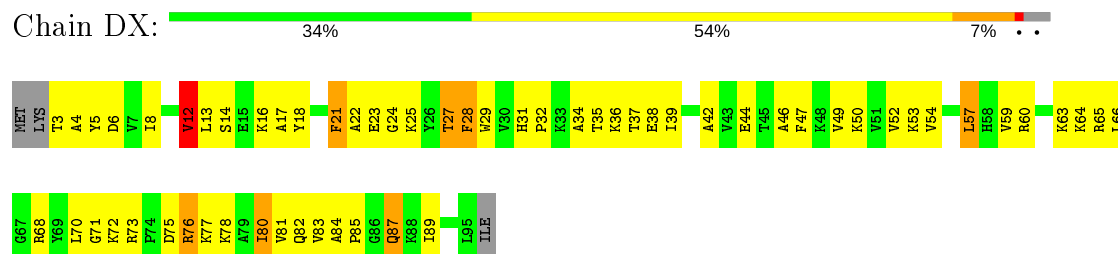
• Molecule 53: 50S RIBOSOMAL PROTEIN L22



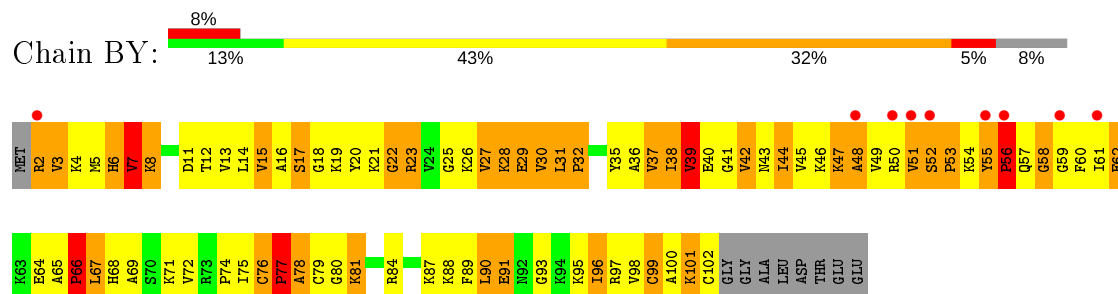
• Molecule 54: 50S RIBOSOMAL PROTEIN L23



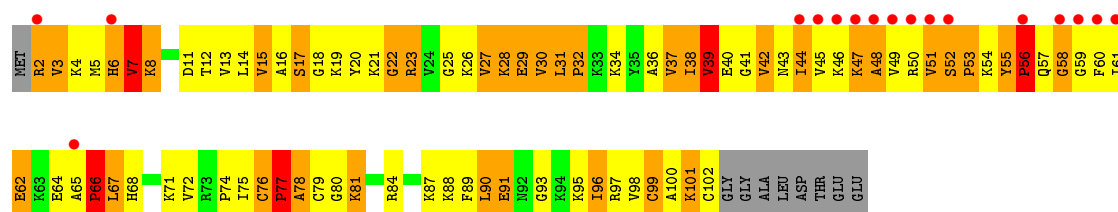
• Molecule 54: 50S RIBOSOMAL PROTEIN L23



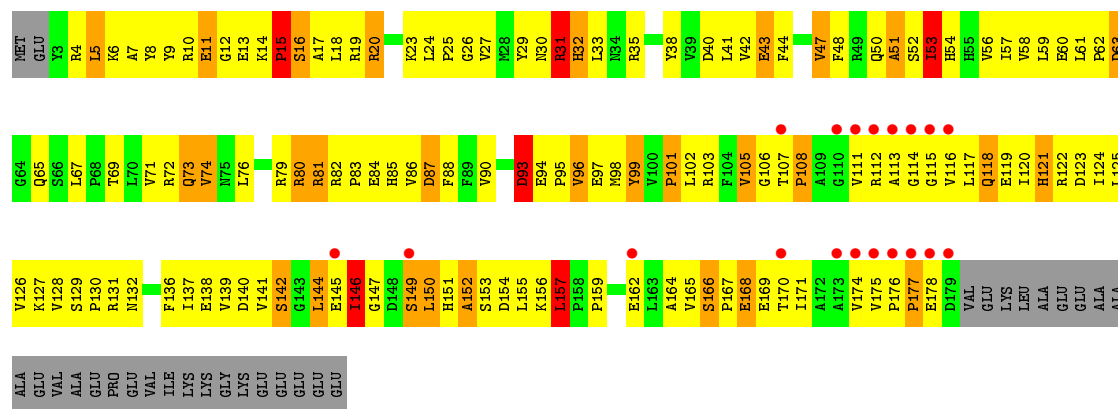
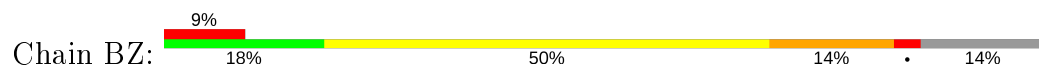
• Molecule 55: 50S RIBOSOMAL PROTEIN L24



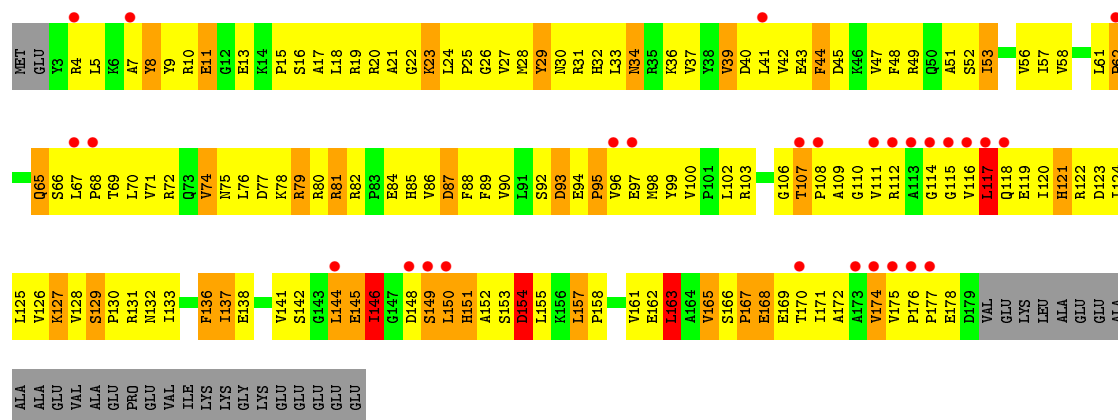
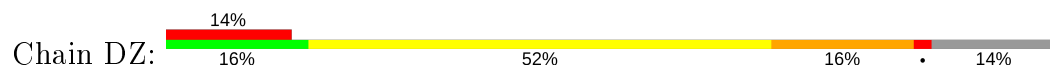
• Molecule 55: 50S RIBOSOMAL PROTEIN L24



• Molecule 56: 50S RIBOSOMAL PROTEIN L25



• Molecule 56: 50S RIBOSOMAL PROTEIN L25



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.86Å 450.46Å 628.88Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.50 49.74 – 3.40	Depositor EDS
% Data completeness (in resolution range)	99.1 (50.00-3.50) 97.2 (49.74-3.40)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.64 (at 3.40Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.208 , 0.256 0.210 , 0.256	Depositor DCC
R_{free} test set	36181 reflections (4.58%)	wwPDB-VP
Wilson B-factor (Å ²)	83.7	Xtriage
Anisotropy	0.102	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 99.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.23$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	296042	wwPDB-VP
Average B, all atoms (Å ²)	104.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.45% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: ZN, MG, PAR, 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	0.42	0/36190	0.70	16/56486 (0.0%)
1	CA	0.40	0/36190	0.69	14/56486 (0.0%)
2	AB	0.33	0/1936	0.60	0/2611
2	CB	0.32	0/1936	0.60	0/2611
3	AC	0.34	0/1637	0.60	0/2207
3	CC	0.33	0/1637	0.59	0/2207
4	AD	0.36	0/1733	0.64	0/2318
4	CD	0.36	0/1733	0.64	0/2318
5	AE	0.36	0/1163	0.64	0/1566
5	CE	0.35	0/1163	0.64	0/1566
6	AF	0.36	0/856	0.66	0/1154
6	CF	0.35	0/856	0.66	0/1154
7	AG	0.32	0/1276	0.57	0/1709
7	CG	0.31	0/1276	0.57	0/1709
8	AH	0.31	0/1136	0.63	0/1527
8	CH	0.30	0/1136	0.62	0/1527
9	AI	0.32	0/1027	0.59	0/1372
9	CI	0.32	0/1027	0.59	0/1372
10	AJ	0.36	0/808	0.66	0/1087
10	CJ	0.35	0/808	0.64	0/1087
11	AK	0.35	0/900	0.62	0/1213
11	CK	0.33	0/900	0.61	0/1213
12	AL	0.39	0/987	0.70	0/1322
12	CL	0.37	0/987	0.68	0/1322
13	AM	0.34	0/996	0.66	0/1329
13	CM	0.33	0/996	0.66	0/1329
14	AN	0.36	0/501	0.62	0/664
14	CN	0.33	0/501	0.61	0/664
15	AO	0.35	0/745	0.59	0/992
15	CO	0.33	0/745	0.58	0/992
16	AP	0.37	0/717	0.63	0/965
16	CP	0.37	0/717	0.63	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.36	0/837	0.61	0/1119
17	CQ	0.37	0/837	0.62	0/1119
18	AR	0.36	0/579	0.60	0/768
18	CR	0.36	0/579	0.60	0/768
19	AS	0.38	0/643	0.63	0/867
19	CS	0.36	0/643	0.62	0/867
20	AT	0.30	0/765	0.59	0/1007
20	CT	0.30	0/765	0.58	0/1007
21	AU	0.46	0/213	0.61	0/279
21	CU	0.45	0/213	0.60	0/279
22	AV	0.44	0/1784	0.75	0/2780
22	AY	0.47	0/1784	0.74	0/2780
22	CV	0.40	0/1784	0.71	0/2780
22	CY	0.41	0/1784	0.73	0/2780
23	AW	0.43	0/1809	0.71	0/2819
23	CW	0.42	0/1809	0.71	0/2819
24	AX	0.48	0/253	0.72	0/391
24	CX	0.42	0/253	0.73	1/391 (0.3%)
25	B0	0.44	0/671	0.71	0/892
25	D0	0.41	0/671	0.69	0/892
26	B1	0.48	0/739	0.85	0/983
26	D1	0.46	0/739	0.72	0/983
27	B2	0.43	0/600	0.73	0/793
27	D2	0.39	0/600	0.65	0/793
28	B3	0.43	0/473	0.68	0/636
28	D3	0.37	0/473	0.64	0/636
29	B4	0.46	0/229	0.68	0/311
29	D4	0.44	0/229	0.67	0/311
30	B5	0.62	0/473	0.96	0/639
30	D5	0.49	0/473	0.92	0/639
31	B6	0.57	0/387	0.76	0/517
31	D6	0.51	0/387	0.75	0/517
32	B7	0.52	0/427	0.67	0/563
32	D7	0.48	0/427	0.65	0/563
33	B8	0.59	0/516	0.89	2/681 (0.3%)
33	D8	0.51	0/516	0.88	2/681 (0.3%)
34	B9	0.33	0/302	0.54	0/397
34	D9	0.29	0/302	0.53	0/397
35	BA	0.59	5/67716 (0.0%)	0.76	38/105718 (0.0%)
35	DA	0.48	4/67716 (0.0%)	0.74	31/105718 (0.0%)
36	BB	0.50	0/2853	0.75	1/4451 (0.0%)
36	DB	0.42	0/2853	0.74	1/4451 (0.0%)
37	BC	0.37	0/1143	0.68	5/1552 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DC	0.37	0/1145	0.69	6/1556 (0.4%)
38	BD	0.51	0/2155	0.80	1/2907 (0.0%)
38	DD	0.47	0/2155	0.79	1/2907 (0.0%)
39	BE	0.47	0/1597	0.80	1/2155 (0.0%)
39	DE	0.41	0/1597	0.77	0/2155
40	BF	0.46	0/1659	0.71	0/2246
40	DF	0.42	0/1659	0.69	0/2246
41	BG	0.40	0/1498	0.77	2/2013 (0.1%)
41	DG	0.38	0/1498	0.71	1/2013 (0.0%)
42	BH	0.44	0/1246	0.77	0/1684
42	DH	0.37	0/1246	0.74	0/1684
43	BI	0.36	0/1147	0.65	0/1553
43	DI	0.35	0/1147	0.63	0/1553
44	BN	0.45	0/1132	0.75	0/1527
44	DN	0.38	0/1132	0.72	0/1527
45	BO	0.44	0/943	0.68	0/1269
45	DO	0.37	0/943	0.67	0/1269
46	BP	0.51	0/1131	1.01	5/1504 (0.3%)
46	DP	0.45	0/1131	0.98	5/1504 (0.3%)
47	BQ	0.45	0/1143	0.69	0/1527
47	DQ	0.40	0/1143	0.67	0/1527
48	BR	0.44	0/974	0.79	2/1302 (0.2%)
48	DR	0.39	0/974	0.76	1/1302 (0.1%)
49	BS	0.48	0/779	0.83	1/1038 (0.1%)
49	DS	0.42	0/779	0.79	2/1038 (0.2%)
50	BT	0.44	0/1156	0.79	1/1544 (0.1%)
50	DT	0.41	0/1156	0.78	1/1544 (0.1%)
51	BU	0.52	0/975	0.79	2/1297 (0.2%)
51	DU	0.42	0/975	0.74	2/1297 (0.2%)
52	BV	0.46	0/790	0.77	1/1057 (0.1%)
52	DV	0.38	0/790	0.74	1/1057 (0.1%)
53	BW	0.49	0/907	0.78	1/1216 (0.1%)
53	DW	0.42	0/907	0.75	0/1216
54	BX	0.48	0/740	0.73	1/995 (0.1%)
54	DX	0.44	0/740	0.71	1/995 (0.1%)
55	BY	0.56	0/789	0.85	0/1053
55	DY	0.49	0/789	0.83	0/1053
56	BZ	0.42	0/1436	0.72	0/1951
56	DZ	0.36	0/1436	0.65	0/1951
All	All	0.47	9/320004 (0.0%)	0.72	150/478610 (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	10
1	CA	0	8
23	AW	0	2
35	BA	4	39
35	DA	3	33
36	BB	0	3
36	DB	0	3
All	All	7	98

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	652	C	C3'-O3'	8.01	1.53	1.42
35	DA	652	C	C3'-O3'	7.44	1.52	1.42
35	BA	652	C	O3'-P	6.31	1.68	1.61
35	DA	652	C	O3'-P	5.91	1.68	1.61
35	BA	652	C	O5'-C5'	5.67	1.53	1.44
35	BA	656	G	O5'-C5'	5.34	1.53	1.44
35	DA	652	C	O5'-C5'	5.32	1.52	1.44
35	BA	1332	G	N9-C4	-5.29	1.33	1.38
35	DA	656	G	O5'-C5'	5.11	1.52	1.44

All (150) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BP	52	GLU	N-CA-C	9.63	137.00	111.00
46	DP	52	GLU	N-CA-C	9.54	136.76	111.00
35	BA	283	A	C2'-C3'-O3'	9.40	130.18	109.50
35	BA	1799	G	C2'-C3'-O3'	9.35	130.07	109.50
35	DA	1799	G	C2'-C3'-O3'	9.28	129.91	109.50
35	BA	1819	A	C2'-C3'-O3'	9.20	129.73	109.50
35	BA	1378	A	C2'-C3'-O3'	9.18	129.70	109.50
35	DA	1378	A	C2'-C3'-O3'	9.16	129.66	109.50
35	DA	283	A	C2'-C3'-O3'	9.15	129.64	109.50
35	BA	387	U	C2'-C3'-O3'	8.76	128.78	109.50
35	DA	387	U	C2'-C3'-O3'	8.74	128.72	109.50
35	DA	1819	A	C2'-C3'-O3'	8.64	128.52	109.50
46	BP	53	GLY	N-CA-C	-8.62	91.55	113.10
46	DP	53	GLY	N-CA-C	-8.41	92.07	113.10
35	BA	1653	G	C2'-C3'-O3'	8.41	127.99	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1786	A	N9-C1'-C2'	8.22	124.68	114.00
1	AA	366	C	C2'-C3'-O3'	8.10	127.33	109.50
1	CA	575	G	C2'-C3'-O3'	8.01	127.11	109.50
1	CA	366	C	C2'-C3'-O3'	7.98	127.06	109.50
1	AA	575	G	C2'-C3'-O3'	7.97	127.05	109.50
35	BA	1786	A	N9-C1'-C2'	7.83	124.18	114.00
35	DA	1992	G	N9-C1'-C2'	7.82	124.17	114.00
35	DA	1653	G	C2'-C3'-O3'	7.74	126.53	109.50
35	BA	1992	G	N9-C1'-C2'	7.57	123.84	114.00
35	BA	2225	A	C2'-C3'-O3'	7.50	126.01	109.50
46	DP	41	ARG	N-CA-C	-7.30	91.29	111.00
35	DA	2225	A	C2'-C3'-O3'	7.29	125.53	109.50
46	BP	41	ARG	N-CA-C	-7.16	91.66	111.00
35	BA	1493	C	N1-C1'-C2'	6.99	123.09	114.00
35	BA	272	G	C2'-C3'-O3'	6.99	124.89	113.70
35	BA	1992	G	C2'-C3'-O3'	6.88	124.70	113.70
35	DA	1992	G	C2'-C3'-O3'	6.86	124.68	113.70
1	AA	115	G	C2'-C3'-O3'	6.86	124.67	113.70
35	DA	272	G	C2'-C3'-O3'	6.80	124.58	113.70
35	DA	1493	C	N1-C1'-C2'	6.76	122.79	114.00
35	BA	856	C	C2'-C3'-O3'	6.75	124.50	113.70
1	AA	1064	G	C2'-C3'-O3'	6.74	124.49	113.70
35	BA	272(B)	G	N9-C1'-C2'	-6.72	104.61	112.00
1	CA	1064	G	C2'-C3'-O3'	6.67	124.37	113.70
35	BA	656	G	C5'-C4'-C3'	6.49	126.38	116.00
51	BU	34	LYS	N-CA-C	-6.49	93.49	111.00
1	CA	115	G	C2'-C3'-O3'	6.46	124.04	113.70
51	DU	34	LYS	N-CA-C	-6.44	93.62	111.00
41	BG	129	GLY	N-CA-C	-6.43	97.02	113.10
35	BA	1053	C	N1-C1'-C2'	6.42	122.35	114.00
35	DA	1053	C	N1-C1'-C2'	6.42	122.35	114.00
35	DA	2506	U	C2'-C3'-O3'	6.33	123.83	113.70
35	DA	856	C	C2'-C3'-O3'	6.32	123.81	113.70
33	D8	32	LEU	N-CA-C	-6.31	93.96	111.00
35	DA	272(B)	G	N9-C1'-C2'	-6.30	105.06	112.00
37	BC	174	PRO	N-CA-CB	6.24	110.78	103.30
35	BA	2506	U	C2'-C3'-O3'	6.23	123.67	113.70
1	CA	1504	G	C2'-C3'-O3'	6.16	123.56	113.70
36	BB	52	A	N9-C1'-C2'	6.16	122.00	114.00
54	BX	57	LEU	CA-CB-CG	6.13	129.40	115.30
33	B8	32	LEU	N-CA-C	-6.11	94.50	111.00
33	D8	45	GLY	N-CA-C	-6.08	97.91	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	133	PRO	N-CA-CB	6.04	110.56	103.30
36	DB	52	A	N9-C1'-C2'	5.93	121.72	114.00
35	BA	673	C	C5'-C4'-C3'	-5.93	106.52	116.00
54	DX	57	LEU	CA-CB-CG	5.93	128.93	115.30
35	DA	656	G	C5'-C4'-C3'	5.91	125.46	116.00
1	AA	1335	C	N1-C1'-C2'	5.91	121.68	114.00
1	CA	1335	C	N1-C1'-C2'	5.88	121.65	114.00
37	DC	133	PRO	N-CA-CB	5.86	110.33	103.30
37	DC	174	PRO	N-CA-CB	5.86	110.33	103.30
1	AA	1067	A	C2'-C3'-O3'	5.84	123.04	113.70
46	BP	54	GLY	N-CA-C	-5.83	98.54	113.10
35	BA	1616	A	N9-C1'-C2'	5.80	121.54	114.00
35	BA	945	A	N9-C1'-C2'	5.80	121.54	114.00
46	DP	54	GLY	N-CA-C	-5.79	98.64	113.10
1	CA	1067	A	C2'-C3'-O3'	5.77	122.93	113.70
50	BT	30	VAL	N-CA-C	5.75	126.54	111.00
37	DC	182	PRO	N-CA-CB	5.74	110.19	103.30
38	BD	210	GLY	N-CA-C	-5.71	98.83	113.10
33	B8	45	GLY	N-CA-C	-5.70	98.86	113.10
46	BP	58	THR	N-CA-C	-5.68	95.67	111.00
37	BC	182	PRO	N-CA-CB	5.68	110.11	103.30
50	DT	30	VAL	N-CA-C	5.67	126.30	111.00
35	BA	2827	C	C5'-C4'-C3'	-5.65	106.95	116.00
35	BA	1495	A	N9-C1'-C2'	5.64	121.33	114.00
35	DA	673	C	C5'-C4'-C3'	-5.64	106.97	116.00
49	BS	16	ASN	N-CA-C	-5.61	95.86	111.00
1	AA	920	U	C5'-C4'-C3'	-5.59	107.06	116.00
35	BA	272(B)	G	C5'-C4'-C3'	5.58	124.92	116.00
35	BA	1365	A	C5'-C4'-C3'	5.58	124.92	116.00
35	DA	272(B)	G	C5'-C4'-C3'	5.57	124.91	116.00
49	DS	16	ASN	N-CA-C	-5.56	95.98	111.00
41	DG	129	GLY	N-CA-C	-5.54	99.26	113.10
24	CX	22	A	C2'-C3'-O3'	5.51	122.52	113.70
38	DD	210	GLY	N-CA-C	-5.51	99.32	113.10
46	DP	58	THR	N-CA-C	-5.51	96.13	111.00
48	DR	10	LEU	CA-CB-CG	5.50	127.96	115.30
48	BR	10	LEU	CA-CB-CG	5.50	127.95	115.30
35	DA	945	A	N9-C1'-C2'	5.50	121.15	114.00
1	CA	1502	A	N9-C1'-C2'	5.49	121.14	114.00
37	DC	220	PRO	N-CA-CB	5.49	109.89	103.30
35	BA	74	A	N9-C1'-C2'	5.47	121.11	114.00
35	BA	1529	G	N9-C1'-C2'	5.45	121.08	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	920	U	C5'-C4'-C3'	-5.42	107.32	116.00
35	DA	2346	A	N9-C1'-C2'	5.42	121.04	114.00
1	AA	428	G	C2'-C3'-O3'	5.38	122.31	113.70
35	DA	1365	A	C5'-C4'-C3'	5.37	124.60	116.00
52	BV	49	THR	N-CA-C	-5.35	96.55	111.00
35	DA	1529	G	N9-C1'-C2'	5.33	120.94	114.00
1	AA	1504	G	C2'-C3'-O3'	5.32	122.22	113.70
35	DA	310	A	C5'-C4'-C3'	-5.32	107.48	116.00
35	BA	783	A	N9-C1'-C2'	-5.32	106.15	112.00
1	CA	484	G	N9-C1'-C2'	5.29	120.87	114.00
1	AA	1529	G	N9-C1'-C2'	5.26	120.84	114.00
48	BR	44	LEU	CA-CB-CG	5.22	127.31	115.30
35	BA	1378	A	C4'-C3'-O3'	5.17	123.35	113.00
52	DV	49	THR	N-CA-C	-5.17	97.03	111.00
35	BA	310	A	C5'-C4'-C3'	-5.17	107.72	116.00
37	DC	201	PRO	N-CA-CB	5.17	109.50	103.30
1	CA	1124	G	N9-C1'-C2'	5.17	120.72	114.00
35	BA	265	A	N9-C1'-C2'	5.16	120.70	114.00
35	DA	158	U	N1-C1'-C2'	5.15	120.70	114.00
1	AA	1411	C	N1-C1'-C2'	-5.15	106.34	112.00
35	DA	1698	A	O4'-C1'-N9	5.14	112.31	108.20
1	CA	428	G	C2'-C3'-O3'	5.12	121.88	113.70
35	DA	1495	A	N9-C1'-C2'	5.11	120.64	114.00
37	BC	140	PRO	N-CA-CB	5.11	109.43	103.30
1	AA	328	C	N1-C1'-C2'	5.10	120.63	114.00
35	BA	2346	A	N9-C1'-C2'	5.09	120.62	114.00
35	DA	74	A	N9-C1'-C2'	5.08	120.61	114.00
35	BA	158	U	N1-C1'-C2'	5.08	120.60	114.00
35	BA	2263	C	C5'-C4'-O4'	-5.08	103.01	109.10
1	AA	484	G	N9-C1'-C2'	5.08	120.60	114.00
1	AA	1124	G	N9-C1'-C2'	5.08	120.60	114.00
1	AA	1054	C	N1-C1'-C2'	5.07	120.59	114.00
35	BA	1594	G	C5'-C4'-O4'	-5.07	103.02	109.10
35	BA	154(A)	C	N1-C1'-C2'	-5.06	106.43	112.00
35	DA	2827	C	C5'-C4'-C3'	-5.05	107.92	116.00
1	CA	1281	U	N1-C1'-C2'	5.05	120.56	114.00
35	BA	1698	A	O4'-C1'-N9	5.04	112.23	108.20
35	DA	1616	A	N9-C1'-C2'	5.04	120.56	114.00
35	BA	1332	G	N9-C1'-C2'	-5.04	106.46	112.00
39	BE	118	LYS	N-CA-C	-5.03	97.43	111.00
1	CA	1054	C	N1-C1'-C2'	5.03	120.54	114.00
1	AA	1531	A	C2'-C3'-O3'	5.03	121.74	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	783	A	N9-C1'-C2'	-5.03	106.47	112.00
53	BW	51	LEU	CA-CB-CG	5.02	126.85	115.30
37	BC	201	PRO	N-CA-CB	5.02	109.32	103.30
49	DS	14	VAL	N-CA-C	-5.02	97.45	111.00
51	DU	97	ASP	N-CA-C	-5.01	97.46	111.00
35	BA	603	A	N9-C1'-C2'	5.01	120.52	114.00
41	BG	60	LEU	CA-CB-CG	5.01	126.83	115.30
51	BU	97	ASP	N-CA-C	-5.01	97.48	111.00
37	DC	140	PRO	N-CA-CB	5.00	109.31	103.30

All (7) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
35	BA	283	A	C3'
35	BA	1378	A	C3'
35	BA	1799	G	C3'
35	BA	1819	A	C3'
35	DA	283	A	C3'
35	DA	1378	A	C3'
35	DA	1799	G	C3'

All (98) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1077	G	Sidechain
1	AA	1124	G	Sidechain
1	AA	1131	G	Sidechain
1	AA	1281	U	Sidechain
1	AA	1503	A	Sidechain
1	AA	21	G	Sidechain
1	AA	484	G	Sidechain
1	AA	760	G	Sidechain
1	AA	832	C	Sidechain
1	AA	9	G	Sidechain
23	AW	39	U	Sidechain
23	AW	5	G	Sidechain
35	BA	1025	G	Sidechain
35	BA	1040	C	Sidechain
35	BA	1139	G	Sidechain
35	BA	1300	U	Sidechain
35	BA	1379	A	Sidechain
35	BA	15	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	171	G	Sidechain
35	BA	1772	G	Sidechain
35	BA	1807	G	Sidechain
35	BA	1929	G	Sidechain
35	BA	1940	U	Sidechain
35	BA	1955	U	Sidechain
35	BA	1956	U	Sidechain
35	BA	1992	G	Sidechain
35	BA	243	U	Sidechain
35	BA	2464	C	Sidechain
35	BA	249	C	Sidechain
35	BA	2504	U	Sidechain
35	BA	2517	C	Sidechain
35	BA	2563	U	Sidechain
35	BA	2580	U	Sidechain
35	BA	2595	G	Sidechain
35	BA	271(Q)	G	Sidechain
35	BA	272	G	Sidechain
35	BA	272(B)	G	Sidechain
35	BA	2842	G	Sidechain
35	BA	2867	G	Sidechain
35	BA	2885	C	Sidechain
35	BA	387	U	Sidechain
35	BA	443	A	Sidechain
35	BA	476	G	Sidechain
35	BA	525	U	Sidechain
35	BA	530	G	Sidechain
35	BA	543	C	Sidechain
35	BA	648	G	Sidechain
35	BA	70	G	Sidechain
35	BA	74	A	Sidechain
35	BA	806	C	Sidechain
35	BA	987	G	Sidechain
36	BB	21	G	Sidechain
36	BB	66	A	Sidechain
36	BB	80	U	Sidechain
1	CA	1131	G	Sidechain
1	CA	1281	U	Sidechain
1	CA	1485	U	Sidechain
1	CA	21	G	Sidechain
1	CA	666	G	Sidechain
1	CA	760	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	832	C	Sidechain
1	CA	901	A	Sidechain
35	DA	1040	C	Sidechain
35	DA	1139	G	Sidechain
35	DA	1300	U	Sidechain
35	DA	15	G	Sidechain
35	DA	171	G	Sidechain
35	DA	1772	G	Sidechain
35	DA	1807	G	Sidechain
35	DA	1955	U	Sidechain
35	DA	1956	U	Sidechain
35	DA	1992	G	Sidechain
35	DA	2426	A	Sidechain
35	DA	2464	C	Sidechain
35	DA	249	C	Sidechain
35	DA	2504	U	Sidechain
35	DA	2517	C	Sidechain
35	DA	2563	U	Sidechain
35	DA	2597	G	Sidechain
35	DA	271(Q)	G	Sidechain
35	DA	272(B)	G	Sidechain
35	DA	2867	G	Sidechain
35	DA	2885	C	Sidechain
35	DA	387	U	Sidechain
35	DA	443	A	Sidechain
35	DA	530	G	Sidechain
35	DA	543	C	Sidechain
35	DA	630	G	Sidechain
35	DA	648	G	Sidechain
35	DA	70	G	Sidechain
35	DA	74	A	Sidechain
35	DA	806	C	Sidechain
35	DA	827	U	Sidechain
35	DA	963	U	Sidechain
35	DA	987	G	Sidechain
36	DB	21	G	Sidechain
36	DB	66	A	Sidechain
36	DB	80	U	Sidechain

5.2 Too-close contacts ⓘ

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	16315	1280	0
1	CA	32329	0	16312	1275	0
2	AB	1901	0	1951	273	0
2	CB	1901	0	1951	273	0
3	AC	1613	0	1677	245	0
3	CC	1613	0	1677	250	0
4	AD	1703	0	1762	166	0
4	CD	1703	0	1763	166	0
5	AE	1147	0	1207	137	0
5	CE	1147	0	1207	134	0
6	AF	843	0	857	97	0
6	CF	843	0	857	91	0
7	AG	1257	0	1296	117	0
7	CG	1257	0	1296	113	0
8	AH	1116	0	1177	127	0
8	CH	1116	0	1177	127	0
9	AI	1011	0	1041	170	0
9	CI	1011	0	1041	167	0
10	AJ	795	0	840	175	0
10	CJ	795	0	840	177	0
11	AK	885	0	904	103	0
11	CK	885	0	904	98	0
12	AL	971	0	1057	130	0
12	CL	971	0	1057	126	0
13	AM	988	0	1056	173	0
13	CM	988	0	1056	168	0
14	AN	492	0	529	74	0
14	CN	492	0	529	75	0
15	AO	734	0	771	74	0
15	CO	734	0	771	77	0
16	AP	701	0	720	82	0
16	CP	701	0	720	78	0
17	AQ	824	0	891	92	0
17	CQ	824	0	891	88	0
18	AR	574	0	644	82	0
18	CR	574	0	644	86	0
19	AS	630	0	652	105	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CS	630	0	652	96	0
20	AT	763	0	861	102	0
20	CT	763	0	861	102	0
21	AU	209	0	221	17	0
21	CU	209	0	221	19	0
22	AV	1630	0	831	65	0
22	AY	1630	0	831	84	0
22	CV	1630	0	831	78	0
22	CY	1630	0	831	71	0
23	AW	1619	0	822	93	0
23	CW	1619	0	821	94	0
24	AX	227	0	119	7	0
24	CX	227	0	118	10	0
25	B0	662	0	688	81	0
25	D0	662	0	688	81	0
26	B1	732	0	808	95	0
26	D1	732	0	808	88	0
27	B2	598	0	653	59	0
27	D2	598	0	653	86	0
28	B3	468	0	523	31	0
28	D3	468	0	523	30	0
29	B4	226	0	229	43	0
29	D4	226	0	229	35	0
30	B5	459	0	480	86	0
30	D5	459	0	480	86	0
31	B6	381	0	390	106	0
31	D6	381	0	390	105	0
32	B7	419	0	467	30	0
32	D7	419	0	467	30	0
33	B8	508	0	576	100	0
33	D8	508	0	576	98	0
34	B9	299	0	325	29	0
34	D9	299	0	325	31	0
35	BA	60459	0	30474	2060	0
35	DA	60459	0	30478	2070	0
36	BB	2551	0	1294	105	0
36	DB	2551	0	1294	89	0
37	BC	1140	0	863	123	0
37	DC	1142	0	865	126	0
38	BD	2105	0	2182	327	0
38	DD	2105	0	2182	319	0
39	BE	1564	0	1629	245	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DE	1564	0	1629	245	0
40	BF	1624	0	1677	211	0
40	DF	1624	0	1677	207	0
41	BG	1474	0	1534	253	0
41	DG	1474	0	1534	269	0
42	BH	1223	0	1282	173	0
42	DH	1223	0	1282	173	0
43	BI	1132	0	1218	196	0
43	DI	1132	0	1218	198	0
44	BN	1105	0	1180	138	0
44	DN	1105	0	1180	138	0
45	BO	933	0	996	121	0
45	DO	933	0	996	123	0
46	BP	1114	0	1187	280	0
46	DP	1114	0	1187	278	0
47	BQ	1122	0	1179	169	0
47	DQ	1122	0	1179	166	0
48	BR	960	0	1021	139	0
48	DR	960	0	1021	140	0
49	BS	771	0	832	152	0
49	DS	771	0	832	143	0
50	BT	1142	0	1202	241	0
50	DT	1142	0	1202	228	0
51	BU	958	0	1015	156	0
51	DU	958	0	1015	154	0
52	BV	779	0	852	159	0
52	DV	779	0	852	162	0
53	BW	896	0	953	90	0
53	DW	896	0	953	85	0
54	BX	726	0	778	87	0
54	DX	726	0	778	86	0
55	BY	776	0	870	184	0
55	DY	776	0	870	193	0
56	BZ	1404	0	1432	232	0
56	DZ	1404	0	1432	232	0
57	AA	198	0	0	0	0
57	AD	1	0	0	0	0
57	AE	1	0	0	0	0
57	AG	1	0	0	0	0
57	AI	1	0	0	0	0
57	AL	2	0	0	0	0
57	AN	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	AV	5	0	0	0	0
57	AW	8	0	0	0	0
57	AX	2	0	0	0	0
57	B0	1	0	0	0	0
57	B1	1	0	0	0	0
57	B2	2	0	0	0	0
57	B5	2	0	0	0	0
57	B7	1	0	0	0	0
57	BA	422	0	0	0	0
57	BB	14	0	0	0	0
57	BD	2	0	0	0	0
57	BE	1	0	0	0	0
57	BF	1	0	0	0	0
57	BN	1	0	0	0	0
57	BO	1	0	0	0	0
57	BU	1	0	0	1	0
57	BV	1	0	0	0	0
57	BX	2	0	0	0	0
57	CA	199	0	0	0	0
57	CE	1	0	0	0	0
57	CI	1	0	0	0	0
57	CL	1	0	0	0	0
57	CN	1	0	0	0	0
57	CV	5	0	0	0	0
57	CW	7	0	0	0	0
57	CX	3	0	0	0	0
57	D1	1	0	0	0	0
57	D2	3	0	0	0	0
57	D5	2	0	0	0	0
57	D7	2	0	0	0	0
57	DA	421	0	0	0	0
57	DB	13	0	0	0	0
57	DC	1	0	0	0	0
57	DD	2	0	0	0	0
57	DE	1	0	0	0	0
57	DF	2	0	0	0	0
57	DN	1	0	0	0	0
57	DO	1	0	0	0	0
57	DS	1	0	0	0	0
57	DV	1	0	0	0	0
57	DX	3	0	0	0	0
58	AA	42	0	45	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	CA	42	0	45	2	0
59	AD	1	0	0	0	0
59	AN	1	0	0	0	0
59	B9	1	0	0	0	0
59	CD	1	0	0	0	0
59	CN	1	0	0	0	0
59	D9	1	0	0	0	0
All	All	296042	0	199734	19172	0

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 (19172) 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)
54:BX:63:LYS:HE3	54:BX:72:LYS:HE3	1.23	1.21
56:DZ:53:ILE:HG23	56:DZ:71:VAL:HG23	1.21	1.18
46:DP:59:LEU:HA	46:DP:61:ARG:CZ	1.73	1.18
53:BW:1:MET:HE2	53:BW:2:GLU:H	1.06	1.17
35:BA:2334:G:H21	49:BS:18:ILE:HD11	1.09	1.17
35:DA:925:C:H2'	35:DA:926:A:H5''	1.27	1.16
35:DA:1887:C:H2'	35:DA:1888:G:H5''	1.28	1.16
40:DF:3:GLU:HA	40:DF:24:LEU:HG	1.19	1.16
35:DA:2701:C:H3'	35:DA:2702:U:H5''	1.18	1.16
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.11	1.15
35:BA:571:A:H5'	35:BA:2030:A:H62	1.06	1.15
41:BG:46:ALA:HB3	41:BG:82:LEU:HD11	1.23	1.15
35:BA:2701:C:H3'	35:BA:2702:U:H5''	1.17	1.15
40:BF:3:GLU:HA	40:BF:24:LEU:HG	1.16	1.15
31:B6:19:ARG:HG2	31:B6:20:ASN:H	1.07	1.14
55:BY:76:CYS:HB3	55:BY:96:ILE:HD11	1.25	1.14
1:AA:1146:A:H2'	1:AA:1147:C:H5''	1.25	1.14
33:D8:25:MET:HG3	46:DP:64:LYS:HB3	1.23	1.14
1:CA:1442(A):G:H3'	1:CA:1442(B):A:H5''	1.16	1.13
1:AA:954:G:H4'	13:AM:120:LYS:HG3	1.30	1.13
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.29	1.13
31:D6:19:ARG:HG2	31:D6:20:ASN:H	1.07	1.13
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.01	1.13
35:DA:612:C:H2'	35:DA:613:G:H5''	1.16	1.13
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.30	1.13
35:BA:925:C:H2'	35:BA:926:A:H5''	1.30	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:979:C:H3'	1:AA:980:C:H5''	1.24	1.12
35:BA:694:U:H2'	35:BA:695:G:H5''	1.27	1.12
1:CA:1146:A:H2'	1:CA:1147:C:H5''	1.24	1.12
35:BA:1747(A):G:H2'	35:BA:1748:G:H5''	1.28	1.12
35:BA:612:C:H2'	35:BA:613:G:H5''	1.16	1.12
54:DX:63:LYS:HE3	54:DX:72:LYS:HE3	1.21	1.12
35:DA:2334:G:H21	49:DS:18:ILE:HD11	1.08	1.12
2:CB:91:PRO:HG2	2:CB:155:LEU:HB2	1.33	1.11
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.10	1.11
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.27	1.11
50:DT:80:SER:HB3	50:DT:81:PRO:HD3	1.32	1.11
50:BT:80:SER:HB3	50:BT:81:PRO:HD3	1.32	1.11
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.27	1.11
35:DA:2801(A):A:H4'	35:DA:2802:G:H5'	1.32	1.10
46:BP:59:LEU:HA	46:BP:61:ARG:CZ	1.81	1.10
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.16	1.10
33:B8:25:MET:HG3	46:BP:64:LYS:HB3	1.25	1.10
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.06	1.10
35:DA:2571:C:H5'	35:DA:2572:A:H5''	1.25	1.10
55:DY:76:CYS:HB3	55:DY:96:ILE:HD11	1.31	1.09
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.33	1.09
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	1.31	1.09
35:BA:2571:C:H5'	35:BA:2572:A:H5''	1.26	1.09
49:BS:97:ARG:HH21	49:BS:98:VAL:HA	1.11	1.09
23:CW:69:G:H2'	23:CW:70:G:H5''	1.33	1.09
41:BG:82:LEU:HD22	41:BG:87:PRO:HG3	1.23	1.09
22:AV:20:U:H3'	22:AV:21:A:H5'	1.33	1.09
12:CL:41:ARG:HH11	12:CL:41:ARG:HB3	1.14	1.09
35:DA:694:U:H2'	35:DA:695:G:H5''	1.25	1.09
41:DG:46:ALA:HB3	41:DG:82:LEU:HD11	1.35	1.09
1:CA:954:G:H4'	13:CM:120:LYS:HG3	1.28	1.09
35:BA:1884:A:H2'	35:BA:1885:A:H5''	1.26	1.08
38:DD:44:ASN:HB3	38:DD:49:ILE:HA	1.33	1.08
52:DV:62:LEU:HD21	52:DV:95:LEU:HB2	1.33	1.08
35:DA:1884:A:H2'	35:DA:1885:A:H5''	1.26	1.08
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.02	1.08
1:CA:180:U:H2'	1:CA:181:G:H5''	1.34	1.08
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.34	1.08
2:AB:91:PRO:HG2	2:AB:155:LEU:HB2	1.34	1.08
35:DA:2758:A:H2'	35:DA:2759:G:H5''	1.34	1.08
43:BI:118:LYS:HD2	43:BI:119:PRO:HD2	1.35	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:76:CYS:SG	55:DY:77:PRO:HD2	1.93	1.07
35:BA:2758:A:H2'	35:BA:2759:G:H5''	1.31	1.07
38:BD:30:GLU:HB3	38:BD:35:LYS:HD2	1.35	1.07
1:CA:979:C:H3'	1:CA:980:C:H5''	1.26	1.07
22:CV:20:U:H3'	22:CV:21:A:C5'	1.83	1.07
35:DA:1747(A):G:H2'	35:DA:1748:G:H5''	1.28	1.07
50:DT:13:ARG:CZ	50:DT:13:ARG:HA	1.84	1.07
35:BA:2801(A):A:H4'	35:BA:2802:G:H5'	1.32	1.07
51:BU:92:ARG:CZ	52:BV:11:GLN:HB2	1.85	1.07
35:DA:2701:C:H3'	35:DA:2702:U:C5'	1.84	1.07
40:DF:132:VAL:HG22	40:DF:133:ASN:H	1.15	1.07
38:BD:44:ASN:HB3	38:BD:49:ILE:HA	1.34	1.07
39:DE:111:ARG:HA	48:DR:2:ARG:HG3	1.36	1.07
35:BA:2701:C:H3'	35:BA:2702:U:C5'	1.83	1.06
46:BP:16:ARG:HD3	46:BP:18:ARG:H	1.19	1.06
28:D3:44:ARG:O	28:D3:48:GLU:HG2	1.54	1.06
39:DE:77:ILE:HG22	39:DE:78:LEU:H	1.13	1.06
56:DZ:150:LEU:HD23	56:DZ:171:ILE:HB	1.33	1.06
40:BF:132:VAL:HG22	40:BF:133:ASN:H	1.14	1.06
49:DS:97:ARG:HH21	49:DS:98:VAL:HA	1.09	1.06
35:BA:1171:G:H3'	35:BA:1173:G:H4'	1.37	1.06
56:BZ:53:ILE:HG22	56:BZ:71:VAL:HB	1.12	1.06
47:DQ:141:GLN:HE22	56:DZ:72:ARG:HA	1.17	1.06
49:BS:89:ARG:HB3	49:BS:92:TYR:HB3	1.33	1.06
50:BT:13:ARG:HA	50:BT:13:ARG:CZ	1.84	1.06
35:DA:1590:U:H2'	35:DA:1591:G:H5''	1.38	1.06
5:CE:101:ILE:HG13	5:CE:119:LEU:HD23	1.31	1.06
48:DR:10:LEU:HD22	48:DR:17:ARG:HD2	1.35	1.06
39:BE:77:ILE:HG22	39:BE:78:LEU:H	1.11	1.06
39:BE:111:ARG:HA	48:BR:2:ARG:HG3	1.34	1.05
1:CA:1381:U:H1'	7:CG:78:ARG:HH21	1.18	1.05
35:DA:571:A:H5'	35:DA:2030:A:H62	1.10	1.05
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.15	1.05
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.32	1.05
35:DA:1171:G:H3'	35:DA:1173:G:H4'	1.37	1.05
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	1.37	1.05
41:DG:144:ILE:HD11	41:DG:148:MET:HG2	1.39	1.05
35:DA:1798:U:H5'	38:DD:259:THR:HG22	1.38	1.05
1:AA:180:U:H2'	1:AA:181:G:H5''	1.34	1.05
48:BR:10:LEU:HD22	48:BR:17:ARG:HD2	1.36	1.05
38:DD:30:GLU:HB3	38:DD:35:LYS:HD2	1.37	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:89:ARG:HB3	49:DS:92:TYR:HB3	1.35	1.05
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.38	1.05
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.20	1.05
28:B3:44:ARG:O	28:B3:48:GLU:HG2	1.56	1.05
33:D8:59:LYS:HD3	46:DP:50:ARG:HB3	1.38	1.05
35:DA:612:C:C2'	35:DA:613:G:H5''	1.87	1.05
46:DP:16:ARG:HD3	46:DP:18:ARG:H	1.20	1.05
35:BA:1887:C:H2'	35:BA:1888:G:H5''	1.29	1.04
3:AC:77:ILE:HA	3:AC:84:ILE:HB	1.38	1.04
40:BF:36:VAL:HG11	40:BF:183:VAL:HG11	1.35	1.04
53:DW:1:MET:HE2	53:DW:2:GLU:H	1.05	1.04
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.18	1.04
35:DA:2491:U:H5'	35:DA:2570:G:H5''	1.39	1.04
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.18	1.04
39:DE:59:VAL:HG22	39:DE:63:LEU:HA	1.38	1.04
44:BN:47:ALA:HB2	44:BN:112:LEU:HD11	1.40	1.04
33:D8:13:ARG:HB3	46:DP:63:PRO:HB3	1.37	1.04
5:AE:101:ILE:HG13	5:AE:119:LEU:HD23	1.37	1.04
22:CV:20:U:H3'	22:CV:21:A:H5'	1.37	1.04
41:BG:46:ALA:HB2	41:BG:88:ILE:HD13	1.33	1.04
44:DN:47:ALA:HB2	44:DN:112:LEU:HD11	1.40	1.03
33:B8:13:ARG:HB3	46:BP:63:PRO:HB3	1.39	1.03
43:DI:118:LYS:HD2	43:DI:119:PRO:HD2	1.40	1.03
41:BG:44:GLY:H	41:BG:88:ILE:HG21	1.21	1.03
35:BA:1590:U:H2'	35:BA:1591:G:H5''	1.38	1.03
35:BA:612:C:C2'	35:BA:613:G:H5''	1.86	1.03
52:BV:62:LEU:HD21	52:BV:95:LEU:HB2	1.35	1.03
13:AM:69:GLU:HA	13:AM:70:LEU:N	1.72	1.03
13:CM:69:GLU:HA	13:CM:70:LEU:N	1.73	1.03
35:DA:1685:C:H2'	35:DA:1686:C:H5''	1.40	1.03
39:DE:104:VAL:HG11	39:DE:188:VAL:HG23	1.39	1.03
37:BC:58:VAL:HG21	37:BC:166:ASP:N	1.74	1.03
55:BY:76:CYS:SG	55:BY:77:PRO:HD2	1.98	1.03
3:CC:77:ILE:HA	3:CC:84:ILE:HB	1.38	1.03
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.39	1.03
42:DH:47:GLU:HG2	42:DH:48:GLY:H	1.20	1.03
12:CL:89:ARG:HB2	12:CL:89:ARG:HH11	1.21	1.02
33:B8:59:LYS:HD3	46:BP:50:ARG:HB3	1.38	1.02
46:BP:30:THR:HG22	46:BP:31:ALA:H	1.22	1.02
42:BH:47:GLU:HG2	42:BH:48:GLY:H	1.18	1.02
35:BA:1175:U:H4'	35:BA:1176:G:H5'	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:58:VAL:HG21	37:DC:166:ASP:N	1.73	1.02
43:BI:38:LEU:HD12	43:BI:38:LEU:H	1.24	1.02
35:DA:1175:U:H4'	35:DA:1176:G:H5'	1.42	1.02
35:DA:2127:G:H5'	37:DC:36:LYS:HE2	1.41	1.02
49:DS:97:ARG:NH2	49:DS:98:VAL:HA	1.75	1.02
35:BA:1594:G:H8	35:BA:1594:G:H5'	1.23	1.02
42:BH:19:VAL:HG21	42:BH:44:VAL:HA	1.40	1.02
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.42	1.02
42:DH:102:ALA:HB2	42:DH:117:PRO:HD3	1.42	1.02
51:DU:92:ARG:CZ	52:DV:11:GLN:HB2	1.89	1.02
35:DA:2312:U:H2'	35:DA:2313:C:H5''	1.41	1.02
40:DF:181:LEU:HD11	40:DF:186:ILE:HD11	1.41	1.02
50:DT:28:VAL:HG21	50:DT:46:GLU:HG3	1.40	1.02
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB3	1.42	1.01
40:BF:181:LEU:HD11	40:BF:186:ILE:HD11	1.42	1.01
50:BT:28:VAL:HG21	50:BT:46:GLU:HG3	1.39	1.01
35:DA:2206:G:H21	35:DA:2207:G:H5'	1.25	1.01
52:DV:64:HIS:ND1	52:DV:92:THR:HG22	1.75	1.01
12:AL:89:ARG:HH11	12:AL:89:ARG:HB2	1.23	1.01
39:BE:59:VAL:HG22	39:BE:63:LEU:HA	1.38	1.01
52:BV:64:HIS:ND1	52:BV:92:THR:HG22	1.74	1.01
33:D8:62:LEU:HD13	35:DA:242:G:H5''	1.42	1.01
1:AA:192:U:H4'	20:AT:103:GLY:HA2	1.41	1.01
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.26	1.01
1:AA:585:G:H4'	12:AL:8:ASN:HD21	1.23	1.01
22:AV:20:U:C3'	22:AV:21:A:H5'	1.91	1.01
46:DP:30:THR:HG22	46:DP:31:ALA:H	1.22	1.01
33:B8:50:LEU:HD12	33:B8:51:ALA:H	1.25	1.01
35:BA:2312:U:H2'	35:BA:2313:C:H5''	1.40	1.01
35:DA:1685:C:C2'	35:DA:1686:C:H5''	1.90	1.01
35:DA:1798:U:H5'	38:DD:259:THR:CG2	1.90	1.01
35:BA:2206:G:N2	35:BA:2207:G:H5'	1.74	1.01
42:BH:102:ALA:HB2	42:BH:117:PRO:HD3	1.41	1.01
52:BV:19:LYS:NZ	52:BV:20:LEU:H	1.58	1.01
43:BI:91:SER:HB2	43:BI:119:PRO:HB2	1.40	1.01
56:DZ:150:LEU:H	56:DZ:150:LEU:HD13	1.26	1.01
35:BA:2468:G:HO2'	35:BA:2469:A:H8	1.07	1.00
35:BA:2206:G:H21	35:BA:2207:G:H5'	1.22	1.00
3:AC:71:ALA:HA	3:AC:105:GLU:HG3	1.42	1.00
38:BD:181:GLU:HA	38:BD:272:ALA:HB3	1.42	1.00
41:DG:129:GLY:HA2	41:DG:164:GLU:HA	1.44	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:91:SER:HB2	43:DI:119:PRO:HB2	1.43	1.00
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.41	1.00
49:BS:97:ARG:NH2	49:BS:98:VAL:HA	1.76	1.00
35:BA:2491:U:H5'	35:BA:2570:G:H5''	1.41	1.00
35:DA:2092:U:H4'	35:DA:2093:G:H5''	1.42	1.00
4:AD:18:LYS:HB2	4:AD:33:MET:HG2	1.44	0.99
1:AA:1256:A:N6	1:AA:1278:U:H1'	1.77	0.99
1:CA:585:G:H4'	12:CL:8:ASN:HD21	1.24	0.99
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.21	0.99
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.41	0.99
1:CA:1256:A:N6	1:CA:1278:U:H1'	1.77	0.99
55:DY:26:LYS:HG2	55:DY:27:VAL:H	1.25	0.99
35:BA:1798:U:H5'	38:BD:259:THR:CG2	1.93	0.99
23:CW:27:G:H1	23:CW:43:C:H42	1.05	0.99
1:AA:1381:U:H1'	7:AG:78:ARG:HH21	1.19	0.99
10:AJ:50:ILE:H	10:AJ:50:ILE:HD13	1.27	0.99
30:D5:46:CYS:SG	30:D5:47:PRO:HD2	2.02	0.99
52:DV:19:LYS:HZ3	52:DV:20:LEU:H	1.07	0.99
50:BT:91:ARG:HB3	50:BT:116:ALA:HA	1.45	0.99
47:BQ:141:GLN:HE22	56:BZ:72:ARG:HA	1.26	0.99
1:CA:1442(A):G:H3'	1:CA:1442(B):A:C5'	1.93	0.99
12:AL:41:ARG:NH1	12:AL:41:ARG:HB3	1.77	0.99
23:AW:38:A:H3'	23:AW:39:U:H5''	1.43	0.99
55:BY:26:LYS:HG2	55:BY:27:VAL:H	1.26	0.99
35:BA:2645:G:H3'	35:BA:2646:C:H5'	1.45	0.99
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.45	0.98
35:DA:2206:G:N2	35:DA:2207:G:H5'	1.76	0.98
35:BA:1685:C:H2'	35:BA:1686:C:H5''	1.41	0.98
37:DC:169:GLY:H	37:DC:173:ALA:HA	1.25	0.98
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.45	0.98
35:DA:925:C:C2'	35:DA:926:A:H5''	1.92	0.98
50:DT:55:ASN:HD22	50:DT:58:ASN:HD21	1.12	0.98
3:AC:152:ILE:HG22	3:AC:167:TRP:HA	1.45	0.98
35:BA:2127:G:H5'	37:BC:36:LYS:HE2	1.43	0.98
3:CC:71:ALA:HA	3:CC:105:GLU:HG3	1.42	0.98
38:DD:181:GLU:HA	38:DD:272:ALA:HB3	1.43	0.98
41:DG:124:SER:HB2	41:DG:131:TYR:CE1	1.99	0.98
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.46	0.98
41:BG:112:PRO:C	41:BG:113:ARG:HA	1.83	0.98
35:BA:2068:U:H3	35:BA:2430:A:H2	1.02	0.98
35:BA:1798:U:H5'	38:BD:259:THR:HG22	1.40	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:975:A:H4'	1:CA:976:G:H5''	1.45	0.98
56:DZ:4:ARG:HG2	56:DZ:58:VAL:HB	1.45	0.98
35:DA:1884:A:C2'	35:DA:1885:A:H5''	1.94	0.97
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.45	0.97
3:CC:152:ILE:HG22	3:CC:167:TRP:HA	1.45	0.97
40:DF:36:VAL:HG11	40:DF:183:VAL:HG11	1.42	0.97
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.26	0.97
41:BG:76:SER:HB2	41:BG:83:ARG:HB2	1.43	0.97
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.47	0.97
35:DA:2645:G:H3'	35:DA:2646:C:H5'	1.43	0.97
52:DV:19:LYS:NZ	52:DV:20:LEU:H	1.61	0.97
35:BA:1685:C:C2'	35:BA:1686:C:H5''	1.94	0.97
18:CR:37:VAL:HG23	18:CR:38:GLU:H	1.27	0.97
33:D8:50:LEU:HD12	33:D8:51:ALA:H	1.30	0.97
35:DA:1594:G:H5'	35:DA:1594:G:H8	1.23	0.97
42:DH:19:VAL:HG21	42:DH:44:VAL:HA	1.42	0.97
50:DT:91:ARG:HB3	50:DT:116:ALA:HA	1.44	0.97
47:BQ:24:GLY:HA2	47:BQ:67:ARG:HH22	1.29	0.97
50:BT:28:VAL:HG22	50:BT:47:GLY:N	1.79	0.97
56:BZ:31:ARG:HB3	56:BZ:31:ARG:NH1	1.79	0.97
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.44	0.97
55:DY:14:LEU:HD12	55:DY:15:VAL:H	1.28	0.97
52:BV:15:GLU:HB3	52:BV:16:PRO:HD2	1.47	0.97
12:CL:41:ARG:NH1	12:CL:41:ARG:HB3	1.79	0.97
56:DZ:165:VAL:HG12	56:DZ:166:SER:H	1.29	0.97
38:BD:71:ASP:HB2	38:BD:103:ARG:HH22	1.29	0.97
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.47	0.97
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.46	0.97
36:DB:20:C:H2'	36:DB:21:G:H5''	1.47	0.97
43:BI:4:ILE:HG12	43:BI:18:VAL:HG22	1.47	0.97
46:BP:18:ARG:HB3	46:BP:18:ARG:NH1	1.79	0.97
38:DD:71:ASP:HB2	38:DD:103:ARG:HH22	1.28	0.97
22:AY:41:C:H3'	22:AY:42:C:H5''	1.46	0.97
35:DA:2468:G:HO2'	35:DA:2469:A:H8	1.05	0.97
42:DH:66:GLY:HA2	42:DH:69:ARG:HB2	1.44	0.97
35:BA:925:C:C2'	35:BA:926:A:H5''	1.94	0.96
41:BG:124:SER:HB2	41:BG:131:TYR:CE1	1.99	0.96
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.28	0.96
55:BY:25:GLY:HA3	55:BY:39:VAL:HG12	1.47	0.96
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.44	0.96
43:DI:38:LEU:H	43:DI:38:LEU:HD12	1.24	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.45	0.96
55:BY:14:LEU:HD12	55:BY:15:VAL:H	1.30	0.96
10:CJ:4:ILE:HA	10:CJ:100:THR:HG22	1.48	0.96
39:BE:36:ARG:HH12	39:BE:88:GLY:HA3	1.29	0.96
4:CD:18:LYS:HB2	4:CD:33:MET:HG2	1.44	0.96
17:CQ:52:LYS:H	17:CQ:52:LYS:HD2	1.30	0.96
52:DV:49:THR:HG22	52:DV:50:PRO:HD3	1.47	0.96
30:B5:46:CYS:SG	30:B5:47:PRO:HD2	2.06	0.96
42:BH:44:VAL:HG12	42:BH:45:VAL:H	1.30	0.96
42:BH:66:GLY:HA2	42:BH:69:ARG:HB2	1.43	0.96
26:D1:45:ASN:HD21	35:DA:2090:G:H21	1.14	0.96
28:B3:8:LEU:HD12	28:B3:31:LEU:HA	1.46	0.96
35:BA:2729:G:H1'	39:BE:187:ALA:HB2	1.48	0.96
2:AB:67:THR:HG21	2:AB:155:LEU:HD11	1.48	0.96
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.44	0.96
37:BC:169:GLY:H	37:BC:173:ALA:HA	1.27	0.96
45:BO:4:PRO:O	45:BO:5:GLN:HB2	1.66	0.96
45:DO:63:VAL:HB	45:DO:102:VAL:HG12	1.46	0.96
50:DT:28:VAL:HG13	50:DT:46:GLU:HA	1.45	0.96
26:B1:61:ARG:HG2	26:B1:61:ARG:HH11	1.28	0.96
2:CB:67:THR:HG21	2:CB:155:LEU:HD11	1.47	0.96
53:DW:88:ARG:HB2	53:DW:92:ARG:HB3	1.48	0.96
45:BO:63:VAL:HB	45:BO:102:VAL:HG12	1.46	0.95
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.29	0.95
45:DO:4:PRO:O	45:DO:5:GLN:HB2	1.64	0.95
39:DE:36:ARG:HH12	39:DE:88:GLY:HA3	1.28	0.95
1:AA:975:A:H4'	1:AA:976:G:H5''	1.46	0.95
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.48	0.95
35:DA:2863:C:H2'	35:DA:2864:G:H5''	1.47	0.95
35:BA:2758:A:C2'	35:BA:2759:G:H5''	1.96	0.95
37:DC:64:LEU:HD22	37:DC:65:PRO:HD2	1.48	0.95
41:DG:112:PRO:C	41:DG:113:ARG:HA	1.87	0.95
52:BV:72:VAL:HG23	52:BV:85:LYS:HB3	1.48	0.95
43:DI:77:LEU:HD11	43:DI:101:LEU:HD13	1.48	0.95
52:DV:15:GLU:HB3	52:DV:16:PRO:HD2	1.47	0.95
42:DH:44:VAL:HG12	42:DH:45:VAL:H	1.28	0.95
35:BA:1884:A:C2'	35:BA:1885:A:H5''	1.95	0.95
28:D3:8:LEU:HD12	28:D3:31:LEU:HA	1.45	0.95
47:DQ:24:GLY:HA2	47:DQ:67:ARG:HH22	1.29	0.95
35:BA:1747(A):G:C2'	35:BA:1748:G:H5''	1.95	0.95
35:BA:1899:G:N2	35:BA:1902:C:H41	1.63	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1590:U:C2'	35:DA:1591:G:H5''	1.96	0.95
40:DF:22:ALA:HA	40:DF:26:ALA:HB2	1.49	0.95
52:DV:72:VAL:HG23	52:DV:85:LYS:HB3	1.47	0.95
23:AW:69:G:H2'	23:AW:70:G:H5''	1.49	0.95
22:AY:28:G:H1	22:AY:42:C:H42	1.03	0.95
35:BA:1174:A:H5''	35:BA:1175:U:H5'	1.48	0.95
35:DA:1747(A):G:C2'	35:DA:1748:G:H5''	1.96	0.95
35:BA:1697:G:H3'	35:BA:1698:A:H5''	1.49	0.94
46:BP:97:PRO:O	46:BP:98:GLU:HG3	1.67	0.94
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.49	0.94
35:DA:1899:G:N2	35:DA:1902:C:H41	1.65	0.94
45:DO:35:VAL:HG11	45:DO:103:ALA:HB3	1.48	0.94
35:BA:1590:U:C2'	35:BA:1591:G:H5''	1.97	0.94
38:BD:227:ASN:HB3	38:BD:228:PRO:HD2	1.50	0.94
46:DP:18:ARG:HB3	46:DP:18:ARG:NH1	1.81	0.94
35:BA:2308:G:O6	35:BA:2310:A:H2'	1.68	0.94
52:BV:49:THR:HG22	52:BV:50:PRO:HD3	1.47	0.94
26:D1:64:ALA:HA	26:D1:67:ILE:HG13	1.49	0.94
35:DA:6:A:O2'	44:DN:130:HIS:HB3	1.68	0.94
37:DC:59:ARG:HB2	37:DC:62:VAL:HG22	1.50	0.94
50:BT:28:VAL:HG13	50:BT:46:GLU:HA	1.46	0.94
50:DT:28:VAL:HG22	50:DT:47:GLY:N	1.82	0.94
2:AB:7:VAL:HG12	2:AB:217:ARG:HH21	1.30	0.94
31:D6:15:GLU:CD	31:D6:18:ARG:HE	1.71	0.94
42:DH:13:LYS:HA	42:DH:13:LYS:HE2	1.49	0.94
46:DP:97:PRO:O	46:DP:98:GLU:HG3	1.67	0.94
22:AV:68:C:H2'	22:AV:69:G:H5''	1.46	0.94
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.31	0.94
22:CY:42:C:H3'	22:CY:43:C:H5''	1.50	0.94
22:AV:17:C:H3'	22:AV:18:G:H5''	1.49	0.94
6:AF:21:LEU:O	6:AF:24:GLU:HG2	1.67	0.94
35:BA:2533:A:H2'	35:BA:2534:A:H5''	1.49	0.94
35:BA:2863:C:H2'	35:BA:2864:G:H5''	1.48	0.94
41:BG:72:ARG:HD3	41:BG:86:MET:HA	1.47	0.94
45:BO:105:GLU:HA	45:BO:108:GLU:OE1	1.68	0.94
46:BP:23:PRO:HB2	46:BP:33:ARG:CD	1.98	0.94
48:BR:97:VAL:HG22	48:BR:114:VAL:HG22	1.50	0.94
35:DA:2729:G:H1'	39:DE:187:ALA:HB2	1.50	0.94
48:DR:97:VAL:HG22	48:DR:114:VAL:HG22	1.48	0.94
42:BH:158:HIS:NE2	42:BH:170:ARG:HA	1.83	0.93
36:BB:20:C:H2'	36:BB:21:G:H5''	1.48	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:24:THR:HG23	39:BE:184:VAL:HG23	1.50	0.93
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.81	0.93
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.48	0.93
46:BP:7:ARG:HA	46:BP:7:ARG:HH11	1.32	0.93
52:BV:39:LEU:HD12	52:BV:47:VAL:HG11	1.51	0.93
6:CF:21:LEU:O	6:CF:24:GLU:HG2	1.68	0.93
49:DS:53:SER:O	49:DS:55:ALA:N	2.01	0.93
53:BW:88:ARG:HB2	53:BW:92:ARG:HB3	1.49	0.93
22:CY:74:C:H2'	22:CY:75:C:H5'	1.51	0.93
1:AA:1278:U:H5''	1:AA:1279:A:O4'	1.68	0.93
52:BV:19:LYS:HZ3	52:BV:20:LEU:H	1.14	0.93
56:BZ:48:PHE:CE2	56:BZ:52:SER:HA	2.04	0.93
2:CB:118:LEU:HB2	2:CB:142:LEU:HD13	1.50	0.93
2:CB:48:MET:HG2	2:CB:49:GLU:N	1.81	0.93
44:DN:133:GLN:HG2	44:DN:135:PRO:HD3	1.51	0.93
40:BF:24:LEU:HD12	40:BF:25:PRO:HD3	1.51	0.93
31:D6:13:CYS:HB3	31:D6:49:HIS:HB3	1.51	0.93
2:AB:48:MET:HG2	2:AB:49:GLU:N	1.80	0.93
35:BA:141:A:H8	35:BA:1408:C:HO2'	0.99	0.93
43:BI:77:LEU:HD11	43:BI:101:LEU:HD13	1.50	0.93
42:DH:158:HIS:NE2	42:DH:170:ARG:HA	1.84	0.93
46:DP:7:ARG:HA	46:DP:7:ARG:HH11	1.31	0.93
36:BB:20:C:C2'	36:BB:21:G:H5''	1.99	0.93
55:BY:8:LYS:H	55:BY:8:LYS:HD2	1.33	0.93
23:CW:69:G:C2'	23:CW:70:G:H5''	1.98	0.93
55:DY:8:LYS:H	55:DY:8:LYS:HD2	1.34	0.93
37:BC:59:ARG:HB2	37:BC:62:VAL:HG22	1.50	0.92
49:BS:53:SER:O	49:BS:55:ALA:N	2.02	0.92
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.33	0.92
35:DA:2394:C:OP1	46:DP:63:PRO:HD2	1.69	0.92
37:BC:64:LEU:HD22	37:BC:65:PRO:HD2	1.49	0.92
2:CB:7:VAL:HG12	2:CB:217:ARG:HH21	1.32	0.92
31:D6:19:ARG:HG2	31:D6:20:ASN:N	1.84	0.92
38:DD:227:ASN:HB3	38:DD:228:PRO:HD2	1.50	0.92
42:DH:46:GLU:HB2	42:DH:50:VAL:HA	1.51	0.92
9:AI:96:LEU:HD21	9:AI:102:LEU:HD12	1.51	0.92
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.51	0.92
35:DA:1697:G:H3'	35:DA:1698:A:H5''	1.50	0.92
17:AQ:52:LYS:HD2	17:AQ:52:LYS:H	1.32	0.92
51:BU:91:ASP:OD2	51:BU:96:ALA:HB2	1.68	0.92
27:D2:43:GLN:O	27:D2:44:LEU:HB2	1.68	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:45:GLN:HG2	2:AB:48:MET:HE1	1.50	0.92
35:BA:1779:U:H5	35:BA:1784:A:N7	1.68	0.92
44:BN:25:ARG:HH11	44:BN:25:ARG:HG3	1.34	0.92
12:CL:46:LYS:HG2	12:CL:47:LYS:N	1.85	0.92
35:DA:2533:A:H2'	35:DA:2534:A:H5''	1.51	0.92
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.49	0.92
27:B2:3:LEU:HD22	27:B2:7:ARG:HH12	1.33	0.92
31:D6:19:ARG:CG	31:D6:20:ASN:H	1.81	0.92
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.52	0.92
12:AL:46:LYS:CG	12:AL:47:LYS:H	1.82	0.92
9:CI:96:LEU:HD21	9:CI:102:LEU:HD12	1.51	0.92
36:DB:3:C:H42	36:DB:118:G:H1	1.17	0.92
46:DP:7:ARG:CA	46:DP:7:ARG:HH11	1.83	0.92
33:B8:62:LEU:HD13	35:BA:242:G:H5''	1.50	0.92
40:BF:3:GLU:HA	40:BF:24:LEU:CG	1.99	0.92
44:BN:55:VAL:HG22	44:BN:126:PRO:HA	1.52	0.92
40:DF:123:LEU:HD12	40:DF:124:LEU:H	1.33	0.92
2:AB:118:LEU:HB2	2:AB:142:LEU:HD13	1.48	0.92
35:BA:6:A:O2'	44:BN:130:HIS:HB3	1.68	0.92
47:BQ:43:THR:OG1	47:BQ:46:GLN:HG3	1.70	0.92
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.00	0.92
35:DA:2068:U:H3	35:DA:2430:A:H2	1.03	0.92
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.17	0.92
35:DA:27:G:HO2'	35:DA:28:A:H8	0.92	0.92
37:DC:83:ILE:HG23	37:DC:94:VAL:HG23	1.52	0.92
37:BC:72:VAL:HG21	37:BC:161:ILE:HA	1.52	0.91
38:BD:48:ARG:HH11	38:BD:48:ARG:HG3	1.33	0.91
2:CB:45:GLN:HG2	2:CB:48:MET:HE1	1.50	0.91
36:DB:20:C:C2'	36:DB:21:G:H5''	2.00	0.91
43:DI:4:ILE:HG12	43:DI:18:VAL:HG22	1.49	0.91
44:DN:25:ARG:HG3	44:DN:25:ARG:HH11	1.33	0.91
52:DV:19:LYS:HG2	52:DV:94:LEU:HB2	1.51	0.91
35:DA:2758:A:C2'	35:DA:2759:G:H5''	2.00	0.91
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.35	0.91
31:B6:19:ARG:HG2	31:B6:20:ASN:N	1.84	0.91
1:CA:1278:U:H5''	1:CA:1279:A:O4'	1.69	0.91
20:CT:30:LYS:HE2	20:CT:72:LEU:HD21	1.52	0.91
50:BT:13:ARG:NE	50:BT:13:ARG:HA	1.83	0.91
45:DO:105:GLU:HA	45:DO:108:GLU:OE1	1.70	0.91
46:DP:23:PRO:HB2	46:DP:33:ARG:CD	2.01	0.91
41:DG:64:THR:HG23	41:DG:66:GLN:H	1.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:81:LYS:HD3	55:DY:97:ARG:HB3	1.52	0.91
45:BO:35:VAL:HG11	45:BO:103:ALA:HB3	1.51	0.91
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.34	0.91
48:DR:45:ARG:HG3	48:DR:46:GLY:H	1.35	0.91
56:DZ:72:ARG:HB2	56:DZ:87:ASP:HB2	1.52	0.91
35:BA:271(T):C:H5'	35:BA:271(T):C:H6	1.35	0.91
35:DA:1174:A:H5''	35:DA:1175:U:H5'	1.49	0.91
54:DX:35:THR:O	54:DX:39:ILE:HG12	1.71	0.91
44:DN:133:GLN:HG2	44:DN:134:ARG:H	1.35	0.91
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.00	0.91
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.34	0.91
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.50	0.91
35:BA:2394:C:OP1	46:BP:63:PRO:HD2	1.70	0.91
44:BN:133:GLN:HG2	44:BN:135:PRO:HD3	1.52	0.91
50:DT:13:ARG:HA	50:DT:13:ARG:NE	1.84	0.91
1:AA:194:C:H2'	1:AA:195:A:H5''	1.53	0.91
38:BD:79:VAL:HG21	38:BD:111:LEU:HD21	1.53	0.91
40:DF:3:GLU:HA	40:DF:24:LEU:CG	2.01	0.91
51:DU:83:LEU:HG	51:DU:88:ILE:HD11	1.49	0.91
25:B0:41:ARG:H	25:B0:41:ARG:CD	1.84	0.90
35:BA:271(S):G:C2'	35:BA:271(T):C:H5''	2.00	0.90
35:DA:271(S):G:C2'	35:DA:271(T):C:H5''	2.00	0.90
42:DH:85:LYS:HD2	42:DH:141:VAL:HG13	1.53	0.90
31:B6:15:GLU:CD	31:B6:18:ARG:HE	1.73	0.90
37:BC:83:ILE:HG23	37:BC:94:VAL:HG23	1.52	0.90
46:DP:47:ASP:HB3	46:DP:48:PRO:CA	2.01	0.90
1:AA:346:G:H5''	50:BT:41:ARG:HE	1.35	0.90
1:AA:434:U:H2'	1:AA:435:C:C6	2.05	0.90
20:AT:30:LYS:HE2	20:AT:72:LEU:HD21	1.49	0.90
35:BA:2092:U:H4'	35:BA:2093:G:H5''	1.50	0.90
31:B6:9:LEU:HD13	31:B6:11:LEU:HD21	1.51	0.90
35:DA:2308:G:O6	35:DA:2310:A:H2'	1.69	0.90
38:DD:79:VAL:HG21	38:DD:111:LEU:HD21	1.53	0.90
52:DV:39:LEU:HD12	52:DV:47:VAL:HG11	1.50	0.90
2:AB:69:LEU:HD22	2:AB:91:PRO:HB2	1.54	0.90
13:AM:90:LEU:C	13:AM:92:HIS:H	1.75	0.90
23:AW:16:U:H3'	23:AW:17:C:H5'	1.52	0.90
32:B7:11:LYS:HE2	35:BA:686:G:H5''	1.52	0.90
35:BA:404:C:H4'	35:BA:405:U:H5'	1.51	0.90
44:BN:133:GLN:HG2	44:BN:134:ARG:H	1.36	0.90
50:BT:55:ASN:HD22	50:BT:58:ASN:HD21	1.14	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:14:ARG:HG3	27:D2:14:ARG:HH11	1.33	0.90
44:DN:55:VAL:HG22	44:DN:126:PRO:HA	1.51	0.90
46:DP:47:ASP:HB3	46:DP:48:PRO:HA	1.52	0.90
1:AA:266:G:H5''	1:AA:268:C:H41	1.37	0.90
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.52	0.90
35:DA:2312:U:C2'	35:DA:2313:C:H5''	2.01	0.90
37:DC:72:VAL:HG21	37:DC:161:ILE:HA	1.53	0.90
42:BH:13:LYS:HA	42:BH:13:LYS:HE2	1.51	0.90
48:BR:45:ARG:HG3	48:BR:46:GLY:H	1.33	0.90
27:D2:18:PRO:HG2	27:D2:19:VAL:H	1.36	0.90
35:DA:1348:G:H2'	35:DA:1349:A:H5''	1.54	0.90
31:B6:13:CYS:HB3	31:B6:49:HIS:HB3	1.52	0.90
39:BE:24:THR:HB	39:BE:186:GLY:HA2	1.54	0.90
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.52	0.90
27:D2:65:ASN:HD22	27:D2:69:ARG:HH22	1.14	0.90
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.38	0.89
35:BA:1403:C:H5''	35:BA:1471:A:H1'	1.54	0.89
35:BA:1887:C:C2'	35:BA:1888:G:H5''	2.02	0.89
1:CA:1146:A:C2'	1:CA:1147:C:H5''	2.02	0.89
35:BA:1858:G:H2'	35:BA:1883:G:H22	1.38	0.89
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.37	0.89
18:CR:36:ASN:ND2	18:CR:39:VAL:HG21	1.87	0.89
51:DU:91:ASP:OD2	51:DU:96:ALA:HB2	1.70	0.89
56:DZ:40:ASP:HB3	56:DZ:43:GLU:HB2	1.54	0.89
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.36	0.89
12:AL:46:LYS:HG2	12:AL:47:LYS:N	1.86	0.89
35:BA:2726:U:O2	35:BA:2726:U:H5'	1.71	0.89
49:BS:58:LEU:HD21	49:BS:68:GLN:HB2	1.53	0.89
56:DZ:30:ASN:OD1	56:DZ:33:LEU:HB3	1.73	0.89
31:B6:19:ARG:CG	31:B6:20:ASN:H	1.81	0.89
35:BA:1879:C:H2'	35:BA:1880:C:H5''	1.55	0.89
45:BO:2:ILE:HD12	45:BO:6:THR:HG21	1.55	0.89
46:BP:47:ASP:HB3	46:BP:48:PRO:HA	1.54	0.89
1:CA:194:C:H2'	1:CA:195:A:H5''	1.54	0.89
40:DF:24:LEU:HD12	40:DF:25:PRO:HD3	1.54	0.89
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.55	0.89
39:BE:104:VAL:HG11	39:BE:188:VAL:HG23	1.51	0.89
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.38	0.89
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.36	0.89
50:DT:64:ARG:HD2	50:DT:73:GLU:HG2	1.54	0.89
56:DZ:163:LEU:H	56:DZ:163:LEU:HD12	1.36	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.54	0.89
46:BP:7:ARG:HH11	46:BP:7:ARG:CA	1.83	0.89
13:CM:90:LEU:C	13:CM:92:HIS:H	1.74	0.89
35:DA:2701:C:C3'	35:DA:2702:U:H5''	2.03	0.89
35:DA:694:U:C2'	35:DA:695:G:H5''	2.03	0.89
48:DR:103:ARG:HD2	53:DW:40:ASN:ND2	1.88	0.89
1:AA:1146:A:C2'	1:AA:1147:C:H5''	2.03	0.89
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.54	0.89
45:BO:88:ASN:HD21	45:BO:90:GLN:HB2	1.35	0.89
49:BS:89:ARG:HB3	49:BS:92:TYR:CB	2.02	0.89
55:BY:81:LYS:HD3	55:BY:97:ARG:HB3	1.54	0.89
41:DG:107:LEU:HD23	41:DG:111:LEU:HD12	1.54	0.89
33:B8:6:THR:CG2	33:B8:63:PRO:HD3	2.03	0.89
35:BA:1681:G:O2'	35:BA:1762:A:H2'	1.73	0.89
41:BG:112:PRO:O	41:BG:113:ARG:HD3	1.72	0.89
2:CB:69:LEU:HD22	2:CB:91:PRO:HB2	1.53	0.89
35:DA:2415:G:O3'	46:DP:66:GLY:HA3	1.73	0.89
49:DS:58:LEU:HD21	49:DS:68:GLN:HB2	1.54	0.89
35:BA:1594:G:H5'	35:BA:1594:G:C8	2.08	0.89
35:BA:2312:U:C2'	35:BA:2313:C:H5''	2.03	0.89
26:D1:29:GLY:O	26:D1:30:VAL:HG22	1.72	0.89
35:DA:404:C:H4'	35:DA:405:U:H5'	1.53	0.89
38:DD:48:ARG:HG3	38:DD:48:ARG:HH11	1.36	0.89
55:BY:79:CYS:SG	55:BY:80:GLY:N	2.41	0.88
35:DA:2263:C:H6	35:DA:2263:C:H5'	1.37	0.88
35:DA:141:A:H8	35:DA:1408:C:HO2'	0.97	0.88
4:AD:114:ARG:HG3	4:AD:114:ARG:HH11	1.37	0.88
41:BG:46:ALA:HB3	41:BG:82:LEU:CD1	2.04	0.88
46:BP:18:ARG:HH11	46:BP:18:ARG:HB3	1.37	0.88
23:CW:62:C:H2'	23:CW:63:G:H8	1.36	0.88
35:DA:1887:C:C2'	35:DA:1888:G:H5''	2.01	0.88
1:AA:1256:A:H61	1:AA:1278:U:C1'	1.87	0.88
38:BD:26:LYS:HB3	38:BD:26:LYS:NZ	1.89	0.88
38:BD:26:LYS:HD3	38:BD:81:ALA:HB1	1.54	0.88
42:BH:85:LYS:HD2	42:BH:141:VAL:HG13	1.53	0.88
56:BZ:40:ASP:OD1	56:BZ:42:VAL:HG12	1.73	0.88
37:DC:58:VAL:HG21	37:DC:166:ASP:H	1.37	0.88
39:DE:24:THR:HG23	39:DE:184:VAL:HG23	1.54	0.88
54:DX:35:THR:HG22	54:DX:37:THR:H	1.38	0.88
55:DY:25:GLY:HA3	55:DY:39:VAL:HG12	1.53	0.88
33:B8:6:THR:HG22	33:B8:63:PRO:HD3	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:23:PRO:HB2	46:BP:33:ARG:HD2	1.53	0.88
46:BP:45:LEU:HD23	46:BP:46:LYS:N	1.88	0.88
55:BY:31:LEU:HB2	55:BY:32:PRO:HA	1.56	0.88
35:DA:1858:G:H2'	35:DA:1883:G:H22	1.36	0.88
55:DY:79:CYS:SG	55:DY:80:GLY:N	2.42	0.88
23:AW:57:G:H2'	23:AW:58:A:H5'	1.54	0.88
56:BZ:53:ILE:CG2	56:BZ:71:VAL:HB	2.02	0.88
35:DA:271(T):C:H6	35:DA:271(T):C:H5'	1.36	0.88
3:AC:76:VAL:HG23	3:AC:77:ILE:H	1.39	0.88
45:DO:88:ASN:HD21	45:DO:90:GLN:HB2	1.36	0.88
49:DS:89:ARG:HB3	49:DS:92:TYR:CB	2.04	0.88
39:BE:59:VAL:CG2	39:BE:63:LEU:HA	2.03	0.88
55:BY:55:TYR:HB2	55:BY:56:PRO:HD2	1.56	0.88
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.74	0.88
41:DG:61:ALA:HA	41:DG:64:THR:HG22	1.55	0.88
48:BR:24:GLN:HE22	48:BR:36:THR:HG21	1.39	0.87
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.89	0.87
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.56	0.87
38:BD:26:LYS:HZ2	38:BD:26:LYS:HB3	1.39	0.87
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.56	0.87
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.39	0.87
43:DI:133:HIS:HB2	43:DI:134:PRO:CD	2.03	0.87
35:BA:2701:C:C3'	35:BA:2702:U:H5''	2.03	0.87
39:BE:51:PHE:O	39:BE:74:PRO:HB2	1.73	0.87
51:BU:83:LEU:HG	51:BU:88:ILE:HD11	1.56	0.87
1:CA:434:U:H2'	1:CA:435:C:C6	2.09	0.87
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.40	0.87
31:D6:9:LEU:HD13	31:D6:11:LEU:HD21	1.53	0.87
35:DA:2290:G:H8	35:DA:2290:G:H5'	1.39	0.87
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.56	0.87
22:CY:28:G:H1	22:CY:42:C:N4	1.71	0.87
35:DA:1681:G:O2'	35:DA:1762:A:H2'	1.75	0.87
35:DA:1779:U:H5	35:DA:1784:A:N7	1.70	0.87
35:DA:2726:U:H5'	35:DA:2726:U:O2	1.74	0.87
32:D7:11:LYS:HE2	35:DA:686:G:H5''	1.56	0.87
46:DP:23:PRO:HB2	46:DP:33:ARG:HD2	1.55	0.87
35:BA:1348:G:H2'	35:BA:1349:A:H5''	1.54	0.87
46:BP:48:PRO:HG2	46:BP:49:ARG:H	1.40	0.87
1:CA:1256:A:H61	1:CA:1278:U:C1'	1.86	0.87
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.39	0.87
22:CV:68:C:H2'	22:CV:69:G:H5''	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:41:ARG:CD	25:D0:41:ARG:H	1.86	0.87
35:DA:2267:A:H5''	35:DA:2268:A:H5'	1.56	0.87
35:DA:483:A:H1'	55:DY:60:PHE:HZ	1.38	0.87
35:BA:795:C:H2'	35:BA:796:C:H6	1.39	0.87
53:BW:5:ALA:HB2	53:BW:54:ALA:HB2	1.57	0.87
1:CA:137:C:H42	1:CA:226:G:H1	1.22	0.87
1:CA:266:G:H5''	1:CA:268:C:H41	1.39	0.87
1:CA:1291:G:H4'	9:CI:39:GLY:HA3	1.57	0.87
35:DA:795:C:H2'	35:DA:796:C:H6	1.37	0.87
35:BA:27:G:HO2'	35:BA:28:A:H8	0.94	0.87
36:BB:3:C:H42	36:BB:118:G:H1	1.20	0.87
40:BF:22:ALA:HA	40:BF:26:ALA:HB2	1.54	0.87
44:BN:25:ARG:CG	44:BN:25:ARG:HH11	1.88	0.87
54:BX:35:THR:HG22	54:BX:37:THR:H	1.37	0.87
56:BZ:97:GLU:HG2	56:BZ:125:LEU:HD11	1.56	0.87
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.57	0.87
39:DE:59:VAL:CG2	39:DE:63:LEU:HA	2.05	0.87
45:DO:2:ILE:HD12	45:DO:6:THR:HG21	1.54	0.87
54:DX:63:LYS:CE	54:DX:72:LYS:HE3	2.04	0.87
35:BA:1170:G:H1	35:BA:1179:C:H42	1.23	0.87
35:BA:2263:C:H6	35:BA:2263:C:H5'	1.37	0.87
48:BR:103:ARG:HD2	53:BW:40:ASN:ND2	1.90	0.87
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.57	0.87
26:D1:94:LEU:O	26:D1:94:LEU:HD23	1.74	0.87
39:DE:51:PHE:O	39:DE:74:PRO:HB2	1.75	0.87
30:B5:2:ALA:HA	35:BA:2015:A:H1'	1.56	0.87
50:BT:29:ARG:HB3	50:BT:85:LYS:HA	1.57	0.87
31:D6:13:CYS:O	31:D6:21:TYR:HA	1.74	0.87
35:DA:1170:G:H1	35:DA:1179:C:H42	1.22	0.87
35:DA:1594:G:H5'	35:DA:1594:G:C8	2.08	0.87
44:BN:3:THR:O	44:BN:5:VAL:HG12	1.75	0.86
35:DA:286:C:H2'	35:DA:287:C:H5''	1.56	0.86
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.22	0.86
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.10	0.86
39:DE:111:ARG:HA	48:DR:2:ARG:CG	2.05	0.86
50:DT:29:ARG:HB3	50:DT:85:LYS:HA	1.55	0.86
55:DY:55:TYR:HB2	55:DY:56:PRO:HD2	1.55	0.86
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.90	0.86
35:BA:2290:G:H5'	35:BA:2290:G:H8	1.39	0.86
35:BA:483:A:H1'	55:BY:60:PHE:HZ	1.37	0.86
9:CI:79:LEU:HD11	9:CI:102:LEU:HA	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:6:THR:CG2	33:D8:63:PRO:HD3	2.05	0.86
33:D8:6:THR:HG22	33:D8:63:PRO:HD3	1.57	0.86
36:DB:65:C:H41	36:DB:109:C:H2'	1.40	0.86
56:DZ:53:ILE:HG23	56:DZ:71:VAL:CG2	2.04	0.86
1:AA:979:C:C3'	1:AA:980:C:H5''	2.04	0.86
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.38	0.86
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.39	0.86
35:BA:1899:G:H22	35:BA:1902:C:H41	1.17	0.86
35:BA:286:C:H2'	35:BA:287:C:H5''	1.55	0.86
39:DE:24:THR:HB	39:DE:186:GLY:HA2	1.55	0.86
41:DG:46:ALA:HB3	41:DG:82:LEU:CD1	2.04	0.86
46:DP:45:LEU:HD23	46:DP:46:LYS:N	1.89	0.86
41:BG:125:PHE:O	41:BG:128:ARG:HG2	1.75	0.86
35:BA:2415:G:O3'	46:BP:66:GLY:HA3	1.75	0.86
39:BE:111:ARG:HA	48:BR:2:ARG:CG	2.04	0.86
30:D5:2:ALA:HA	35:DA:2015:A:H1'	1.57	0.86
46:DP:101:VAL:HB	46:DP:107:LYS:HA	1.56	0.86
9:AI:79:LEU:HD11	9:AI:102:LEU:HA	1.56	0.86
40:BF:17:ARG:HG3	40:BF:17:ARG:HH11	1.41	0.86
41:BG:82:LEU:CD2	41:BG:87:PRO:HG3	2.05	0.86
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.76	0.86
46:DP:18:ARG:HH11	46:DP:18:ARG:HB3	1.39	0.86
23:AW:69:G:C2'	23:AW:70:G:H5''	2.06	0.86
35:BA:2523:G:H5'	35:BA:2523:G:H8	1.40	0.86
46:BP:47:ASP:HB3	46:BP:48:PRO:CA	2.05	0.86
35:BA:143:G:H1'	54:BX:37:THR:HG21	1.58	0.86
1:CA:32:A:H2'	1:CA:33:A:C8	2.11	0.86
40:DF:188:ARG:HA	46:DP:7:ARG:HD3	1.58	0.86
41:DG:82:LEU:HD22	41:DG:87:PRO:HG3	1.56	0.86
48:DR:24:GLN:HE22	48:DR:36:THR:HG21	1.38	0.86
53:DW:5:ALA:HB2	53:DW:54:ALA:HB2	1.58	0.86
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.41	0.86
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.57	0.86
52:BV:19:LYS:HG2	52:BV:94:LEU:HB2	1.55	0.86
54:BX:63:LYS:CE	54:BX:72:LYS:HE3	2.05	0.86
35:BA:2753:A:O2'	35:BA:2754:U:H5'	1.74	0.86
36:BB:65:C:H41	36:BB:109:C:H2'	1.41	0.86
1:CA:1028:C:H2'	1:CA:1029:C:H5'	1.58	0.86
46:DP:59:LEU:HA	46:DP:61:ARG:NH1	1.90	0.86
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.40	0.86
35:BA:2807:G:H3'	35:BA:2808:U:H5''	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:49:ILE:HD12	37:BC:49:ILE:H	1.39	0.86
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.40	0.86
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.58	0.86
35:DA:2134:A:H62	35:DA:2157:G:H1'	1.41	0.86
43:BI:79:ILE:HD13	43:BI:80:PRO:HD2	1.58	0.85
35:DA:2147:G:H2'	35:DA:2148:G:O4'	1.76	0.85
38:DD:26:LYS:HD3	38:DD:81:ALA:HB1	1.58	0.85
38:DD:26:LYS:NZ	38:DD:26:LYS:HB3	1.88	0.85
41:DG:66:GLN:NE2	41:DG:94:LEU:HD23	1.90	0.85
43:DI:79:ILE:HD13	43:DI:80:PRO:HD2	1.58	0.85
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.10	0.85
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.75	0.85
31:B6:13:CYS:O	31:B6:21:TYR:HA	1.76	0.85
35:BA:1301:A:O2'	35:BA:1302:A:H2'	1.74	0.85
54:BX:35:THR:O	54:BX:39:ILE:HG12	1.76	0.85
1:CA:979:C:C3'	1:CA:980:C:H5''	2.06	0.85
13:CM:123:ALA:HB2	22:CY:39:U:H4'	1.58	0.85
44:DN:25:ARG:CG	44:DN:25:ARG:HH11	1.88	0.85
13:AM:120:LYS:HE3	13:AM:120:LYS:HA	1.58	0.85
32:B7:47:ARG:CZ	54:BX:60:ARG:HH22	1.89	0.85
35:BA:847:U:H2'	35:BA:848:G:H5''	1.59	0.85
46:BP:50:ARG:O	46:BP:57:THR:HG22	1.76	0.85
29:D4:51:TYR:HE1	41:DG:5:VAL:HG12	1.38	0.85
35:BA:2147:G:H2'	35:BA:2148:G:O4'	1.77	0.85
50:BT:64:ARG:HD2	50:BT:73:GLU:HG2	1.55	0.85
53:BW:13:SER:HB3	53:BW:16:LYS:HG3	1.59	0.85
22:CY:64:A:H2'	22:CY:65:G:H8	1.40	0.85
35:BA:152:G:H1	35:BA:174:C:H42	1.20	0.85
35:DA:2523:G:H8	35:DA:2523:G:H5'	1.41	0.85
48:BR:38:VAL:HB	48:BR:39:PRO:HD3	1.56	0.85
1:AA:1432:G:OP1	50:BT:107:ASP:HB2	1.75	0.85
56:BZ:151:HIS:HA	56:BZ:171:ILE:HD12	1.56	0.85
1:CA:180:U:C2'	1:CA:181:G:H5''	2.06	0.85
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HG13	1.59	0.85
37:DC:49:ILE:HD12	37:DC:49:ILE:H	1.42	0.85
42:BH:46:GLU:HB2	42:BH:50:VAL:HA	1.56	0.85
35:BA:807:U:OP2	46:BP:39:LYS:HG3	1.76	0.85
56:BZ:144:LEU:HD12	56:BZ:174:VAL:CG2	2.07	0.85
56:BZ:125:LEU:HG	56:BZ:164:ALA:HB3	1.57	0.85
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.58	0.85
35:DA:2262:U:C2'	35:DA:2263:C:H5''	2.06	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:807:U:OP2	46:DP:39:LYS:HG3	1.77	0.85
53:DW:1:MET:HE2	53:DW:2:GLU:N	1.90	0.85
32:B7:9:ARG:HH12	35:BA:1309:G:H3'	1.41	0.85
38:BD:132:PRO:HG3	38:BD:190:TYR:CE1	2.12	0.85
43:BI:111:PRO:O	43:BI:112:LYS:HG3	1.77	0.85
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.39	0.85
35:DA:1301:A:O2'	35:DA:1302:A:H2'	1.77	0.85
35:DA:143:G:H1'	54:DX:37:THR:HG21	1.57	0.85
1:AA:137:C:H42	1:AA:226:G:H1	1.24	0.85
51:BU:92:ARG:HD2	52:BV:11:GLN:CD	1.97	0.85
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.41	0.85
22:CY:28:G:H1	22:CY:42:C:H42	0.86	0.85
35:DA:1899:G:H22	35:DA:1902:C:H41	1.20	0.85
52:DV:19:LYS:HZ3	52:DV:20:LEU:N	1.75	0.85
35:DA:152:G:H1	35:DA:174:C:H42	1.20	0.85
1:AA:1028:C:H2'	1:AA:1029:C:H5'	1.59	0.84
1:AA:939:G:H5''	7:AG:102:ARG:NH2	1.91	0.84
35:BA:1686:C:H6	35:BA:1686:C:H5'	1.41	0.84
38:BD:48:ARG:NH1	38:BD:48:ARG:HG3	1.91	0.84
39:BE:101:ARG:HH11	39:BE:169:ASN:ND2	1.75	0.84
13:CM:120:LYS:HE3	13:CM:120:LYS:HA	1.58	0.84
18:CR:40:LEU:HD12	18:CR:40:LEU:H	1.42	0.84
35:DA:1879:C:H2'	35:DA:1880:C:H5''	1.57	0.84
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	1.56	0.84
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.57	0.84
43:BI:133:HIS:HB2	43:BI:134:PRO:CD	2.06	0.84
1:CA:939:G:H5''	7:CG:102:ARG:NH2	1.91	0.84
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.58	0.84
35:DA:2189:U:H2'	35:DA:2190:G:H5''	1.60	0.84
40:DF:17:ARG:HG3	40:DF:17:ARG:HH11	1.41	0.84
41:DG:128:ARG:C	41:DG:130:ASN:H	1.76	0.84
49:DS:58:LEU:HD23	49:DS:65:VAL:HG13	1.59	0.84
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.59	0.84
41:BG:76:SER:HB3	41:BG:84:LYS:H	1.41	0.84
52:BV:18:LEU:HD13	52:BV:19:LYS:H	1.42	0.84
1:CA:585:G:H4'	12:CL:8:ASN:ND2	1.91	0.84
35:DA:1403:C:H5''	35:DA:1471:A:H1'	1.57	0.84
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.76	0.84
10:AJ:30:SER:HA	10:AJ:80:LYS:HD3	1.59	0.84
37:BC:36:LYS:HG3	37:BC:37:PHE:H	1.42	0.84
40:BF:123:LEU:HD12	40:BF:124:LEU:H	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2334:G:N2	49:BS:18:ILE:HD11	1.93	0.84
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.58	0.84
1:CA:617:G:H4'	16:CP:44:THR:HB	1.58	0.84
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.58	0.84
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.58	0.84
23:AW:38:A:C3'	23:AW:39:U:H5''	2.08	0.84
27:D2:65:ASN:HB3	27:D2:69:ARG:NH2	1.92	0.84
1:AA:353:A:H5'	1:AA:353:A:H8	1.43	0.84
6:AF:69:GLU:HG2	6:AF:70:ASP:H	1.42	0.84
37:BC:58:VAL:HG21	37:BC:166:ASP:H	1.40	0.84
41:BG:121:ASN:ND2	41:BG:123:ASN:H	1.75	0.84
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.39	0.84
35:DA:2068:U:N3	35:DA:2430:A:H2	1.76	0.84
41:DG:97:ASP:O	41:DG:101:ILE:HG22	1.77	0.84
1:AA:180:U:C2'	1:AA:181:G:H5''	2.06	0.84
1:AA:579:G:H5'	1:AA:728:A:H1'	1.59	0.84
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.58	0.84
22:AY:25:C:H2'	22:AY:26:A:H8	1.40	0.84
6:CF:69:GLU:HG2	6:CF:70:ASP:H	1.42	0.84
46:DP:58:THR:O	46:DP:61:ARG:NE	2.11	0.84
47:DQ:43:THR:OG1	47:DQ:46:GLN:HG3	1.76	0.84
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.60	0.84
23:AW:20:U:H2'	23:AW:21:A:H4'	1.58	0.84
45:BO:85:VAL:HG11	45:BO:114:ILE:HD12	1.59	0.84
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.59	0.84
43:DI:92:VAL:HG11	43:DI:120:ILE:HD12	1.60	0.84
46:DP:48:PRO:HG2	46:DP:49:ARG:H	1.41	0.84
52:DV:18:LEU:HD13	52:DV:19:LYS:H	1.43	0.84
35:DA:486:C:H4'	53:DW:60:ASN:HD21	1.42	0.84
56:DZ:157:LEU:HD13	56:DZ:161:VAL:HG12	1.59	0.84
43:BI:8:PRO:HB3	43:BI:14:ASP:H	1.42	0.84
56:BZ:53:ILE:HG12	56:BZ:53:ILE:O	1.78	0.84
30:D5:55:ARG:O	30:D5:56:LYS:HB3	1.76	0.84
35:DA:2522:U:H2'	35:DA:2523:G:H5''	1.60	0.84
43:DI:88:ILE:HG22	43:DI:89:TYR:N	1.93	0.84
48:DR:10:LEU:HB3	48:DR:17:ARG:NE	1.93	0.84
36:BB:114:C:O2'	49:BS:46:VAL:HG13	1.77	0.83
39:BE:9:VAL:HG22	39:BE:25:VAL:HB	1.60	0.83
46:BP:101:VAL:HB	46:BP:107:LYS:HA	1.59	0.83
35:BA:2870:C:H5''	48:BR:65:LEU:HD21	1.58	0.83
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:50:GLU:HG3	20:CT:51:GLU:N	1.93	0.83
32:D7:9:ARG:HH12	35:DA:1309:G:H3'	1.43	0.83
35:DA:271(S):G:H2'	35:DA:271(T):C:H5''	1.58	0.83
47:DQ:141:GLN:NE2	56:DZ:72:ARG:HA	1.92	0.83
27:B2:3:LEU:HD22	27:B2:7:ARG:NH1	1.93	0.83
48:BR:10:LEU:HB3	48:BR:17:ARG:NE	1.93	0.83
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.57	0.83
32:D7:47:ARG:CZ	54:DX:60:ARG:HH22	1.91	0.83
38:DD:26:LYS:HE2	38:DD:82:ILE:H	1.43	0.83
35:DA:1654:A:OP1	48:DR:3:HIS:HB2	1.78	0.83
51:DU:55:ARG:HA	51:DU:58:ARG:HG3	1.60	0.83
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.60	0.83
35:BA:2522:U:H2'	35:BA:2523:G:H5''	1.60	0.83
47:BQ:56:ARG:HE	47:BQ:56:ARG:HA	1.42	0.83
29:D4:51:TYR:CE1	41:DG:5:VAL:HG12	2.13	0.83
35:DA:2870:C:H5''	48:DR:65:LEU:HD21	1.60	0.83
1:AA:106:C:H2'	1:AA:107:G:H8	1.43	0.83
1:AA:192:U:H2'	1:AA:193:C:H6	1.43	0.83
18:AR:36:ASN:ND2	18:AR:39:VAL:HG21	1.91	0.83
23:AW:16:U:C5	23:AW:18:G:H3'	2.14	0.83
41:BG:76:SER:CB	41:BG:83:ARG:HB2	2.08	0.83
52:BV:99:ILE:H	52:BV:99:ILE:HD13	1.44	0.83
53:BW:1:MET:HE2	53:BW:2:GLU:N	1.91	0.83
35:DA:1022:G:H22	35:DA:1142(A):A:H2	1.26	0.83
43:DI:66:GLU:O	43:DI:70:GLU:HG2	1.78	0.83
44:DN:3:THR:O	44:DN:5:VAL:HG12	1.79	0.83
48:DR:38:VAL:HB	48:DR:39:PRO:HD3	1.57	0.83
56:DZ:93:ASP:HA	56:DZ:130:PRO:HG2	1.61	0.83
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	1.93	0.83
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.59	0.83
20:AT:50:GLU:HG3	20:AT:51:GLU:N	1.92	0.83
39:BE:77:ILE:HG22	39:BE:78:LEU:N	1.92	0.83
35:DA:1278:A:OP1	48:DR:36:THR:HG22	1.79	0.83
35:DA:1946:U:H2'	35:DA:1947:C:H6	1.42	0.83
35:DA:271(A):A:H5'	35:DA:271(B):C:OP2	1.79	0.83
35:DA:2787:C:H2'	35:DA:2787:C:O2	1.78	0.83
35:DA:2807:G:H3'	35:DA:2808:U:H5''	1.58	0.83
46:DP:111:ARG:NH1	46:DP:149:GLU:HG3	1.92	0.83
46:DP:50:ARG:O	46:DP:57:THR:HG22	1.79	0.83
55:DY:87:LYS:O	55:DY:88:LYS:HB2	1.77	0.83
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.43	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:56:C:H2'	23:AW:57:G:O4'	1.79	0.83
35:BA:694:U:C2'	35:BA:695:G:H5''	2.05	0.83
38:BD:186:HIS:HD2	38:BD:188:GLU:H	1.27	0.83
22:CV:77:PHA:H	22:CY:77:PHA:H2	1.26	0.83
22:CY:68:C:H2'	22:CY:69:G:H8	1.43	0.83
26:D1:51:VAL:HG21	26:D1:74:VAL:HG21	1.60	0.83
35:DA:1318:C:H3'	35:DA:1319:G:H5''	1.60	0.83
35:DA:1686:C:H6	35:DA:1686:C:H5'	1.41	0.83
49:DS:54:LEU:HA	49:DS:57:LYS:O	1.78	0.83
10:AJ:32:ALA:HB1	10:AJ:75:ILE:HG13	1.58	0.83
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.61	0.83
35:BA:2134:A:H62	35:BA:2157:G:H1'	1.41	0.83
39:BE:101:ARG:HH11	39:BE:169:ASN:HD22	1.26	0.83
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.14	0.83
35:DA:1528(A):A:H3'	35:DA:1529:G:H5''	1.61	0.83
35:DA:2863:C:C2'	35:DA:2864:G:H5''	2.08	0.83
1:AA:32:A:H2'	1:AA:33:A:C8	2.13	0.83
35:BA:1485:G:H2'	35:BA:1486:A:C8	2.13	0.83
39:BE:116:VAL:O	39:BE:117:MET:HB3	1.77	0.83
41:BG:97:ASP:O	41:BG:101:ILE:HG22	1.79	0.83
53:BW:1:MET:CE	53:BW:2:GLU:H	1.90	0.83
35:DA:1846:G:H5'	35:DA:1847:A:OP2	1.79	0.83
22:AY:28:G:H1	22:AY:42:C:N4	1.77	0.83
38:DD:132:PRO:HG3	38:DD:190:TYR:CE1	2.14	0.83
4:AD:32:ALA:O	4:AD:36:ARG:HG3	1.79	0.83
1:AA:585:G:H4'	12:AL:8:ASN:ND2	1.94	0.83
27:B2:16:LEU:HD22	27:B2:20:GLU:HG2	1.60	0.83
35:BA:2630:G:H1'	35:BA:2894:G:H1'	1.61	0.83
52:BV:19:LYS:HG3	52:BV:20:LEU:O	1.79	0.83
56:BZ:33:LEU:HD23	56:BZ:90:VAL:HG21	1.60	0.83
30:D5:35:GLU:O	30:D5:36:CYS:HB2	1.78	0.83
46:DP:13:ASN:C	46:DP:13:ASN:HD22	1.81	0.83
51:DU:27:LEU:HD23	51:DU:30:LYS:HB2	1.61	0.83
55:DY:31:LEU:HB2	55:DY:32:PRO:HA	1.59	0.83
56:DZ:151:HIS:HA	56:DZ:171:ILE:HG13	1.61	0.83
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	1.93	0.82
8:AH:122:ARG:HB2	8:AH:122:ARG:HH11	1.44	0.82
55:BY:14:LEU:CD1	55:BY:15:VAL:H	1.92	0.82
3:CC:71:ALA:HB1	3:CC:109:PRO:HG3	1.61	0.82
6:CF:37:VAL:HG13	6:CF:65:VAL:HG12	1.60	0.82
35:DA:2753:A:O2'	35:DA:2754:U:H5'	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:14:LEU:CD1	55:DY:15:VAL:H	1.91	0.82
2:AB:187:LEU:HD22	2:AB:201:ILE:O	1.79	0.82
30:B5:55:ARG:O	30:B5:56:LYS:HB3	1.76	0.82
31:B6:15:GLU:CG	31:B6:18:ARG:HE	1.90	0.82
1:CA:1505:G:H5''	1:CA:1506:U:H5''	1.61	0.82
38:DD:85:ASP:HB2	38:DD:92:ILE:HD12	1.60	0.82
42:DH:47:GLU:CG	42:DH:48:GLY:H	1.92	0.82
56:DZ:97:GLU:HB3	56:DZ:125:LEU:HD11	1.62	0.82
31:B6:16:CYS:SG	31:B6:48:VAL:HG13	2.19	0.82
35:BA:1278:A:OP1	48:BR:36:THR:HG22	1.78	0.82
35:BA:2068:U:N3	35:BA:2430:A:H2	1.76	0.82
49:BS:58:LEU:HD23	49:BS:65:VAL:HG13	1.59	0.82
51:BU:55:ARG:HA	51:BU:58:ARG:HG3	1.61	0.82
22:CV:5:G:H2'	22:CV:6:G:O4'	1.79	0.82
35:DA:2392:A:H2	35:DA:2424:C:H42	1.26	0.82
47:DQ:140:ALA:HB1	56:DZ:99:TYR:HB2	1.60	0.82
35:DA:2334:G:N2	49:DS:18:ILE:HD11	1.91	0.82
31:B6:20:ASN:ND2	31:B6:21:TYR:H	1.76	0.82
31:B6:47:THR:HG22	31:B6:48:VAL:H	1.44	0.82
35:BA:1528(A):A:H3'	35:BA:1529:G:H5''	1.59	0.82
35:BA:2262:U:C2'	35:BA:2263:C:H5''	2.08	0.82
35:BA:2267:A:H5''	35:BA:2268:A:H5'	1.58	0.82
39:BE:24:THR:CG2	39:BE:184:VAL:HG23	2.08	0.82
1:CA:1146:A:H2'	1:CA:1147:C:C5'	2.08	0.82
35:DA:674:G:H1'	40:DF:74:ARG:HD3	1.62	0.82
1:AA:100:C:H2'	1:AA:101:A:C8	2.15	0.82
35:BA:2571:C:C5'	35:BA:2572:A:H5''	2.09	0.82
35:BA:486:C:H4'	53:BW:60:ASN:HD21	1.44	0.82
35:BA:71:A:H8	35:BA:71:A:H5'	1.45	0.82
35:BA:631:A:OP1	46:BP:64:LYS:HE2	1.78	0.82
39:BE:27:LEU:HD23	50:BT:1:MET:HE1	1.59	0.82
35:DA:2630:G:H1'	35:DA:2894:G:H1'	1.62	0.82
10:AJ:13:HIS:HB3	10:AJ:68:HIS:CE1	2.14	0.82
35:BA:2150:U:H2'	35:BA:2151:G:C8	2.14	0.82
38:BD:155:LEU:HD23	38:BD:177:LEU:HD22	1.61	0.82
51:BU:112:ARG:HG2	51:BU:112:ARG:HH11	1.44	0.82
10:CJ:13:HIS:HB3	10:CJ:68:HIS:CE1	2.15	0.82
12:CL:8:ASN:HD22	17:CQ:34:LYS:HE2	1.45	0.82
35:DA:2150:U:H2'	35:DA:2151:G:C8	2.14	0.82
43:DI:111:PRO:O	43:DI:112:LYS:HG3	1.80	0.82
1:AA:1333:A:H2'	1:AA:1334:G:O4'	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:8:ASN:HD22	17:AQ:34:LYS:HE2	1.43	0.82
35:BA:2787:C:O2	35:BA:2787:C:H2'	1.79	0.82
46:BP:111:ARG:NH1	46:BP:149:GLU:HG3	1.93	0.82
51:BU:27:LEU:HD23	51:BU:30:LYS:HB2	1.61	0.82
56:BZ:93:ASP:HA	56:BZ:130:PRO:HG3	1.61	0.82
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.45	0.82
19:CS:20:LEU:HA	19:CS:23:ASN:ND2	1.95	0.82
35:DA:1221:C:H6	35:DA:1221:C:H5'	1.45	0.82
51:DU:92:ARG:HD2	52:DV:11:GLN:CD	2.00	0.82
1:AA:6:G:H4'	1:AA:298:A:H4'	1.61	0.82
5:AE:12:LEU:HD22	5:AE:13:ILE:N	1.95	0.82
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.80	0.82
41:BG:46:ALA:CB	41:BG:82:LEU:HD11	2.09	0.82
1:CA:174:C:H2'	1:CA:175:C:H6	1.44	0.82
4:CD:31:CYS:C	4:CD:33:MET:H	1.83	0.82
4:AD:170:VAL:HG22	4:AD:171:GLY:H	1.44	0.82
35:BA:674:G:H1'	40:BF:74:ARG:HD3	1.62	0.82
50:BT:115:ARG:HA	50:BT:115:ARG:HE	1.45	0.82
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.61	0.82
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.62	0.82
30:D5:4:HIS:HB3	30:D5:5:PRO:CD	2.10	0.82
42:DH:89:ILE:HD13	42:DH:90:LYS:H	1.45	0.82
1:AA:174:C:H2'	1:AA:175:C:H6	1.44	0.82
22:AV:41:C:C3'	22:AV:42:C:H5''	2.09	0.82
42:BH:20:ALA:HB3	42:BH:23:ARG:HB2	1.59	0.82
6:CF:63:TYR:O	6:CF:65:VAL:HG13	1.80	0.82
12:CL:47:LYS:CB	12:CL:48:PRO:HD3	2.10	0.82
26:D1:44:PRO:O	26:D1:46:LEU:HD13	1.80	0.82
48:DR:2:ARG:HH11	48:DR:5:LYS:HE2	1.43	0.82
50:DT:115:ARG:HA	50:DT:115:ARG:HE	1.44	0.82
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.62	0.81
1:AA:389:A:H2'	1:AA:390:C:H5'	1.61	0.81
6:AF:37:VAL:HG13	6:AF:65:VAL:HG12	1.62	0.81
12:AL:25:PRO:C	12:AL:27:LEU:H	1.81	0.81
15:AO:47:LYS:HD3	15:AO:47:LYS:H	1.42	0.81
35:BA:1654:A:OP1	48:BR:3:HIS:HB2	1.80	0.81
41:BG:164:GLU:OE1	41:BG:164:GLU:N	2.12	0.81
50:BT:53:ARG:O	50:BT:53:ARG:HG2	1.80	0.81
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.15	0.81
35:DA:1485:G:H2'	35:DA:1486:A:C8	2.14	0.81
39:DE:77:ILE:HG22	39:DE:78:LEU:N	1.94	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:56:ARG:HA	47:DQ:56:ARG:HE	1.44	0.81
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	1.95	0.81
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.62	0.81
38:BD:26:LYS:HE2	38:BD:82:ILE:H	1.42	0.81
39:BE:117:MET:HA	39:BE:122:PHE:H	1.42	0.81
46:BP:59:LEU:HA	46:BP:61:ARG:NH1	1.94	0.81
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	1.95	0.81
35:DA:631:A:OP1	46:DP:64:LYS:HE2	1.80	0.81
37:DC:36:LYS:HG3	37:DC:37:PHE:H	1.43	0.81
39:DE:143:ASN:HB2	39:DE:147:PRO:HD2	1.62	0.81
54:DX:27:THR:HB	54:DX:80:ILE:HB	1.62	0.81
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.46	0.81
19:AS:6:LYS:HG2	19:AS:7:LYS:CD	2.10	0.81
35:BA:2189:U:H2'	35:BA:2190:G:H5''	1.59	0.81
46:BP:45:LEU:HD23	46:BP:46:LYS:H	1.45	0.81
53:BW:73:ALA:HB3	53:BW:106:ILE:HD11	1.61	0.81
33:D8:43:GLN:C	33:D8:44:LYS:HD2	2.01	0.81
43:DI:120:ILE:HG22	43:DI:121:LYS:N	1.95	0.81
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.42	0.81
35:BA:2555:U:H2'	35:BA:2556:C:H5'	1.60	0.81
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.61	0.81
15:CO:47:LYS:H	15:CO:47:LYS:HD3	1.44	0.81
38:DD:28:GLU:H	38:DD:29:PRO:HD2	1.46	0.81
50:DT:125:ARG:NH1	50:DT:125:ARG:HA	1.95	0.81
53:DW:1:MET:CE	53:DW:2:GLU:H	1.92	0.81
4:AD:30:LYS:C	4:AD:32:ALA:H	1.83	0.81
8:AH:122:ARG:NH1	8:AH:122:ARG:HB2	1.96	0.81
26:B1:64:ALA:HA	26:B1:67:ILE:HG13	1.62	0.81
35:BA:571:A:H5'	35:BA:2030:A:N6	1.92	0.81
38:BD:35:LYS:N	38:BD:36:PRO:HD2	1.95	0.81
1:CA:579:G:H5'	1:CA:728:A:H1'	1.63	0.81
2:CB:187:LEU:HD22	2:CB:201:ILE:O	1.80	0.81
43:DI:8:PRO:HB3	43:DI:14:ASP:H	1.43	0.81
52:DV:99:ILE:H	52:DV:99:ILE:HD13	1.45	0.81
39:BE:45:THR:HG22	39:BE:83:ASP:HA	1.62	0.81
1:CA:979:C:H3'	1:CA:980:C:C5'	2.10	0.81
35:DA:847:U:H2'	35:DA:848:G:H5''	1.62	0.81
41:DG:47:LYS:NZ	41:DG:82:LEU:HD12	1.94	0.81
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.45	0.81
6:AF:63:TYR:O	6:AF:65:VAL:HG13	1.81	0.81
16:AP:8:ARG:HG2	16:AP:9:PHE:N	1.93	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1318:C:H3'	35:BA:1319:G:H5''	1.60	0.81
43:BI:66:GLU:O	43:BI:70:GLU:HG2	1.80	0.81
46:BP:83:VAL:HG11	46:BP:112:LEU:HD21	1.63	0.81
55:BY:87:LYS:O	55:BY:88:LYS:HB2	1.79	0.81
56:BZ:31:ARG:HB3	56:BZ:31:ARG:HH11	1.45	0.81
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.61	0.81
1:AA:1146:A:H2'	1:AA:1147:C:C5'	2.10	0.81
18:AR:40:LEU:H	18:AR:40:LEU:HD12	1.43	0.81
38:BD:85:ASP:HB2	38:BD:92:ILE:HD12	1.61	0.81
55:BY:27:VAL:CA	55:BY:28:LYS:HZ2	1.93	0.81
39:DE:119:ARG:HG2	39:DE:160:TYR:HB2	1.62	0.81
13:AM:118:ALA:HB3	22:AV:29:G:H5''	1.60	0.81
22:AY:16:U:H3'	22:AY:17:C:H5'	1.61	0.81
35:BA:1286:A:H2'	35:BA:1288:U:OP2	1.80	0.81
35:BA:2863:C:C2'	35:BA:2864:G:H5''	2.10	0.81
42:BH:48:GLY:O	42:BH:49:VAL:HG13	1.81	0.81
4:CD:32:ALA:O	4:CD:36:ARG:HG3	1.80	0.81
38:DD:186:HIS:HD2	38:DD:188:GLU:H	1.28	0.81
38:DD:33:LEU:HD22	38:DD:34:VAL:H	1.46	0.81
1:AA:511:C:H1'	4:AD:43:HIS:HE2	1.45	0.81
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.62	0.81
39:BE:119:ARG:HG2	39:BE:160:TYR:HB2	1.61	0.81
40:BF:188:ARG:HA	46:BP:7:ARG:HD3	1.60	0.81
48:BR:2:ARG:HG2	48:BR:5:LYS:HZ1	1.46	0.81
1:CA:389:A:H2'	1:CA:390:C:H5'	1.60	0.81
19:CS:6:LYS:HG2	19:CS:7:LYS:CD	2.10	0.81
41:DG:121:ASN:HD22	41:DG:122:PRO:HD2	1.46	0.81
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.63	0.81
25:B0:36:ILE:HD13	25:B0:58:THR:HG23	1.62	0.81
35:BA:1022:G:H22	35:BA:1142(A):A:H2	1.28	0.81
38:BD:33:LEU:HD22	38:BD:34:VAL:H	1.44	0.81
49:BS:54:LEU:HA	49:BS:57:LYS:O	1.80	0.81
4:CD:30:LYS:C	4:CD:32:ALA:H	1.82	0.81
6:CF:99:ALA:HB1	18:CR:23:LYS:HZ2	1.45	0.81
35:DA:1040:C:H42	35:DA:1115:G:H1	1.28	0.81
39:DE:101:ARG:HH11	39:DE:169:ASN:ND2	1.78	0.81
40:DF:2:LYS:NZ	40:DF:25:PRO:HB2	1.96	0.81
48:DR:2:ARG:HG2	48:DR:5:LYS:HZ1	1.44	0.81
42:BH:47:GLU:CG	42:BH:48:GLY:H	1.93	0.80
46:BP:38:GLN:HG3	46:BP:39:LYS:H	1.45	0.80
16:CP:8:ARG:HG2	16:CP:9:PHE:N	1.94	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2245:U:H5'	35:DA:2246:G:H5'	1.63	0.80
27:B2:2:LYS:HB3	35:BA:97:C:H5''	1.63	0.80
40:BF:66:PRO:O	40:BF:67:GLN:HB3	1.80	0.80
54:BX:54:VAL:HG22	54:BX:81:VAL:HG12	1.62	0.80
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	1.95	0.80
26:D1:3:LYS:HG3	26:D1:4:VAL:H	1.46	0.80
35:DA:1286:A:H2'	35:DA:1288:U:OP2	1.80	0.80
56:DZ:137:ILE:HG12	56:DZ:138:GLU:H	1.46	0.80
1:AA:80:G:H3'	1:AA:81:U:H5'	1.63	0.80
13:AM:76:ALA:HA	13:AM:79:LYS:HG3	1.63	0.80
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.61	0.80
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.64	0.80
35:BA:1946:U:H2'	35:BA:1947:C:H6	1.45	0.80
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.64	0.80
39:DE:9:VAL:HG22	39:DE:25:VAL:HB	1.63	0.80
40:DF:66:PRO:O	40:DF:67:GLN:HB3	1.80	0.80
42:DH:20:ALA:HB3	42:DH:23:ARG:HB2	1.63	0.80
49:DS:89:ARG:HD2	49:DS:92:TYR:HA	1.63	0.80
50:DT:27:THR:HG23	50:DT:28:VAL:H	1.47	0.80
5:AE:91:LEU:HD13	5:AE:120:THR:HG22	1.63	0.80
31:B6:34:LEU:HD22	31:B6:36:LEU:HD22	1.64	0.80
35:BA:1040:C:H42	35:BA:1115:G:H1	1.27	0.80
35:BA:1846:G:H5'	35:BA:1847:A:OP2	1.82	0.80
35:BA:8:A:H2'	35:BA:9:U:C6	2.16	0.80
45:BO:17:ARG:HD3	45:BO:47:ILE:HD13	1.64	0.80
35:BA:910:A:C5	47:BQ:13:GLN:HG3	2.15	0.80
55:BY:7:VAL:HG21	55:BY:8:LYS:HZ3	1.46	0.80
38:DD:155:LEU:HD23	38:DD:177:LEU:HD22	1.64	0.80
39:DE:24:THR:CG2	39:DE:184:VAL:HG23	2.10	0.80
43:DI:130:TYR:HD1	43:DI:131:LYS:H	1.26	0.80
44:DN:62:VAL:HG22	44:DN:66:LYS:HD2	1.63	0.80
22:AY:51:U:H3	22:AY:63:G:H1	1.30	0.80
35:BA:271(S):G:H2'	35:BA:271(T):C:H5''	1.62	0.80
40:BF:36:VAL:HG11	40:BF:183:VAL:CG1	2.10	0.80
50:BT:23:ARG:O	50:BT:25:GLY:N	2.13	0.80
1:CA:106:C:H2'	1:CA:107:G:H8	1.43	0.80
23:CW:16:U:C5	23:CW:18:G:H3'	2.17	0.80
35:DA:481:G:H1'	35:DA:506:G:N2	1.97	0.80
39:DE:117:MET:HA	39:DE:122:PHE:H	1.47	0.80
19:AS:20:LEU:HA	19:AS:23:ASN:ND2	1.96	0.80
41:BG:161:THR:HG22	41:BG:163:ALA:N	1.97	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:27:THR:HG23	50:BT:28:VAL:H	1.45	0.80
50:BT:28:VAL:CG2	50:BT:46:GLU:HG3	2.10	0.80
48:BR:103:ARG:HD2	53:BW:40:ASN:HD22	1.46	0.80
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.16	0.80
1:CA:353:A:H5'	1:CA:353:A:H8	1.45	0.80
19:CS:20:LEU:HA	19:CS:23:ASN:HD21	1.46	0.80
43:DI:120:ILE:HG22	43:DI:121:LYS:H	1.47	0.80
52:DV:28:GLU:HB3	52:DV:29:PRO:HD2	1.64	0.80
1:AA:1165:C:H2'	1:AA:1166:G:H8	1.47	0.80
30:B5:35:GLU:O	30:B5:36:CYS:HB2	1.80	0.80
35:BA:1332:G:N2	35:BA:1609:A:O2'	2.15	0.80
38:BD:147:LEU:HD13	38:BD:155:LEU:HD11	1.64	0.80
38:BD:28:GLU:H	38:BD:29:PRO:HD2	1.45	0.80
42:BH:47:GLU:HG2	42:BH:48:GLY:N	1.95	0.80
43:BI:130:TYR:HD1	43:BI:131:LYS:H	1.26	0.80
1:CA:1333:A:H2'	1:CA:1334:G:O4'	1.82	0.80
31:D6:16:CYS:SG	31:D6:48:VAL:HG13	2.22	0.80
35:DA:1654:A:P	48:DR:3:HIS:HB2	2.21	0.80
55:DY:16:ALA:H	55:DY:22:GLY:H	1.27	0.80
7:AG:16:LEU:HD13	9:AI:42:ARG:HA	1.63	0.80
35:BA:1174:A:C5'	35:BA:1175:U:H5'	2.10	0.80
35:BA:2468:G:H22	35:BA:2481:G:H2'	1.46	0.80
50:BT:125:ARG:NH1	50:BT:125:ARG:HA	1.97	0.80
56:BZ:150:LEU:HD23	56:BZ:154:ASP:OD1	1.82	0.80
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.64	0.80
31:D6:47:THR:HG22	31:D6:48:VAL:H	1.47	0.80
38:DD:44:ASN:HB2	38:DD:48:ARG:O	1.82	0.80
45:DO:85:VAL:HG11	45:DO:114:ILE:HD12	1.64	0.80
23:AW:2:C:H42	23:AW:71:G:H1	1.30	0.80
38:BD:32:SER:O	38:BD:36:PRO:HG3	1.81	0.80
44:BN:23:LEU:H	44:BN:23:LEU:HD23	1.47	0.80
55:BY:17:SER:CA	55:BY:71:LYS:HE2	2.11	0.80
1:CA:100:C:H2'	1:CA:101:A:C8	2.17	0.80
36:DB:42:C:H4'	41:DG:67:LYS:O	1.82	0.80
46:DP:85:LEU:HD23	46:DP:85:LEU:H	1.45	0.80
55:DY:87:LYS:HG3	55:DY:88:LYS:H	1.46	0.80
3:AC:170:GLN:HG2	3:AC:171:GLY:H	1.47	0.80
35:BA:2036:C:H5'	35:BA:2036:C:H6	1.45	0.80
38:BD:44:ASN:HB2	38:BD:48:ARG:O	1.80	0.80
45:BO:7:TYR:HE1	45:BO:20:MET:HE3	1.45	0.80
50:BT:28:VAL:HG22	50:BT:47:GLY:H	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.46	0.80
1:CA:6:G:H4'	1:CA:298:A:H4'	1.63	0.80
3:CC:26:LYS:HG3	3:CC:27:LYS:H	1.47	0.80
5:CE:91:LEU:HD13	5:CE:120:THR:HG22	1.64	0.80
55:DY:17:SER:HB2	55:DY:71:LYS:HE2	1.63	0.80
27:B2:13:ALA:HA	27:B2:16:LEU:HD12	1.64	0.79
38:BD:145:VAL:HG12	38:BD:146:GLU:O	1.83	0.79
54:BX:12:VAL:HG22	54:BX:27:THR:O	1.81	0.79
35:DA:1024:G:H3'	35:DA:1025:G:H5''	1.64	0.79
39:DE:101:ARG:HH11	39:DE:169:ASN:HD22	1.30	0.79
44:DN:15:LEU:HB2	44:DN:134:ARG:HB2	1.64	0.79
55:DY:17:SER:CA	55:DY:71:LYS:HE2	2.12	0.79
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.63	0.79
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.12	0.79
35:BA:1484:G:C3'	35:BA:1485:G:H5''	2.12	0.79
35:BA:365:C:H6	35:BA:365:C:H5'	1.47	0.79
52:BV:46:VAL:HG13	52:BV:47:VAL:N	1.97	0.79
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	1.96	0.79
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.83	0.79
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.63	0.79
31:D6:15:GLU:CG	31:D6:18:ARG:HE	1.94	0.79
35:DA:1484:G:C3'	35:DA:1485:G:H5''	2.13	0.79
31:D6:45:LYS:HZ1	35:DA:2370:G:H21	1.28	0.79
39:DE:45:THR:HG22	39:DE:83:ASP:HA	1.62	0.79
48:DR:103:ARG:HD2	53:DW:40:ASN:HD22	1.43	0.79
25:B0:41:ARG:H	25:B0:41:ARG:HD2	1.44	0.79
35:BA:1050:A:H2'	35:BA:1051:G:H8	1.47	0.79
35:BA:2287:A:N6	35:BA:2344:U:H3	1.79	0.79
41:BG:141:PHE:HB3	41:BG:142:PRO:HD2	1.63	0.79
46:BP:58:THR:O	46:BP:61:ARG:NE	2.15	0.79
50:BT:51:ARG:HG3	50:BT:98:LYS:HE3	1.64	0.79
55:BY:87:LYS:HG3	55:BY:88:LYS:H	1.46	0.79
56:BZ:165:VAL:HG12	56:BZ:166:SER:H	1.48	0.79
1:CA:511:C:H1'	4:CD:43:HIS:HE2	1.45	0.79
1:CA:80:G:H3'	1:CA:81:U:H5'	1.63	0.79
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.62	0.79
23:CW:38:A:H3'	23:CW:39:U:H5''	1.63	0.79
39:DE:116:VAL:O	39:DE:117:MET:HB3	1.81	0.79
46:DP:45:LEU:HD23	46:DP:46:LYS:H	1.47	0.79
35:DA:910:A:C5	47:DQ:13:GLN:HG3	2.16	0.79
53:DW:13:SER:HB3	53:DW:16:LYS:HG3	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1439:C:H42	1:AA:1462:G:H1	1.30	0.79
40:BF:2:LYS:HZ1	40:BF:25:PRO:HB2	1.47	0.79
56:BZ:7:ALA:O	56:BZ:62:PRO:HD3	1.83	0.79
1:CA:192:U:H2'	1:CA:193:C:H6	1.45	0.79
27:D2:64:LEU:O	27:D2:68:ARG:HG2	1.81	0.79
35:DA:1050:A:H2'	35:DA:1051:G:H8	1.47	0.79
35:DA:1174:A:C5'	35:DA:1175:U:H5'	2.11	0.79
40:BF:2:LYS:NZ	40:BF:25:PRO:HB2	1.98	0.79
54:BX:27:THR:HB	54:BX:80:ILE:HB	1.63	0.79
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.46	0.79
12:CL:8:ASN:ND2	17:CQ:34:LYS:HE2	1.97	0.79
31:D6:34:LEU:HD22	31:D6:36:LEU:HD22	1.64	0.79
35:DA:676:A:H2	35:DA:802:A:H61	1.31	0.79
39:DE:100:GLU:O	39:DE:172:VAL:HG23	1.83	0.79
54:DX:12:VAL:HG22	54:DX:27:THR:O	1.82	0.79
4:AD:31:CYS:C	4:AD:33:MET:H	1.83	0.79
1:AA:1125:U:O4	10:AJ:5:ARG:HD3	1.83	0.79
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.17	0.79
38:BD:130:ALA:C	38:BD:131:LEU:HD12	2.03	0.79
49:BS:89:ARG:HD2	49:BS:92:TYR:HA	1.65	0.79
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	1.80	0.79
35:DA:141:A:H8	35:DA:1408:C:O2'	1.65	0.79
35:DA:1899:G:O2'	35:DA:1900:A:H5''	1.83	0.79
50:DT:28:VAL:CG2	50:DT:46:GLU:HG3	2.10	0.79
54:DX:29:TRP:CZ3	54:DX:78:LYS:HB3	2.17	0.79
56:DZ:108:PRO:HG3	56:DZ:117:LEU:HD22	1.63	0.79
6:AF:39:LYS:HD2	6:AF:62:TRP:HZ3	1.47	0.79
26:B1:53:VAL:HG22	26:B1:74:VAL:HG13	1.64	0.79
40:BF:132:VAL:HG22	40:BF:133:ASN:N	1.95	0.79
3:CC:76:VAL:HG23	3:CC:77:ILE:N	1.98	0.79
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.47	0.79
7:CG:16:LEU:HD13	9:CI:42:ARG:HA	1.65	0.79
25:D0:36:ILE:HD13	25:D0:58:THR:HG23	1.64	0.79
38:DD:32:SER:O	38:DD:36:PRO:HG3	1.82	0.79
55:DY:31:LEU:HD22	55:DY:31:LEU:N	1.98	0.79
2:AB:223:ILE:HG22	2:AB:226:ARG:HH21	1.48	0.79
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.41	0.79
39:BE:131:ALA:O	39:BE:133:LYS:N	2.15	0.79
39:BE:143:ASN:HB2	39:BE:147:PRO:HD2	1.64	0.79
43:BI:88:ILE:HG22	43:BI:89:TYR:N	1.96	0.79
55:BY:52:SER:O	55:BY:54:LYS:N	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.47	0.79
2:CB:223:ILE:HG22	2:CB:226:ARG:HH21	1.47	0.79
13:CM:76:ALA:HA	13:CM:79:LYS:HG3	1.65	0.79
42:DH:89:ILE:CD1	42:DH:90:LYS:H	1.96	0.79
1:AA:1030:C:C2'	1:AA:1030(A):G:H5'	2.13	0.79
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.12	0.79
12:CL:25:PRO:C	12:CL:27:LEU:H	1.82	0.79
28:D3:31:LEU:HD23	28:D3:32:GLN:HG2	1.65	0.79
35:DA:1532:C:O2	35:DA:1532:C:H2'	1.82	0.79
39:DE:44:TYR:O	39:DE:45:THR:HB	1.81	0.79
52:DV:4:ILE:HD12	52:DV:40:LEU:HG	1.63	0.79
55:DY:52:SER:O	55:DY:54:LYS:N	2.16	0.79
1:AA:979:C:H3'	1:AA:980:C:C5'	2.08	0.79
35:BA:271(A):A:H5'	35:BA:271(B):C:OP2	1.83	0.79
40:BF:78:ILE:H	40:BF:78:ILE:HD13	1.49	0.79
43:BI:92:VAL:HG11	43:BI:120:ILE:HD12	1.63	0.79
54:BX:29:TRP:CZ3	54:BX:78:LYS:HB3	2.18	0.79
1:CA:56:U:H2'	1:CA:57:G:H8	1.48	0.79
13:CM:76:ALA:HB2	13:CM:79:LYS:HZ3	1.47	0.79
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.62	0.79
22:CY:27:G:H2'	22:CY:28:G:C8	2.18	0.79
25:D0:41:ARG:HD2	25:D0:41:ARG:H	1.45	0.79
26:D1:90:ILE:O	26:D1:94:LEU:HB2	1.83	0.79
30:D5:3:LYS:HE3	35:DA:2611:U:H1'	1.64	0.79
35:DA:8:A:H2'	35:DA:9:U:C6	2.17	0.79
41:DG:47:LYS:HD2	41:DG:81:LYS:HD3	1.64	0.79
48:DR:2:ARG:NH1	48:DR:5:LYS:HE2	1.98	0.79
51:DU:112:ARG:HG2	51:DU:112:ARG:HH11	1.47	0.79
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.64	0.78
23:AW:18:G:H1	23:AW:55:U:H1'	1.48	0.78
26:B1:3:LYS:HG2	26:B1:4:VAL:H	1.48	0.78
33:B8:43:GLN:C	33:B8:44:LYS:HD2	2.04	0.78
35:BA:2134:A:C2	35:BA:2159:G:H1'	2.17	0.78
41:BG:58:GLN:O	41:BG:62:LEU:HD13	1.82	0.78
49:BS:69:VAL:HG13	49:BS:99:LYS:HE3	1.65	0.78
50:BT:88:ILE:HG22	50:BT:89:VAL:N	1.98	0.78
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.65	0.78
38:DD:147:LEU:HD13	38:DD:155:LEU:HD11	1.65	0.78
40:DF:2:LYS:HZ1	40:DF:25:PRO:HB2	1.47	0.78
41:DG:41:GLN:HE21	41:DG:155:MET:HB3	1.49	0.78
41:DG:82:LEU:HD22	41:DG:87:PRO:CG	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:23:ARG:O	50:DT:25:GLY:N	2.15	0.78
50:DT:53:ARG:HG2	50:DT:53:ARG:O	1.82	0.78
19:AS:20:LEU:HA	19:AS:23:ASN:HD21	1.47	0.78
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.66	0.78
27:B2:43:GLN:O	27:B2:44:LEU:HB2	1.83	0.78
30:B5:40:LYS:HZ3	30:B5:46:CYS:HB3	1.47	0.78
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.13	0.78
35:BA:1899:G:O2'	35:BA:1900:A:H5''	1.81	0.78
35:BA:1899:G:H22	35:BA:1902:C:N4	1.81	0.78
23:CW:53:G:O2'	23:CW:54:U:H5'	1.84	0.78
41:DG:112:PRO:O	41:DG:113:ARG:HD3	1.83	0.78
50:DT:88:ILE:HG22	50:DT:89:VAL:N	1.98	0.78
1:AA:735:C:H2'	1:AA:736:C:H6	1.47	0.78
6:AF:5:GLU:HG3	6:AF:93:SER:OG	1.83	0.78
35:BA:286:C:H2'	35:BA:287:C:C5'	2.14	0.78
43:BI:8:PRO:CB	43:BI:14:ASP:H	1.96	0.78
35:BA:662:G:OP1	46:BP:18:ARG:HD2	1.84	0.78
1:CA:883:C:C2	1:CA:884:U:H5	2.00	0.78
13:CM:3:ARG:NH2	13:CM:7:VAL:HG13	1.99	0.78
16:CP:27:LYS:H	16:CP:27:LYS:HD2	1.49	0.78
35:DA:2197:U:O2'	35:DA:2198:A:H5''	1.83	0.78
35:DA:855:G:H2'	35:DA:856:C:C6	2.17	0.78
39:DE:47:VAL:HG12	39:DE:49:LEU:HD12	1.63	0.78
42:BH:89:ILE:HD13	42:BH:90:LYS:H	1.48	0.78
1:CA:1054:C:O2'	1:CA:1055:A:H5''	1.83	0.78
22:CY:64:A:H2'	22:CY:65:G:C8	2.19	0.78
35:DA:2134:A:C2	35:DA:2159:G:H1'	2.18	0.78
42:DH:20:ALA:HB2	42:DH:25:LYS:NZ	1.98	0.78
43:DI:38:LEU:H	43:DI:38:LEU:CD1	1.96	0.78
13:AM:19:LEU:HD22	13:AM:19:LEU:H	1.49	0.78
42:BH:20:ALA:HB2	42:BH:25:LYS:NZ	1.99	0.78
52:BV:28:GLU:HB3	52:BV:29:PRO:HD2	1.63	0.78
4:CD:170:VAL:HG22	4:CD:171:GLY:H	1.48	0.78
43:DI:75:LEU:HD23	43:DI:105:HIS:ND1	1.98	0.78
55:DY:7:VAL:HG21	55:DY:8:LYS:HZ3	1.46	0.78
56:DZ:69:THR:HG22	56:DZ:90:VAL:HA	1.63	0.78
3:AC:14:ILE:HG23	3:AC:15:THR:H	1.49	0.78
25:B0:43:THR:HG22	35:BA:2331:G:O2'	1.82	0.78
35:BA:2533:A:C2'	35:BA:2534:A:H5''	2.14	0.78
56:BZ:153:SER:HB2	56:BZ:167:PRO:HG3	1.64	0.78
31:D6:20:ASN:ND2	31:D6:21:TYR:H	1.81	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2468:G:H22	35:DA:2481:G:H2'	1.48	0.78
43:DI:113:ARG:NH2	43:DI:132:PRO:HB3	1.98	0.78
52:DV:46:VAL:HG22	52:DV:47:VAL:H	1.47	0.78
47:DQ:132:VAL:HB	56:DZ:81:ARG:NH1	1.97	0.78
30:B5:29:THR:HG21	35:BA:2815:C:H5'	1.66	0.78
35:BA:197:A:H5'	35:BA:197:A:H8	1.47	0.78
35:BA:2773:C:H2'	35:BA:2774:C:H6	1.48	0.78
40:BF:108:LYS:O	40:BF:112:MET:HB2	1.84	0.78
35:BA:322:A:H3'	40:BF:169:ASN:HD21	1.49	0.78
55:BY:17:SER:HB2	55:BY:71:LYS:HE2	1.64	0.78
1:CA:337:C:H2'	1:CA:338:A:H8	1.47	0.78
6:CF:100:ASN:O	18:CR:28:GLU:HG2	1.84	0.78
23:CW:6:G:O2'	23:CW:7:A:H5'	1.84	0.78
35:DA:2317:C:C2'	35:DA:2318:G:H5'	2.13	0.78
37:DC:41:VAL:HG23	37:DC:178:ALA:HB3	1.65	0.78
43:DI:8:PRO:CB	43:DI:14:ASP:H	1.97	0.78
45:DO:7:TYR:HE1	45:DO:20:MET:HE3	1.49	0.78
50:DT:51:ARG:HG3	50:DT:98:LYS:HE3	1.66	0.78
1:AA:883:C:C2	1:AA:884:U:H5	2.01	0.78
5:AE:42:GLY:HA3	5:AE:65:ASN:O	1.84	0.78
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.65	0.78
39:BE:47:VAL:HG12	39:BE:49:LEU:HD12	1.66	0.78
39:BE:95:ILE:HD12	39:BE:95:ILE:H	1.48	0.78
43:BI:88:ILE:HG22	43:BI:89:TYR:H	1.49	0.78
48:BR:2:ARG:HH11	48:BR:5:LYS:HE2	1.48	0.78
1:CA:1030:C:C2'	1:CA:1030(A):G:H5'	2.12	0.78
31:D6:17:LYS:HB3	31:D6:18:ARG:HH11	1.49	0.78
40:DF:132:VAL:HG22	40:DF:133:ASN:N	1.96	0.78
1:AA:56:U:H2'	1:AA:57:G:H8	1.49	0.78
3:AC:76:VAL:HG23	3:AC:77:ILE:N	1.99	0.78
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.12	0.78
20:AT:104:LEU:HD23	20:AT:105:SER:N	1.99	0.78
22:AV:51:U:H2'	22:AV:52:G:C8	2.19	0.78
26:B1:26:ARG:HH22	35:BA:389:G:H5''	1.48	0.78
41:BG:82:LEU:HD22	41:BG:87:PRO:CG	2.08	0.78
13:CM:23:TYR:HE1	13:CM:70:LEU:HD22	1.48	0.78
20:CT:104:LEU:HD23	20:CT:105:SER:N	1.98	0.78
22:CY:16:U:H3'	22:CY:17:C:H5'	1.66	0.78
35:DA:71:A:H5'	35:DA:71:A:H8	1.49	0.78
38:DD:69:ARG:HD2	38:DD:119:ALA:HB2	1.64	0.78
40:DF:40:GLN:HE22	40:DF:182:ASN:HB2	1.46	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2415:G:H4'	46:DP:67:MET:N	1.99	0.78
50:DT:13:ARG:HH12	50:DT:15:VAL:HG22	1.49	0.78
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.13	0.78
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.66	0.78
35:BA:1024:G:H3'	35:BA:1025:G:H5''	1.65	0.78
39:BE:100:GLU:O	39:BE:172:VAL:HG23	1.82	0.78
41:BG:124:SER:HB2	41:BG:131:TYR:HE1	1.44	0.78
52:BV:46:VAL:HG22	52:BV:47:VAL:H	1.49	0.78
35:DA:1607:C:H4'	35:DA:1608:A:O5'	1.84	0.78
35:DA:2555:U:H2'	35:DA:2556:C:H5'	1.66	0.78
38:DD:35:LYS:N	38:DD:36:PRO:HD2	1.97	0.78
42:DH:103:LEU:HD21	42:DH:105:LEU:HD12	1.64	0.78
1:AA:673:G:H2'	1:AA:674:G:C8	2.19	0.77
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	1.66	0.77
35:BA:991:C:H5'	35:BA:991:C:H6	1.49	0.77
36:BB:48:A:H4'	49:BS:95:HIS:HD2	1.48	0.77
41:BG:63:ILE:HA	41:BG:143:GLU:HG3	1.64	0.77
41:BG:161:THR:HG22	41:BG:163:ALA:H	1.47	0.77
44:BN:62:VAL:HG22	44:BN:66:LYS:HD2	1.66	0.77
47:BQ:141:GLN:NE2	56:BZ:72:ARG:HA	1.99	0.77
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.67	0.77
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.65	0.77
26:B1:90:ILE:HG22	26:B1:94:LEU:HD11	1.66	0.77
30:B5:3:LYS:HE3	35:BA:2611:U:H1'	1.64	0.77
31:B6:16:CYS:O	31:B6:17:LYS:HB2	1.84	0.77
35:BA:1532:C:O2	35:BA:1532:C:H2'	1.84	0.77
52:BV:19:LYS:HG3	52:BV:20:LEU:N	1.98	0.77
56:BZ:43:GLU:O	56:BZ:47:VAL:HG12	1.84	0.77
22:CV:41:C:H2'	22:CV:41:C:O2	1.81	0.77
23:CW:62:C:H2'	23:CW:63:G:C8	2.19	0.77
35:DA:2732:G:O2'	35:DA:2733:A:H5'	1.85	0.77
36:DB:3:C:N4	36:DB:118:G:H1	1.82	0.77
41:DG:61:ALA:HB2	41:DG:68:PRO:HD3	1.65	0.77
1:AA:17:U:H2'	1:AA:18:C:C6	2.19	0.77
6:AF:99:ALA:HB1	18:AR:23:LYS:HZ2	1.47	0.77
48:BR:10:LEU:HB3	48:BR:17:ARG:CD	2.15	0.77
52:BV:19:LYS:HZ3	52:BV:20:LEU:N	1.81	0.77
35:BA:480:A:H1'	55:BY:44:ILE:HG21	1.65	0.77
1:CA:1468:A:H2'	1:CA:1469:G:O4'	1.83	0.77
5:CE:12:LEU:HD22	5:CE:13:ILE:N	1.99	0.77
8:CH:51:VAL:HG11	8:CH:60:ARG:HG3	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:40:ILE:HD13	19:CS:62:ILE:HD11	1.66	0.77
35:DA:197:A:H8	35:DA:197:A:H5'	1.49	0.77
35:DA:2773:C:H2'	35:DA:2774:C:H6	1.48	0.77
37:DC:68:LEU:HD22	37:DC:180:PHE:H	1.49	0.77
43:DI:88:ILE:HG22	43:DI:89:TYR:H	1.49	0.77
46:DP:83:VAL:HG11	46:DP:112:LEU:HD21	1.66	0.77
1:AA:328:C:H4'	1:AA:329:A:H5'	1.65	0.77
55:BY:31:LEU:HD22	55:BY:31:LEU:N	1.97	0.77
5:CE:42:GLY:HA3	5:CE:65:ASN:O	1.84	0.77
35:DA:1899:G:H22	35:DA:1902:C:N4	1.83	0.77
38:DD:181:GLU:HA	38:DD:272:ALA:CB	2.15	0.77
41:DG:172:LEU:HD23	41:DG:173:LEU:HD23	1.65	0.77
46:DP:38:GLN:HG3	46:DP:39:LYS:H	1.49	0.77
35:BA:1011:G:H5''	51:BU:77:SER:OG	1.85	0.77
35:BA:2645:G:H3'	35:BA:2646:C:C5'	2.15	0.77
35:BA:547:A:H8	35:BA:549:G:H1	1.32	0.77
37:BC:68:LEU:HD22	37:BC:180:PHE:H	1.50	0.77
41:BG:6:ALA:HB3	41:BG:104:GLU:OE1	1.84	0.77
46:BP:13:ASN:HD22	46:BP:13:ASN:C	1.88	0.77
44:BN:40:PRO:HB3	51:BU:68:ALA:HB2	1.67	0.77
1:CA:349:A:O2'	1:CA:350:G:H5'	1.85	0.77
3:CC:14:ILE:HG23	3:CC:15:THR:H	1.50	0.77
25:D0:43:THR:HG22	35:DA:2331:G:O2'	1.84	0.77
26:D1:48:LYS:HD2	26:D1:61:ARG:HG2	1.67	0.77
39:DE:131:ALA:O	39:DE:133:LYS:N	2.18	0.77
13:AM:88:ARG:HA	13:AM:98:VAL:HG11	1.67	0.77
31:B6:15:GLU:HG2	31:B6:18:ARG:HH21	1.49	0.77
35:BA:598:G:H5'	46:BP:15:ARG:HD2	1.67	0.77
39:BE:89:ASP:O	39:BE:90:THR:HB	1.84	0.77
1:CA:1106:G:H5''	3:CC:172:ARG:HG2	1.66	0.77
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.15	0.77
13:CM:88:ARG:HA	13:CM:98:VAL:HG11	1.66	0.77
22:CY:56:C:H5'	35:DA:897:C:H4'	1.67	0.77
48:DR:10:LEU:HB3	48:DR:17:ARG:CD	2.15	0.77
35:BA:271(M):G:H2'	35:BA:271(N):U:H5''	1.66	0.77
35:BA:2790:A:H2	35:BA:2791:C:H2'	1.49	0.77
35:BA:676:A:H2	35:BA:802:A:H61	1.31	0.77
43:BI:38:LEU:H	43:BI:38:LEU:CD1	1.97	0.77
35:BA:2875:C:H4'	50:BT:5:ALA:HB2	1.67	0.77
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.14	0.77
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:45:ASN:ND2	35:DA:2090:G:H21	1.82	0.77
27:D2:3:LEU:HD22	27:D2:7:ARG:HH12	1.47	0.77
40:DF:24:LEU:HB3	40:DF:25:PRO:CD	2.15	0.77
41:DG:109:VAL:HG11	41:DG:142:PRO:HB3	1.66	0.77
56:DZ:10:ARG:NH2	56:DZ:25:PRO:HA	2.00	0.77
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.85	0.77
22:AV:68:C:C2'	22:AV:69:G:H5''	2.14	0.77
35:BA:2498:C:O2'	35:BA:2499:C:H5'	1.84	0.77
38:BD:181:GLU:HA	38:BD:272:ALA:CB	2.14	0.77
38:BD:30:GLU:HG2	38:BD:63:ARG:NE	2.00	0.77
35:BA:1654:A:P	48:BR:3:HIS:HB2	2.24	0.77
1:CA:186:C:H5'	20:CT:78:ALA:HB1	1.67	0.77
1:CA:1256:A:OP1	3:CC:26:LYS:HE3	1.85	0.77
35:DA:2287:A:N6	35:DA:2344:U:H3	1.82	0.77
35:DA:2571:C:C5'	35:DA:2572:A:H5''	2.10	0.77
43:DI:133:HIS:HB2	43:DI:134:PRO:HD3	1.66	0.77
52:DV:19:LYS:HG3	52:DV:20:LEU:O	1.84	0.77
1:AA:973:G:H3'	1:AA:974:A:H5''	1.67	0.77
35:BA:1221:C:H5'	35:BA:1221:C:H6	1.49	0.77
35:BA:2506:U:H3'	35:BA:2506:U:H6	1.49	0.77
41:BG:91:ARG:C	41:BG:91:ARG:HD2	2.04	0.77
39:DE:89:ASP:O	39:DE:90:THR:HB	1.83	0.77
50:DT:28:VAL:HG22	50:DT:47:GLY:H	1.50	0.77
1:AA:346:G:H5''	50:BT:41:ARG:NE	2.00	0.77
6:AF:100:ASN:O	18:AR:28:GLU:HG2	1.84	0.77
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	1.85	0.77
25:B0:41:ARG:HH11	25:B0:44:ARG:HD3	1.49	0.77
35:BA:855:G:H2'	35:BA:856:C:C6	2.19	0.77
41:BG:60:LEU:O	41:BG:63:ILE:HG13	1.85	0.77
30:D5:29:THR:HG21	35:DA:2815:C:H5'	1.67	0.77
33:D8:43:GLN:O	33:D8:44:LYS:HD2	1.84	0.77
35:DA:2036:C:H6	35:DA:2036:C:H5'	1.48	0.77
35:DA:2189:U:C2'	35:DA:2190:G:H5''	2.14	0.77
40:DF:22:ALA:CA	40:DF:26:ALA:HB2	2.13	0.77
54:DX:63:LYS:HB3	54:DX:72:LYS:HG3	1.67	0.77
1:AA:1106:G:H5''	3:AC:172:ARG:HG2	1.65	0.76
22:AY:5:G:H2'	22:AY:6:G:C8	2.20	0.76
35:BA:2732:G:O2'	35:BA:2733:A:H5'	1.85	0.76
35:BA:481:G:H1'	35:BA:506:G:N2	1.99	0.76
49:BS:96:GLY:O	49:BS:98:VAL:N	2.18	0.76
1:CA:328:C:H4'	1:CA:329:A:H5'	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:673:G:H2'	1:CA:674:G:C8	2.20	0.76
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.20	0.76
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	1.85	0.76
8:CH:122:ARG:HH11	8:CH:122:ARG:HB2	1.49	0.76
20:CT:29:LYS:O	20:CT:33:ILE:HG12	1.85	0.76
22:CY:25:C:H2'	22:CY:26:A:H8	1.50	0.76
31:D6:16:CYS:O	31:D6:17:LYS:HB2	1.84	0.76
35:DA:1332:G:N2	35:DA:1609:A:O2'	2.18	0.76
35:DA:2645:G:H3'	35:DA:2646:C:C5'	2.13	0.76
38:DD:145:VAL:HG12	38:DD:146:GLU:O	1.85	0.76
38:DD:165:ILE:HD13	38:DD:175:LEU:HD21	1.66	0.76
38:DD:48:ARG:NH1	38:DD:48:ARG:HG3	1.95	0.76
35:DA:389:G:H1	46:DP:71:VAL:HG12	1.50	0.76
50:DT:8:LYS:HA	50:DT:11:GLU:OE1	1.86	0.76
35:DA:1227:G:OP1	51:DU:13:LYS:HD2	1.85	0.76
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.65	0.76
3:AC:26:LYS:HG3	3:AC:27:LYS:H	1.49	0.76
12:AL:34:ARG:O	12:AL:61:THR:HG23	1.85	0.76
16:AP:27:LYS:H	16:AP:27:LYS:HD2	1.50	0.76
35:BA:2314:C:O2'	35:BA:2315:G:H5'	1.85	0.76
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.33	0.76
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	1.98	0.76
35:DA:2151:G:H2'	35:DA:2152:G:H8	1.50	0.76
35:DA:2124:G:O2'	37:DC:40:THR:HA	1.86	0.76
40:DF:20:LEU:HB3	40:DF:23:ASP:OD2	1.85	0.76
41:DG:129:GLY:CA	41:DG:164:GLU:HA	2.15	0.76
58:AA:1799:PAR:H34	58:AA:1799:PAR:HN61	1.49	0.76
1:AA:194:C:C2'	1:AA:195:A:H5''	2.15	0.76
1:AA:1256:A:OP1	3:AC:26:LYS:HE3	1.85	0.76
30:B5:33:CYS:HG	30:B5:49:CYS:HG	0.99	0.76
38:BD:165:ILE:HD13	38:BD:175:LEU:HD21	1.66	0.76
1:CA:625:G:H2'	1:CA:626:U:H6	1.50	0.76
13:CM:19:LEU:HD22	13:CM:19:LEU:H	1.49	0.76
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.86	0.76
1:AA:617:G:H1	1:AA:623:C:H42	1.34	0.76
1:AA:92:C:H2'	1:AA:93:G:H8	1.49	0.76
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.15	0.76
20:AT:29:LYS:O	20:AT:33:ILE:HG12	1.85	0.76
35:BA:1607:C:H4'	35:BA:1608:A:O5'	1.86	0.76
35:BA:2317:C:C2'	35:BA:2318:G:H5'	2.15	0.76
36:BB:3:C:N4	36:BB:118:G:H1	1.83	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:120:ILE:HG22	43:BI:121:LYS:N	2.00	0.76
47:BQ:34:LEU:HD11	47:BQ:129:THR:HB	1.67	0.76
52:BV:18:LEU:HD22	52:BV:19:LYS:N	2.00	0.76
8:CH:122:ARG:NH1	8:CH:122:ARG:HB2	1.99	0.76
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.68	0.76
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.67	0.76
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.15	0.76
27:D2:12:GLU:O	27:D2:16:LEU:HG	1.85	0.76
35:DA:1348:G:C2'	35:DA:1349:A:H5''	2.15	0.76
35:DA:271(T):C:C6	35:DA:271(T):C:H5'	2.20	0.76
37:DC:36:LYS:CG	37:DC:37:PHE:H	1.99	0.76
53:DW:6:ILE:HG13	53:DW:104:THR:HG23	1.66	0.76
13:AM:3:ARG:NH2	13:AM:7:VAL:HG13	1.99	0.76
35:BA:1348:G:C2'	35:BA:1349:A:H5''	2.16	0.76
35:BA:528:A:C2	35:BA:2042:A:H2'	2.20	0.76
39:BE:60:ASN:OD1	39:BE:62:PRO:HD2	1.86	0.76
40:BF:164:ARG:HG3	40:BF:175:THR:OG1	1.85	0.76
46:BP:85:LEU:HD23	46:BP:85:LEU:H	1.49	0.76
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	2.00	0.76
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	1.94	0.76
50:DT:32:TYR:CD2	50:DT:81:PRO:HB2	2.20	0.76
55:DY:2:ARG:HD3	55:DY:3:VAL:HG23	1.67	0.76
1:AA:1054:C:O2'	1:AA:1055:A:H5''	1.84	0.76
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.68	0.76
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.15	0.76
23:AW:18:G:N1	23:AW:55:U:H1'	1.99	0.76
45:BO:49:ARG:HH11	45:BO:49:ARG:HG2	1.49	0.76
50:BT:80:SER:HB3	50:BT:81:PRO:CD	2.14	0.76
6:CF:5:GLU:HG3	6:CF:93:SER:OG	1.84	0.76
38:DD:130:ALA:C	38:DD:131:LEU:HD12	2.05	0.76
35:DA:910:A:H62	47:DQ:12:GLN:HA	1.51	0.76
44:DN:40:PRO:HB3	51:DU:68:ALA:HB2	1.65	0.76
47:DQ:130:LYS:NZ	56:DZ:80:ARG:HA	2.00	0.76
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.21	0.76
35:BA:2392:A:H2	35:BA:2424:C:H42	1.31	0.76
35:BA:271(R):G:H2'	35:BA:271(S):G:H8	1.50	0.76
35:BA:389:G:H1	46:BP:71:VAL:HG12	1.48	0.76
37:BC:41:VAL:HG23	37:BC:178:ALA:HB3	1.66	0.76
40:BF:24:LEU:HB3	40:BF:25:PRO:CD	2.15	0.76
42:BH:107:VAL:HB	42:BH:152:ARG:HG3	1.67	0.76
46:BP:80:TYR:CZ	46:BP:111:ARG:HD3	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:8:LYS:CE	55:BY:72:VAL:HG23	2.16	0.76
1:CA:10:A:OP2	5:CE:126:ARG:HD3	1.86	0.76
9:CI:9:ARG:HG2	9:CI:14:VAL:HG22	1.68	0.76
35:DA:1494:A:O2'	35:DA:1495:A:H5''	1.86	0.76
35:DA:2103:C:H3'	35:DA:2104:G:H5''	1.66	0.76
35:DA:2533:A:C2'	35:DA:2534:A:H5''	2.16	0.76
50:DT:27:THR:O	50:DT:28:VAL:HB	1.85	0.76
8:AH:134:ILE:O	8:AH:135:CYS:HB3	1.86	0.76
23:AW:69:G:C3'	23:AW:70:G:H5''	2.16	0.76
35:BA:2124:G:O2'	37:BC:40:THR:HA	1.85	0.76
35:BA:92:A:H2'	35:BA:93:G:H8	1.50	0.76
40:BF:40:GLN:HE22	40:BF:182:ASN:HB2	1.49	0.76
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.51	0.76
26:D1:67:ILE:N	26:D1:68:PRO:HD2	2.00	0.76
35:DA:365:C:H5'	35:DA:365:C:H6	1.50	0.76
44:DN:126:PRO:O	44:DN:127:ASP:HB2	1.84	0.76
35:BA:2189:U:C2'	35:BA:2190:G:H5''	2.15	0.76
40:BF:20:LEU:HB3	40:BF:23:ASP:OD2	1.86	0.76
42:BH:44:VAL:O	42:BH:46:GLU:HG2	1.85	0.76
42:BH:89:ILE:CD1	42:BH:90:LYS:H	1.99	0.76
49:BS:106:ARG:NH1	49:BS:108:GLY:HA3	2.01	0.76
1:CA:1442(B):A:OP1	1:CA:1442(B):A:H4'	1.85	0.76
6:CF:39:LYS:HD2	6:CF:62:TRP:HZ3	1.51	0.76
11:CK:18:ARG:HH21	11:CK:37:GLY:N	1.83	0.76
35:DA:2314:C:O2'	35:DA:2315:G:H5'	1.84	0.76
35:DA:914:C:H2'	35:DA:915:C:H5'	1.67	0.76
49:DS:39:ILE:HD11	49:DS:73:LEU:HD21	1.68	0.76
12:AL:84:LEU:HD12	12:AL:104:VAL:HG11	1.68	0.76
35:BA:2245:U:H5'	35:BA:2246:G:H5'	1.66	0.76
22:AY:77:PHA:HD2	35:BA:2451:A:C2	2.19	0.76
37:BC:36:LYS:CG	37:BC:37:PHE:H	1.98	0.76
38:BD:69:ARG:HD2	38:BD:119:ALA:HB2	1.66	0.76
41:BG:129:GLY:CA	41:BG:164:GLU:HA	2.16	0.76
43:BI:75:LEU:HD23	43:BI:105:HIS:ND1	2.02	0.76
48:BR:28:LEU:HD11	48:BR:116:LEU:HD21	1.67	0.76
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.50	0.76
10:CJ:21:GLN:HA	10:CJ:24:VAL:HG23	1.68	0.76
1:CA:1125:U:O4	10:CJ:5:ARG:HD3	1.85	0.76
28:D3:19:GLN:HE22	28:D3:52:HIS:HE1	1.34	0.76
31:D6:15:GLU:HG2	31:D6:18:ARG:HH21	1.50	0.76
35:DA:2313:C:H2'	35:DA:2314:C:H6	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:146:VAL:HG22	46:DP:147:LEU:H	1.51	0.76
49:DS:96:GLY:O	49:DS:98:VAL:N	2.19	0.76
1:AA:650:G:O2'	1:AA:651:C:H5'	1.86	0.75
12:AL:8:ASN:ND2	17:AQ:34:LYS:HE2	1.99	0.75
39:BE:132:HIS:HA	39:BE:135:HIS:CE1	2.21	0.75
42:BH:103:LEU:HD21	42:BH:105:LEU:HD12	1.66	0.75
50:BT:107:ASP:CG	50:BT:108:ARG:H	1.88	0.75
51:BU:20:LEU:HB3	51:BU:39:LEU:HD11	1.66	0.75
1:CA:460:G:O6	1:CA:470:C:H5''	1.86	0.75
1:CA:1190:G:H3'	3:CC:3:ASN:ND2	2.00	0.75
35:DA:271(M):G:H2'	35:DA:271(N):U:H5''	1.67	0.75
35:DA:612:C:H2'	35:DA:613:G:C5'	2.10	0.75
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.68	0.75
12:AL:89:ARG:NH1	12:AL:89:ARG:HB2	2.01	0.75
28:B3:31:LEU:HD23	28:B3:32:GLN:HG2	1.67	0.75
35:BA:676:A:H8	35:BA:2069:G:H21	1.31	0.75
43:BI:133:HIS:HB2	43:BI:134:PRO:HD3	1.68	0.75
44:BN:15:LEU:HB2	44:BN:134:ARG:HB2	1.68	0.75
55:BY:60:PHE:HA	55:BY:62:GLU:OE2	1.86	0.75
30:D5:40:LYS:HZ3	30:D5:46:CYS:HB3	1.50	0.75
35:DA:547:A:H8	35:DA:549:G:H1	1.30	0.75
40:DF:38:ARG:HD3	40:DF:99:TYR:OH	1.86	0.75
41:DG:2:PRO:O	41:DG:3:LEU:HB2	1.86	0.75
46:DP:59:LEU:HA	46:DP:61:ARG:NE	2.00	0.75
49:DS:69:VAL:HG13	49:DS:99:LYS:HE3	1.68	0.75
55:DY:8:LYS:CE	55:DY:72:VAL:HG23	2.15	0.75
1:AA:1152:A:H5''	10:AJ:13:HIS:HB2	1.69	0.75
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.87	0.75
22:AY:63:G:H2'	22:AY:64:A:C8	2.21	0.75
46:BP:146:VAL:HG22	46:BP:147:LEU:H	1.51	0.75
50:BT:8:LYS:HA	50:BT:11:GLU:OE1	1.85	0.75
40:DF:78:ILE:H	40:DF:78:ILE:HD13	1.50	0.75
35:DA:1011:G:H5''	51:DU:77:SER:OG	1.87	0.75
52:DV:19:LYS:HG3	52:DV:20:LEU:N	2.01	0.75
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.67	0.75
15:AO:2:PRO:HB2	15:AO:3:ILE:HD13	1.68	0.75
39:BE:44:TYR:O	39:BE:45:THR:HB	1.85	0.75
43:BI:113:ARG:NH2	43:BI:132:PRO:HB3	1.99	0.75
51:BU:90:VAL:O	51:BU:92:ARG:N	2.20	0.75
22:CV:68:C:C2'	22:CV:69:G:H5''	2.16	0.75
26:D1:46:LEU:HA	26:D1:63:ALA:HA	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:795:C:H2'	35:DA:796:C:C6	2.22	0.75
35:DA:953:A:C2'	35:DA:954:G:H5'	2.16	0.75
44:DN:23:LEU:H	44:DN:23:LEU:HD23	1.50	0.75
54:DX:54:VAL:HG22	54:DX:81:VAL:HG12	1.67	0.75
1:AA:148:G:H2'	1:AA:149:A:H8	1.52	0.75
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.86	0.75
35:BA:141:A:H8	35:BA:1408:C:O2'	1.68	0.75
35:BA:2103:C:H3'	35:BA:2104:G:H5''	1.66	0.75
35:BA:389:G:N1	46:BP:71:VAL:HG12	2.01	0.75
39:BE:4:ILE:HG21	39:BE:96:PHE:HE2	1.52	0.75
44:BN:126:PRO:O	44:BN:127:ASP:HB2	1.86	0.75
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.68	0.75
35:DA:2262:U:O2'	35:DA:2263:C:H5''	1.87	0.75
41:DG:72:ARG:HH12	41:DG:86:MET:HG2	1.50	0.75
45:DO:17:ARG:HD3	45:DO:47:ILE:HD13	1.69	0.75
46:DP:85:LEU:HA	46:DP:88:LEU:HD13	1.68	0.75
50:DT:3:ARG:HB3	50:DT:6:LEU:HB3	1.68	0.75
50:DT:54:ARG:HA	50:DT:59:THR:HB	1.68	0.75
52:DV:18:LEU:HD22	52:DV:19:LYS:N	2.01	0.75
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.86	0.75
1:AA:337:C:H2'	1:AA:338:A:H8	1.50	0.75
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	2.01	0.75
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.68	0.75
33:B8:50:LEU:HD12	33:B8:51:ALA:N	2.02	0.75
36:BB:48:A:H2'	36:BB:49:C:C6	2.20	0.75
40:BF:22:ALA:CA	40:BF:26:ALA:HB2	2.16	0.75
46:BP:111:ARG:HG2	46:BP:128:HIS:ND1	2.02	0.75
48:BR:2:ARG:HD3	48:BR:5:LYS:HE2	1.68	0.75
54:BX:65:ARG:HH11	54:BX:65:ARG:HG2	1.50	0.75
1:CA:735:C:H2'	1:CA:736:C:H6	1.51	0.75
2:CB:76:GLN:O	2:CB:208:ILE:HG12	1.87	0.75
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.02	0.75
9:CI:70:LYS:O	9:CI:74:ILE:HG13	1.87	0.75
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.68	0.75
27:D2:14:ARG:HG3	27:D2:14:ARG:NH1	2.02	0.75
35:DA:2506:U:H3'	35:DA:2506:U:H6	1.51	0.75
35:DA:286:C:H2'	35:DA:287:C:C5'	2.15	0.75
35:DA:999:U:H2'	35:DA:1000:A:H5'	1.67	0.75
50:DT:16:ARG:HD2	50:DT:18:ASP:OD1	1.86	0.75
3:AC:170:GLN:HG2	3:AC:171:GLY:N	2.01	0.75
35:BA:94:C:H5'	35:BA:94(A):G:OP2	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:999:U:H2'	35:BA:1000:A:H5'	1.69	0.75
55:BY:16:ALA:H	55:BY:22:GLY:H	1.32	0.75
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.22	0.75
3:CC:170:GLN:HG2	3:CC:171:GLY:H	1.49	0.75
47:DQ:2:LEU:HD11	47:DQ:69:PHE:HE1	1.51	0.75
50:DT:80:SER:HB3	50:DT:81:PRO:CD	2.14	0.75
1:AA:10:A:OP2	5:AE:126:ARG:HD3	1.86	0.75
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.69	0.75
35:BA:1899:G:N2	35:BA:1902:C:N4	2.35	0.75
38:BD:35:LYS:HB2	38:BD:63:ARG:HG2	1.69	0.75
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.68	0.75
9:CI:3:GLN:HG2	9:CI:20:ARG:HH12	1.52	0.75
28:D3:8:LEU:HA	28:D3:54:VAL:HG12	1.68	0.75
35:DA:528:A:C2	35:DA:2042:A:H2'	2.21	0.75
1:AA:736:C:H2'	1:AA:737:A:H8	1.51	0.75
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.69	0.75
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	1.68	0.75
35:BA:1987:G:H8	35:BA:1987:G:H5'	1.52	0.75
35:BA:2197:U:O2'	35:BA:2198:A:H5''	1.86	0.75
38:BD:33:LEU:O	38:BD:34:VAL:HB	1.85	0.75
35:BA:2415:G:H4'	46:BP:67:MET:N	2.02	0.75
48:BR:2:ARG:NH1	48:BR:5:LYS:HE2	2.01	0.75
49:BS:99:LYS:O	49:BS:101:LEU:HD13	1.87	0.75
50:BT:16:ARG:HD2	50:BT:18:ASP:OD1	1.87	0.75
1:CA:1321:C:H5''	1:CA:1322:C:C5'	2.16	0.75
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.67	0.75
15:CO:63:ARG:HG2	15:CO:67:LEU:HD12	1.68	0.75
27:D2:13:ALA:HA	27:D2:16:LEU:HD12	1.69	0.75
35:DA:676:A:H8	35:DA:2069:G:H21	1.32	0.75
35:DA:322:A:H3'	40:DF:169:ASN:HD21	1.52	0.75
12:AL:58:VAL:O	12:AL:65:GLU:HA	1.87	0.74
33:B8:52:LYS:N	33:B8:53:PRO:HD2	2.02	0.74
35:BA:1488:G:H5'	35:BA:1489:U:OP2	1.87	0.74
37:BC:39:GLU:HG2	37:BC:180:PHE:HA	1.68	0.74
38:BD:186:HIS:CD2	38:BD:188:GLU:H	2.05	0.74
52:BV:4:ILE:HD12	52:BV:40:LEU:HG	1.67	0.74
55:BY:27:VAL:HG12	55:BY:29:GLU:OE1	1.87	0.74
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.17	0.74
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	1.87	0.74
23:CW:23:A:H2'	23:CW:24:G:C8	2.22	0.74
35:DA:172:C:H2'	35:DA:173:G:H8	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2069:G:C2'	35:DA:2070:G:H5'	2.17	0.74
35:DA:598:G:H5'	46:DP:15:ARG:HD2	1.67	0.74
47:DQ:34:LEU:HD11	47:DQ:129:THR:HB	1.68	0.74
48:DR:28:LEU:HD11	48:DR:116:LEU:HD21	1.69	0.74
1:AA:1321:C:H5''	1:AA:1322:C:C5'	2.16	0.74
31:B6:19:ARG:H	31:B6:19:ARG:HD2	1.53	0.74
34:B9:26:ILE:HD12	34:B9:26:ILE:H	1.52	0.74
1:CA:617:G:H1	1:CA:623:C:H42	1.32	0.74
35:DA:389:G:N1	46:DP:71:VAL:HG12	2.02	0.74
42:DH:107:VAL:HB	42:DH:152:ARG:HG3	1.68	0.74
49:DS:65:VAL:O	49:DS:69:VAL:HG12	1.86	0.74
52:DV:46:VAL:HG13	52:DV:47:VAL:N	2.03	0.74
54:DX:12:VAL:HG21	54:DX:27:THR:HG23	1.69	0.74
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.22	0.74
4:AD:92:VAL:O	4:AD:96:LEU:HD13	1.87	0.74
50:BT:3:ARG:HB3	50:BT:6:LEU:HB3	1.67	0.74
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.69	0.74
12:CL:70:ILE:HG12	12:CL:100:ILE:HD12	1.68	0.74
49:DS:106:ARG:NH1	49:DS:108:GLY:HA3	2.02	0.74
55:DY:27:VAL:CA	55:DY:28:LYS:HZ2	2.00	0.74
9:AI:24:GLY:HA2	9:AI:59:PHE:O	1.88	0.74
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.52	0.74
23:AW:56:C:H3'	23:AW:57:G:H5''	1.68	0.74
28:B3:19:GLN:HE22	28:B3:52:HIS:HE1	1.34	0.74
31:B6:17:LYS:HB3	31:B6:18:ARG:HH11	1.49	0.74
39:BE:24:THR:HG22	39:BE:186:GLY:H	1.52	0.74
44:BN:3:THR:O	44:BN:5:VAL:N	2.20	0.74
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.52	0.74
9:CI:116:LYS:NZ	9:CI:116:LYS:HB3	2.02	0.74
12:CL:58:VAL:O	12:CL:65:GLU:HA	1.88	0.74
37:DC:39:GLU:HG2	37:DC:180:PHE:HA	1.69	0.74
35:DA:2875:C:H4'	50:DT:5:ALA:HB2	1.68	0.74
50:DT:62:THR:HG22	50:DT:75:ILE:HG12	1.69	0.74
25:B0:40:GLN:HA	25:B0:41:ARG:CZ	2.17	0.74
32:B7:47:ARG:CZ	54:BX:60:ARG:NH2	2.50	0.74
38:BD:65:ILE:HD11	38:BD:67:PHE:CE1	2.22	0.74
52:BV:18:LEU:HD22	52:BV:19:LYS:H	1.52	0.74
55:BY:27:VAL:HA	55:BY:28:LYS:HZ2	1.50	0.74
1:CA:17:U:H2'	1:CA:18:C:C6	2.22	0.74
35:DA:953:A:O2'	35:DA:954:G:H5'	1.87	0.74
39:DE:27:LEU:HD23	50:DT:1:MET:HE1	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:60:ASN:OD1	39:DE:62:PRO:HD2	1.87	0.74
42:DH:97:ARG:O	42:DH:98:LEU:HB2	1.88	0.74
46:DP:80:TYR:CZ	46:DP:111:ARG:HD3	2.23	0.74
52:DV:18:LEU:HD22	52:DV:19:LYS:H	1.53	0.74
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.03	0.74
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.69	0.74
31:B6:47:THR:HG22	31:B6:48:VAL:N	2.03	0.74
35:BA:2313:C:H2'	35:BA:2314:C:H6	1.52	0.74
35:BA:271(T):C:H5'	35:BA:271(T):C:C6	2.21	0.74
46:BP:81:GLN:HG2	46:BP:106:LEU:HD12	1.69	0.74
50:BT:32:TYR:CD2	50:BT:81:PRO:HB2	2.22	0.74
55:BY:88:LYS:NZ	55:BY:93:GLY:HA3	2.03	0.74
56:BZ:146:ILE:HG21	56:BZ:177:PRO:HD3	1.68	0.74
3:CC:113:ALA:HB2	3:CC:202:ILE:HG12	1.70	0.74
10:CJ:33:GLN:H	10:CJ:75:ILE:HG12	1.51	0.74
23:CW:45:U:O2'	23:CW:46:G:H5'	1.86	0.74
25:D0:41:ARG:HH11	25:D0:44:ARG:HD3	1.50	0.74
36:DB:48:A:H2'	36:DB:49:C:C6	2.22	0.74
45:DO:49:ARG:HH11	45:DO:49:ARG:HG2	1.50	0.74
54:DX:65:ARG:HH11	54:DX:65:ARG:HG2	1.51	0.74
55:DY:88:LYS:HZ1	55:DY:93:GLY:HA3	1.52	0.74
9:AI:116:LYS:NZ	9:AI:116:LYS:HB3	2.02	0.74
22:AV:20:U:H3'	22:AV:21:A:C5'	2.14	0.74
35:BA:1494:A:O2'	35:BA:1495:A:H5''	1.88	0.74
35:BA:1779:U:C5	35:BA:1784:A:N7	2.55	0.74
35:BA:330:A:HO2'	35:BA:331:A:H8	1.35	0.74
38:BD:28:GLU:N	38:BD:29:PRO:HD2	2.02	0.74
50:BT:13:ARG:HH12	50:BT:15:VAL:HG22	1.53	0.74
10:CJ:50:ILE:HG21	10:CJ:57:LYS:HD2	1.70	0.74
13:CM:69:GLU:OE1	13:CM:72:ALA:HB3	1.87	0.74
35:DA:271(R):G:H2'	35:DA:271(S):G:H8	1.52	0.74
35:DA:2790:A:H2	35:DA:2791:C:H2'	1.51	0.74
41:DG:4:ASP:HA	41:DG:8:LYS:HD2	1.70	0.74
42:DH:86:GLU:HB3	42:DH:132:ARG:HB3	1.70	0.74
11:AK:18:ARG:HH21	11:AK:37:GLY:N	1.84	0.74
35:BA:2571:C:H5'	35:BA:2572:A:C5'	2.13	0.74
38:BD:30:GLU:HB3	38:BD:35:LYS:CD	2.17	0.74
43:BI:41:GLU:O	43:BI:45:LYS:HG2	1.87	0.74
35:BA:2875:C:O2'	50:BT:5:ALA:HB3	1.86	0.74
52:BV:38:LEU:O	52:BV:39:LEU:HD13	1.87	0.74
1:CA:148:G:H2'	1:CA:149:A:H8	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:194:C:C2'	1:CA:195:A:H5''	2.18	0.74
1:CA:650:G:O2'	1:CA:651:C:H5'	1.87	0.74
35:DA:27:G:O2'	35:DA:28:A:H8	1.68	0.74
35:DA:27:G:H22	35:DA:512:G:H2'	1.52	0.74
35:DA:796:C:H2'	35:DA:797:C:C6	2.23	0.74
38:DD:65:ILE:HD11	38:DD:67:PHE:CE1	2.22	0.74
39:DE:137:HIS:HB3	39:DE:138:PRO:HD2	1.70	0.74
42:DH:48:GLY:O	42:DH:49:VAL:HG13	1.88	0.74
52:DV:15:GLU:HB3	52:DV:16:PRO:CD	2.18	0.74
1:AA:625:G:H2'	1:AA:626:U:H6	1.53	0.74
1:AA:817:C:H1'	1:AA:819:A:H5'	1.68	0.74
35:BA:2735:G:C2'	35:BA:2736:G:H5''	2.18	0.74
41:BG:128:ARG:C	41:BG:130:ASN:H	1.91	0.74
1:CA:76:C:H42	1:CA:93:G:H1	1.36	0.74
3:CC:170:GLN:HG2	3:CC:171:GLY:N	2.03	0.74
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.18	0.74
7:CG:15:ASP:H	7:CG:20:ASP:H	1.35	0.74
35:DA:1497:U:H5'	35:DA:1498:C:C5	2.23	0.74
25:D0:18:ALA:HB1	35:DA:2271:G:OP1	1.88	0.74
38:DD:26:LYS:HZ2	38:DD:26:LYS:HB3	1.53	0.74
49:DS:99:LYS:O	49:DS:101:LEU:HD13	1.86	0.74
22:AY:41:C:C3'	22:AY:42:C:H5''	2.18	0.74
28:B3:8:LEU:HA	28:B3:54:VAL:HG12	1.68	0.74
49:BS:39:ILE:HD11	49:BS:73:LEU:HD21	1.70	0.74
1:CA:92:C:H2'	1:CA:93:G:H8	1.52	0.74
1:CA:1152:A:H5''	10:CJ:13:HIS:HB2	1.69	0.74
10:CJ:45:ARG:HG3	10:CJ:45:ARG:HH11	1.53	0.74
16:CP:4:ILE:HG23	16:CP:36:ILE:HD11	1.70	0.74
20:CT:35:THR:HA	20:CT:38:LYS:HD3	1.69	0.74
40:DF:108:LYS:O	40:DF:112:MET:HB2	1.88	0.74
45:DO:104:ARG:HH21	50:DT:33:LYS:HE2	1.53	0.74
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.33	0.73
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.70	0.73
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.88	0.73
35:BA:191:A:O2'	35:BA:192:C:H5'	1.88	0.73
37:BC:51:PRO:HG3	37:BC:204:ALA:HB2	1.69	0.73
50:BT:81:PRO:C	50:BT:82:LEU:HD12	2.09	0.73
50:BT:88:ILE:HG22	50:BT:89:VAL:HG23	1.70	0.73
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.69	0.73
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.68	0.73
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:37:PHE:O	27:D2:41:ILE:HG23	1.88	0.73
35:DA:480:A:H1'	55:DY:44:ILE:HG21	1.68	0.73
54:DX:80:ILE:HD13	54:DX:80:ILE:O	1.86	0.73
1:AA:736:C:H2'	1:AA:737:A:C8	2.22	0.73
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.52	0.73
13:AM:50:GLU:O	13:AM:54:VAL:HG23	1.88	0.73
25:B0:56:ASP:O	25:B0:57:PHE:HB2	1.88	0.73
36:BB:56:G:H5''	41:BG:27:ASN:HD21	1.53	0.73
42:BH:97:ARG:O	42:BH:98:LEU:HB2	1.86	0.73
43:BI:71:ILE:HG13	43:BI:72:LEU:H	1.53	0.73
1:CA:97:G:O2'	1:CA:98:G:H5''	1.88	0.73
2:CB:238:LEU:H	2:CB:238:LEU:HD23	1.53	0.73
31:D6:19:ARG:H	31:D6:19:ARG:HD2	1.52	0.73
32:D7:47:ARG:CZ	54:DX:60:ARG:NH2	2.51	0.73
43:DI:9:LEU:H	43:DI:13:GLY:HA2	1.52	0.73
45:DO:23:ARG:HD2	45:DO:24:VAL:H	1.53	0.73
52:DV:38:LEU:O	52:DV:39:LEU:HD13	1.87	0.73
56:DZ:24:LEU:HB2	56:DZ:41:LEU:HD23	1.68	0.73
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.03	0.73
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	1.88	0.73
19:AS:9:VAL:O	19:AS:11:VAL:N	2.22	0.73
33:B8:43:GLN:O	33:B8:44:LYS:HD2	1.87	0.73
46:BP:81:GLN:HG2	46:BP:106:LEU:HA	1.70	0.73
47:BQ:2:LEU:HD11	47:BQ:69:PHE:HE1	1.52	0.73
49:BS:65:VAL:O	49:BS:69:VAL:HG12	1.89	0.73
1:CA:1310:G:O2'	1:CA:1311:G:H5'	1.88	0.73
25:D0:40:GLN:HA	25:D0:41:ARG:CZ	2.18	0.73
35:DA:1779:U:C5	35:DA:1784:A:N7	2.56	0.73
38:DD:30:GLU:HG2	38:DD:63:ARG:NE	2.03	0.73
56:DZ:56:VAL:HG13	56:DZ:69:THR:O	1.88	0.73
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.52	0.73
1:AA:1310:G:O2'	1:AA:1311:G:H5'	1.88	0.73
18:AR:56:THR:HB	18:AR:58:LEU:HD12	1.70	0.73
48:BR:67:LEU:HD13	48:BR:76:VAL:HG21	1.71	0.73
55:BY:17:SER:CB	55:BY:71:LYS:HE2	2.18	0.73
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.22	0.73
2:CB:71:VAL:HB	2:CB:164:VAL:HG22	1.69	0.73
8:CH:134:ILE:O	8:CH:135:CYS:HB3	1.87	0.73
18:CR:25:THR:HG22	18:CR:42:ARG:HH11	1.53	0.73
25:D0:51:VAL:HG22	25:D0:81:VAL:HG23	1.70	0.73
41:DG:16:ARG:NH2	41:DG:28:VAL:HG12	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:662:G:OP1	46:DP:18:ARG:HD2	1.88	0.73
50:DT:107:ASP:CG	50:DT:108:ARG:H	1.90	0.73
51:DU:64:ARG:HG2	51:DU:64:ARG:HH21	1.52	0.73
1:AA:192:U:H2'	1:AA:193:C:C6	2.22	0.73
8:AH:91:ARG:HG2	17:AQ:34:LYS:H	1.52	0.73
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.53	0.73
33:B8:50:LEU:CD1	33:B8:51:ALA:H	2.00	0.73
43:BI:47:LEU:HG	43:BI:51:ILE:HG12	1.70	0.73
46:BP:85:LEU:HA	46:BP:88:LEU:HD13	1.71	0.73
55:BY:8:LYS:HD2	55:BY:8:LYS:N	2.01	0.73
1:CA:973:G:H3'	1:CA:974:A:H5''	1.69	0.73
12:CL:34:ARG:O	12:CL:61:THR:HG23	1.88	0.73
35:DA:2735:G:C2'	35:DA:2736:G:H5''	2.19	0.73
38:DD:28:GLU:N	38:DD:29:PRO:HD2	2.03	0.73
38:DD:39:LYS:HB2	38:DD:62:TYR:HB2	1.69	0.73
38:DD:39:LYS:NZ	38:DD:87:ASN:HB3	2.02	0.73
51:DU:20:LEU:HB3	51:DU:39:LEU:HD11	1.69	0.73
51:DU:90:VAL:O	51:DU:92:ARG:N	2.21	0.73
55:DY:27:VAL:HA	55:DY:28:LYS:HZ2	1.51	0.73
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.22	0.73
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.87	0.73
1:AA:460:G:O6	1:AA:470:C:H5''	1.88	0.73
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.88	0.73
2:AB:238:LEU:H	2:AB:238:LEU:HD23	1.52	0.73
43:BI:113:ARG:HB2	43:BI:130:TYR:CE1	2.23	0.73
50:BT:3:ARG:CB	50:BT:6:LEU:HB3	2.19	0.73
35:BA:2683:C:P	50:BT:53:ARG:HH22	2.11	0.73
50:BT:80:SER:CB	50:BT:81:PRO:HD3	2.16	0.73
52:BV:15:GLU:HB3	52:BV:16:PRO:CD	2.18	0.73
52:BV:1:MET:HA	52:BV:1:MET:HE2	1.71	0.73
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.03	0.73
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.70	0.73
13:CM:8:GLU:OE1	13:CM:22:ILE:HG23	1.88	0.73
22:CY:42:C:H3'	22:CY:43:C:C5'	2.19	0.73
33:D8:6:THR:HA	33:D8:61:LEU:HD11	1.68	0.73
35:DA:2348:U:H2'	35:DA:2349:G:H5''	1.70	0.73
35:DA:963:U:H2'	35:DA:964:C:H6	1.54	0.73
55:DY:27:VAL:HG12	55:DY:29:GLU:OE1	1.88	0.73
1:AA:1057:G:H5''	3:AC:154:SER:CB	2.17	0.73
3:AC:35:GLU:O	3:AC:39:ILE:HG13	1.88	0.73
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:4:ILE:HG23	16:AP:36:ILE:HD11	1.70	0.73
22:AY:16:U:C3'	22:AY:17:C:H5'	2.19	0.73
40:BF:3:GLU:CA	40:BF:24:LEU:HG	2.09	0.73
49:BS:30:ARG:HH22	49:BS:62:LYS:HB3	1.54	0.73
54:BX:12:VAL:HG21	54:BX:27:THR:HG23	1.70	0.73
1:CA:192:U:H2'	1:CA:193:C:C6	2.24	0.73
1:CA:634:C:H2'	1:CA:635:G:H8	1.54	0.73
2:CB:8:LYS:HD3	2:CB:217:ARG:NH2	2.04	0.73
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.03	0.73
33:D8:52:LYS:N	33:D8:53:PRO:HD2	2.03	0.73
52:DV:21:ARG:HB3	52:DV:91:TYR:HB2	1.70	0.73
2:AB:76:GLN:O	2:AB:208:ILE:HG12	1.89	0.73
10:AJ:21:GLN:HA	10:AJ:24:VAL:HG23	1.70	0.73
10:AJ:33:GLN:H	10:AJ:75:ILE:HG12	1.51	0.73
20:AT:50:GLU:HA	20:AT:100:ILE:HG21	1.70	0.73
20:AT:43:LEU:HD22	20:AT:48:LYS:HG3	1.69	0.73
33:B8:21:LYS:HD3	33:B8:48:PHE:CZ	2.24	0.73
35:BA:1879:C:H2'	35:BA:1880:C:C5'	2.18	0.73
35:BA:549:G:H2'	35:BA:551:G:H5''	1.71	0.73
39:BE:137:HIS:HB3	39:BE:138:PRO:HD2	1.70	0.73
43:BI:62:LYS:HE2	43:BI:134:PRO:HG2	1.70	0.73
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.23	0.73
1:CA:736:C:H2'	1:CA:737:A:H8	1.53	0.73
3:CC:118:GLN:O	3:CC:122:GLU:HG3	1.89	0.73
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.10	0.73
27:D2:17:SER:HB2	27:D2:18:PRO:HD2	1.71	0.73
35:DA:8:A:H2'	35:DA:9:U:C5	2.24	0.73
43:DI:62:LYS:HE2	43:DI:134:PRO:HG2	1.69	0.73
53:DW:73:ALA:HB3	53:DW:106:ILE:HD11	1.69	0.73
55:DY:17:SER:CB	55:DY:71:LYS:HE2	2.18	0.73
56:DZ:99:TYR:HA	56:DZ:125:LEU:HA	1.70	0.73
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.54	0.73
8:AH:82:HIS:HD2	8:AH:138:TRP:HE1	1.37	0.73
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.69	0.73
23:AW:61:C:H2'	23:AW:62:C:C6	2.24	0.73
35:BA:910:A:H62	47:BQ:12:GLN:HA	1.52	0.73
38:BD:39:LYS:HB2	38:BD:62:TYR:HB2	1.71	0.73
41:BG:144:ILE:HD11	41:BG:148:MET:HB3	1.70	0.73
45:BO:104:ARG:NH1	50:BT:35:LYS:HD3	2.04	0.73
51:BU:64:ARG:HH21	51:BU:64:ARG:HG2	1.54	0.73
1:CA:382:A:H2'	1:CA:383:A:C8	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:56:THR:HB	18:CR:58:LEU:HD12	1.70	0.73
22:CY:74:C:H2'	22:CY:75:C:C5'	2.18	0.73
35:DA:1591:G:H5'	35:DA:1591:G:H8	1.53	0.73
35:DA:991:C:H5'	35:DA:991:C:H6	1.52	0.73
37:DC:51:PRO:HG3	37:DC:204:ALA:HB2	1.70	0.73
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CG1	2.19	0.73
23:AW:30:G:H2'	23:AW:31:A:H8	1.54	0.73
25:B0:51:VAL:HG22	25:B0:81:VAL:HG23	1.69	0.73
35:BA:2151:G:H2'	35:BA:2152:G:H8	1.51	0.73
39:BE:176:ILE:N	39:BE:176:ILE:HD12	2.04	0.73
41:BG:61:ALA:HA	41:BG:64:THR:CG2	2.19	0.73
49:BS:74:ALA:HB1	49:BS:103:GLU:HB2	1.71	0.73
50:BT:27:THR:O	50:BT:28:VAL:HB	1.87	0.73
51:BU:9:VAL:HG12	51:BU:13:LYS:HE2	1.69	0.73
55:BY:90:LEU:HD12	55:BY:91:GLU:HB2	1.69	0.73
47:BQ:141:GLN:OXT	56:BZ:99:TYR:N	2.22	0.73
1:CA:341:C:O2'	1:CA:342:C:H5'	1.88	0.73
22:CV:27:G:H2'	22:CV:28:G:H8	1.54	0.73
35:DA:803:U:O2'	35:DA:804:A:H5'	1.88	0.73
38:DD:186:HIS:CD2	38:DD:188:GLU:H	2.07	0.73
40:DF:3:GLU:CA	40:DF:24:LEU:HG	2.11	0.73
40:DF:36:VAL:HG11	40:DF:183:VAL:CG1	2.16	0.73
46:DP:144:GLU:N	46:DP:145:PRO:HD3	2.04	0.73
12:AL:55:VAL:HG12	12:AL:56:ALA:H	1.54	0.72
13:AM:69:GLU:OE1	13:AM:72:ALA:HB3	1.88	0.72
14:AN:25:VAL:HG22	14:AN:38:GLY:O	1.88	0.72
22:AY:75:C:H2'	22:AY:76:8AN:C8	2.19	0.72
47:BQ:69:PHE:CD1	47:BQ:70:PRO:HD2	2.24	0.72
51:BU:92:ARG:HH21	51:BU:95:LEU:HG	1.52	0.72
56:BZ:103:ARG:HG3	56:BZ:136:PHE:HB2	1.71	0.72
56:BZ:124:ILE:HD12	56:BZ:155:LEU:HD21	1.70	0.72
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.88	0.72
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.71	0.72
35:DA:92:A:H2'	35:DA:93:G:H8	1.53	0.72
35:DA:2724:C:OP1	39:DE:118:LYS:HE3	1.88	0.72
43:DI:71:ILE:HG13	43:DI:72:LEU:N	2.04	0.72
56:DZ:166:SER:HB2	56:DZ:168:GLU:H	1.54	0.72
1:AA:382:A:H2'	1:AA:383:A:C8	2.24	0.72
10:AJ:50:ILE:CD1	10:AJ:50:ILE:H	2.00	0.72
14:AN:3:ARG:HB3	14:AN:3:ARG:HH11	1.55	0.72
31:B6:23:THR:HG21	35:BA:2419:U:H5'	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:34:C:H2'	35:BA:35:G:H5'	1.71	0.72
35:BA:953:A:C2'	35:BA:954:G:H5'	2.20	0.72
39:BE:36:ARG:NH1	39:BE:88:GLY:HA3	2.02	0.72
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.46	0.72
10:CJ:50:ILE:CD1	10:CJ:50:ILE:H	2.02	0.72
12:CL:55:VAL:HG12	12:CL:56:ALA:N	2.05	0.72
35:DA:1858:G:H2'	35:DA:1883:G:N2	2.03	0.72
35:DA:1879:C:H2'	35:DA:1880:C:C5'	2.18	0.72
43:DI:71:ILE:HG13	43:DI:72:LEU:H	1.53	0.72
47:DQ:134:ARG:HA	47:DQ:137:TYR:CE1	2.24	0.72
56:DZ:53:ILE:CG2	56:DZ:71:VAL:HG23	2.12	0.72
1:AA:664:G:H22	1:AA:741:G:H1	1.37	0.72
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.53	0.72
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.54	0.72
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.70	0.72
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.09	0.72
33:D8:21:LYS:HD3	33:D8:48:PHE:CZ	2.24	0.72
35:DA:1899:G:N2	35:DA:1902:C:N4	2.36	0.72
35:DA:2875:C:O2'	50:DT:5:ALA:HB3	1.90	0.72
35:DA:586:A:H5'	40:DF:89:VAL:HG21	1.70	0.72
42:DH:44:VAL:O	42:DH:46:GLU:HG2	1.88	0.72
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.34	0.72
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.54	0.72
23:AW:16:U:C3'	23:AW:17:C:H5'	2.18	0.72
35:BA:2312:U:OP1	41:BG:74:LYS:HG3	1.90	0.72
42:BH:41:MET:HG2	42:BH:55:PRO:HD3	1.72	0.72
56:BZ:112:ARG:HH11	56:BZ:112:ARG:HG2	1.54	0.72
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.25	0.72
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.54	0.72
32:D7:9:ARG:HG3	32:D7:9:ARG:HH11	1.54	0.72
33:D8:9:GLY:O	33:D8:13:ARG:HG2	1.90	0.72
39:DE:36:ARG:NH1	39:DE:88:GLY:HA3	2.02	0.72
41:DG:107:LEU:HD23	41:DG:111:LEU:CD1	2.19	0.72
1:AA:1205:U:O2'	3:AC:195:VAL:HG23	1.89	0.72
11:AK:29:ILE:HB	11:AK:44:SER:HB3	1.71	0.72
22:AV:41:C:H3'	22:AV:42:C:H5''	1.68	0.72
30:B5:40:LYS:NZ	30:B5:46:CYS:HB3	2.04	0.72
35:BA:1484:G:H2'	35:BA:1485:G:H5''	1.70	0.72
35:BA:1858:G:H2'	35:BA:1883:G:N2	2.03	0.72
35:BA:1866:C:H2'	35:BA:1866:C:O2	1.89	0.72
35:BA:1879:C:C2'	35:BA:1880:C:H5''	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:953:A:O2'	35:BA:954:G:H5'	1.89	0.72
35:BA:997:G:OP1	51:BU:93:LYS:HD3	1.89	0.72
39:BE:110:GLY:O	48:BR:2:ARG:HG2	1.89	0.72
49:BS:89:ARG:CD	49:BS:92:TYR:HA	2.18	0.72
35:DA:2162:G:H2'	35:DA:2163:C:H6	1.55	0.72
42:DH:47:GLU:HG2	42:DH:48:GLY:N	1.97	0.72
46:DP:71:VAL:CG1	46:DP:72:PRO:HD3	2.20	0.72
54:DX:12:VAL:CG2	54:DX:17:ALA:HB1	2.19	0.72
6:AF:100:ASN:HD21	18:AR:23:LYS:HE3	1.54	0.72
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	1.72	0.72
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.10	0.72
26:B1:58:ILE:HD11	26:B1:60:PHE:CE2	2.25	0.72
35:BA:2069:G:C2'	35:BA:2070:G:H5'	2.20	0.72
44:BN:125:GLY:HA3	44:BN:126:PRO:O	1.89	0.72
56:BZ:20:ARG:CZ	56:BZ:20:ARG:HA	2.19	0.72
1:CA:148:G:O2'	1:CA:149:A:H5'	1.89	0.72
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.88	0.72
2:CB:167:PRO:HG2	2:CB:192:SER:OG	1.90	0.72
6:CF:100:ASN:HD21	18:CR:23:LYS:HE3	1.55	0.72
12:CL:22:SER:O	12:CL:24:VAL:N	2.22	0.72
19:CS:9:VAL:O	19:CS:11:VAL:N	2.22	0.72
35:DA:673:C:H5'	40:DF:54:ARG:HH12	1.53	0.72
48:DR:104:ARG:HB2	48:DR:104:ARG:HH11	1.54	0.72
1:AA:634:C:H2'	1:AA:635:G:H8	1.55	0.72
7:AG:15:ASP:H	7:AG:20:ASP:H	1.34	0.72
9:AI:3:GLN:HG2	9:AI:20:ARG:HH12	1.54	0.72
25:B0:68:GLU:CG	25:B0:80:HIS:HB2	2.20	0.72
35:BA:1497:U:H5'	35:BA:1498:C:H5	1.54	0.72
35:BA:2307:G:N2	35:BA:2308:G:H5''	2.04	0.72
35:BA:27:G:H22	35:BA:512:G:H2'	1.53	0.72
53:BW:59:VAL:HG12	53:BW:60:ASN:N	2.04	0.72
53:BW:99:ARG:HH11	53:BW:99:ARG:HG2	1.55	0.72
54:BX:63:LYS:HA	54:BX:72:LYS:HA	1.71	0.72
1:CA:707:C:O2'	1:CA:708:C:H5'	1.90	0.72
5:CE:79:GLU:HA	5:CE:91:LEU:O	1.90	0.72
11:CK:29:ILE:HB	11:CK:44:SER:HB3	1.71	0.72
23:CW:61:C:H2'	23:CW:62:C:C6	2.24	0.72
39:DE:95:ILE:H	39:DE:95:ILE:HD12	1.52	0.72
43:DI:41:GLU:O	43:DI:45:LYS:HG2	1.90	0.72
47:DQ:137:TYR:CD2	47:DQ:137:TYR:N	2.56	0.72
50:DT:81:PRO:C	50:DT:82:LEU:HD12	2.10	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:405:U:H3'	1:AA:406:G:H5'	1.72	0.72
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.55	0.72
7:AG:145:ALA:C	7:AG:147:ALA:H	1.92	0.72
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.09	0.72
43:BI:71:ILE:HG13	43:BI:72:LEU:N	2.04	0.72
43:BI:9:LEU:H	43:BI:13:GLY:HA2	1.55	0.72
45:BO:23:ARG:HD2	45:BO:24:VAL:H	1.55	0.72
46:BP:18:ARG:HH11	46:BP:18:ARG:CB	2.03	0.72
55:BY:2:ARG:HD3	55:BY:3:VAL:HG23	1.70	0.72
56:BZ:151:HIS:HB2	56:BZ:169:GLU:O	1.90	0.72
8:CH:82:HIS:HD2	8:CH:138:TRP:HE1	1.37	0.72
30:D5:46:CYS:SG	30:D5:47:PRO:CD	2.78	0.72
35:DA:1866:C:O2	35:DA:1866:C:H2'	1.89	0.72
35:DA:1987:G:H5'	35:DA:1987:G:H8	1.53	0.72
39:DE:132:HIS:HA	39:DE:135:HIS:CE1	2.24	0.72
43:DI:113:ARG:HB2	43:DI:130:TYR:CE1	2.24	0.72
51:DU:92:ARG:HH21	51:DU:95:LEU:HG	1.55	0.72
3:AC:113:ALA:HB2	3:AC:202:ILE:HG12	1.70	0.72
4:AD:31:CYS:O	4:AD:33:MET:N	2.22	0.72
35:BA:1854:A:H3'	35:BA:1855:G:H8	1.55	0.72
35:BA:914:C:H2'	35:BA:915:C:H5'	1.72	0.72
35:BA:963:U:H2'	35:BA:964:C:H6	1.55	0.72
43:BI:120:ILE:HG22	43:BI:121:LYS:H	1.50	0.72
51:BU:91:ASP:CG	51:BU:96:ALA:HB2	2.10	0.72
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.25	0.72
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.89	0.72
34:D9:26:ILE:H	34:D9:26:ILE:HD12	1.55	0.72
35:DA:1902:C:O2'	38:DD:244:ARG:HB2	1.90	0.72
38:DD:30:GLU:HB3	38:DD:35:LYS:CD	2.18	0.72
38:DD:94:LEU:HD23	38:DD:95:LEU:N	2.05	0.72
40:DF:164:ARG:HG3	40:DF:175:THR:OG1	1.89	0.72
44:DN:1:MET:HG2	44:DN:2:LYS:N	2.05	0.72
49:DS:17:ARG:O	49:DS:18:ILE:HB	1.88	0.72
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.05	0.72
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.04	0.72
2:AB:71:VAL:HB	2:AB:164:VAL:HG22	1.71	0.72
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.04	0.72
11:AK:126:ARG:NH1	11:AK:126:ARG:HB3	2.05	0.72
23:AW:45:U:O2'	23:AW:46:G:H5'	1.89	0.72
35:BA:1497:U:H5'	35:BA:1498:C:C5	2.25	0.72
25:B0:18:ALA:HB1	35:BA:2271:G:OP1	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:71:LEU:H	42:BH:74:ASN:ND2	1.87	0.72
43:BI:58:LEU:C	43:BI:60:GLU:H	1.93	0.72
48:BR:2:ARG:HH11	48:BR:5:LYS:CE	2.03	0.72
52:BV:21:ARG:HB3	52:BV:91:TYR:HB2	1.71	0.72
1:CA:736:C:H2'	1:CA:737:A:C8	2.24	0.72
2:CB:95:GLN:NE2	2:CB:147:LYS:HE3	2.05	0.72
4:CD:92:VAL:O	4:CD:96:LEU:HD13	1.90	0.72
8:CH:119:LEU:N	8:CH:119:LEU:HD23	2.04	0.72
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.70	0.72
48:DR:67:LEU:HD13	48:DR:76:VAL:HG21	1.70	0.72
54:DX:63:LYS:HA	54:DX:72:LYS:HA	1.71	0.72
55:DY:90:LEU:HD12	55:DY:91:GLU:HB2	1.70	0.72
2:AB:95:GLN:NE2	2:AB:147:LYS:HE3	2.05	0.71
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.72	0.71
5:AE:76:ILE:HG23	5:AE:77:PRO:HD2	1.72	0.71
12:AL:22:SER:O	12:AL:24:VAL:N	2.23	0.71
25:B0:48:GLY:HA3	25:B0:80:HIS:CD2	2.24	0.71
35:BA:2162:G:H2'	35:BA:2163:C:H6	1.53	0.71
35:BA:2348:U:H2'	35:BA:2349:G:H5''	1.71	0.71
35:BA:8:A:H2'	35:BA:9:U:C5	2.24	0.71
39:BE:78:LEU:C	39:BE:79:ARG:HD2	2.11	0.71
48:BR:11:ASN:OD1	48:BR:12:ARG:N	2.23	0.71
50:BT:62:THR:HG22	50:BT:75:ILE:HG12	1.70	0.71
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.05	0.71
1:CA:337:C:H2'	1:CA:338:A:C8	2.25	0.71
37:DC:168:THR:HA	37:DC:173:ALA:CB	2.20	0.71
38:DD:33:LEU:O	38:DD:34:VAL:HB	1.88	0.71
40:DF:167:ALA:HB1	40:DF:173:VAL:HG11	1.72	0.71
44:DN:125:GLY:HA3	44:DN:126:PRO:O	1.90	0.71
44:DN:3:THR:O	44:DN:5:VAL:N	2.22	0.71
46:DP:81:GLN:HG2	46:DP:106:LEU:HA	1.72	0.71
48:DR:42:LYS:O	48:DR:45:ARG:HG2	1.90	0.71
1:AA:148:G:O2'	1:AA:149:A:H5'	1.89	0.71
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.25	0.71
3:AC:113:ALA:HA	3:AC:116:VAL:HG23	1.71	0.71
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.69	0.71
5:AE:9:LYS:HB3	5:AE:112:LEU:HD11	1.71	0.71
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.71	0.71
35:BA:172:C:H2'	35:BA:173:G:H8	1.54	0.71
35:BA:2724:C:OP1	39:BE:118:LYS:HE3	1.91	0.71
46:BP:90:ARG:HG2	46:BP:91:PHE:N	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:109:LYS:CB	48:BR:2:ARG:HH22	2.02	0.71
52:BV:18:LEU:CD1	52:BV:19:LYS:H	2.02	0.71
54:BX:63:LYS:HB3	54:BX:72:LYS:HG3	1.69	0.71
1:CA:539:A:H2'	1:CA:540:G:C8	2.25	0.71
1:CA:817:C:H1'	1:CA:819:A:H5'	1.71	0.71
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	1.89	0.71
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.72	0.71
12:CL:84:LEU:HD12	12:CL:104:VAL:HG11	1.72	0.71
26:D1:81:LYS:C	26:D1:82:LEU:HD13	2.11	0.71
35:DA:1108:U:H2'	35:DA:1109:C:H5'	1.72	0.71
35:DA:1488:G:H5'	35:DA:1489:U:OP2	1.89	0.71
35:DA:2734:A:H5'	35:DA:2735:G:OP2	1.90	0.71
42:DH:153:LYS:HD3	42:DH:153:LYS:N	2.05	0.71
46:DP:81:GLN:HG2	46:DP:106:LEU:HD12	1.73	0.71
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.72	0.71
41:BG:118:ARG:HB2	41:BG:181:ARG:NH2	2.05	0.71
46:BP:30:THR:HG22	46:BP:31:ALA:N	2.02	0.71
46:BP:41:ARG:HA	46:BP:41:ARG:HE	1.55	0.71
47:BQ:16:ARG:C	47:BQ:17:LEU:HD23	2.09	0.71
3:CC:113:ALA:HA	3:CC:116:VAL:HG23	1.72	0.71
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CG1	2.20	0.71
11:CK:54:ARG:HH12	23:CW:40:C:H5'	1.55	0.71
31:D6:28:ARG:O	31:D6:32:ASN:HB3	1.90	0.71
35:DA:1484:G:H3'	35:DA:1485:G:H5''	1.71	0.71
35:DA:1879:C:C2'	35:DA:1880:C:H5''	2.20	0.71
35:DA:94:C:H5'	35:DA:94(A):G:OP2	1.89	0.71
41:DG:61:ALA:HA	41:DG:64:THR:CG2	2.19	0.71
46:DP:111:ARG:HG2	46:DP:128:HIS:ND1	2.04	0.71
48:DR:78:LYS:O	48:DR:82:GLU:HB3	1.90	0.71
49:DS:89:ARG:CD	49:DS:92:TYR:HA	2.20	0.71
55:DY:88:LYS:NZ	55:DY:93:GLY:HA3	2.04	0.71
1:AA:341:C:O2'	1:AA:342:C:H5'	1.91	0.71
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.71	0.71
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.73	0.71
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.02	0.71
33:B8:6:THR:HA	33:B8:61:LEU:HD11	1.71	0.71
35:BA:1441:G:O2'	35:BA:1442:G:H5'	1.90	0.71
35:BA:1485:G:H2'	35:BA:1486:A:H8	1.54	0.71
46:BP:144:GLU:N	46:BP:145:PRO:HD3	2.06	0.71
13:CM:50:GLU:O	13:CM:54:VAL:HG23	1.91	0.71
33:D8:61:LEU:HD12	33:D8:63:PRO:HD2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2136:C:H2'	35:DA:2137:C:H6	1.54	0.71
39:DE:176:ILE:N	39:DE:176:ILE:HD12	2.05	0.71
39:DE:4:ILE:HG21	39:DE:96:PHE:HE2	1.54	0.71
46:DP:30:THR:HG22	46:DP:31:ALA:N	2.02	0.71
47:DQ:16:ARG:C	47:DQ:17:LEU:HD23	2.10	0.71
47:DQ:69:PHE:CD1	47:DQ:70:PRO:HD2	2.24	0.71
50:DT:3:ARG:CB	50:DT:6:LEU:HB3	2.20	0.71
51:DU:90:VAL:HG21	52:DV:47:VAL:HG21	1.72	0.71
54:DX:63:LYS:CB	54:DX:72:LYS:HG3	2.20	0.71
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.10	0.71
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.53	0.71
18:AR:25:THR:HG22	18:AR:42:ARG:HH11	1.54	0.71
35:BA:2126:A:H4'	35:BA:2127:G:O5'	1.90	0.71
35:BA:2136:C:H2'	35:BA:2137:C:H6	1.54	0.71
39:BE:81:ILE:O	39:BE:82:ARG:HB2	1.88	0.71
42:BH:86:GLU:HB3	42:BH:132:ARG:HB3	1.71	0.71
47:BQ:141:GLN:H	56:BZ:99:TYR:HB2	1.54	0.71
45:BO:104:ARG:HH21	50:BT:33:LYS:HE2	1.55	0.71
2:CB:224:GLN:HG3	2:CB:229:VAL:HG22	1.73	0.71
20:CT:43:LEU:HD22	20:CT:48:LYS:HG3	1.73	0.71
35:DA:1484:G:H2'	35:DA:1485:G:H5''	1.71	0.71
38:DD:35:LYS:HB2	38:DD:63:ARG:HG2	1.70	0.71
40:DF:40:GLN:NE2	40:DF:182:ASN:HB2	2.05	0.71
46:DP:90:ARG:HG2	46:DP:91:PHE:N	2.04	0.71
55:DY:8:LYS:HE3	55:DY:72:VAL:HG23	1.70	0.71
56:DZ:33:LEU:HD23	56:DZ:90:VAL:HG21	1.71	0.71
56:DZ:39:VAL:HG21	56:DZ:44:PHE:HB2	1.71	0.71
1:AA:349:A:O2'	1:AA:350:G:H5'	1.90	0.71
35:BA:1697:G:H3'	35:BA:1698:A:C5'	2.21	0.71
50:BT:54:ARG:HA	50:BT:59:THR:HB	1.71	0.71
22:CV:40:C:H2'	22:CV:41:C:H6	1.55	0.71
44:DN:134:ARG:O	44:DN:136:GLU:N	2.24	0.71
50:DT:88:ILE:HG22	50:DT:89:VAL:HG23	1.72	0.71
53:DW:59:VAL:HG12	53:DW:60:ASN:N	2.04	0.71
1:AA:76:C:H42	1:AA:93:G:H1	1.37	0.71
1:AA:97:G:O2'	1:AA:98:G:H5''	1.90	0.71
2:AB:8:LYS:HD3	2:AB:217:ARG:NH2	2.05	0.71
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.73	0.71
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.70	0.71
35:BA:809:G:O2'	35:BA:810:U:H5'	1.90	0.71
41:BG:46:ALA:HB2	41:BG:88:ILE:CD1	2.15	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:24:VAL:HG23	42:BH:35:VAL:HB	1.73	0.71
42:BH:71:LEU:H	42:BH:74:ASN:HD22	1.37	0.71
46:BP:6:LEU:HG	46:BP:8:PRO:O	1.90	0.71
50:BT:96:ARG:HG2	50:BT:96:ARG:HH11	1.55	0.71
51:BU:90:VAL:HG21	52:BV:47:VAL:HG21	1.70	0.71
52:BV:19:LYS:HB3	52:BV:94:LEU:O	1.90	0.71
1:CA:253:U:H2'	1:CA:254:G:H8	1.55	0.71
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.72	0.71
35:DA:2348:U:C2'	35:DA:2349:G:H5''	2.21	0.71
39:DE:78:LEU:C	39:DE:79:ARG:HD2	2.10	0.71
39:DE:110:GLY:O	48:DR:2:ARG:HG2	1.90	0.71
53:DW:6:ILE:CG1	53:DW:104:THR:HG23	2.21	0.71
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.54	0.71
8:AH:119:LEU:N	8:AH:119:LEU:HD23	2.06	0.71
9:AI:9:ARG:HG2	9:AI:14:VAL:HG22	1.72	0.71
21:AU:10:ARG:HA	21:AU:13:ILE:HD12	1.73	0.71
22:AY:43:C:H2'	22:AY:44:G:O4'	1.91	0.71
25:B0:43:THR:O	25:B0:43:THR:HG23	1.89	0.71
35:BA:1591:G:H5'	35:BA:1591:G:H8	1.54	0.71
35:BA:2734:A:H5'	35:BA:2735:G:OP2	1.90	0.71
55:BY:88:LYS:HZ1	55:BY:93:GLY:HA3	1.56	0.71
56:BZ:120:ILE:HB	56:BZ:171:ILE:O	1.90	0.71
22:CV:68:C:C3'	22:CV:69:G:H5''	2.21	0.71
35:DA:330:A:HO2'	35:DA:331:A:H8	1.38	0.71
38:DD:210:GLY:O	38:DD:212:SER:N	2.22	0.71
39:DE:92:THR:H	39:DE:95:ILE:HD11	1.56	0.71
41:DG:15:VAL:HG13	41:DG:175:LEU:HD12	1.72	0.71
1:AA:385:C:O2'	1:AA:386:C:H5'	1.90	0.71
22:AY:27:G:H21	22:AY:43:C:H5	1.36	0.71
31:B6:9:LEU:HD23	31:B6:10:LEU:H	1.56	0.71
31:B6:28:ARG:O	31:B6:32:ASN:HB3	1.90	0.71
35:BA:70:G:H21	35:BA:71:A:H62	1.36	0.71
41:BG:138:GLN:OE1	41:BG:152:LEU:HA	1.91	0.71
56:BZ:102:LEU:HG	56:BZ:123:ASP:HA	1.72	0.71
56:BZ:79:ARG:O	56:BZ:80:ARG:HB2	1.90	0.71
1:CA:57:G:H2'	1:CA:58:C:C6	2.26	0.71
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.71	0.71
29:D4:48:ILE:H	29:D4:48:ILE:HD12	1.55	0.71
33:D8:14:VAL:HG23	33:D8:24:ALA:HB2	1.72	0.71
35:DA:1441:G:O2'	35:DA:1442:G:H5'	1.91	0.71
35:DA:1497:U:H5'	35:DA:1498:C:H5	1.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2126:A:H4'	35:DA:2127:G:O5'	1.90	0.71
35:DA:774:A:H2	35:DA:787:U:HO2'	1.38	0.71
41:DG:47:LYS:N	41:DG:51:ARG:HD2	2.05	0.71
49:DS:74:ALA:HB1	49:DS:103:GLU:HB2	1.72	0.71
45:DO:104:ARG:NH1	50:DT:35:LYS:HD3	2.05	0.71
55:DY:60:PHE:HA	55:DY:62:GLU:OE2	1.91	0.71
1:AA:1003:G:H2'	1:AA:1004:A:O4'	1.90	0.71
1:AA:191:G:C4	20:AT:105:SER:HB3	2.26	0.71
3:AC:118:GLN:O	3:AC:122:GLU:HG3	1.90	0.71
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.00	0.71
23:AW:6:G:O2'	23:AW:7:A:H5'	1.91	0.71
35:BA:197:A:C8	35:BA:197:A:H5'	2.26	0.71
35:BA:2834:G:H5'	35:BA:2835:A:OP2	1.91	0.71
38:BD:76:PRO:HG2	38:BD:98:VAL:HG21	1.73	0.71
40:BF:126:VAL:HG21	40:BF:129:PHE:CZ	2.25	0.71
42:BH:84:SER:O	42:BH:85:LYS:HB3	1.90	0.71
1:CA:135:C:H2'	1:CA:136:C:H5'	1.72	0.71
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.56	0.71
14:CN:25:VAL:HG22	14:CN:38:GLY:O	1.90	0.71
14:CN:3:ARG:HB3	14:CN:3:ARG:HH11	1.56	0.71
25:D0:48:GLY:HA3	25:D0:80:HIS:CD2	2.25	0.71
25:D0:56:ASP:O	25:D0:57:PHE:HB2	1.91	0.71
30:D5:4:HIS:HB3	30:D5:5:PRO:HD3	1.72	0.71
35:DA:852:G:O2'	35:DA:853:G:H5'	1.91	0.71
41:DG:130:ASN:HB3	41:DG:160:VAL:HA	1.71	0.71
56:DZ:39:VAL:HG23	56:DZ:40:ASP:N	2.06	0.71
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.21	0.70
1:AA:1437:C:H2'	1:AA:1438:G:H8	1.54	0.70
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.91	0.70
8:AH:84:ARG:O	8:AH:135:CYS:HB2	1.91	0.70
35:BA:1021:A:H8	35:BA:1021:A:H3'	1.56	0.70
35:BA:1986:A:C3'	35:BA:1987:G:H5''	2.20	0.70
35:BA:2348:U:C2'	35:BA:2349:G:H5''	2.21	0.70
38:BD:43:ARG:HD2	38:BD:44:ASN:OD1	1.91	0.70
40:BF:103:LYS:HA	40:BF:106:ARG:HG3	1.71	0.70
3:CC:35:GLU:O	3:CC:39:ILE:HG13	1.91	0.70
4:CD:31:CYS:O	4:CD:33:MET:N	2.24	0.70
6:CF:87:ARG:HG2	6:CF:87:ARG:HH11	1.53	0.70
9:CI:24:GLY:HA2	9:CI:59:PHE:O	1.89	0.70
25:D0:43:THR:O	25:D0:43:THR:HG23	1.89	0.70
31:D6:47:THR:HG22	31:D6:48:VAL:N	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1986:A:C3'	35:DA:1987:G:H5''	2.21	0.70
25:D0:36:ILE:HG23	35:DA:2354:G:O2'	1.90	0.70
38:DD:43:ARG:HD2	38:DD:44:ASN:OD1	1.91	0.70
40:DF:4:VAL:HA	40:DF:19:GLU:HB3	1.73	0.70
46:DP:115:LEU:HA	46:DP:134:ALA:HB2	1.73	0.70
39:DE:109:LYS:CB	48:DR:2:ARG:HH22	2.04	0.70
55:DY:8:LYS:HD2	55:DY:8:LYS:N	2.06	0.70
1:AA:135:C:H2'	1:AA:136:C:H5'	1.73	0.70
1:AA:1439:C:O2	1:AA:1439:C:H2'	1.91	0.70
39:BE:27:LEU:HD12	39:BE:180:ASN:O	1.91	0.70
39:BE:51:PHE:CE1	39:BE:52:LEU:HD13	2.26	0.70
43:BI:132:PRO:HG2	43:BI:133:HIS:CD2	2.26	0.70
48:BR:104:ARG:HB2	48:BR:104:ARG:HH11	1.56	0.70
50:BT:129:ARG:CZ	50:BT:131:ALA:HB3	2.21	0.70
54:BX:80:ILE:O	54:BX:80:ILE:HD13	1.91	0.70
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	2.17	0.70
25:D0:68:GLU:CG	25:D0:80:HIS:HB2	2.20	0.70
35:DA:2312:U:H2'	35:DA:2313:C:C5'	2.18	0.70
42:DH:84:SER:O	42:DH:85:LYS:HB3	1.91	0.70
50:DT:42:ILE:HG21	50:DT:83:ILE:HG12	1.72	0.70
51:DU:112:ARG:NH2	52:DV:46:VAL:HG11	2.06	0.70
1:AA:1199:U:H4'	10:AJ:54:PHE:CZ	2.26	0.70
35:BA:1639:U:C2'	35:BA:1640:C:H5''	2.21	0.70
35:BA:2312:U:H2'	35:BA:2313:C:C5'	2.20	0.70
35:BA:795:C:H2'	35:BA:796:C:C6	2.24	0.70
39:BE:28:ALA:HB3	39:BE:93:VAL:HG22	1.72	0.70
44:BN:4:TYR:CD1	44:BN:4:TYR:N	2.59	0.70
44:BN:67:LEU:O	44:BN:68:GLU:HB2	1.91	0.70
55:BY:15:VAL:HG12	55:BY:17:SER:H	1.56	0.70
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.72	0.70
1:CA:235:C:H1'	17:CQ:61:GLU:OE1	1.91	0.70
1:CA:191:G:C4	20:CT:105:SER:HB3	2.26	0.70
35:DA:34:C:H2'	35:DA:35:G:H5'	1.73	0.70
39:DE:57:LYS:C	39:DE:59:VAL:H	1.94	0.70
43:DI:10:GLU:OE2	43:DI:11:ASN:HB2	1.91	0.70
43:DI:132:PRO:HG2	43:DI:133:HIS:CD2	2.26	0.70
55:DY:50:ARG:C	55:DY:52:SER:H	1.95	0.70
3:AC:30:ARG:HH12	14:AN:35:ARG:HA	1.56	0.70
3:AC:73:PRO:HA	3:AC:76:VAL:HG13	1.73	0.70
4:AD:170:VAL:HG22	4:AD:171:GLY:N	2.07	0.70
8:AH:44:PHE:O	8:AH:45:ILE:HG23	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.73	0.70
35:BA:2736:G:H5'	35:BA:2736:G:H8	1.56	0.70
35:BA:27:G:O2'	35:BA:28:A:H8	1.70	0.70
39:BE:57:LYS:C	39:BE:59:VAL:H	1.93	0.70
1:CA:1003:G:H2'	1:CA:1004:A:O4'	1.90	0.70
35:DA:106:C:H2'	35:DA:107:C:C6	2.26	0.70
38:DD:10:THR:HG23	38:DD:13:ARG:CB	2.21	0.70
46:DP:136:GLU:O	46:DP:139:LYS:HB3	1.91	0.70
1:AA:223:U:H2'	1:AA:224:C:C6	2.26	0.70
1:AA:707:C:O2'	1:AA:708:C:H5'	1.91	0.70
10:AJ:50:ILE:HG21	10:AJ:57:LYS:HD2	1.71	0.70
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	1.90	0.70
37:BC:71:GLN:HG3	37:BC:73:ARG:HE	1.56	0.70
47:BQ:134:ARG:HA	47:BQ:137:TYR:CE1	2.26	0.70
56:BZ:167:PRO:O	56:BZ:168:GLU:HB2	1.91	0.70
1:CA:376:G:OP2	16:CP:67:THR:HG21	1.91	0.70
1:CA:405:U:H3'	1:CA:406:G:H5'	1.72	0.70
7:CG:145:ALA:C	7:CG:147:ALA:H	1.91	0.70
39:DE:36:ARG:HH12	39:DE:88:GLY:CA	2.03	0.70
16:AP:18:ARG:O	16:AP:20:VAL:HG12	1.91	0.70
20:AT:35:THR:HA	20:AT:38:LYS:HD3	1.72	0.70
26:B1:12:PRO:HB3	26:B1:43:TYR:HD2	1.57	0.70
35:BA:484:C:H2'	35:BA:485:C:C6	2.26	0.70
35:BA:673:C:H5'	40:BF:54:ARG:HH12	1.55	0.70
41:BG:146:TYR:O	41:BG:149:VAL:HG22	1.92	0.70
49:BS:26:LEU:HG	49:BS:39:ILE:CD1	2.20	0.70
50:BT:28:VAL:CG1	50:BT:46:GLU:HA	2.20	0.70
56:BZ:118:GLN:HG2	56:BZ:119:GLU:H	1.57	0.70
2:CB:141:GLU:O	2:CB:145:LEU:HD23	1.91	0.70
31:D6:9:LEU:HD23	31:D6:10:LEU:H	1.54	0.70
41:DG:46:ALA:HB2	41:DG:88:ILE:HB	1.73	0.70
43:DI:58:LEU:C	43:DI:60:GLU:H	1.95	0.70
51:DU:9:VAL:HG12	51:DU:13:LYS:HE2	1.72	0.70
35:BA:1484:G:C2'	35:BA:1485:G:H5''	2.22	0.70
44:BN:134:ARG:O	44:BN:136:GLU:N	2.25	0.70
47:BQ:17:LEU:C	47:BQ:18:LYS:HD2	2.12	0.70
55:BY:46:LYS:H	55:BY:62:GLU:HG2	1.57	0.70
56:BZ:153:SER:N	56:BZ:167:PRO:HB2	2.06	0.70
2:CB:178:ARG:HH22	2:CB:196:LEU:HA	1.55	0.70
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.73	0.70
10:CJ:21:GLN:HA	10:CJ:24:VAL:CG2	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1199:U:H4'	10:CJ:54:PHE:CZ	2.27	0.70
24:CX:13:A:H3'	24:CX:14:A:C5'	2.22	0.70
30:D5:40:LYS:NZ	30:D5:46:CYS:HB3	2.06	0.70
51:DU:83:LEU:HG	51:DU:88:ILE:CD1	2.22	0.70
51:DU:92:ARG:O	51:DU:94:ASN:N	2.25	0.70
1:AA:539:A:H2'	1:AA:540:G:C8	2.27	0.70
2:AB:27:LYS:HD3	2:AB:195:ASP:OD1	1.92	0.70
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.74	0.70
6:AF:87:ARG:HH11	6:AF:87:ARG:HG2	1.57	0.70
10:AJ:82:ILE:O	10:AJ:86:MET:HB3	1.91	0.70
30:B5:46:CYS:SG	30:B5:47:PRO:CD	2.79	0.70
35:BA:612:C:H2'	35:BA:613:G:C5'	2.09	0.70
38:BD:39:LYS:NZ	38:BD:87:ASN:HB3	2.07	0.70
39:BE:37:ARG:HA	39:BE:42:ASP:OD2	1.92	0.70
41:BG:66:GLN:NE2	41:BG:94:LEU:HD23	2.07	0.70
43:BI:113:ARG:HB3	43:BI:131:LYS:HB2	1.73	0.70
43:BI:113:ARG:O	43:BI:131:LYS:HG2	1.92	0.70
48:BR:42:LYS:O	48:BR:45:ARG:HG2	1.91	0.70
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.91	0.70
3:CC:108:ASN:HD21	3:CC:144:SER:HB2	1.57	0.70
8:CH:91:ARG:HG2	17:CQ:34:LYS:H	1.56	0.70
10:CJ:82:ILE:O	10:CJ:86:MET:HB3	1.91	0.70
40:DF:126:VAL:HG21	40:DF:129:PHE:CZ	2.26	0.70
56:DZ:150:LEU:CD1	56:DZ:150:LEU:H	2.04	0.70
1:AA:373:A:O2'	1:AA:374:A:H5'	1.91	0.70
31:B6:23:THR:HG21	35:BA:2419:U:C5'	2.22	0.70
34:B9:15:LYS:HE2	34:B9:17:ILE:HD11	1.73	0.70
38:BD:108:PRO:HG2	38:BD:111:LEU:HB2	1.74	0.70
40:BF:38:ARG:HD3	40:BF:99:TYR:OH	1.92	0.70
46:BP:136:GLU:O	46:BP:139:LYS:HB3	1.91	0.70
1:CA:1010:G:N2	1:CA:1020:U:H1'	2.06	0.70
1:CA:662:G:H2'	1:CA:663:A:C8	2.26	0.70
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.74	0.70
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.92	0.70
12:CL:55:VAL:HG12	12:CL:56:ALA:H	1.55	0.70
31:D6:23:THR:HG21	35:DA:2419:U:H5'	1.72	0.70
39:DE:95:ILE:N	39:DE:95:ILE:HD12	2.06	0.70
46:DP:16:ARG:NH1	46:DP:16:ARG:HB2	2.07	0.70
46:DP:18:ARG:HH11	46:DP:18:ARG:CB	2.05	0.70
48:DR:11:ASN:OD1	48:DR:12:ARG:N	2.24	0.70
1:AA:723:U:H2'	1:AA:723:U:O2	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.73	0.70
11:AK:109:VAL:HG13	18:AR:85:LEU:O	1.91	0.70
35:BA:807:U:H2'	35:BA:808:G:H8	1.57	0.70
46:BP:23:PRO:HD2	46:BP:33:ARG:CZ	2.22	0.70
35:BA:1227:G:OP1	51:BU:13:LYS:HD2	1.90	0.70
56:BZ:31:ARG:CB	56:BZ:31:ARG:HH11	2.04	0.70
1:CA:838:G:H2'	1:CA:839:U:H5''	1.74	0.70
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.57	0.70
31:D6:9:LEU:CD2	31:D6:10:LEU:H	2.04	0.70
35:DA:271(F):C:H2'	35:DA:271(G):C:O4'	1.91	0.70
37:DC:71:GLN:HG3	37:DC:73:ARG:HE	1.57	0.70
39:DE:28:ALA:HB3	39:DE:93:VAL:HG22	1.74	0.70
40:DF:155:LEU:HD23	40:DF:186:ILE:HD13	1.74	0.70
42:DH:41:MET:HG2	42:DH:55:PRO:HD3	1.73	0.70
42:DH:71:LEU:H	42:DH:74:ASN:HD22	1.39	0.70
46:DP:6:LEU:HG	46:DP:8:PRO:O	1.92	0.70
48:DR:2:ARG:HH11	48:DR:5:LYS:CE	2.04	0.70
35:DA:2683:C:P	50:DT:53:ARG:HH22	2.14	0.70
52:DV:1:MET:HA	52:DV:1:MET:HE2	1.72	0.70
52:DV:19:LYS:HB3	52:DV:94:LEU:O	1.91	0.70
1:AA:474:G:H2'	1:AA:475:G:H8	1.57	0.69
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.57	0.69
19:AS:10:PHE:HZ	19:AS:70:LYS:HD2	1.57	0.69
39:BE:92:THR:H	39:BE:95:ILE:HD11	1.57	0.69
41:BG:60:LEU:O	41:BG:64:THR:HG22	1.91	0.69
46:BP:98:GLU:O	46:BP:101:VAL:HG22	1.92	0.69
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.07	0.69
27:D2:65:ASN:HD22	27:D2:69:ARG:NH2	1.89	0.69
27:D2:65:ASN:O	27:D2:69:ARG:HG3	1.91	0.69
35:DA:2736:G:H5'	35:DA:2736:G:H8	1.58	0.69
35:DA:549:G:H2'	35:DA:551:G:H5''	1.74	0.69
36:DB:111:G:O2'	36:DB:112:U:H5'	1.92	0.69
36:DB:20:C:H2'	36:DB:21:G:C5'	2.22	0.69
41:DG:128:ARG:C	41:DG:130:ASN:N	2.46	0.69
41:DG:12:TYR:HA	41:DG:16:ARG:HB2	1.72	0.69
42:DH:24:VAL:HG23	42:DH:35:VAL:HB	1.72	0.69
1:AA:1317:C:OP1	14:AN:17:LYS:HG2	1.92	0.69
27:B2:2:LYS:HD2	27:B2:5:GLU:OE1	1.91	0.69
33:B8:9:GLY:O	33:B8:13:ARG:HG2	1.91	0.69
33:B8:61:LEU:HD12	33:B8:63:PRO:HD2	1.73	0.69
35:BA:1528(A):A:C3'	35:BA:1529:G:H5''	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1876:A:H2'	35:BA:1877:A:C8	2.27	0.69
35:BA:221:A:H4'	35:BA:222:A:O5'	1.92	0.69
35:BA:796:C:H2'	35:BA:797:C:C6	2.27	0.69
39:BE:77:ILE:CG2	39:BE:78:LEU:H	1.89	0.69
41:BG:137:GLU:HB3	41:BG:152:LEU:HD11	1.75	0.69
42:BH:54:ARG:HB3	42:BH:65:HIS:HD2	1.57	0.69
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.40	0.69
1:CA:664:G:H22	1:CA:741:G:H1	1.37	0.69
5:CE:71:LEU:O	5:CE:72:GLN:HG3	1.91	0.69
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.74	0.69
27:D2:63:VAL:O	27:D2:66:GLU:HG2	1.92	0.69
42:DH:159:GLU:HG3	42:DH:160:LYS:N	2.06	0.69
45:DO:64:ARG:NH1	45:DO:83:ALA:HB2	2.07	0.69
51:DU:91:ASP:CG	51:DU:96:ALA:HB2	2.12	0.69
55:DY:50:ARG:HD2	55:DY:57:GLN:O	1.92	0.69
1:AA:1028:C:C2'	1:AA:1029:C:H5'	2.22	0.69
1:AA:337:C:H2'	1:AA:338:A:C8	2.28	0.69
15:AO:39:LEU:HD12	15:AO:59:MET:CE	2.23	0.69
27:B2:10:LEU:HD13	27:B2:14:ARG:NH2	2.07	0.69
35:BA:1689:A:H62	35:BA:1698:A:H2	1.40	0.69
39:BE:36:ARG:HH12	39:BE:88:GLY:CA	2.04	0.69
39:BE:55:ASN:HD21	39:BE:75:VAL:HG22	1.57	0.69
40:BF:39:TRP:O	40:BF:43:LYS:HG2	1.92	0.69
41:BG:118:ARG:HB2	41:BG:181:ARG:HH21	1.56	0.69
56:BZ:166:SER:HB2	56:BZ:167:PRO:C	2.13	0.69
56:BZ:40:ASP:HB3	56:BZ:43:GLU:HB2	1.74	0.69
1:CA:624:C:H2'	1:CA:625:G:H8	1.56	0.69
4:CD:7:PRO:HB2	4:CD:10:ARG:HD2	1.74	0.69
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.74	0.69
11:CK:109:VAL:HG13	18:CR:85:LEU:O	1.92	0.69
34:D9:15:LYS:HE2	34:D9:17:ILE:HD11	1.74	0.69
35:DA:1485:G:H2'	35:DA:1486:A:H8	1.55	0.69
35:DA:1639:U:C2'	35:DA:1640:C:H5''	2.22	0.69
35:DA:70:G:H21	35:DA:71:A:H62	1.39	0.69
38:DD:26:LYS:HD2	38:DD:26:LYS:O	1.92	0.69
41:DG:91:ARG:HG2	41:DG:92:VAL:N	2.07	0.69
53:DW:5:ALA:O	53:DW:6:ILE:HB	1.92	0.69
1:AA:1255:G:H5'	1:AA:1256:A:OP1	1.93	0.69
1:AA:447:G:H2'	1:AA:485:G:N2	2.08	0.69
1:AA:57:G:H2'	1:AA:58:C:C6	2.27	0.69
19:AS:6:LYS:HG2	19:AS:7:LYS:CE	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:82:SER:O	20:AT:86:ARG:HB2	1.92	0.69
31:B6:15:GLU:HG2	31:B6:18:ARG:HE	1.57	0.69
35:BA:1986:A:C2'	35:BA:1987:G:H5''	2.22	0.69
39:BE:95:ILE:N	39:BE:95:ILE:HD12	2.06	0.69
41:BG:137:GLU:HG2	41:BG:152:LEU:HD21	1.74	0.69
41:BG:47:LYS:NZ	41:BG:82:LEU:HD12	2.07	0.69
45:BO:7:TYR:CE1	45:BO:20:MET:HE3	2.27	0.69
46:BP:107:LYS:O	46:BP:109:GLY:N	2.25	0.69
46:BP:71:VAL:CG1	46:BP:72:PRO:HD3	2.21	0.69
55:BY:8:LYS:HE3	55:BY:72:VAL:HG23	1.73	0.69
1:CA:1293:G:HO2'	1:CA:1294:G:H8	1.37	0.69
4:CD:133:VAL:HG11	4:CD:138:TYR:CD1	2.27	0.69
22:CY:19:G:H1'	22:CY:57:G:N2	2.07	0.69
35:DA:997:G:OP1	51:DU:93:LYS:HD3	1.91	0.69
36:DB:41:U:C5	41:DG:69:ALA:HB1	2.27	0.69
47:DQ:78:PRO:O	47:DQ:81:VAL:HG13	1.93	0.69
51:DU:68:ALA:CB	51:DU:99:ALA:HB1	2.23	0.69
56:DZ:166:SER:HB2	56:DZ:168:GLU:N	2.07	0.69
56:DZ:75:ASN:C	56:DZ:76:LEU:HD22	2.12	0.69
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.92	0.69
1:AA:61:G:H2'	1:AA:62:U:O4'	1.92	0.69
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.19	0.69
35:BA:1108:U:H2'	35:BA:1109:C:H5'	1.72	0.69
35:BA:1495:A:N3	35:BA:1496:A:C2	2.60	0.69
31:B6:45:LYS:HZ1	35:BA:2370:G:H21	1.38	0.69
35:BA:2522:U:C2'	35:BA:2523:G:H5''	2.22	0.69
42:BH:153:LYS:N	42:BH:153:LYS:HD3	2.06	0.69
43:BI:48:GLU:HA	43:BI:51:ILE:HB	1.74	0.69
50:BT:42:ILE:HG21	50:BT:83:ILE:HG12	1.74	0.69
30:B5:25:LEU:HD12	53:BW:19:LEU:HB3	1.74	0.69
54:BX:63:LYS:CB	54:BX:72:LYS:HG3	2.21	0.69
1:CA:1028:C:C2'	1:CA:1029:C:H5'	2.22	0.69
3:CC:30:ARG:HH12	14:CN:35:ARG:HA	1.56	0.69
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.75	0.69
23:CW:16:U:H3'	23:CW:17:C:H5'	1.73	0.69
35:DA:1021:A:H3'	35:DA:1021:A:H8	1.58	0.69
35:DA:1495:A:N3	35:DA:1496:A:C2	2.60	0.69
35:DA:784:A:H5'	35:DA:785:G:OP1	1.92	0.69
41:DG:115:ARG:HH11	41:DG:140:ILE:HD11	1.58	0.69
35:DA:389:G:N1	46:DP:70:GLN:HG3	2.07	0.69
46:DP:71:VAL:HG13	46:DP:72:PRO:HD3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DV:81:TYR:C	52:DV:82:ARG:HD2	2.11	0.69
2:AB:167:PRO:HG2	2:AB:192:SER:OG	1.92	0.69
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	1.91	0.69
1:AA:626:U:H5''	16:AP:38:TYR:CD2	2.26	0.69
31:B6:11:LEU:HD12	31:B6:51:GLU:HB3	1.75	0.69
33:B8:36:LYS:HB3	33:B8:40:GLU:OE1	1.91	0.69
35:BA:1484:G:H3'	35:BA:1485:G:H5''	1.73	0.69
40:BF:4:VAL:HA	40:BF:19:GLU:HB3	1.73	0.69
41:BG:130:ASN:HB3	41:BG:160:VAL:HA	1.72	0.69
49:BS:13:ARG:O	49:BS:14:VAL:HB	1.93	0.69
49:BS:65:VAL:C	49:BS:67:ARG:H	1.96	0.69
55:BY:50:ARG:C	55:BY:52:SER:H	1.95	0.69
56:BZ:118:GLN:HG2	56:BZ:119:GLU:N	2.07	0.69
56:BZ:151:HIS:HA	56:BZ:171:ILE:CD1	2.23	0.69
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.56	0.69
21:CU:10:ARG:HA	21:CU:13:ILE:HD12	1.74	0.69
35:DA:1528(A):A:C3'	35:DA:1529:G:H5''	2.21	0.69
35:DA:221:A:H4'	35:DA:222:A:O5'	1.92	0.69
55:DY:96:ILE:HD12	55:DY:99:CYS:CB	2.22	0.69
22:AY:63:G:H2'	22:AY:64:A:H8	1.57	0.69
26:B1:45:ASN:ND2	26:B1:47:GLN:NE2	2.40	0.69
35:BA:106:C:H2'	35:BA:107:C:C6	2.28	0.69
35:BA:1946:U:H2'	35:BA:1947:C:C6	2.28	0.69
38:BD:94:LEU:HD23	38:BD:95:LEU:N	2.07	0.69
40:BF:40:GLN:NE2	40:BF:182:ASN:HB2	2.08	0.69
41:BG:28:VAL:O	41:BG:31:VAL:HG12	1.92	0.69
46:BP:146:VAL:HG22	46:BP:147:LEU:N	2.08	0.69
1:CA:101:A:H2'	1:CA:102:G:H8	1.58	0.69
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.22	0.69
1:CA:539:A:OP2	12:CL:115:LYS:HE3	1.93	0.69
8:CH:84:ARG:O	8:CH:135:CYS:HB2	1.93	0.69
28:D3:17:LYS:HD3	35:DA:969:U:OP1	1.93	0.69
44:DN:73:THR:CG2	44:DN:82:LEU:HD11	2.23	0.69
49:DS:26:LEU:HG	49:DS:39:ILE:CD1	2.22	0.69
50:DT:80:SER:CB	50:DT:81:PRO:HD3	2.16	0.69
50:DT:92:GLY:HA2	50:DT:114:LEU:HB3	1.75	0.69
1:AA:101:A:H2'	1:AA:102:G:H8	1.57	0.69
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.27	0.69
15:AO:61:GLY:O	15:AO:65:ARG:HD3	1.92	0.69
23:AW:16:U:H3'	23:AW:17:C:C5'	2.21	0.69
22:AY:67:C:H2'	22:AY:68:C:C6	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:671:C:O2'	35:BA:672:C:H5'	1.92	0.69
35:BA:61:G:H1	35:BA:94:C:H42	1.41	0.69
37:BC:168:THR:HA	37:BC:173:ALA:CB	2.23	0.69
44:BN:1:MET:HG2	44:BN:2:LYS:N	2.07	0.69
46:BP:7:ARG:NH1	46:BP:7:ARG:O	2.26	0.69
1:CA:20:U:H2'	1:CA:21:G:O4'	1.91	0.69
1:CA:841:U:H3'	1:CA:848:C:H5'	1.75	0.69
9:CI:63:ILE:HD11	9:CI:81:ILE:HD11	1.74	0.69
13:CM:76:ALA:HA	13:CM:79:LYS:CG	2.22	0.69
35:DA:1697:G:H3'	35:DA:1698:A:C5'	2.22	0.69
42:DH:44:VAL:HG12	42:DH:45:VAL:N	2.06	0.69
42:DH:54:ARG:HB3	42:DH:65:HIS:HD2	1.57	0.69
42:DH:71:LEU:H	42:DH:74:ASN:ND2	1.90	0.69
46:DP:30:THR:CG2	46:DP:31:ALA:H	1.99	0.69
50:DT:28:VAL:CG1	50:DT:46:GLU:HA	2.21	0.69
52:DV:18:LEU:CD1	52:DV:19:LYS:H	2.04	0.69
56:DZ:131:ARG:HG2	56:DZ:131:ARG:HH11	1.58	0.69
56:DZ:40:ASP:HB2	56:DZ:43:GLU:OE1	1.93	0.69
3:AC:71:ALA:CB	3:AC:109:PRO:HG3	2.23	0.69
11:AK:116:HIS:O	11:AK:117:ASN:HB2	1.93	0.69
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.08	0.69
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.07	0.69
24:AX:13:A:H3'	24:AX:14:A:C5'	2.21	0.69
35:BA:1987:G:H5'	35:BA:1987:G:C8	2.26	0.69
35:BA:2340:G:O2'	35:BA:2341:G:H5'	1.92	0.69
35:BA:557:U:H2'	35:BA:558:G:H8	1.58	0.69
42:BH:24:VAL:CG2	42:BH:35:VAL:HB	2.23	0.69
43:BI:47:LEU:HG	43:BI:51:ILE:CG1	2.22	0.69
52:BV:18:LEU:HD13	52:BV:19:LYS:N	2.07	0.69
2:CB:178:ARG:HH22	2:CB:196:LEU:CA	2.06	0.69
16:CP:18:ARG:O	16:CP:20:VAL:HG12	1.93	0.69
22:CV:14:A:C2	22:CV:22:G:H1'	2.27	0.69
35:DA:2834:G:H5'	35:DA:2835:A:OP2	1.92	0.69
39:DE:69:LYS:HD2	39:DE:90:THR:OG1	1.92	0.69
47:DQ:103:MET:HE1	47:DQ:125:LEU:HD13	1.75	0.69
55:DY:46:LYS:H	55:DY:62:GLU:HG2	1.58	0.69
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.74	0.69
10:AJ:6:ILE:HG13	10:AJ:6:ILE:O	1.93	0.69
13:AM:76:ALA:HA	13:AM:79:LYS:CG	2.22	0.69
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.38	0.69
23:AW:38:A:H3'	23:AW:39:U:C5'	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B0:25:ARG:HA	25:B0:29:GLN:HE22	1.58	0.69
31:B6:9:LEU:CD2	31:B6:10:LEU:H	2.05	0.69
46:BP:115:LEU:HA	46:BP:134:ALA:HB2	1.73	0.69
56:BZ:127:LYS:HD2	56:BZ:162:GLU:OE1	1.93	0.69
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.58	0.69
1:CA:474:G:H2'	1:CA:475:G:H8	1.57	0.69
2:CB:98:LEU:O	2:CB:101:MET:HG3	1.92	0.69
3:CC:71:ALA:CB	3:CC:109:PRO:HG3	2.22	0.69
24:CX:13:A:H3'	24:CX:14:A:H5''	1.75	0.69
35:DA:1686:C:C5'	35:DA:1686:C:H6	2.06	0.69
35:DA:1946:U:H2'	35:DA:1947:C:C6	2.26	0.69
35:DA:2287:A:N6	35:DA:2344:U:N3	2.41	0.69
46:DP:107:LYS:O	46:DP:109:GLY:N	2.26	0.69
46:DP:98:GLU:O	46:DP:101:VAL:HG22	1.92	0.69
47:DQ:141:GLN:OXT	56:DZ:98:MET:HB2	1.92	0.69
35:DA:1287:A:H5'	48:DR:104:ARG:HD2	1.74	0.69
48:DR:2:ARG:HD3	48:DR:5:LYS:HE2	1.75	0.69
3:AC:108:ASN:HD21	3:AC:144:SER:HB2	1.56	0.69
3:AC:18:TRP:HE3	3:AC:18:TRP:N	1.90	0.69
5:AE:147:ASP:O	5:AE:151:LEU:HG	1.93	0.69
5:AE:71:LEU:O	5:AE:72:GLN:HG3	1.93	0.69
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.28	0.69
22:AY:41:C:H2'	22:AY:42:C:O4'	1.93	0.69
35:BA:1686:C:H6	35:BA:1686:C:C5'	2.06	0.69
35:BA:2758:A:C3'	35:BA:2759:G:H5''	2.23	0.69
35:BA:855:G:H1	35:BA:922:U:H3	1.41	0.69
53:BW:75:TYR:CE1	53:BW:104:THR:HB	2.28	0.69
55:BY:95:LYS:HG2	55:BY:100:ALA:HA	1.75	0.69
1:CA:1381:U:H1'	7:CG:78:ARG:NH2	2.01	0.69
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.75	0.69
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.07	0.69
15:CO:39:LEU:HD12	15:CO:59:MET:CE	2.23	0.69
1:CA:624:C:O3'	16:CP:10:GLY:HA2	1.93	0.69
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.06	0.69
18:CR:45:SER:H	18:CR:51:LEU:HG	1.58	0.69
35:DA:2498:C:O2'	35:DA:2499:C:H5'	1.92	0.69
35:DA:2810:A:O2'	39:DE:61:ARG:HB2	1.92	0.69
39:DE:108:SER:O	39:DE:162:ALA:HA	1.93	0.69
35:DA:2876:G:H4'	50:DT:3:ARG:HD3	1.74	0.69
53:DW:29:LEU:O	53:DW:33:ARG:HG3	1.93	0.69
5:AE:109:ILE:O	5:AE:113:ALA:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:36:CYS:HB3	30:B5:38:ALA:CB	2.23	0.68
35:BA:2712:U:O2'	35:BA:2713:A:H5'	1.93	0.68
38:BD:172:TYR:HD1	38:BD:186:HIS:HA	1.58	0.68
39:BE:69:LYS:HZ1	39:BE:89:ASP:HA	1.59	0.68
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.28	0.68
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.76	0.68
1:CA:61:G:H2'	1:CA:62:U:O4'	1.93	0.68
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.58	0.68
35:DA:1754:C:OP1	50:DT:96:ARG:NH1	2.25	0.68
35:DA:1987:G:C8	35:DA:1987:G:H5'	2.28	0.68
35:DA:547:A:H8	35:DA:549:G:N1	1.89	0.68
35:DA:572:A:OP2	52:DV:78:LYS:HE2	1.93	0.68
38:DD:106:ILE:HD11	38:DD:196:VAL:HG13	1.75	0.68
41:DG:172:LEU:O	41:DG:176:LEU:HG	1.92	0.68
35:BA:2162:G:H2'	35:BA:2163:C:C6	2.28	0.68
35:BA:2810:A:O2'	39:BE:61:ARG:HB2	1.93	0.68
35:BA:547:A:H8	35:BA:549:G:N1	1.91	0.68
38:BD:76:PRO:O	38:BD:98:VAL:HG23	1.92	0.68
49:BS:17:ARG:O	49:BS:18:ILE:HB	1.92	0.68
36:BB:52:A:N7	49:BS:33:LYS:HE3	2.08	0.68
56:BZ:111:VAL:HG22	56:BZ:111:VAL:O	1.93	0.68
56:BZ:144:LEU:HD12	56:BZ:174:VAL:HG21	1.74	0.68
2:CB:27:LYS:HD3	2:CB:195:ASP:OD1	1.93	0.68
3:CC:18:TRP:HE3	3:CC:18:TRP:N	1.91	0.68
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.04	0.68
19:CS:10:PHE:HZ	19:CS:70:LYS:HD2	1.58	0.68
38:DD:172:TYR:HD1	38:DD:186:HIS:HA	1.58	0.68
1:AA:1030(A):G:H1'	1:AA:1031:G:H22	1.58	0.68
1:AA:1501:C:OP2	1:AA:1504:G:H2'	1.93	0.68
1:AA:223:U:H2'	1:AA:224:C:H6	1.59	0.68
1:AA:662:G:H2'	1:AA:663:A:C8	2.28	0.68
1:AA:838:G:H2'	1:AA:839:U:H5''	1.75	0.68
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.75	0.68
33:B8:14:VAL:HG23	33:B8:24:ALA:HB2	1.75	0.68
35:BA:1686:C:H5'	35:BA:1686:C:C6	2.27	0.68
35:BA:2287:A:N6	35:BA:2344:U:N3	2.40	0.68
28:B3:17:LYS:HD3	35:BA:969:U:OP1	1.94	0.68
38:BD:61:LEU:O	38:BD:63:ARG:NH1	2.26	0.68
1:CA:373:A:O2'	1:CA:374:A:H5'	1.93	0.68
1:CA:880:C:OP2	12:CL:6:THR:HG21	1.92	0.68
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.26	0.68
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	2.07	0.68
35:DA:1876:A:H2'	35:DA:1877:A:C8	2.28	0.68
35:DA:2393:A:H5'	46:DP:62:LEU:HB3	1.75	0.68
35:DA:2506:U:H3'	35:DA:2506:U:C6	2.28	0.68
35:DA:979:G:H3'	35:DA:980:A:H5''	1.75	0.68
38:DD:118:VAL:HG22	38:DD:119:ALA:H	1.56	0.68
46:DP:41:ARG:HE	46:DP:41:ARG:HA	1.56	0.68
52:DV:69:LYS:HA	52:DV:88:ARG:HG2	1.74	0.68
35:BA:1593:G:C3'	35:BA:1594:G:H5''	2.23	0.68
35:BA:2740:A:H2'	35:BA:2741:A:C8	2.29	0.68
42:BH:32:GLU:O	42:BH:33:LEU:HD23	1.93	0.68
45:BO:64:ARG:NH1	45:BO:83:ALA:HB2	2.08	0.68
47:BQ:137:TYR:CD2	47:BQ:137:TYR:N	2.58	0.68
48:BR:78:LYS:O	48:BR:82:GLU:HB3	1.91	0.68
54:BX:12:VAL:CG2	54:BX:17:ALA:HB1	2.23	0.68
55:BY:50:ARG:HD2	55:BY:57:GLN:O	1.93	0.68
1:CA:625:G:H2'	1:CA:626:U:C6	2.28	0.68
5:CE:109:ILE:O	5:CE:113:ALA:HB2	1.94	0.68
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.74	0.68
15:CO:85:LEU:HD12	15:CO:87:ILE:HD11	1.75	0.68
31:D6:15:GLU:OE1	31:D6:18:ARG:HG3	1.93	0.68
35:DA:1173:G:H3'	35:DA:1174:A:H5'	1.75	0.68
35:DA:1590:U:H2'	35:DA:1591:G:C5'	2.20	0.68
35:DA:2092:U:C4'	35:DA:2093:G:H5''	2.23	0.68
35:DA:212:G:O2'	35:DA:213:A:H5'	1.93	0.68
54:DX:63:LYS:O	54:DX:63:LYS:HG3	1.93	0.68
55:DY:14:LEU:HG	55:DY:15:VAL:N	2.08	0.68
56:DZ:19:ARG:NH1	56:DZ:25:PRO:HD2	2.07	0.68
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.59	0.68
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.07	0.68
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.94	0.68
31:B6:15:GLU:HG2	31:B6:18:ARG:NH2	2.08	0.68
35:BA:2262:U:O2'	35:BA:2263:C:H5''	1.92	0.68
35:BA:2387:U:H5'	35:BA:2388:A:OP2	1.93	0.68
35:BA:271(F):C:H2'	35:BA:271(G):C:O4'	1.92	0.68
51:BU:68:ALA:CB	51:BU:99:ALA:HB1	2.24	0.68
56:BZ:53:ILE:O	56:BZ:53:ILE:CG1	2.41	0.68
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.58	0.68
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.75	0.68
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.08	0.68
26:D1:64:ALA:HA	26:D1:67:ILE:CG1	2.21	0.68
35:DA:197:A:H5'	35:DA:197:A:C8	2.28	0.68
35:DA:580:C:H2'	35:DA:581:C:H6	1.59	0.68
39:DE:24:THR:HG22	39:DE:186:GLY:H	1.57	0.68
43:DI:81:VAL:O	43:DI:82:ARG:HB2	1.94	0.68
50:DT:27:THR:HG23	50:DT:28:VAL:N	2.08	0.68
5:AE:79:GLU:HA	5:AE:91:LEU:O	1.93	0.68
30:B5:16:ARG:HD2	30:B5:20:ARG:HH21	1.58	0.68
31:B6:15:GLU:HA	31:B6:47:THR:HG21	1.75	0.68
35:BA:1187:G:H5''	52:BV:81:TYR:CE2	2.28	0.68
40:BF:7:TYR:HD2	40:BF:16:GLY:H	1.41	0.68
46:BP:59:LEU:HA	46:BP:61:ARG:NE	2.08	0.68
52:BV:81:TYR:C	52:BV:82:ARG:HD2	2.13	0.68
55:BY:17:SER:HA	55:BY:71:LYS:HE2	1.75	0.68
1:CA:57:G:H2'	1:CA:58:C:H6	1.59	0.68
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.00	0.68
7:CG:26:PHE:O	7:CG:30:ILE:HG12	1.92	0.68
1:CA:1317:C:OP1	14:CN:17:LYS:HG2	1.93	0.68
15:CO:61:GLY:O	15:CO:65:ARG:HD3	1.94	0.68
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.76	0.68
23:CW:74:C:H4'	26:D1:23:LYS:HB2	1.76	0.68
31:D6:11:LEU:HD12	31:D6:51:GLU:HB3	1.74	0.68
35:DA:2543:G:H2'	35:DA:2544:G:C8	2.28	0.68
42:DH:24:VAL:CG2	42:DH:35:VAL:HB	2.24	0.68
1:AA:20:U:H2'	1:AA:21:G:O4'	1.93	0.68
2:AB:224:GLN:HG3	2:AB:229:VAL:HG22	1.76	0.68
3:AC:86:VAL:O	3:AC:89:GLU:HB3	1.94	0.68
10:AJ:21:GLN:HA	10:AJ:24:VAL:CG2	2.22	0.68
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.26	0.68
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.76	0.68
22:AV:16:U:O3'	22:AV:17:C:H6	1.77	0.68
25:B0:26:TYR:H	25:B0:29:GLN:NE2	1.91	0.68
33:B8:50:LEU:C	33:B8:53:PRO:HD2	2.13	0.68
35:BA:1173:G:H3'	35:BA:1174:A:H5'	1.76	0.68
35:BA:2506:U:H3'	35:BA:2506:U:C6	2.27	0.68
38:BD:79:VAL:HG11	38:BD:111:LEU:HD11	1.75	0.68
55:BY:14:LEU:HG	55:BY:15:VAL:N	2.08	0.68
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	1.75	0.68
4:CD:8:VAL:O	4:CD:10:ARG:N	2.26	0.68
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:33:GLN:H	10:CJ:75:ILE:CG1	2.06	0.68
29:D4:48:ILE:HD12	29:D4:48:ILE:N	2.09	0.68
35:DA:1689:A:H62	35:DA:1698:A:H2	1.41	0.68
35:DA:2668:G:O2'	35:DA:2669:G:H5'	1.94	0.68
36:DB:87:G:C3'	36:DB:88:C:H5''	2.24	0.68
47:DQ:133:ARG:O	47:DQ:134:ARG:HG2	1.94	0.68
52:DV:55:ALA:HA	52:DV:101:GLY:HA2	1.76	0.68
18:AR:56:THR:CB	18:AR:58:LEU:HD12	2.24	0.68
35:BA:2790:A:C2	35:BA:2791:C:H2'	2.29	0.68
35:BA:979:G:H3'	35:BA:980:A:H5''	1.76	0.68
42:BH:141:VAL:HG12	42:BH:142:GLY:N	2.07	0.68
43:BI:10:GLU:OE2	43:BI:11:ASN:HB2	1.92	0.68
39:BE:109:LYS:HB3	48:BR:2:ARG:HH22	1.59	0.68
50:BT:3:ARG:HB3	50:BT:6:LEU:CB	2.24	0.68
50:BT:92:GLY:O	50:BT:94:ALA:N	2.26	0.68
35:BA:483:A:H1'	55:BY:60:PHE:CZ	2.26	0.68
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.58	0.68
1:CA:723:U:O2	1:CA:723:U:H2'	1.94	0.68
3:CC:127:ARG:HD2	3:CC:127:ARG:H	1.58	0.68
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.74	0.68
35:DA:1188:U:O2'	35:DA:1189:A:H5'	1.94	0.68
35:DA:571:A:H5'	35:DA:2030:A:N6	1.96	0.68
39:DE:9:VAL:O	39:DE:9:VAL:HG23	1.94	0.68
55:DY:42:VAL:CG1	55:DY:65:ALA:HB3	2.23	0.68
47:DQ:19:GLY:HA3	56:DZ:79:ARG:NH2	2.08	0.68
1:AA:1146:A:H8	1:AA:1146:A:H5'	1.59	0.68
2:AB:163:PHE:HA	2:AB:185:ILE:O	1.94	0.68
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.24	0.68
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.76	0.68
16:AP:50:LYS:HD3	16:AP:51:VAL:H	1.59	0.68
27:B2:59:ARG:O	27:B2:63:VAL:HG23	1.94	0.68
35:BA:1652:A:C2'	35:BA:1653:G:H5'	2.24	0.68
35:BA:2103:C:C3'	35:BA:2104:G:H5''	2.24	0.68
38:BD:26:LYS:HD2	38:BD:26:LYS:O	1.94	0.68
41:BG:128:ARG:HE	41:BG:128:ARG:N	1.91	0.68
41:BG:144:ILE:HD12	41:BG:145:THR:H	1.57	0.68
42:BH:159:GLU:HG3	42:BH:160:LYS:N	2.07	0.68
46:BP:75:ILE:N	46:BP:75:ILE:HD12	2.09	0.68
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.24	0.68
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.74	0.68
20:CT:43:LEU:HD13	20:CT:51:GLU:HG3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1686:C:C6	35:DA:1686:C:H5'	2.28	0.68
39:DE:55:ASN:HD21	39:DE:75:VAL:HG22	1.59	0.68
43:DI:48:GLU:HA	43:DI:51:ILE:HB	1.74	0.68
44:DN:56:ASN:H	44:DN:126:PRO:HA	1.59	0.68
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.29	0.68
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.29	0.68
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.57	0.68
13:AM:81:LEU:HD22	13:AM:86:CYS:SG	2.34	0.68
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.14	0.68
20:AT:40:ALA:HB2	20:AT:55:ILE:HG22	1.76	0.68
35:BA:1175:U:C4'	35:BA:1176:G:H5'	2.22	0.68
35:BA:1240:U:O2'	35:BA:1241:A:H5'	1.94	0.68
38:BD:35:LYS:HA	38:BD:63:ARG:HA	1.77	0.68
40:BF:178:PRO:HB2	40:BF:201:VAL:HG11	1.76	0.68
41:BG:129:GLY:HA3	41:BG:163:ALA:O	1.93	0.68
49:BS:74:ALA:HB1	49:BS:103:GLU:CB	2.24	0.68
51:BU:112:ARG:NH2	52:BV:46:VAL:HG11	2.09	0.68
52:BV:55:ALA:HA	52:BV:101:GLY:HA2	1.74	0.68
56:BZ:116:VAL:O	56:BZ:174:VAL:HA	1.93	0.68
5:CE:147:ASP:O	5:CE:151:LEU:HG	1.92	0.68
30:D5:25:LEU:HD12	53:DW:19:LEU:HB3	1.76	0.68
35:DA:1022:G:N2	35:DA:1142(A):A:H2	1.90	0.68
35:DA:1751:C:H2'	35:DA:1752:C:H6	1.59	0.68
35:DA:484:C:H2'	35:DA:485:C:C6	2.29	0.68
35:DA:855:G:H1	35:DA:922:U:H3	1.41	0.68
38:DD:108:PRO:HG2	38:DD:111:LEU:HB2	1.75	0.68
38:DD:79:VAL:HG11	38:DD:111:LEU:HD11	1.75	0.68
40:DF:39:TRP:O	40:DF:43:LYS:HG2	1.93	0.68
43:DI:113:ARG:O	43:DI:131:LYS:HG2	1.94	0.68
33:D8:59:LYS:CD	46:DP:50:ARG:HB3	2.21	0.68
48:DR:3:HIS:O	48:DR:5:LYS:N	2.27	0.68
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.08	0.67
1:AA:489:C:H2'	1:AA:490:G:H8	1.59	0.67
2:AB:7:VAL:HG12	2:AB:217:ARG:NH2	2.07	0.67
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.09	0.67
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.76	0.67
23:AW:30:G:H2'	23:AW:31:A:C8	2.29	0.67
35:BA:2182:G:H2'	35:BA:2183:C:C6	2.30	0.67
35:BA:736:C:H2'	35:BA:737:C:H6	1.59	0.67
38:BD:106:ILE:HD11	38:BD:196:VAL:HG13	1.76	0.67
38:BD:34:VAL:O	38:BD:64:ILE:HG23	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:155:LEU:HD23	40:BF:186:ILE:HD13	1.76	0.67
41:BG:68:PRO:HB3	41:BG:90:LEU:HD21	1.76	0.67
44:BN:58:ASP:O	44:BN:60:ILE:N	2.25	0.67
46:BP:71:VAL:HG13	46:BP:72:PRO:HD3	1.76	0.67
35:BA:572:A:OP2	52:BV:78:LYS:HE2	1.93	0.67
55:BY:25:GLY:HA3	55:BY:39:VAL:CG1	2.23	0.67
56:BZ:99:TYR:CE2	56:BZ:125:LEU:HD13	2.29	0.67
4:CD:11:LEU:C	4:CD:13:ARG:N	2.43	0.67
7:CG:53:LYS:O	7:CG:54:THR:HB	1.93	0.67
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.76	0.67
35:DA:1608:A:H1'	35:DA:1610:A:OP2	1.94	0.67
35:DA:2537:U:H2'	35:DA:2538:C:C6	2.29	0.67
35:DA:2866:U:C6	35:DA:2868:A:H1'	2.29	0.67
39:DE:107:THR:O	39:DE:190:GLY:HA2	1.94	0.67
35:DA:271(M):G:H5''	43:DI:57:ARG:NH1	2.09	0.67
44:DN:57:ALA:HB3	44:DN:124:ALA:HA	1.76	0.67
46:DP:23:PRO:HD2	46:DP:33:ARG:CZ	2.23	0.67
46:DP:96:THR:O	46:DP:99:LEU:HB3	1.94	0.67
50:DT:29:ARG:CB	50:DT:85:LYS:HA	2.24	0.67
56:DZ:157:LEU:HD11	56:DZ:163:LEU:HG	1.75	0.67
1:AA:624:C:H2'	1:AA:625:G:H8	1.58	0.67
2:AB:59:GLU:HB2	2:AB:221:LEU:CD1	2.25	0.67
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.93	0.67
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.07	0.67
12:AL:27:LEU:HD11	12:AL:64:TYR:CZ	2.29	0.67
22:AV:76:8AN:H2'	35:BA:2602:A:N6	2.09	0.67
23:AW:6:G:C2'	23:AW:7:A:H5'	2.24	0.67
27:B2:10:LEU:HD21	27:B2:59:ARG:HG2	1.74	0.67
35:BA:1022:G:N2	35:BA:1142(A):A:H2	1.93	0.67
35:BA:1042:G:H1'	35:BA:1114:G:N2	2.09	0.67
50:BT:27:THR:HG23	50:BT:28:VAL:N	2.08	0.67
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	1.94	0.67
1:CA:385:C:O2'	1:CA:386:C:H5'	1.95	0.67
2:CB:163:PHE:HA	2:CB:185:ILE:O	1.94	0.67
18:CR:56:THR:CB	18:CR:58:LEU:HD12	2.24	0.67
19:CS:6:LYS:HG2	19:CS:7:LYS:CE	2.25	0.67
20:CT:99:LEU:C	20:CT:100:ILE:HD12	2.14	0.67
26:D1:44:PRO:HB2	26:D1:46:LEU:HD12	1.76	0.67
30:D5:36:CYS:HB3	30:D5:38:ALA:CB	2.25	0.67
35:DA:2189:U:C3'	35:DA:2190:G:H5''	2.23	0.67
35:DA:646:A:H2'	35:DA:647:G:O4'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:39:LYS:HZ1	38:DD:87:ASN:HB3	1.58	0.67
46:DP:146:VAL:HG22	46:DP:147:LEU:N	2.10	0.67
47:DQ:17:LEU:C	47:DQ:18:LYS:HD2	2.13	0.67
1:AA:1239:A:H62	1:AA:1299:A:N6	1.92	0.67
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.29	0.67
7:AG:26:PHE:O	7:AG:30:ILE:HG12	1.93	0.67
10:AJ:50:ILE:HD11	14:AN:41:ARG:HD2	1.76	0.67
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.08	0.67
30:B5:4:HIS:HB3	30:B5:5:PRO:HD3	1.75	0.67
35:BA:2172:U:H3'	35:BA:2173:A:H8	1.58	0.67
38:BD:118:VAL:HG22	38:BD:119:ALA:H	1.58	0.67
44:BN:13:TRP:O	44:BN:135:PRO:HD2	1.94	0.67
48:BR:3:HIS:O	48:BR:5:LYS:N	2.27	0.67
56:BZ:10:ARG:HH21	56:BZ:26:GLY:H	1.41	0.67
56:BZ:175:VAL:HG13	56:BZ:176:PRO:HD2	1.76	0.67
1:CA:165:C:H2'	1:CA:166:G:C8	2.30	0.67
8:CH:81:HIS:O	8:CH:82:HIS:HB2	1.93	0.67
11:CK:116:HIS:O	11:CK:117:ASN:HB2	1.94	0.67
30:D5:16:ARG:HD2	30:D5:20:ARG:HH21	1.60	0.67
33:D8:50:LEU:C	33:D8:53:PRO:HD2	2.13	0.67
35:DA:2522:U:C2'	35:DA:2523:G:H5''	2.23	0.67
35:DA:2712:U:O2'	35:DA:2713:A:H5'	1.94	0.67
39:DE:51:PHE:CE1	39:DE:52:LEU:HD13	2.30	0.67
47:DQ:103:MET:CE	47:DQ:125:LEU:HD13	2.25	0.67
55:DY:96:ILE:HB	55:DY:99:CYS:HB2	1.77	0.67
1:AA:539:A:OP2	12:AL:115:LYS:HE3	1.94	0.67
2:AB:17:PHE:HB2	2:AB:42:ILE:HG23	1.75	0.67
15:AO:55:GLY:O	15:AO:59:MET:HG3	1.94	0.67
35:BA:1354:A:H2'	35:BA:1355:G:O4'	1.94	0.67
35:BA:2189:U:C3'	35:BA:2190:G:H5''	2.25	0.67
35:BA:784:A:H5'	35:BA:785:G:OP1	1.95	0.67
35:BA:92:A:H2'	35:BA:93:G:C8	2.29	0.67
38:BD:210:GLY:O	38:BD:212:SER:N	2.27	0.67
40:BF:82:ILE:HG13	40:BF:82:ILE:O	1.93	0.67
42:BH:44:VAL:HG12	42:BH:45:VAL:N	2.07	0.67
55:BY:96:ILE:HD12	55:BY:99:CYS:CB	2.23	0.67
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.07	0.67
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.28	0.67
35:DA:1175:U:H4'	35:DA:1176:G:C5'	2.22	0.67
35:DA:1484:G:C2'	35:DA:1485:G:H5''	2.23	0.67
35:DA:2059:A:H5'	35:DA:2060:A:OP2	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2103:C:C3'	35:DA:2104:G:H5''	2.24	0.67
35:DA:2340:G:O2'	35:DA:2341:G:H5'	1.93	0.67
35:DA:613:G:H8	35:DA:613:G:H5'	1.60	0.67
43:DI:124:GLY:O	43:DI:142:VAL:HG22	1.95	0.67
47:DQ:132:VAL:HB	56:DZ:81:ARG:HH12	1.57	0.67
49:DS:64:GLU:O	49:DS:67:ARG:HB2	1.94	0.67
50:DT:129:ARG:CZ	50:DT:131:ALA:HB3	2.23	0.67
2:AB:98:LEU:O	2:AB:101:MET:HG3	1.93	0.67
3:AC:130:VAL:O	3:AC:134:ILE:HG12	1.95	0.67
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.76	0.67
4:AD:11:LEU:C	4:AD:13:ARG:N	2.43	0.67
4:AD:138:TYR:HD2	4:AD:139:ARG:N	1.92	0.67
12:AL:27:LEU:HB2	12:AL:33:ARG:HD2	1.77	0.67
22:AV:27:G:H2'	22:AV:28:G:C8	2.30	0.67
31:B6:15:GLU:OE2	31:B6:41:PRO:HG3	1.95	0.67
33:B8:56:GLU:HA	33:B8:59:LYS:HZ2	1.59	0.67
35:BA:2287:A:H62	35:BA:2344:U:H3	1.40	0.67
42:BH:85:LYS:NZ	42:BH:133:VAL:HB	2.09	0.67
4:CD:133:VAL:HG11	4:CD:138:TYR:HD1	1.57	0.67
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.75	0.67
20:CT:40:ALA:HB2	20:CT:55:ILE:HG22	1.76	0.67
22:CV:20:U:C3'	22:CV:21:A:C5'	2.68	0.67
33:D8:4:MET:CB	33:D8:61:LEU:HD22	2.24	0.67
35:DA:2114:A:H2'	35:DA:2115:G:O4'	1.95	0.67
35:DA:2571:C:H5'	35:DA:2572:A:C5'	2.14	0.67
35:DA:2784:C:H1'	39:DE:37:ARG:NH1	2.09	0.67
40:DF:181:LEU:CD1	40:DF:186:ILE:HD11	2.23	0.67
40:DF:53:THR:HG22	40:DF:56:GLU:CD	2.14	0.67
45:DO:104:ARG:HH21	50:DT:33:LYS:CE	2.07	0.67
1:AA:841:U:H3'	1:AA:848:C:H5'	1.75	0.67
26:B1:91:LYS:HA	26:B1:94:LEU:HD12	1.75	0.67
34:B9:9:ARG:HB3	34:B9:9:ARG:NH1	2.10	0.67
35:BA:2305:A:H5''	41:BG:134:GLY:HA3	1.77	0.67
38:BD:131:LEU:N	38:BD:131:LEU:HD12	2.09	0.67
38:BD:210:GLY:O	38:BD:211:ARG:HB3	1.95	0.67
42:BH:20:ALA:HB2	42:BH:25:LYS:HZ1	1.58	0.67
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.76	0.67
8:CH:44:PHE:O	8:CH:45:ILE:HG23	1.94	0.67
12:CL:27:LEU:HB2	12:CL:33:ARG:HD2	1.75	0.67
1:CA:267:C:OP2	17:CQ:67:LYS:HD2	1.94	0.67
30:D5:33:CYS:CB	30:D5:38:ALA:HB3	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:15:GLU:HA	31:D6:47:THR:HG21	1.77	0.67
33:D8:36:LYS:HB3	33:D8:40:GLU:OE1	1.94	0.67
35:DA:1175:U:C4'	35:DA:1176:G:H5'	2.22	0.67
35:DA:1510:G:O2'	35:DA:1511:C:H5'	1.95	0.67
35:DA:1593:G:C3'	35:DA:1594:G:H5''	2.23	0.67
35:DA:1814:G:H2'	35:DA:1815:A:C8	2.30	0.67
35:DA:2723:C:H5''	48:DR:2:ARG:NE	2.09	0.67
35:DA:486:C:H4'	53:DW:60:ASN:ND2	2.10	0.67
39:DE:34:VAL:HG22	39:DE:48:GLN:HE21	1.60	0.67
49:DS:13:ARG:O	49:DS:14:VAL:HB	1.94	0.67
49:DS:30:ARG:HH22	49:DS:62:LYS:HB3	1.60	0.67
49:DS:74:ALA:HB1	49:DS:103:GLU:CB	2.25	0.67
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.59	0.67
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	1.94	0.67
1:AA:1424:C:O2'	1:AA:1425:U:H5'	1.95	0.67
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.59	0.67
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	1.93	0.67
4:AD:133:VAL:HG11	4:AD:138:TYR:HD1	1.59	0.67
7:AG:70:LYS:O	7:AG:138:LYS:HE3	1.95	0.67
23:AW:33:U:H2'	23:AW:35:A:OP2	1.95	0.67
35:BA:1453:U:OP1	48:BR:77:ARG:HD3	1.94	0.67
35:BA:314:A:O2'	35:BA:315:G:H5'	1.93	0.67
35:BA:613:G:H5'	35:BA:613:G:H8	1.58	0.67
38:BD:121:PRO:HB3	38:BD:135:PHE:CE1	2.30	0.67
38:BD:176:ARG:HG2	38:BD:176:ARG:HH11	1.60	0.67
38:BD:129:ASN:O	38:BD:193:VAL:HG12	1.95	0.67
50:BT:64:ARG:HD2	50:BT:73:GLU:CG	2.25	0.67
52:BV:69:LYS:HA	52:BV:88:ARG:HG2	1.75	0.67
55:BY:47:LYS:N	55:BY:47:LYS:HD2	2.10	0.67
4:CD:22:LYS:HB2	4:CD:26:CYS:HB2	1.74	0.67
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.95	0.67
35:DA:1986:A:C2'	35:DA:1987:G:H5''	2.25	0.67
35:DA:314:A:O2'	35:DA:315:G:H5'	1.95	0.67
41:DG:39:ILE:HD13	41:DG:155:MET:SD	2.35	0.67
43:DI:145:VAL:HG12	43:DI:146:ALA:N	2.09	0.67
43:DI:2:LYS:HB2	43:DI:39:ALA:HB3	1.77	0.67
50:DT:83:ILE:O	50:DT:84:GLN:HB3	1.94	0.67
2:AB:48:MET:HG2	2:AB:49:GLU:H	1.58	0.67
3:AC:148:GLY:HA3	3:AC:172:ARG:O	1.95	0.67
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.08	0.67
1:AA:1308:U:OP1	13:AM:98:VAL:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:30:ARG:HH11	14:AN:38:GLY:CA	2.08	0.67
15:AO:85:LEU:HD12	15:AO:87:ILE:HD11	1.77	0.67
23:AW:67:C:H2'	23:AW:68:C:C6	2.29	0.67
22:AY:8:U:H4'	22:AY:48:C:H4'	1.75	0.67
29:B4:48:ILE:H	29:B4:48:ILE:HD12	1.59	0.67
35:BA:1272:A:OP2	35:BA:1647:G:OP1	2.13	0.67
35:BA:1405:U:H2'	35:BA:1406:U:C6	2.30	0.67
35:BA:330:A:O2'	35:BA:331:A:H8	1.77	0.67
37:BC:18:LYS:O	37:BC:22:ILE:HD11	1.95	0.67
35:BA:271(M):G:H5''	43:BI:57:ARG:NH1	2.09	0.67
43:BI:72:LEU:O	43:BI:138:ILE:HG23	1.94	0.67
50:BT:92:GLY:HA2	50:BT:114:LEU:HB3	1.76	0.67
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.77	0.67
2:CB:82:ARG:HB2	2:CB:94:ASN:ND2	2.09	0.67
4:CD:170:VAL:HG22	4:CD:171:GLY:N	2.09	0.67
13:CM:16:ASP:HB3	13:CM:41:PRO:HB3	1.77	0.67
14:CN:24:CYS:HB3	14:CN:27:CYS:O	1.95	0.67
27:D2:64:LEU:CD2	27:D2:68:ARG:HD3	2.24	0.67
33:D8:29:LYS:HG3	33:D8:29:LYS:O	1.95	0.67
35:DA:1155:A:OP1	51:DU:55:ARG:HD2	1.94	0.67
35:DA:2758:A:C3'	35:DA:2759:G:H5''	2.25	0.67
38:DD:76:PRO:HG2	38:DD:98:VAL:HG21	1.76	0.67
39:DE:37:ARG:HA	39:DE:42:ASP:OD2	1.94	0.67
43:DI:47:LEU:HG	43:DI:51:ILE:HG12	1.76	0.67
44:DN:133:GLN:HG2	44:DN:134:ARG:N	2.08	0.67
1:AA:1346:A:C5'	9:AI:120:ARG:HH12	2.08	0.67
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.09	0.67
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.75	0.67
7:AG:53:LYS:O	7:AG:54:THR:HB	1.93	0.67
9:AI:55:ALA:HB1	9:AI:58:ARG:HB2	1.77	0.67
9:AI:17:VAL:CG1	9:AI:81:ILE:HD13	2.24	0.67
22:AY:66:U:H2'	22:AY:67:C:C6	2.30	0.67
35:BA:2808:U:H5'	35:BA:2891:G:O6	1.95	0.67
39:BE:3:GLY:HA3	39:BE:81:ILE:HG21	1.75	0.67
43:BI:145:VAL:HG12	43:BI:146:ALA:N	2.10	0.67
49:BS:64:GLU:O	49:BS:67:ARG:HB2	1.95	0.67
1:CA:1343:G:H1'	9:CI:121:ARG:HH12	1.58	0.67
4:CD:28:SER:HB3	4:CD:29:PRO:HD2	1.77	0.67
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.08	0.67
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.10	0.67
34:D9:27:CYS:SG	34:D9:28:GLU:N	2.67	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1240:U:O2'	35:DA:1241:A:H5'	1.95	0.67
35:DA:2162:G:H2'	35:DA:2163:C:C6	2.30	0.67
36:DB:6:C:HO2'	49:DS:29:PHE:HE1	1.41	0.67
39:DE:3:GLY:HA3	39:DE:81:ILE:HG21	1.77	0.67
43:DI:113:ARG:HB3	43:DI:131:LYS:HB2	1.77	0.67
50:DT:91:ARG:CB	50:DT:116:ALA:HA	2.22	0.67
55:DY:17:SER:HA	55:DY:71:LYS:HE2	1.76	0.67
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.30	0.67
2:AB:141:GLU:O	2:AB:145:LEU:HD23	1.94	0.67
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.25	0.67
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.60	0.67
20:AT:49:ALA:HB1	20:AT:100:ILE:HD11	1.76	0.67
33:B8:4:MET:CB	33:B8:61:LEU:HD22	2.25	0.67
35:BA:1986:A:H2'	35:BA:1987:G:H5''	1.77	0.67
35:BA:2593:U:H2'	35:BA:2594:C:C6	2.30	0.67
35:BA:2668:G:O2'	35:BA:2669:G:H5'	1.94	0.67
35:BA:1902:C:O2'	38:BD:244:ARG:HB2	1.95	0.67
41:BG:111:LEU:O	41:BG:112:PRO:O	2.12	0.67
46:BP:58:THR:O	46:BP:58:THR:HG22	1.94	0.67
51:BU:62:ILE:HD12	51:BU:76:TYR:CZ	2.28	0.67
1:CA:339:C:OP2	45:DO:97:ARG:NH1	2.28	0.67
8:CH:11:THR:HG23	8:CH:14:ARG:HH12	1.58	0.67
23:CW:38:A:C3'	23:CW:39:U:H5''	2.24	0.67
25:D0:25:ARG:HA	25:D0:29:GLN:HE22	1.60	0.67
30:D5:16:ARG:HG2	30:D5:16:ARG:HH11	1.60	0.67
31:D6:52:VAL:HG12	31:D6:53:LYS:N	2.10	0.67
35:DA:1854:A:H3'	35:DA:1855:G:H8	1.58	0.67
35:DA:2784:C:H1'	39:DE:37:ARG:HH12	1.59	0.67
35:DA:61:G:H1	35:DA:94:C:H42	1.42	0.67
40:DF:103:LYS:HA	40:DF:106:ARG:HG3	1.76	0.67
40:DF:7:TYR:HD2	40:DF:16:GLY:H	1.41	0.67
46:DP:58:THR:O	46:DP:58:THR:HG22	1.95	0.67
46:DP:7:ARG:NH1	46:DP:7:ARG:O	2.28	0.67
48:DR:104:ARG:CB	48:DR:104:ARG:HH11	2.08	0.67
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.29	0.66
1:AA:826:C:H5'	8:AH:12:ARG:HH21	1.60	0.66
1:AA:950:U:H2'	1:AA:951:G:C8	2.30	0.66
10:AJ:33:GLN:H	10:AJ:75:ILE:CG1	2.07	0.66
34:B9:27:CYS:SG	34:B9:28:GLU:N	2.66	0.66
35:BA:1188:U:O2'	35:BA:1189:A:H5'	1.95	0.66
25:B0:36:ILE:HG23	35:BA:2354:G:O2'	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:55:ASN:O	39:BE:57:LYS:N	2.28	0.66
35:BA:586:A:H5'	40:BF:89:VAL:HG21	1.78	0.66
47:BQ:78:PRO:O	47:BQ:81:VAL:HG13	1.95	0.66
39:BE:12:THR:HG23	50:BT:8:LYS:NZ	2.10	0.66
1:CA:493:G:HO2'	1:CA:494:U:H6	1.43	0.66
1:CA:737:A:H2'	1:CA:738:C:C6	2.30	0.66
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.94	0.66
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.25	0.66
18:CR:86:VAL:C	18:CR:87:ARG:HD3	2.15	0.66
35:DA:2287:A:H62	35:DA:2344:U:H3	1.43	0.66
35:DA:27:G:N2	35:DA:512:G:H2'	2.09	0.66
49:DS:65:VAL:C	49:DS:67:ARG:H	1.97	0.66
50:DT:3:ARG:HB3	50:DT:6:LEU:CB	2.25	0.66
51:DU:62:ILE:HD12	51:DU:76:TYR:CZ	2.30	0.66
52:DV:18:LEU:HD13	52:DV:19:LYS:N	2.09	0.66
55:DY:7:VAL:HB	55:DY:8:LYS:HZ2	1.60	0.66
1:AA:376:G:O2'	1:AA:377:G:H5'	1.95	0.66
7:AG:148:ASN:C	7:AG:150:ALA:H	1.98	0.66
24:AX:13:A:H3'	24:AX:14:A:H5''	1.77	0.66
35:BA:389:G:N1	46:BP:70:GLN:HG3	2.10	0.66
49:BS:93:LYS:HE3	49:BS:93:LYS:HA	1.78	0.66
1:CA:624:C:H2'	1:CA:625:G:C8	2.30	0.66
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.25	0.66
5:CE:101:ILE:CG1	5:CE:119:LEU:HD23	2.17	0.66
8:CH:84:ARG:HH22	8:CH:86:ILE:CD1	2.08	0.66
9:CI:116:LYS:HZ3	9:CI:116:LYS:HB3	1.60	0.66
1:CA:972:C:O3'	10:CJ:57:LYS:HG3	1.96	0.66
23:CW:57:G:H2'	23:CW:58:A:H5'	1.76	0.66
35:DA:2352:A:H2'	35:DA:2353:G:H5'	1.77	0.66
35:DA:2387:U:H5'	35:DA:2388:A:OP2	1.95	0.66
35:DA:2779:U:H4'	35:DA:2780:G:H5'	1.77	0.66
42:DH:149:ARG:HH21	42:DH:154:PRO:HG3	1.61	0.66
43:DI:88:ILE:CG2	43:DI:89:TYR:H	2.07	0.66
50:DT:91:ARG:HA	50:DT:117:ASP:H	1.60	0.66
52:DV:19:LYS:HE2	52:DV:19:LYS:HA	1.76	0.66
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.76	0.66
1:AA:339:C:H2'	1:AA:340:U:C6	2.31	0.66
1:AA:735:C:H2'	1:AA:736:C:C6	2.29	0.66
8:AH:81:HIS:O	8:AH:82:HIS:HB2	1.94	0.66
18:AR:43:PHE:HE2	18:AR:58:LEU:HD11	1.60	0.66
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:49:ILE:O	19:AS:60:VAL:HG12	1.95	0.66
35:BA:2010:G:H5''	53:BW:42:ARG:HB2	1.77	0.66
40:BF:4:VAL:HG12	40:BF:19:GLU:OE1	1.95	0.66
43:BI:8:PRO:HB3	43:BI:14:ASP:N	2.08	0.66
44:BN:73:THR:CG2	44:BN:82:LEU:HD11	2.25	0.66
53:BW:5:ALA:HB1	53:BW:50:VAL:HG22	1.77	0.66
55:BY:29:GLU:N	55:BY:29:GLU:OE1	2.28	0.66
56:BZ:27:VAL:HG12	56:BZ:87:ASP:HB3	1.76	0.66
1:CA:1146:A:H8	1:CA:1146:A:H5'	1.59	0.66
1:CA:1255:G:H5'	1:CA:1256:A:OP1	1.94	0.66
1:CA:1239:A:H62	1:CA:1299:A:N6	1.92	0.66
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.25	0.66
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	1.95	0.66
22:CY:74:C:C2'	22:CY:75:C:H5'	2.24	0.66
35:DA:2307:G:N2	35:DA:2308:G:H5''	2.09	0.66
38:DD:176:ARG:HH11	38:DD:176:ARG:HG2	1.61	0.66
38:DD:33:LEU:HD13	38:DD:34:VAL:N	2.10	0.66
39:DE:11:MET:CB	39:DE:24:THR:HA	2.26	0.66
39:DE:16:ARG:C	39:DE:18:ASP:H	1.99	0.66
40:DF:132:VAL:HG13	40:DF:133:ASN:OD1	1.94	0.66
35:DA:1952:A:C5	45:DO:22:ILE:HD12	2.31	0.66
56:DZ:163:LEU:HB3	56:DZ:165:VAL:HG23	1.76	0.66
1:AA:163:C:H2'	1:AA:164:U:H6	1.60	0.66
3:AC:127:ARG:H	3:AC:127:ARG:HD2	1.61	0.66
9:AI:79:LEU:CD1	9:AI:102:LEU:HA	2.26	0.66
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.77	0.66
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	1.95	0.66
35:BA:1639:U:O2'	35:BA:1640:C:H5''	1.96	0.66
50:BT:83:ILE:O	50:BT:84:GLN:HB3	1.94	0.66
52:BV:19:LYS:HE2	52:BV:19:LYS:HA	1.77	0.66
47:BQ:140:ALA:HB1	56:BZ:99:TYR:HB2	1.76	0.66
7:CG:70:LYS:O	7:CG:138:LYS:HE3	1.95	0.66
33:D8:4:MET:HB3	33:D8:61:LEU:HD22	1.77	0.66
35:DA:2117:A:O2'	35:DA:2118:U:H3'	1.96	0.66
35:DA:271(D):G:H1	35:DA:271(T):C:H42	1.43	0.66
37:DC:169:GLY:N	37:DC:173:ALA:HA	2.06	0.66
38:DD:121:PRO:HB3	38:DD:135:PHE:CE1	2.30	0.66
41:DG:112:PRO:C	41:DG:113:ARG:HH11	1.99	0.66
43:DI:47:LEU:HG	43:DI:51:ILE:CG1	2.26	0.66
46:DP:16:ARG:CD	46:DP:18:ARG:H	2.04	0.66
52:DV:39:LEU:HD11	52:DV:51:VAL:HG22	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.61	0.66
1:AA:556:C:O2'	1:AA:557:G:H5'	1.96	0.66
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.61	0.66
9:AI:27:THR:HG23	9:AI:31:GLN:H	1.61	0.66
7:AG:37:ASN:HD21	9:AI:40:LEU:HA	1.60	0.66
35:BA:2310:A:O2'	35:BA:2311:A:H5''	1.95	0.66
35:BA:893:C:H2'	35:BA:894:C:C6	2.30	0.66
36:BB:35:U:O2'	36:BB:36:C:H5'	1.95	0.66
45:BO:86:ILE:N	45:BO:86:ILE:HD12	2.10	0.66
46:BP:107:LYS:C	46:BP:109:GLY:H	1.99	0.66
46:BP:41:ARG:CA	46:BP:41:ARG:HE	2.09	0.66
47:BQ:79:LEU:HD23	47:BQ:80:GLU:N	2.10	0.66
1:CA:163:C:H2'	1:CA:164:U:H6	1.60	0.66
1:CA:1381:U:C1'	7:CG:78:ARG:HH21	2.03	0.66
7:CG:37:ASN:HD21	9:CI:40:LEU:HA	1.59	0.66
20:CT:82:SER:O	20:CT:86:ARG:HB2	1.94	0.66
22:CV:17:C:O2'	22:CV:18:G:H3'	1.96	0.66
35:DA:2173:A:C2'	35:DA:2174:C:H5'	2.26	0.66
37:DC:64:LEU:CD1	37:DC:66:HIS:HB2	2.25	0.66
41:DG:66:GLN:HE21	41:DG:94:LEU:HD23	1.59	0.66
56:DZ:158:PRO:HG2	56:DZ:161:VAL:HG21	1.78	0.66
1:AA:1442(A):G:O2'	1:AA:1442(B):A:H5''	1.95	0.66
2:AB:114:ARG:NH1	2:AB:118:LEU:HD11	2.10	0.66
3:AC:84:ILE:O	3:AC:88:ARG:HG3	1.96	0.66
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.77	0.66
10:AJ:32:ALA:HB2	10:AJ:76:ASN:O	1.96	0.66
30:B5:33:CYS:SG	30:B5:36:CYS:HB2	2.35	0.66
35:BA:1210:A:H4'	35:BA:1211:U:O5'	1.96	0.66
35:BA:1593:G:C2'	35:BA:1594:G:H5''	2.25	0.66
35:BA:203:C:H3'	35:BA:204:A:H5''	1.77	0.66
35:BA:2117:A:O2'	35:BA:2118:U:H3'	1.95	0.66
35:BA:2559:C:H2'	35:BA:2559:C:O2	1.96	0.66
36:BB:87:G:C3'	36:BB:88:C:H5''	2.25	0.66
38:BD:26:LYS:HD3	38:BD:81:ALA:CB	2.25	0.66
35:BA:2784:C:H1'	39:BE:37:ARG:HH12	1.61	0.66
40:BF:132:VAL:HG13	40:BF:133:ASN:OD1	1.96	0.66
46:BP:16:ARG:HB2	46:BP:16:ARG:NH1	2.10	0.66
1:CA:382:A:H2'	1:CA:383:A:H8	1.61	0.66
9:CI:56:LEU:HD23	9:CI:56:LEU:O	1.95	0.66
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	1.95	0.66
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:26:TYR:H	25:D0:29:GLN:NE2	1.94	0.66
38:DD:129:ASN:O	38:DD:193:VAL:HG12	1.95	0.66
40:DF:123:LEU:HD12	40:DF:124:LEU:N	2.09	0.66
41:DG:46:ALA:CB	41:DG:82:LEU:HD11	2.20	0.66
56:DZ:76:LEU:O	56:DZ:84:GLU:HG3	1.96	0.66
1:AA:235:C:H1'	17:AQ:61:GLU:OE1	1.96	0.66
3:AC:126:ARG:HG2	3:AC:126:ARG:HH11	1.61	0.66
10:AJ:45:ARG:NH1	10:AJ:45:ARG:HG3	2.10	0.66
12:AL:28:LYS:HE2	12:AL:33:ARG:HH12	1.61	0.66
18:AR:36:ASN:HD22	18:AR:39:VAL:CG2	1.97	0.66
27:B2:2:LYS:HA	27:B2:5:GLU:OE1	1.96	0.66
35:BA:1405:U:H2'	35:BA:1406:U:H6	1.61	0.66
35:BA:1591:G:O2'	35:BA:1592:C:H5'	1.96	0.66
35:BA:2632:A:C2	39:BE:61:ARG:HD3	2.31	0.66
37:BC:64:LEU:CD1	37:BC:66:HIS:HB2	2.25	0.66
41:BG:39:ILE:HD13	41:BG:155:MET:HE1	1.78	0.66
35:BA:2685:G:H5'	45:BO:68:GLU:OE1	1.96	0.66
46:BP:97:PRO:C	46:BP:99:LEU:H	1.99	0.66
1:CA:250:A:H4'	1:CA:251:G:O5'	1.96	0.66
2:CB:7:VAL:HG12	2:CB:217:ARG:NH2	2.09	0.66
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.10	0.66
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.10	0.66
7:CG:148:ASN:HD22	7:CG:148:ASN:N	1.93	0.66
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	1.96	0.66
35:DA:1363:C:H2'	35:DA:1364:G:H8	1.60	0.66
35:DA:2172:U:H3'	35:DA:2173:A:H8	1.59	0.66
39:DE:79:ARG:HG2	39:DE:79:ARG:HH11	1.61	0.66
1:AA:165:C:H2'	1:AA:166:G:C8	2.29	0.66
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.10	0.66
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	1.96	0.66
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.77	0.66
25:B0:48:GLY:HA3	25:B0:80:HIS:HD2	1.61	0.66
26:B1:45:ASN:HD21	26:B1:47:GLN:NE2	1.94	0.66
35:BA:792:G:H5''	35:BA:793:A:H5'	1.77	0.66
36:BB:111:G:O2'	36:BB:112:U:H5'	1.96	0.66
36:BB:20:C:H2'	36:BB:21:G:C5'	2.21	0.66
40:BF:8:GLN:HB2	40:BF:124:LEU:HD11	1.77	0.66
41:BG:50:ALA:C	41:BG:52:ILE:H	1.99	0.66
41:BG:63:ILE:HD12	41:BG:64:THR:N	2.10	0.66
53:BW:5:ALA:HB1	53:BW:50:VAL:CG2	2.26	0.66
53:BW:6:ILE:HG13	53:BW:104:THR:HG23	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:63:LYS:HG3	54:BX:63:LYS:O	1.96	0.66
1:CA:840:C:H4'	1:CA:848:C:C2	2.31	0.66
2:CB:17:PHE:HB2	2:CB:42:ILE:HG23	1.77	0.66
2:CB:59:GLU:HB2	2:CB:221:LEU:CD1	2.24	0.66
11:CK:122:LYS:O	11:CK:126:ARG:HG3	1.95	0.66
31:D6:15:GLU:OE1	31:D6:18:ARG:CG	2.44	0.66
33:D8:29:LYS:HD3	33:D8:44:LYS:HG2	1.78	0.66
35:DA:106:C:H2'	35:DA:107:C:H6	1.61	0.66
35:DA:1272:A:OP2	35:DA:1647:G:OP1	2.13	0.66
35:DA:17:G:H4'	51:DU:25:TRP:CZ3	2.31	0.66
35:DA:203:C:H3'	35:DA:204:A:H5''	1.77	0.66
35:DA:2182:G:H2'	35:DA:2183:C:C6	2.30	0.66
35:DA:2808:U:H5'	35:DA:2891:G:O6	1.95	0.66
35:DA:893:C:H2'	35:DA:894:C:C6	2.31	0.66
36:DB:35:U:O2'	36:DB:36:C:H5'	1.96	0.66
37:DC:18:LYS:O	37:DC:22:ILE:HD11	1.96	0.66
42:DH:32:GLU:O	42:DH:33:LEU:HD23	1.96	0.66
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.78	0.66
1:AA:1319:A:OP2	19:AS:5:LEU:HD21	1.96	0.66
1:AA:253:U:H2'	1:AA:254:G:H8	1.60	0.66
2:AB:119:GLU:O	2:AB:122:PHE:HB3	1.95	0.66
8:AH:7:ALA:HB2	8:AH:85:ARG:HH11	1.61	0.66
9:AI:96:LEU:CD2	9:AI:102:LEU:HD12	2.26	0.66
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	1.95	0.66
18:AR:86:VAL:C	18:AR:87:ARG:HD3	2.16	0.66
35:BA:1803:A:O2'	38:BD:259:THR:HG21	1.95	0.66
26:B1:29:GLY:HA3	35:BA:2396:G:O2'	1.96	0.66
35:BA:2876:G:H4'	50:BT:3:ARG:HD3	1.77	0.66
38:BD:172:TYR:CD1	38:BD:186:HIS:HA	2.30	0.66
39:BE:107:THR:O	39:BE:190:GLY:HA2	1.96	0.66
39:BE:79:ARG:HH11	39:BE:79:ARG:HG2	1.60	0.66
52:BV:99:ILE:N	52:BV:99:ILE:HD13	2.09	0.66
55:BY:14:LEU:HD11	55:BY:22:GLY:HA2	1.77	0.66
56:BZ:4:ARG:HD3	56:BZ:60:GLU:OE1	1.95	0.66
1:CA:174:C:H2'	1:CA:175:C:C6	2.29	0.66
1:CA:223:U:H2'	1:CA:224:C:C6	2.31	0.66
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.77	0.66
35:DA:1405:U:H2'	35:DA:1406:U:C6	2.31	0.66
35:DA:142:A:C8	35:DA:1408:C:H1'	2.30	0.66
40:DF:178:PRO:HB2	40:DF:201:VAL:HG11	1.76	0.66
41:DG:29:TRP:O	41:DG:33:ARG:NH1	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DU:98:LEU:HD21	52:DV:2:PHE:HZ	1.61	0.66
35:DA:1187:G:H5''	52:DV:81:TYR:CE2	2.30	0.66
54:DX:22:ALA:HB3	54:DX:23:GLU:OE2	1.96	0.66
55:DY:14:LEU:CG	55:DY:15:VAL:N	2.59	0.66
55:DY:47:LYS:HD2	55:DY:47:LYS:N	2.10	0.66
56:DZ:107:THR:HG23	56:DZ:111:VAL:HG11	1.77	0.66
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.24	0.66
1:AA:174:C:H2'	1:AA:175:C:C6	2.29	0.66
1:AA:683:G:H2'	1:AA:684:A:C8	2.31	0.66
4:AD:133:VAL:HG11	4:AD:138:TYR:CD1	2.30	0.66
10:AJ:32:ALA:HB1	10:AJ:76:ASN:H	1.61	0.66
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.11	0.66
14:AN:9:LYS:HG3	14:AN:12:ARG:NH1	2.11	0.66
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.26	0.66
30:B5:58:LEU:HD12	30:B5:58:LEU:H	1.60	0.66
35:BA:1021:A:C8	35:BA:1021:A:H3'	2.31	0.66
35:BA:1108:U:C2'	35:BA:1109:C:H5'	2.26	0.66
35:BA:2151:G:H2'	35:BA:2152:G:C8	2.30	0.66
25:B0:14:ARG:HD2	35:BA:2279:G:O6	1.96	0.66
37:BC:71:GLN:CG	37:BC:73:ARG:HE	2.08	0.66
38:BD:10:THR:HG23	38:BD:13:ARG:CB	2.25	0.66
41:BG:45:GLU:H	41:BG:88:ILE:HG12	1.61	0.66
46:BP:32:THR:HG21	46:BP:37:GLY:HA2	1.78	0.66
48:BR:45:ARG:HG3	48:BR:46:GLY:N	2.10	0.66
56:BZ:76:LEU:HD23	56:BZ:83:PRO:HA	1.78	0.66
1:CA:805:C:H2'	1:CA:806:C:H6	1.60	0.66
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.24	0.66
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	1.96	0.66
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	2.11	0.66
12:CL:28:LYS:HE2	12:CL:33:ARG:HH12	1.61	0.66
28:D3:59:VAL:HG12	28:D3:60:GLU:N	2.11	0.66
38:DD:76:PRO:O	38:DD:98:VAL:HG23	1.96	0.66
39:DE:81:ILE:O	39:DE:82:ARG:HB2	1.93	0.66
43:DI:8:PRO:HB3	43:DI:14:ASP:N	2.10	0.66
50:DT:62:THR:CG2	50:DT:75:ILE:HG12	2.25	0.66
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.77	0.65
35:BA:1885:A:H5'	35:BA:1885:A:H8	1.61	0.65
35:BA:803:U:O2'	35:BA:804:A:H5'	1.96	0.65
39:BE:77:ILE:HG22	39:BE:78:LEU:HG	1.77	0.65
43:BI:123:LEU:HD11	43:BI:144:VAL:CG1	2.26	0.65
43:BI:85:GLU:HG3	43:BI:86:THR:HG23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:133:ARG:O	47:BQ:134:ARG:HG2	1.96	0.65
35:BA:2723:C:H5''	48:BR:2:ARG:NE	2.11	0.65
35:BA:17:G:H4'	51:BU:25:TRP:CZ3	2.31	0.65
56:BZ:117:LEU:HA	56:BZ:174:VAL:HG22	1.78	0.65
56:BZ:30:ASN:HB3	56:BZ:90:VAL:HB	1.78	0.65
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.31	0.65
1:CA:1466:C:H2'	1:CA:1467:G:O4'	1.96	0.65
1:CA:339:C:H2'	1:CA:340:U:C6	2.31	0.65
9:CI:55:ALA:HB1	9:CI:58:ARG:HB2	1.77	0.65
19:CS:49:ILE:O	19:CS:60:VAL:HG12	1.95	0.65
23:CW:67:C:H2'	23:CW:68:C:C6	2.31	0.65
22:CY:10:G:H2'	22:CY:11:C:C6	2.31	0.65
35:DA:2151:G:H2'	35:DA:2152:G:C8	2.30	0.65
35:DA:2740:A:H2'	35:DA:2741:A:C8	2.30	0.65
35:DA:483:A:H1'	55:DY:60:PHE:CZ	2.26	0.65
43:DI:47:LEU:O	43:DI:51:ILE:HG12	1.95	0.65
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.61	0.65
8:AH:20:TYR:HE2	8:AH:75:ARG:HE	1.44	0.65
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.96	0.65
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.29	0.65
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.10	0.65
1:AA:986:A:H1'	19:AS:54:GLY:O	1.96	0.65
22:AV:20:U:C3'	22:AV:21:A:C5'	2.73	0.65
30:B5:35:GLU:O	30:B5:49:CYS:HB3	1.96	0.65
35:BA:1419:A:O2'	35:BA:1420:U:H5''	1.96	0.65
35:BA:142:A:C8	35:BA:1408:C:H1'	2.31	0.65
35:BA:2114:A:H2'	35:BA:2115:G:O4'	1.95	0.65
35:BA:212:G:O2'	35:BA:213:A:H5'	1.95	0.65
35:BA:2196:C:O2'	35:BA:2197:U:H5'	1.96	0.65
35:BA:829:A:N7	35:BA:2248:C:H5'	2.10	0.65
45:BO:87:ILE:HG22	45:BO:88:ASN:H	1.60	0.65
47:BQ:42:ILE:N	47:BQ:42:ILE:HD12	2.11	0.65
50:BT:91:ARG:CB	50:BT:116:ALA:HA	2.22	0.65
50:BT:91:ARG:HA	50:BT:117:ASP:H	1.61	0.65
53:BW:6:ILE:CG1	53:BW:104:THR:HG23	2.25	0.65
55:BY:14:LEU:CG	55:BY:15:VAL:N	2.58	0.65
1:CA:1319:A:OP2	19:CS:5:LEU:HD21	1.96	0.65
1:CA:26:A:N6	1:CA:558:G:H1'	2.12	0.65
1:CA:447:G:H2'	1:CA:485:G:N2	2.10	0.65
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.19	0.65
1:CA:1194:U:H4'	5:CE:22:GLY:HA2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:76:ILE:HG23	5:CE:77:PRO:HD2	1.77	0.65
9:CI:114:TYR:H	9:CI:114:TYR:HD2	1.44	0.65
10:CJ:6:ILE:O	10:CJ:6:ILE:HG13	1.95	0.65
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.10	0.65
33:D8:50:LEU:CD1	33:D8:51:ALA:H	2.06	0.65
35:DA:1042:G:H1'	35:DA:1114:G:N2	2.11	0.65
35:DA:2491:U:O2'	35:DA:2492:U:H5'	1.96	0.65
37:DC:71:GLN:CG	37:DC:73:ARG:HE	2.09	0.65
38:DD:172:TYR:CD1	38:DD:186:HIS:HA	2.30	0.65
41:DG:59:GLU:OE2	41:DG:149:VAL:HG12	1.96	0.65
42:DH:141:VAL:HG12	42:DH:142:GLY:N	2.10	0.65
46:DP:34:GLY:O	46:DP:35:HIS:HB2	1.95	0.65
55:DY:26:LYS:HG2	55:DY:27:VAL:N	2.07	0.65
12:AL:102:ARG:HH11	12:AL:102:ARG:HG2	1.60	0.65
13:AM:16:ASP:HB3	13:AM:41:PRO:HB3	1.77	0.65
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.79	0.65
26:B1:61:ARG:CG	26:B1:61:ARG:HH11	2.07	0.65
26:B1:82:LEU:HB3	26:B1:90:ILE:HD12	1.78	0.65
35:BA:2173:A:C2'	35:BA:2174:C:H5'	2.26	0.65
35:BA:2648:C:H2'	35:BA:2649:U:C6	2.32	0.65
39:BE:16:ARG:C	39:BE:18:ASP:H	1.99	0.65
35:BA:2784:C:H1'	39:BE:37:ARG:NH1	2.11	0.65
41:BG:76:SER:CB	41:BG:84:LYS:H	2.08	0.65
43:BI:72:LEU:HD11	43:BI:101:LEU:HD11	1.79	0.65
46:BP:16:ARG:CD	46:BP:18:ARG:H	2.02	0.65
55:BY:96:ILE:HB	55:BY:99:CYS:HB2	1.77	0.65
1:CA:166:G:O2'	1:CA:167:G:H5'	1.95	0.65
1:CA:180:U:H2'	1:CA:181:G:C5'	2.21	0.65
9:CI:3:GLN:HG2	9:CI:20:ARG:NH1	2.11	0.65
9:CI:50:LEU:HG	9:CI:81:ILE:HG21	1.79	0.65
10:CJ:5:ARG:CG	10:CJ:71:LEU:HD11	2.27	0.65
20:CT:50:GLU:HG3	20:CT:51:GLU:H	1.60	0.65
27:D2:16:LEU:O	27:D2:20:GLU:HB3	1.96	0.65
30:D5:58:LEU:HD12	30:D5:58:LEU:H	1.60	0.65
35:DA:2790:A:C2	35:DA:2791:C:H2'	2.31	0.65
38:DD:221:VAL:HG22	38:DD:226:MET:CE	2.25	0.65
40:DF:21:ALA:C	40:DF:23:ASP:H	2.00	0.65
44:DN:13:TRP:O	44:DN:135:PRO:HD2	1.96	0.65
52:DV:49:THR:CG2	52:DV:50:PRO:HD3	2.24	0.65
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	1.96	0.65
1:AA:110:C:H2'	1:AA:111:G:O4'	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:532:A:N6	3:AC:156:ARG:HH12	1.95	0.65
1:AA:840:C:H4'	1:AA:848:C:C2	2.32	0.65
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	2.11	0.65
4:AD:114:ARG:O	4:AD:117:ALA:HB3	1.96	0.65
4:AD:33:MET:HE3	4:AD:37:PRO:HA	1.77	0.65
20:AT:45:GLN:C	20:AT:47:GLY:H	2.00	0.65
28:B3:59:VAL:HG12	28:B3:60:GLU:N	2.12	0.65
36:BB:56:G:C5'	41:BG:27:ASN:HD21	2.09	0.65
40:BF:21:ALA:C	40:BF:23:ASP:H	2.00	0.65
41:BG:51:ARG:NE	41:BG:51:ARG:HA	2.10	0.65
50:BT:83:ILE:HD12	50:BT:83:ILE:O	1.97	0.65
52:BV:21:ARG:HG2	52:BV:91:TYR:CD2	2.31	0.65
55:BY:42:VAL:CG1	55:BY:65:ALA:HB3	2.26	0.65
2:CB:21:ARG:HH11	2:CB:38:GLY:HA3	1.62	0.65
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	1.96	0.65
20:CT:46:GLU:HG2	20:CT:46:GLU:O	1.95	0.65
22:CV:53:G:H2'	22:CV:54:U:C6	2.32	0.65
25:D0:84:LEU:H	25:D0:84:LEU:HD12	1.60	0.65
35:DA:1050:A:H2'	35:DA:1051:G:C8	2.30	0.65
35:DA:1115:G:H2'	35:DA:1116:C:C6	2.31	0.65
35:DA:807:U:H2'	35:DA:808:G:H8	1.60	0.65
44:DN:67:LEU:O	44:DN:68:GLU:HB2	1.94	0.65
46:DP:7:ARG:CA	46:DP:7:ARG:NH1	2.58	0.65
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.32	0.65
2:AB:21:ARG:HH11	2:AB:38:GLY:HA3	1.61	0.65
5:AE:137:GLU:OE2	5:AE:140:ARG:HD2	1.96	0.65
7:AG:148:ASN:N	7:AG:148:ASN:HD22	1.92	0.65
8:AH:45:ILE:HG22	8:AH:63:LEU:HA	1.77	0.65
35:BA:1608:A:H1'	35:BA:1610:A:OP2	1.96	0.65
35:BA:2133:G:H2'	35:BA:2157:G:H22	1.61	0.65
35:BA:2543:G:H2'	35:BA:2544:G:C8	2.31	0.65
40:BF:78:ILE:CD1	40:BF:78:ILE:H	2.09	0.65
43:BI:2:LYS:HB2	43:BI:39:ALA:HB3	1.78	0.65
44:BN:133:GLN:HG2	44:BN:134:ARG:N	2.09	0.65
45:BO:104:ARG:HH21	50:BT:33:LYS:CE	2.08	0.65
46:BP:84:ASN:HA	46:BP:115:LEU:O	1.97	0.65
52:BV:19:LYS:NZ	52:BV:20:LEU:N	2.39	0.65
51:BU:98:LEU:HD21	52:BV:2:PHE:HZ	1.61	0.65
54:BX:47:PHE:HD2	54:BX:89:ILE:HG23	1.60	0.65
55:BY:15:VAL:HG12	55:BY:16:ALA:N	2.12	0.65
56:BZ:119:GLU:HG3	56:BZ:119:GLU:O	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:63:ASP:HB2	56:BZ:65:GLN:OE1	1.95	0.65
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.31	0.65
12:CL:27:LEU:HD11	12:CL:64:TYR:CZ	2.31	0.65
13:CM:90:LEU:C	13:CM:92:HIS:N	2.46	0.65
35:DA:2648:C:H2'	35:DA:2649:U:C6	2.31	0.65
42:DH:103:LEU:CD2	42:DH:105:LEU:HD12	2.27	0.65
43:DI:72:LEU:HD11	43:DI:101:LEU:HD11	1.77	0.65
50:DT:96:ARG:HG2	50:DT:96:ARG:HH11	1.61	0.65
1:AA:1442:G:C8	1:AA:1442(B):A:H2	2.14	0.65
1:AA:166:G:O2'	1:AA:167:G:H5'	1.97	0.65
2:AB:82:ARG:HB2	2:AB:94:ASN:ND2	2.11	0.65
20:AT:50:GLU:HG3	20:AT:51:GLU:H	1.59	0.65
22:AY:9:A:H2	22:AY:45:U:H3	1.42	0.65
30:B5:51:TYR:HB2	30:B5:54:GLY:HA3	1.79	0.65
35:BA:528:A:H2	35:BA:2043:C:H5'	1.61	0.65
38:BD:58:HIS:HD2	38:BD:59:LYS:O	1.79	0.65
43:BI:47:LEU:O	43:BI:51:ILE:HG12	1.95	0.65
43:BI:88:ILE:CG2	43:BI:89:TYR:H	2.08	0.65
35:BA:833:U:H5''	46:BP:48:PRO:HB3	1.78	0.65
46:BP:96:THR:O	46:BP:99:LEU:HB3	1.95	0.65
48:BR:104:ARG:CB	48:BR:104:ARG:HH11	2.10	0.65
52:BV:18:LEU:CG	52:BV:19:LYS:H	2.08	0.65
55:BY:31:LEU:CB	55:BY:32:PRO:HA	2.26	0.65
55:BY:49:VAL:O	55:BY:53:PRO:HG3	1.96	0.65
56:BZ:165:VAL:HG12	56:BZ:166:SER:N	2.11	0.65
56:BZ:48:PHE:HE2	56:BZ:52:SER:HA	1.58	0.65
1:CA:178:C:O2'	1:CA:179:A:H5'	1.97	0.65
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.31	0.65
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.97	0.65
1:CA:1346:A:C5'	9:CI:120:ARG:HH12	2.08	0.65
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.96	0.65
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.31	0.65
23:CW:19:G:H5'	23:CW:20:U:H5	1.62	0.65
35:DA:1986:A:H2'	35:DA:1987:G:H5''	1.76	0.65
37:DC:45:ALA:O	37:DC:46:LYS:HB2	1.96	0.65
43:DI:88:ILE:CG2	43:DI:89:TYR:N	2.59	0.65
46:DP:97:PRO:C	46:DP:99:LEU:H	1.98	0.65
49:DS:89:ARG:O	49:DS:92:TYR:HB3	1.97	0.65
49:DS:96:GLY:O	49:DS:98:VAL:HG23	1.95	0.65
1:AA:437:U:O2'	1:AA:438:G:H5'	1.97	0.65
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:50:GLU:HG3	2:AB:202:PRO:HG3	1.79	0.65
3:AC:5:ILE:HD12	3:AC:5:ILE:O	1.97	0.65
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.10	0.65
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.77	0.65
26:B1:45:ASN:ND2	26:B1:47:GLN:HE21	1.95	0.65
33:B8:61:LEU:CD1	33:B8:62:LEU:H	2.10	0.65
35:BA:2290:G:H5'	35:BA:2290:G:C8	2.27	0.65
35:BA:999:U:H2'	35:BA:1000:A:C5'	2.26	0.65
37:BC:45:ALA:O	37:BC:46:LYS:HB2	1.95	0.65
37:BC:87:GLU:HG2	37:BC:93:TYR:HA	1.78	0.65
41:BG:15:VAL:O	41:BG:19:LEU:HG	1.97	0.65
45:BO:86:ILE:H	45:BO:86:ILE:HD12	1.62	0.65
46:BP:7:ARG:NH1	46:BP:7:ARG:CA	2.59	0.65
53:BW:29:LEU:O	53:BW:33:ARG:HG3	1.95	0.65
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.78	0.65
1:CA:376:G:O2'	1:CA:377:G:H5'	1.96	0.65
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.61	0.65
9:CI:27:THR:HG23	9:CI:31:GLN:H	1.60	0.65
3:CC:30:ARG:HH11	14:CN:38:GLY:CA	2.07	0.65
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.77	0.65
17:CQ:68:ARG:HH11	17:CQ:68:ARG:HG2	1.62	0.65
35:DA:191:A:O2'	35:DA:192:C:H5'	1.96	0.65
35:DA:2685:G:H5'	45:DO:68:GLU:OE1	1.97	0.65
45:DO:2:ILE:HD11	45:DO:82:ASN:ND2	2.11	0.65
39:DE:109:LYS:HB3	48:DR:2:ARG:HH22	1.61	0.65
53:DW:29:LEU:HD21	53:DW:33:ARG:HH21	1.62	0.65
55:DY:17:SER:HB2	55:DY:71:LYS:CE	2.26	0.65
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.31	0.65
1:AA:1343:G:H1'	9:AI:121:ARG:HH12	1.62	0.65
3:AC:70:VAL:O	3:AC:106:VAL:HG23	1.96	0.65
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.78	0.65
1:AA:1298:C:H2'	7:AG:114:ARG:NH1	2.12	0.65
12:AL:53:ARG:HB3	12:AL:69:TYR:HE1	1.61	0.65
30:B5:35:GLU:O	30:B5:36:CYS:CB	2.45	0.65
33:B8:4:MET:HB3	33:B8:61:LEU:HD22	1.77	0.65
35:BA:1287:A:H5'	48:BR:104:ARG:HD2	1.79	0.65
35:BA:2352:A:H2'	35:BA:2353:G:H5'	1.78	0.65
35:BA:2468:G:N2	35:BA:2481:G:H2'	2.11	0.65
35:BA:271(S):G:H2'	35:BA:271(T):C:C5'	2.27	0.65
35:BA:2803:C:H2'	35:BA:2804:C:C6	2.31	0.65
39:BE:69:LYS:HD2	39:BE:90:THR:OG1	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:22:ALA:HB3	54:BX:23:GLU:OE2	1.95	0.65
1:CA:1239:A:H62	1:CA:1299:A:H62	1.45	0.65
1:CA:1520:G:H2'	1:CA:1521:G:H8	1.62	0.65
1:CA:662:G:H2'	1:CA:663:A:H8	1.60	0.65
2:CB:82:ARG:O	2:CB:86:GLU:HG3	1.97	0.65
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.55	0.65
9:CI:96:LEU:CD2	9:CI:102:LEU:HD12	2.25	0.65
12:CL:18:VAL:HG23	12:CL:19:ARG:N	2.12	0.65
15:CO:55:GLY:O	15:CO:59:MET:HG3	1.96	0.65
20:CT:33:ILE:HD13	20:CT:62:LEU:HB3	1.79	0.65
25:D0:20:ARG:CD	25:D0:20:ARG:N	2.59	0.65
30:D5:35:GLU:O	30:D5:49:CYS:HB3	1.96	0.65
31:D6:11:LEU:HD23	31:D6:26:ASN:HB2	1.77	0.65
35:DA:1438:U:O2'	35:DA:1439:A:H5'	1.97	0.65
35:DA:809:G:O2'	35:DA:810:U:H5'	1.97	0.65
47:DQ:42:ILE:N	47:DQ:42:ILE:HD12	2.12	0.65
55:DY:95:LYS:HG2	55:DY:100:ALA:HA	1.77	0.65
56:DZ:117:LEU:HA	56:DZ:174:VAL:HG22	1.79	0.65
9:AI:114:TYR:CD1	10:AJ:60:ARG:HG3	2.32	0.65
9:AI:56:LEU:HD23	9:AI:56:LEU:O	1.97	0.65
11:AK:29:ILE:HD12	11:AK:43:SER:O	1.96	0.65
13:AM:4:ILE:HA	13:AM:57:ARG:HD3	1.78	0.65
15:AO:67:LEU:HD22	15:AO:78:TYR:HE1	1.61	0.65
25:B0:73:GLY:HA3	36:BB:12:C:H2'	1.79	0.65
35:BA:1594:G:H8	35:BA:1594:G:C5'	2.06	0.65
35:BA:1952:A:C5	45:BO:22:ILE:HD12	2.32	0.65
38:BD:26:LYS:CE	38:BD:82:ILE:H	2.09	0.65
39:BE:95:ILE:CD1	39:BE:95:ILE:H	2.10	0.65
40:BF:167:ALA:HB1	40:BF:173:VAL:HG11	1.77	0.65
41:BG:128:ARG:HB2	41:BG:130:ASN:O	1.96	0.65
49:BS:14:VAL:HG12	49:BS:15:ARG:H	1.61	0.65
1:CA:110:C:H2'	1:CA:111:G:O4'	1.97	0.65
1:CA:735:C:H2'	1:CA:736:C:C6	2.32	0.65
3:CC:5:ILE:O	3:CC:5:ILE:HD12	1.97	0.65
10:CJ:50:ILE:HD11	14:CN:41:ARG:HD2	1.77	0.65
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.27	0.65
33:D8:61:LEU:CD1	33:D8:62:LEU:H	2.09	0.65
35:DA:580:C:H2'	35:DA:581:C:C6	2.31	0.65
35:DA:792:G:H5''	35:DA:793:A:H5'	1.78	0.65
43:DI:133:HIS:CB	43:DI:134:PRO:CD	2.75	0.65
43:DI:9:LEU:H	43:DI:13:GLY:CA	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DN:4:TYR:CD1	44:DN:4:TYR:N	2.62	0.65
45:DO:87:ILE:HG22	45:DO:88:ASN:H	1.62	0.65
1:AA:1305:G:OP1	21:AU:2:GLY:HA3	1.97	0.65
1:AA:26:A:N6	1:AA:558:G:H1'	2.11	0.65
3:AC:116:VAL:O	3:AC:119:ARG:HB3	1.96	0.65
6:AF:55:ASP:HB3	6:AF:86:ARG:HH12	1.62	0.65
12:AL:28:LYS:C	12:AL:30:ALA:H	2.00	0.65
31:B6:11:LEU:HD23	31:B6:26:ASN:HB2	1.79	0.65
31:B6:52:VAL:HG12	31:B6:53:LYS:N	2.12	0.65
35:BA:943:U:OP2	46:BP:38:GLN:CD	2.35	0.65
43:BI:81:VAL:O	43:BI:82:ARG:HB2	1.96	0.65
44:BN:17:ASP:HB2	44:BN:55:VAL:HG12	1.79	0.65
35:BA:534:U:O2'	51:BU:49:HIS:HD2	1.80	0.65
55:BY:84:ARG:HH12	55:BY:97:ARG:HA	1.61	0.65
1:CA:102:G:H2'	1:CA:103:C:H6	1.62	0.65
1:CA:1440:C:H1'	1:CA:1462:G:N2	2.11	0.65
1:CA:253:U:H2'	1:CA:254:G:C8	2.31	0.65
1:CA:939:G:H2'	1:CA:940:C:C6	2.32	0.65
2:CB:119:GLU:O	2:CB:122:PHE:HB3	1.96	0.65
3:CC:30:ARG:HH11	14:CN:38:GLY:HA2	1.61	0.65
12:CL:102:ARG:HG2	12:CL:102:ARG:HH11	1.62	0.65
12:CL:90:VAL:O	12:CL:92:ASP:N	2.25	0.65
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.78	0.65
31:D6:15:GLU:HG2	31:D6:18:ARG:NH2	2.12	0.65
31:D6:46:HIS:HB2	31:D6:47:THR:N	2.12	0.65
35:DA:1593:G:C2'	35:DA:1594:G:H5''	2.27	0.65
35:DA:481:G:H1'	35:DA:506:G:H21	1.62	0.65
38:DD:65:ILE:H	38:DD:65:ILE:HD13	1.62	0.65
41:DG:18:GLU:O	41:DG:22:ARG:HG3	1.97	0.65
44:DN:58:ASP:O	44:DN:60:ILE:N	2.28	0.65
47:DQ:79:LEU:HD23	47:DQ:80:GLU:N	2.12	0.65
53:DW:5:ALA:HB1	53:DW:50:VAL:HG22	1.78	0.65
1:AA:1381:U:H1'	7:AG:78:ARG:NH2	2.02	0.64
1:AA:1490:C:O2'	1:AA:1491:G:H5'	1.96	0.64
1:AA:392:G:H2'	1:AA:393:A:H8	1.62	0.64
1:AA:302:G:N3	1:AA:556:C:H4'	2.13	0.64
2:AB:17:PHE:HB2	2:AB:42:ILE:CG2	2.27	0.64
10:AJ:5:ARG:CG	10:AJ:71:LEU:HD11	2.28	0.64
25:B0:20:ARG:NH1	35:BA:2357:U:OP1	2.30	0.64
35:BA:2348:U:H2'	35:BA:2349:G:C5'	2.27	0.64
38:BD:108:PRO:HB3	38:BD:143:HIS:CE1	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:121:ASN:HD22	41:BG:122:PRO:N	1.94	0.64
41:BG:148:MET:O	41:BG:148:MET:HE2	1.97	0.64
44:BN:25:ARG:CG	44:BN:25:ARG:NH1	2.58	0.64
50:BT:54:ARG:HH11	50:BT:54:ARG:HG2	1.63	0.64
55:BY:87:LYS:HG3	55:BY:88:LYS:N	2.12	0.64
1:CA:296:U:H2'	1:CA:297:G:H8	1.62	0.64
1:CA:392:G:H2'	1:CA:393:A:H8	1.61	0.64
3:CC:130:VAL:O	3:CC:134:ILE:HG12	1.97	0.64
4:CD:117:ALA:O	4:CD:121:VAL:HG23	1.97	0.64
9:CI:79:LEU:CD1	9:CI:102:LEU:HA	2.26	0.64
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.97	0.64
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.97	0.64
19:CS:29:ARG:O	19:CS:31:ILE:N	2.31	0.64
23:CW:27:G:H1	23:CW:43:C:N4	1.86	0.64
30:D5:51:TYR:HB2	30:D5:54:GLY:HA3	1.79	0.64
35:DA:1021:A:C8	35:DA:1021:A:H3'	2.32	0.64
35:DA:1591:G:O2'	35:DA:1592:C:H5'	1.96	0.64
35:DA:2348:U:H2'	35:DA:2349:G:C5'	2.27	0.64
35:DA:2593:U:H2'	35:DA:2594:C:C6	2.32	0.64
35:DA:2700:C:O2'	35:DA:2701:C:H5'	1.97	0.64
35:DA:34:C:N4	35:DA:455:C:H5'	2.12	0.64
38:DD:35:LYS:HA	38:DD:63:ARG:HA	1.78	0.64
40:DF:78:ILE:CD1	40:DF:78:ILE:H	2.10	0.64
13:CM:7:VAL:HG21	41:DG:115:ARG:HG3	1.79	0.64
46:DP:16:ARG:CZ	46:DP:18:ARG:HG2	2.27	0.64
46:DP:32:THR:HG21	46:DP:37:GLY:HA2	1.77	0.64
47:DQ:21:THR:HG21	47:DQ:101:ARG:HB2	1.79	0.64
53:DW:86:LEU:HD12	53:DW:87:PRO:HD2	1.77	0.64
56:DZ:61:LEU:HB2	56:DZ:65:GLN:HB2	1.79	0.64
1:AA:73:G:H22	1:AA:96:U:H3	1.46	0.64
5:AE:126:ARG:NH1	5:AE:126:ARG:HG3	2.12	0.64
12:AL:90:VAL:O	12:AL:92:ASP:N	2.25	0.64
13:AM:3:ARG:HG3	29:B4:60:GLU:HG2	1.79	0.64
25:B0:20:ARG:CD	25:B0:20:ARG:N	2.59	0.64
26:B1:80:LEU:HD23	26:B1:81:LYS:H	1.62	0.64
35:BA:1175:U:H4'	35:BA:1176:G:C5'	2.22	0.64
35:BA:2059:A:H5'	35:BA:2060:A:OP2	1.98	0.64
35:BA:851:U:O2'	35:BA:852:G:H5'	1.97	0.64
35:BA:852:G:O2'	35:BA:853:G:H5'	1.95	0.64
38:BD:48:ARG:HH11	38:BD:48:ARG:CG	2.10	0.64
41:BG:125:PHE:HB3	41:BG:130:ASN:O	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:56:ASN:H	44:BN:126:PRO:HA	1.62	0.64
4:CD:81:GLU:O	4:CD:85:LYS:HB2	1.97	0.64
5:CE:41:VAL:HG22	5:CE:69:VAL:HG21	1.80	0.64
29:D4:60:GLU:O	29:D4:61:VAL:HB	1.97	0.64
35:DA:1108:U:C2'	35:DA:1109:C:H5'	2.27	0.64
35:DA:1436:G:H3'	35:DA:1437:C:H5''	1.79	0.64
35:DA:2133:G:H2'	35:DA:2157:G:H22	1.62	0.64
33:D8:62:LEU:CD1	35:DA:242:G:H5''	2.22	0.64
35:DA:357:A:H2'	35:DA:358:U:C6	2.32	0.64
35:DA:736:C:H2'	35:DA:737:C:H6	1.61	0.64
53:DW:75:TYR:CE1	53:DW:104:THR:HB	2.32	0.64
55:DY:14:LEU:HD11	55:DY:22:GLY:HA2	1.79	0.64
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.61	0.64
1:AA:1456:G:H2'	1:AA:1457:G:O4'	1.97	0.64
1:AA:250:A:H4'	1:AA:251:G:O5'	1.97	0.64
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.96	0.64
9:AI:77:ILE:O	9:AI:81:ILE:HG12	1.97	0.64
3:AC:30:ARG:HH11	14:AN:38:GLY:HA2	1.63	0.64
18:AR:19:LYS:O	18:AR:20:ALA:HB2	1.96	0.64
25:B0:84:LEU:H	25:B0:84:LEU:HD12	1.61	0.64
35:BA:1050:A:H2'	35:BA:1051:G:C8	2.31	0.64
35:BA:1223:G:H5'	35:BA:1224:C:OP2	1.97	0.64
35:BA:1751:C:H2'	35:BA:1752:C:H6	1.61	0.64
35:BA:1907:G:O2'	35:BA:1908:C:H5'	1.98	0.64
35:BA:2533:A:C3'	35:BA:2534:A:H5''	2.28	0.64
35:BA:886:C:O2'	35:BA:887:A:H4'	1.97	0.64
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.32	0.64
4:CD:138:TYR:HD2	4:CD:139:ARG:N	1.94	0.64
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.26	0.64
13:CM:13:LYS:CA	13:CM:44:ARG:HH11	2.10	0.64
15:CO:82:ILE:HG12	15:CO:87:ILE:HB	1.79	0.64
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.78	0.64
23:CW:33:U:H2'	23:CW:35:A:OP2	1.96	0.64
27:D2:7:ARG:HH11	27:D2:7:ARG:HG2	1.62	0.64
34:D9:9:ARG:NH1	34:D9:9:ARG:HB3	2.13	0.64
35:DA:1882:C:H5'	35:DA:1883:G:OP2	1.98	0.64
35:DA:2807:G:C3'	35:DA:2808:U:H5''	2.27	0.64
35:DA:534:U:O2'	51:DU:49:HIS:HD2	1.80	0.64
35:DA:813:U:H2'	35:DA:814:C:C6	2.32	0.64
38:DD:71:ASP:HB2	38:DD:103:ARG:NH2	2.08	0.64
35:DA:2632:A:C2	39:DE:61:ARG:HD3	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:30:ARG:NH2	49:DS:62:LYS:HD2	2.11	0.64
50:DT:64:ARG:HD2	50:DT:73:GLU:CG	2.25	0.64
55:DY:15:VAL:HG12	55:DY:17:SER:H	1.61	0.64
1:AA:382:A:H2'	1:AA:383:A:H8	1.62	0.64
1:AA:624:C:H2'	1:AA:625:G:C8	2.32	0.64
1:AA:625:G:H2'	1:AA:626:U:C6	2.32	0.64
1:AA:857:C:H2'	1:AA:858:G:O4'	1.96	0.64
1:AA:939:G:H2'	1:AA:940:C:C6	2.33	0.64
22:AY:55:U:H2'	22:AY:56:C:H3'	1.79	0.64
35:BA:1190:G:H5''	46:BP:35:HIS:HA	1.79	0.64
35:BA:1935:G:H1'	35:BA:1964:G:N2	2.13	0.64
35:BA:2199:A:H3'	35:BA:2200:C:H6	1.61	0.64
35:BA:486:C:H4'	53:BW:60:ASN:ND2	2.12	0.64
36:BB:41:U:C5	41:BG:69:ALA:HB1	2.33	0.64
47:BQ:130:LYS:NZ	56:BZ:80:ARG:HD2	2.12	0.64
47:BQ:39:PRO:O	47:BQ:40:ALA:HB2	1.97	0.64
2:CB:17:PHE:HB2	2:CB:42:ILE:CG2	2.27	0.64
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.97	0.64
10:CJ:62:HIS:H	10:CJ:62:HIS:CD2	2.14	0.64
35:DA:1652:A:C2'	35:DA:1653:G:H5'	2.27	0.64
35:DA:2317:C:H2'	35:DA:2318:G:H5'	1.80	0.64
35:DA:671:C:O2'	35:DA:672:C:H5'	1.97	0.64
39:DE:27:LEU:HD12	39:DE:180:ASN:O	1.98	0.64
39:DE:55:ASN:O	39:DE:57:LYS:N	2.29	0.64
41:DG:82:LEU:HD22	41:DG:87:PRO:CB	2.27	0.64
47:DQ:141:GLN:O	56:DZ:53:ILE:HG22	1.97	0.64
1:AA:805:C:H2'	1:AA:806:C:H6	1.62	0.64
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.15	0.64
2:AB:51:LEU:HB3	2:AB:55:PHE:HE2	1.62	0.64
9:AI:3:GLN:HG2	9:AI:20:ARG:NH1	2.12	0.64
10:AJ:5:ARG:HG3	10:AJ:71:LEU:HD11	1.80	0.64
20:AT:43:LEU:HD13	20:AT:51:GLU:HG3	1.79	0.64
23:AW:40:C:H2'	23:AW:41:C:C6	2.33	0.64
31:B6:46:HIS:HB2	31:B6:47:THR:N	2.12	0.64
35:BA:2125:G:H22	35:BA:2172:U:H5'	1.63	0.64
35:BA:2807:G:C3'	35:BA:2808:U:H5''	2.27	0.64
35:BA:994:C:H3'	51:BU:54:LYS:HE3	1.80	0.64
38:BD:26:LYS:O	38:BD:27:THR:HG22	1.97	0.64
38:BD:76:PRO:HG2	38:BD:98:VAL:CG2	2.26	0.64
40:BF:53:THR:HG22	40:BF:56:GLU:CD	2.17	0.64
46:BP:34:GLY:O	46:BP:35:HIS:HB2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:103:MET:CE	47:BQ:125:LEU:HD13	2.27	0.64
51:BU:92:ARG:HH21	51:BU:95:LEU:CG	2.10	0.64
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.33	0.64
6:CF:55:ASP:HB3	6:CF:86:ARG:HH12	1.63	0.64
6:CF:72:VAL:HG13	6:CF:73:ASN:N	2.11	0.64
15:CO:5:LYS:O	15:CO:9:GLN:HG2	1.98	0.64
16:CP:50:LYS:HD3	16:CP:51:VAL:N	2.13	0.64
33:D8:50:LEU:HD12	33:D8:51:ALA:N	2.07	0.64
35:DA:1210:A:H4'	35:DA:1211:U:O5'	1.97	0.64
25:D0:14:ARG:HD2	35:DA:2279:G:O6	1.97	0.64
35:DA:999:U:H2'	35:DA:1000:A:C5'	2.27	0.64
39:DE:12:THR:HG23	50:DT:8:LYS:NZ	2.12	0.64
40:DF:82:ILE:HG13	40:DF:82:ILE:O	1.98	0.64
46:DP:115:LEU:HA	46:DP:134:ALA:CB	2.28	0.64
48:DR:45:ARG:HG3	48:DR:46:GLY:N	2.12	0.64
35:DA:1453:U:H5'	48:DR:63:ARG:HE	1.62	0.64
55:DY:26:LYS:CG	55:DY:27:VAL:H	2.07	0.64
1:AA:1442(B):A:N3	1:AA:1442(B):A:H2'	2.12	0.64
2:AB:121:LEU:HD11	2:AB:130:ARG:HH11	1.62	0.64
2:AB:73:THR:HG22	2:AB:95:GLN:O	1.98	0.64
5:AE:65:ASN:O	5:AE:66:MET:HG3	1.98	0.64
10:AJ:62:HIS:H	10:AJ:62:HIS:CD2	2.16	0.64
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.98	0.64
1:AA:522:C:H41	12:AL:53:ARG:NH2	1.96	0.64
13:AM:86:CYS:HA	19:AS:73:GLU:O	1.97	0.64
20:AT:46:GLU:O	20:AT:46:GLU:HG2	1.97	0.64
29:B4:60:GLU:O	29:B4:61:VAL:HB	1.97	0.64
35:BA:106:C:H2'	35:BA:107:C:H6	1.63	0.64
35:BA:2175:C:H1'	37:BC:215:THR:H	1.62	0.64
38:BD:18:VAL:HG12	38:BD:19:ALA:N	2.13	0.64
39:BE:8:LYS:HE3	39:BE:188:VAL:HG13	1.80	0.64
39:BE:69:LYS:NZ	39:BE:89:ASP:HA	2.12	0.64
42:BH:148:ILE:O	42:BH:151:ILE:HG12	1.97	0.64
35:BA:1453:U:H5'	48:BR:63:ARG:HE	1.62	0.64
49:BS:89:ARG:O	49:BS:92:TYR:HB3	1.98	0.64
55:BY:81:LYS:HD3	55:BY:97:ARG:CB	2.28	0.64
56:BZ:59:LEU:HD12	56:BZ:69:THR:HG21	1.79	0.64
56:BZ:9:TYR:HE2	56:BZ:35:ARG:HE	1.46	0.64
2:CB:48:MET:HG2	2:CB:49:GLU:H	1.60	0.64
2:CB:51:LEU:HB3	2:CB:55:PHE:HE2	1.62	0.64
3:CC:126:ARG:HG2	3:CC:126:ARG:HH11	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:196:LEU:HD12	4:CD:196:LEU:H	1.61	0.64
26:D1:29:GLY:HA3	35:DA:2396:G:O2'	1.98	0.64
35:DA:17:G:H2'	35:DA:18:C:C6	2.33	0.64
35:DA:2712:U:H1'	35:DA:2712(A):A:C8	2.33	0.64
35:DA:2803:C:H2'	35:DA:2804:C:C6	2.33	0.64
40:DF:8:GLN:HB2	40:DF:124:LEU:HD11	1.79	0.64
46:DP:84:ASN:HA	46:DP:115:LEU:O	1.96	0.64
55:DY:87:LYS:HG3	55:DY:88:LYS:N	2.12	0.64
1:AA:80:G:H3'	1:AA:81:U:C5'	2.28	0.64
2:AB:178:ARG:HH22	2:AB:196:LEU:CA	2.10	0.64
2:AB:55:PHE:HA	2:AB:58:ILE:CG1	2.28	0.64
2:AB:82:ARG:O	2:AB:86:GLU:HG3	1.97	0.64
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.80	0.64
18:AR:45:SER:H	18:AR:51:LEU:HG	1.61	0.64
22:AV:30:G:H2'	22:AV:31:A:H5'	1.80	0.64
26:B1:61:ARG:NH1	26:B1:61:ARG:HG2	2.08	0.64
32:B7:9:ARG:HG3	32:B7:9:ARG:HH11	1.62	0.64
35:BA:2175:C:H1'	37:BC:215:THR:HA	1.80	0.64
40:BF:20:LEU:HD22	40:BF:203:GLN:OE1	1.97	0.64
43:BI:83:ALA:HA	43:BI:89:TYR:CE1	2.33	0.64
54:BX:35:THR:HG22	54:BX:37:THR:N	2.11	0.64
1:CA:1030(A):G:H2'	1:CA:1030(C):G:OP2	1.97	0.64
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.32	0.64
1:CA:683:G:H2'	1:CA:684:A:C8	2.33	0.64
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.27	0.64
14:CN:26:ARG:NH1	14:CN:47:LEU:HD21	2.13	0.64
14:CN:9:LYS:HG3	14:CN:12:ARG:NH1	2.13	0.64
31:D6:15:GLU:CD	31:D6:18:ARG:NE	2.47	0.64
35:DA:2069:G:O2'	35:DA:2070:G:H5'	1.97	0.64
35:DA:2533:A:C3'	35:DA:2534:A:H5''	2.28	0.64
35:DA:608:A:OP1	40:DF:100:THR:HG21	1.97	0.64
46:DP:23:PRO:HD2	46:DP:33:ARG:NH2	2.12	0.64
55:DY:84:ARG:HH12	55:DY:97:ARG:HA	1.62	0.64
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	1.98	0.64
8:AH:84:ARG:HH22	8:AH:86:ILE:CD1	2.10	0.64
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.12	0.64
35:BA:2122:U:H2'	35:BA:2123:G:C8	2.33	0.64
35:BA:357:A:H2'	35:BA:358:U:C6	2.33	0.64
37:BC:169:GLY:N	37:BC:173:ALA:HA	2.08	0.64
43:BI:38:LEU:N	43:BI:38:LEU:HD12	2.06	0.64
43:BI:98:ALA:HB1	43:BI:109:ILE:HB	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:43:THR:HB	47:BQ:45:GLN:HE21	1.62	0.64
49:BS:14:VAL:HG12	49:BS:15:ARG:N	2.13	0.64
49:BS:42:ASP:O	49:BS:43:GLU:HB2	1.95	0.64
35:BA:1155:A:OP1	51:BU:55:ARG:HD2	1.97	0.64
52:BV:18:LEU:CD2	52:BV:19:LYS:H	2.10	0.64
56:BZ:48:PHE:CD2	56:BZ:52:SER:HA	2.33	0.64
1:CA:489:C:H2'	1:CA:490:G:H8	1.61	0.64
1:CA:677:U:H3	1:CA:713:G:H22	1.45	0.64
1:CA:90:U:H5''	1:CA:91:C:H5'	1.80	0.64
2:CB:121:LEU:HD11	2:CB:130:ARG:HH11	1.62	0.64
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.61	0.64
3:CC:8:ILE:HD11	3:CC:184:TYR:HB3	1.79	0.64
11:CK:72:ALA:O	11:CK:77:MET:HB2	1.98	0.64
18:CR:19:LYS:O	18:CR:20:ALA:HB2	1.97	0.64
33:D8:51:ALA:C	33:D8:53:PRO:HD2	2.18	0.64
35:DA:1419:A:O2'	35:DA:1420:U:H5''	1.96	0.64
35:DA:1503:U:H2'	35:DA:1504:C:C6	2.33	0.64
35:DA:2125:G:H22	35:DA:2172:U:H5'	1.63	0.64
35:DA:2317:C:O2'	35:DA:2318:G:H5'	1.97	0.64
35:DA:535:C:O2'	35:DA:536:A:H5'	1.98	0.64
38:DD:168:ARG:O	38:DD:169:GLU:HB2	1.97	0.64
38:DD:267:SER:C	38:DD:269:PHE:H	2.02	0.64
39:DE:59:VAL:HG21	39:DE:63:LEU:HG	1.79	0.64
40:DF:4:VAL:HG12	40:DF:19:GLU:OE1	1.97	0.64
46:DP:41:ARG:HE	46:DP:41:ARG:CA	2.10	0.64
52:DV:21:ARG:HG2	52:DV:91:TYR:CD2	2.33	0.64
56:DZ:5:LEU:HD11	56:DZ:43:GLU:HB3	1.79	0.64
56:DZ:44:PHE:CE2	56:DZ:86:VAL:HG21	2.33	0.64
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.13	0.64
4:AD:196:LEU:CD1	4:AD:196:LEU:H	2.10	0.64
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.98	0.64
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.12	0.64
30:B5:48:GLU:O	30:B5:50:GLY:N	2.31	0.64
30:B5:6:VAL:HG22	30:B5:7:PRO:HD2	1.80	0.64
35:BA:1436:G:H3'	35:BA:1437:C:H5''	1.78	0.64
35:BA:774:A:H2	35:BA:787:U:HO2'	1.45	0.64
37:BC:71:GLN:HG2	37:BC:73:ARG:HH21	1.63	0.64
41:BG:39:ILE:HD12	41:BG:40:ASN:N	2.13	0.64
46:BP:125:VAL:O	46:BP:145:PRO:HD2	1.98	0.64
51:BU:92:ARG:O	51:BU:94:ASN:N	2.30	0.64
56:BZ:125:LEU:HG	56:BZ:164:ALA:CB	2.26	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:184:G:H2'	1:CA:185:A:H8	1.63	0.64
3:CC:126:ARG:O	3:CC:128:PHE:HD1	1.81	0.64
3:CC:86:VAL:O	3:CC:89:GLU:HB3	1.97	0.64
8:CH:84:ARG:NH2	8:CH:86:ILE:HD11	2.13	0.64
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.80	0.64
18:CR:43:PHE:HE2	18:CR:58:LEU:HD11	1.61	0.64
22:CV:48:C:H2'	22:CV:59:U:H1'	1.80	0.64
26:D1:26:ARG:HH11	26:D1:26:ARG:HG3	1.63	0.64
35:DA:1354:A:H2'	35:DA:1355:G:O4'	1.96	0.64
35:DA:1854:A:H5'	35:DA:1855:G:OP2	1.97	0.64
35:DA:557:U:H2'	35:DA:558:G:H8	1.63	0.64
22:CY:56:C:H5''	35:DA:897:C:O5'	1.97	0.64
35:DA:729:G:C5	38:DD:208:LYS:HB2	2.32	0.64
35:DA:1190:G:H5''	46:DP:35:HIS:HA	1.80	0.64
47:DQ:32:TYR:O	47:DQ:105:GLU:HB2	1.98	0.64
47:DQ:43:THR:HB	47:DQ:45:GLN:HE21	1.62	0.64
56:DZ:44:PHE:CE1	56:DZ:48:PHE:HB2	2.33	0.64
1:AA:662:G:H2'	1:AA:663:A:H8	1.62	0.64
1:AA:677:U:H3	1:AA:713:G:H22	1.46	0.64
2:AB:168:THR:HG23	2:AB:192:SER:HB3	1.80	0.64
3:AC:8:ILE:HD11	3:AC:184:TYR:HB3	1.80	0.64
1:AA:972:C:O3'	10:AJ:57:LYS:HG3	1.98	0.64
35:BA:1286:A:C2'	35:BA:1288:U:OP2	2.45	0.64
35:BA:1396:U:H2'	35:BA:1396:U:O2	1.98	0.64
35:BA:646:A:H2'	35:BA:647:G:O4'	1.97	0.64
35:BA:729:G:C5	38:BD:208:LYS:HB2	2.32	0.64
35:BA:850:C:O2'	35:BA:851:U:H5'	1.98	0.64
38:BD:30:GLU:CD	38:BD:63:ARG:HE	2.02	0.64
39:BE:78:LEU:O	39:BE:79:ARG:HD2	1.97	0.64
41:BG:138:GLN:HG2	41:BG:139:LEU:N	2.12	0.64
43:BI:72:LEU:HD12	43:BI:138:ILE:HD13	1.80	0.64
49:BS:34:HIS:HB3	49:BS:53:SER:HB3	1.80	0.64
56:BZ:16:SER:O	56:BZ:20:ARG:HG2	1.98	0.64
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.62	0.64
2:CB:114:ARG:NH1	2:CB:118:LEU:HD11	2.12	0.64
7:CG:146:GLU:OE2	7:CG:149:ARG:HD2	1.97	0.64
7:CG:47:CYS:HB3	7:CG:58:PRO:HG2	1.80	0.64
8:CH:20:TYR:HE2	8:CH:75:ARG:HE	1.44	0.64
1:CA:522:C:H41	12:CL:53:ARG:NH2	1.96	0.64
1:CA:986:A:H1'	19:CS:54:GLY:O	1.97	0.64
23:CW:67:C:H2'	23:CW:68:C:H6	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:17:SER:OG	27:D2:20:GLU:HB2	1.96	0.64
35:DA:1352:U:O2'	35:DA:1353:A:H5'	1.98	0.64
35:DA:2290:G:C8	35:DA:2290:G:H5'	2.28	0.64
35:DA:92:A:H2'	35:DA:93:G:C8	2.32	0.64
38:DD:24:ILE:O	38:DD:26:LYS:N	2.31	0.64
40:DF:17:ARG:HG3	40:DF:17:ARG:NH1	2.11	0.64
40:DF:2:LYS:O	40:DF:24:LEU:HG	1.98	0.64
42:DH:148:ILE:O	42:DH:151:ILE:HG12	1.97	0.64
42:DH:86:GLU:CB	42:DH:132:ARG:HB3	2.28	0.64
43:DI:92:VAL:CG1	43:DI:120:ILE:HD12	2.27	0.64
35:DA:833:U:H5''	46:DP:48:PRO:HB3	1.79	0.64
52:DV:18:LEU:CD2	52:DV:19:LYS:H	2.11	0.64
55:DY:17:SER:HB3	55:DY:71:LYS:HB3	1.79	0.64
56:DZ:40:ASP:HB3	56:DZ:43:GLU:CB	2.27	0.64
1:AA:253:U:H2'	1:AA:254:G:C8	2.33	0.63
9:AI:50:LEU:HG	9:AI:81:ILE:HG21	1.79	0.63
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.80	0.63
17:AQ:14:LYS:NZ	17:AQ:14:LYS:HB2	2.13	0.63
23:AW:12:U:H3	23:AW:23:A:H61	1.44	0.63
35:BA:1510:G:O2'	35:BA:1511:C:H5'	1.97	0.63
35:BA:1590:U:H2'	35:BA:1591:G:C5'	2.21	0.63
35:BA:2347:C:H2'	35:BA:2348:U:C6	2.33	0.63
35:BA:467:G:O2'	35:BA:468:G:H5'	1.98	0.63
38:BD:24:ILE:O	38:BD:26:LYS:N	2.31	0.63
40:BF:24:LEU:CD1	40:BF:25:PRO:HD3	2.28	0.63
43:BI:123:LEU:HD22	43:BI:142:VAL:O	1.98	0.63
46:BP:23:PRO:HD2	46:BP:33:ARG:NE	2.14	0.63
49:BS:96:GLY:O	49:BS:98:VAL:HG23	1.97	0.63
51:BU:31:SER:C	51:BU:33:ARG:H	2.02	0.63
54:BX:24:GLY:O	54:BX:82:GLN:HA	1.98	0.63
1:CA:266:G:H5'	1:CA:266:G:C8	2.33	0.63
2:CB:121:LEU:O	2:CB:127:ILE:HD11	1.98	0.63
2:CB:168:THR:HG23	2:CB:192:SER:HB3	1.79	0.63
4:CD:7:PRO:CB	4:CD:10:ARG:HD2	2.28	0.63
6:CF:33:TYR:HE2	6:CF:74:ASP:HB3	1.63	0.63
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.79	0.63
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.11	0.63
15:CO:67:LEU:HD22	15:CO:78:TYR:HE1	1.63	0.63
23:CW:69:G:C3'	23:CW:70:G:H5''	2.28	0.63
31:D6:23:THR:HG21	35:DA:2419:U:C5'	2.27	0.63
33:D8:25:MET:HG3	46:DP:64:LYS:CB	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1594:G:C5'	35:DA:1594:G:H8	2.06	0.63
35:DA:2175:C:H1'	37:DC:215:THR:H	1.63	0.63
35:DA:925:C:C3'	35:DA:926:A:H5''	2.28	0.63
41:DG:46:ALA:HA	41:DG:51:ARG:CD	2.27	0.63
50:DT:54:ARG:HG2	50:DT:54:ARG:HH11	1.63	0.63
53:DW:5:ALA:HB1	53:DW:50:VAL:CG2	2.28	0.63
1:AA:266:G:H5'	1:AA:266:G:C8	2.33	0.63
1:AA:90:U:H5''	1:AA:91:C:H5'	1.79	0.63
10:AJ:32:ALA:HB1	10:AJ:75:ILE:CG1	2.27	0.63
19:AS:15:LEU:N	19:AS:15:LEU:HD22	2.14	0.63
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.98	0.63
23:AW:40:C:H2'	23:AW:41:C:H6	1.63	0.63
29:B4:52:SER:HB2	41:BG:143:GLU:OE2	1.98	0.63
30:B5:16:ARG:HG2	30:B5:16:ARG:HH11	1.62	0.63
35:BA:1854:A:H5'	35:BA:1855:G:OP2	1.97	0.63
35:BA:580:C:H2'	35:BA:581:C:H6	1.62	0.63
41:BG:125:PHE:CD1	41:BG:125:PHE:N	2.67	0.63
41:BG:40:ASN:HD22	41:BG:91:ARG:HB2	1.64	0.63
42:BH:106:THR:HG22	42:BH:112:PRO:HB3	1.80	0.63
46:BP:16:ARG:CZ	46:BP:18:ARG:HG2	2.28	0.63
47:BQ:21:THR:HG21	47:BQ:101:ARG:HB2	1.79	0.63
48:BR:7:GLY:O	48:BR:8:ARG:HG2	1.98	0.63
52:BV:39:LEU:HD11	52:BV:51:VAL:HG22	1.78	0.63
1:CA:101:A:O2'	1:CA:102:G:H5'	1.98	0.63
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.29	0.63
1:CA:56:U:H2'	1:CA:57:G:C8	2.33	0.63
1:CA:950:U:H2'	1:CA:951:G:C8	2.32	0.63
2:CB:212:GLN:HE22	2:CB:216:SER:HB2	1.63	0.63
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.97	0.63
4:CD:4:TYR:O	4:CD:5:ILE:HB	1.99	0.63
13:CM:17:VAL:O	13:CM:20:THR:HB	1.99	0.63
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	1.98	0.63
17:CQ:58:GLU:C	17:CQ:59:ILE:HD13	2.19	0.63
25:D0:29:GLN:HG2	35:DA:923:C:H4'	1.79	0.63
31:D6:15:GLU:OE2	31:D6:41:PRO:HG3	1.98	0.63
35:DA:829:A:N7	35:DA:2248:C:H5'	2.12	0.63
35:DA:271(S):G:H2'	35:DA:271(T):C:C5'	2.27	0.63
39:DE:101:ARG:NH2	39:DE:171:GLU:HB2	2.14	0.63
44:DN:42:TRP:HB3	51:DU:64:ARG:HD2	1.78	0.63
51:DU:110:VAL:O	51:DU:114:LYS:HD2	1.98	0.63
55:DY:15:VAL:O	55:DY:16:ALA:HB3	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:81:LYS:HD3	55:DY:97:ARG:CB	2.27	0.63
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.98	0.63
1:AA:57:G:H2'	1:AA:58:C:H6	1.61	0.63
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.28	0.63
11:AK:61:ALA:CB	11:AK:90:GLY:HA3	2.27	0.63
25:B0:11:ARG:O	25:B0:14:ARG:NH2	2.31	0.63
29:B4:48:ILE:HD12	29:B4:48:ILE:N	2.13	0.63
35:BA:2113:U:H2'	35:BA:2114:A:C8	2.33	0.63
35:BA:2293:C:H42	35:BA:2339:G:H1	1.46	0.63
35:BA:2712:U:H1'	35:BA:2712(A):A:C8	2.33	0.63
35:BA:271(J):C:C3'	35:BA:271(K):U:H5''	2.28	0.63
55:BY:19:LYS:NZ	55:BY:19:LYS:HB2	2.14	0.63
56:BZ:108:PRO:HB3	56:BZ:117:LEU:HB2	1.80	0.63
1:CA:826:C:H5'	8:CH:12:ARG:HH21	1.62	0.63
1:CA:838:G:C2'	1:CA:839:U:H5''	2.28	0.63
1:CA:980:C:H5'	1:CA:981:U:C5	2.34	0.63
5:CE:41:VAL:HG11	5:CE:113:ALA:HA	1.79	0.63
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.61	0.63
9:CI:94:ALA:O	9:CI:98:PRO:HG2	1.98	0.63
12:CL:28:LYS:C	12:CL:30:ALA:H	1.99	0.63
35:DA:2310:A:O2'	35:DA:2311:A:H5''	1.98	0.63
35:DA:2398:U:H5'	35:DA:2399:G:OP2	1.98	0.63
22:CY:77:PHA:HD2	35:DA:2451:A:C2	2.32	0.63
35:DA:2645:G:C3'	35:DA:2646:C:H5'	2.25	0.63
35:DA:994:C:H3'	51:DU:54:LYS:HE3	1.79	0.63
38:DD:58:HIS:HD2	38:DD:59:LYS:O	1.82	0.63
41:DG:11:TYR:O	41:DG:16:ARG:HB2	1.98	0.63
41:DG:56:ALA:HB1	41:DG:153:ARG:HE	1.63	0.63
45:DO:87:ILE:HG22	45:DO:88:ASN:N	2.14	0.63
46:DP:107:LYS:C	46:DP:109:GLY:H	1.99	0.63
49:DS:87:PHE:O	49:DS:88:ASP:HB2	1.98	0.63
50:DT:27:THR:O	50:DT:28:VAL:CB	2.46	0.63
51:DU:68:ALA:O	51:DU:71:GLN:HB3	1.98	0.63
52:DV:6:LYS:O	52:DV:37:VAL:HG21	1.99	0.63
54:DX:47:PHE:HD2	54:DX:89:ILE:HG23	1.63	0.63
3:AC:72:LYS:HE3	3:AC:75:VAL:HG21	1.80	0.63
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	1.98	0.63
35:BA:675:A:OP1	40:BF:63:LYS:HE2	1.98	0.63
41:BG:33:ARG:O	41:BG:34:LEU:HD23	1.99	0.63
47:BQ:37:LEU:HD11	47:BQ:130:LYS:HB2	1.81	0.63
50:BT:28:VAL:O	50:BT:29:ARG:HD3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:99:U:H2'	1:CA:100:C:C6	2.34	0.63
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	1.98	0.63
2:CB:73:THR:HG22	2:CB:95:GLN:O	1.99	0.63
3:CC:206:GLU:O	3:CC:208:ILE:N	2.32	0.63
4:CD:196:LEU:H	4:CD:196:LEU:CD1	2.11	0.63
35:DA:1223:G:H5'	35:DA:1224:C:OP2	1.99	0.63
35:DA:330:A:O2'	35:DA:331:A:H8	1.81	0.63
36:DB:106:G:O2'	36:DB:107:G:H5'	1.98	0.63
38:DD:210:GLY:O	38:DD:211:ARG:HB3	1.96	0.63
47:DQ:137:TYR:N	47:DQ:137:TYR:HD2	1.97	0.63
49:DS:42:ASP:O	49:DS:43:GLU:HB2	1.99	0.63
50:DT:13:ARG:NH1	50:DT:15:VAL:HG22	2.14	0.63
52:DV:99:ILE:HD13	52:DV:99:ILE:N	2.13	0.63
1:AA:184:G:H2'	1:AA:185:A:H8	1.62	0.63
2:AB:212:GLN:HE22	2:AB:216:SER:HB2	1.63	0.63
5:AE:41:VAL:HG11	5:AE:113:ALA:HA	1.80	0.63
5:AE:101:ILE:CG1	5:AE:119:LEU:HD23	2.22	0.63
9:AI:17:VAL:HG11	9:AI:81:ILE:HA	1.81	0.63
9:AI:114:TYR:HD1	10:AJ:60:ARG:HG3	1.64	0.63
22:AV:68:C:H2'	22:AV:69:G:C5'	2.25	0.63
25:B0:29:GLN:HG2	35:BA:923:C:H4'	1.81	0.63
28:B3:17:LYS:HD2	28:B3:20:LYS:HD2	1.81	0.63
30:B5:33:CYS:CB	30:B5:38:ALA:HB3	2.28	0.63
30:B5:46:CYS:O	30:B5:48:GLU:N	2.31	0.63
33:B8:29:LYS:HG3	33:B8:29:LYS:O	1.97	0.63
35:BA:1022:G:O2'	35:BA:1023:U:OP2	2.16	0.63
39:BE:119:ARG:HG2	39:BE:160:TYR:CB	2.29	0.63
41:BG:70:VAL:HG23	41:BG:70:VAL:O	1.98	0.63
47:BQ:32:TYR:O	47:BQ:105:GLU:HB2	1.98	0.63
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.98	0.63
1:CA:1308:U:OP1	13:CM:98:VAL:N	2.31	0.63
4:CD:19:LEU:HD12	4:CD:19:LEU:H	1.63	0.63
13:CM:65:LYS:NZ	13:CM:65:LYS:HB3	2.13	0.63
27:D2:35:LEU:HD22	27:D2:50:ILE:HG12	1.80	0.63
35:DA:1885:A:H8	35:DA:1885:A:H5'	1.63	0.63
35:DA:1935:G:H1'	35:DA:1964:G:N2	2.13	0.63
35:DA:943:U:OP2	46:DP:38:GLN:CD	2.36	0.63
38:DD:34:VAL:O	38:DD:64:ILE:HG23	1.98	0.63
38:DD:26:LYS:HD3	38:DD:81:ALA:CB	2.28	0.63
46:DP:13:ASN:C	46:DP:13:ASN:ND2	2.52	0.63
55:DY:29:GLU:N	55:DY:29:GLU:OE1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1165:C:H2'	1:AA:1166:G:C8	2.31	0.63
3:AC:153:VAL:HG12	3:AC:196:LEU:HD12	1.81	0.63
5:AE:109:ILE:HG22	5:AE:110:LEU:HD23	1.81	0.63
1:AA:1240:U:OP2	7:AG:116:ALA:HB2	1.97	0.63
7:AG:148:ASN:C	7:AG:150:ALA:N	2.51	0.63
19:AS:29:ARG:O	19:AS:31:ILE:N	2.31	0.63
26:B1:75:GLU:O	26:B1:78:LYS:HE2	1.98	0.63
32:B7:24:THR:HG23	32:B7:27:GLY:H	1.64	0.63
35:BA:2593:U:H2'	35:BA:2594:C:H6	1.63	0.63
35:BA:271(R):G:H2'	35:BA:271(S):G:C8	2.32	0.63
35:BA:925:C:C3'	35:BA:926:A:H5''	2.29	0.63
44:BN:57:ALA:HB3	44:BN:124:ALA:HA	1.81	0.63
45:BO:26:LYS:HB2	45:BO:30:ALA:HB2	1.80	0.63
46:BP:23:PRO:HD2	46:BP:33:ARG:NH2	2.14	0.63
55:BY:17:SER:HB2	55:BY:71:LYS:CE	2.26	0.63
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.64	0.63
2:CB:53:ARG:O	2:CB:56:ARG:HB2	1.98	0.63
10:CJ:32:ALA:HB2	10:CJ:76:ASN:O	1.98	0.63
11:CK:33:THR:HG22	11:CK:39:PRO:N	2.14	0.63
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.19	0.63
22:CV:32:U:H5'	22:CV:33:U:OP2	1.98	0.63
23:CW:65:G:H2'	23:CW:66:U:C6	2.33	0.63
26:D1:45:ASN:HD21	35:DA:2090:G:N2	1.93	0.63
35:DA:1286:A:C2'	35:DA:1288:U:OP2	2.46	0.63
35:DA:528:A:H2	35:DA:2043:C:H5'	1.64	0.63
35:DA:2122:U:H2'	35:DA:2123:G:C8	2.33	0.63
35:DA:2415:G:H4'	46:DP:67:MET:H	1.62	0.63
38:DD:26:LYS:O	38:DD:27:THR:HG22	1.97	0.63
39:DE:78:LEU:O	39:DE:79:ARG:HD2	1.99	0.63
40:DF:183:VAL:O	40:DF:187:VAL:HG23	1.99	0.63
35:DA:2312:U:OP1	41:DG:74:LYS:HG3	1.99	0.63
42:DH:20:ALA:HB2	42:DH:25:LYS:HZ1	1.61	0.63
1:AA:1112:C:O2	3:AC:179:ARG:HG2	1.98	0.63
1:AA:178:C:O2'	1:AA:179:A:H5'	1.99	0.63
1:AA:930:C:O2'	1:AA:931:C:H5'	1.99	0.63
2:AB:47:THR:O	2:AB:50:GLU:HB2	1.98	0.63
5:AE:41:VAL:HG22	5:AE:69:VAL:HG21	1.80	0.63
5:AE:83:GLU:HG2	5:AE:88:LYS:HG3	1.80	0.63
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.80	0.63
13:AM:17:VAL:O	13:AM:20:THR:HB	1.97	0.63
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:40:ILE:HG13	29:B4:57:ILE:HG21	1.79	0.63
35:BA:1718:G:H1	35:BA:1744:C:H42	1.45	0.63
35:BA:34:C:N4	35:BA:455:C:H5'	2.14	0.63
35:BA:71:A:C8	35:BA:71:A:H5'	2.30	0.63
41:BG:51:ARG:CA	41:BG:51:ARG:NE	2.62	0.63
45:BO:87:ILE:HG22	45:BO:88:ASN:N	2.14	0.63
46:BP:144:GLU:O	46:BP:144:GLU:HG2	1.98	0.63
46:BP:8:PRO:O	46:BP:9:ASN:CB	2.47	0.63
52:BV:49:THR:CG2	52:BV:50:PRO:HD3	2.26	0.63
55:BY:15:VAL:O	55:BY:16:ALA:HB3	1.98	0.63
56:BZ:117:LEU:CA	56:BZ:174:VAL:HG22	2.28	0.63
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.59	0.63
2:CB:235:SER:O	2:CB:237:ALA:N	2.32	0.63
3:CC:116:VAL:O	3:CC:119:ARG:HB3	1.98	0.63
5:CE:91:LEU:HD13	5:CE:120:THR:CG2	2.29	0.63
11:CK:57:THR:CG2	11:CK:58:PRO:HD2	2.29	0.63
13:CM:108:ARG:N	13:CM:108:ARG:HD2	2.14	0.63
13:CM:49:THR:O	13:CM:53:VAL:HG23	1.99	0.63
13:CM:76:ALA:HA	13:CM:79:LYS:CD	2.28	0.63
13:CM:86:CYS:HA	19:CS:73:GLU:O	1.98	0.63
23:CW:11:C:H2'	23:CW:12:U:C6	2.33	0.63
25:D0:6:GLY:O	25:D0:7:LEU:HG	1.99	0.63
30:D5:35:GLU:O	30:D5:36:CYS:CB	2.47	0.63
35:DA:1170:G:H1	35:DA:1179:C:N4	1.94	0.63
35:DA:1718:G:H1	35:DA:1744:C:H42	1.47	0.63
38:DD:248:SER:HB2	38:DD:249:PRO:HD2	1.81	0.63
41:DG:177:GLY:O	41:DG:179:PRO:HD3	1.99	0.63
46:DP:21:ARG:O	46:DP:23:PRO:HD3	1.99	0.63
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.81	0.63
1:AA:59:A:H1'	1:AA:354:G:N2	2.14	0.63
1:AA:657:G:O2'	1:AA:658:G:H5'	1.99	0.63
5:AE:91:LEU:HD13	5:AE:120:THR:CG2	2.29	0.63
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.09	0.63
20:AT:37:SER:O	20:AT:41:ILE:HG12	1.99	0.63
28:B3:45:GLY:HA3	35:BA:851:U:O2'	1.99	0.63
33:B8:51:ALA:C	33:B8:53:PRO:HD2	2.19	0.63
35:BA:2317:C:O2'	35:BA:2318:G:H5'	1.99	0.63
42:BH:17:VAL:HG12	42:BH:17:VAL:O	1.98	0.63
42:BH:85:LYS:HG3	42:BH:145:ALA:HB2	1.81	0.63
44:BN:65:LYS:O	44:BN:69:GLN:HG3	1.99	0.63
46:BP:126:VAL:HA	46:BP:145:PRO:HB2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:140:ALA:O	56:BZ:53:ILE:HG13	1.98	0.63
49:BS:14:VAL:HG13	49:BS:90:GLY:HA2	1.81	0.63
2:CB:47:THR:O	2:CB:50:GLU:HB2	1.99	0.63
3:CC:72:LYS:HE3	3:CC:75:VAL:HG21	1.81	0.63
4:CD:11:LEU:C	4:CD:13:ARG:H	2.01	0.63
10:CJ:5:ARG:HG3	10:CJ:71:LEU:HD11	1.81	0.63
35:DA:419:C:O2'	35:DA:420:C:H5'	1.99	0.63
41:DG:15:VAL:HG13	41:DG:175:LEU:CD1	2.29	0.63
42:DH:17:VAL:O	42:DH:17:VAL:HG12	1.99	0.63
35:DA:1141:U:P	44:DN:25:ARG:HH12	2.21	0.63
45:DO:86:ILE:N	45:DO:86:ILE:HD12	2.14	0.63
46:DP:126:VAL:HA	46:DP:145:PRO:HB2	1.80	0.63
47:DQ:63:LYS:HA	56:DZ:178:GLU:OE1	1.98	0.63
48:DR:24:GLN:NE2	48:DR:36:THR:HG21	2.10	0.63
51:DU:102:GLU:HG3	52:DV:2:PHE:CE1	2.32	0.63
1:AA:101:A:O2'	1:AA:102:G:H5'	1.99	0.63
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.33	0.63
1:AA:473:G:H2'	1:AA:474:G:H8	1.63	0.63
1:AA:674:G:H2'	1:AA:675:A:H8	1.64	0.63
3:AC:126:ARG:O	3:AC:128:PHE:HD1	1.81	0.63
10:AJ:97:GLU:O	10:AJ:98:ILE:HD12	1.99	0.63
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.99	0.63
22:AV:20:U:C2'	22:AV:21:A:H5'	2.29	0.63
22:AY:27:G:H2'	22:AY:28:G:C8	2.34	0.63
35:BA:2398:U:H5'	35:BA:2399:G:OP2	1.99	0.63
35:BA:1638:C:H4'	35:BA:2710:C:O2	1.99	0.63
35:BA:2866:U:C6	35:BA:2868:A:H1'	2.34	0.63
35:BA:608:A:OP1	40:BF:100:THR:HG21	1.98	0.63
35:BA:2591:C:OP2	38:BD:239:ARG:HB3	1.99	0.63
42:BH:85:LYS:HD2	42:BH:141:VAL:HG22	1.79	0.63
43:BI:88:ILE:CG2	43:BI:89:TYR:N	2.62	0.63
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	1.98	0.63
1:CA:302:G:N3	1:CA:556:C:H4'	2.13	0.63
10:CJ:32:ALA:HB1	10:CJ:76:ASN:H	1.63	0.63
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.98	0.63
35:DA:808:G:H2'	35:DA:809:G:H8	1.63	0.63
35:DA:886:C:O2'	35:DA:887:A:H4'	1.99	0.63
35:DA:2073:C:H5''	38:DD:229:VAL:HG13	1.81	0.63
53:DW:99:ARG:HG2	53:DW:99:ARG:HH11	1.61	0.63
55:DY:7:VAL:HB	55:DY:8:LYS:NZ	2.13	0.63
1:AA:1188:A:C2'	1:AA:1189:C:H5'	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1452:C:H5'	1:AA:1456:G:C4	2.34	0.62
1:AA:41:G:H2'	1:AA:42:G:H8	1.62	0.62
1:AA:818:G:C3'	1:AA:819:A:H5''	2.29	0.62
2:AB:53:ARG:O	2:AB:56:ARG:HB2	1.99	0.62
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.79	0.62
8:AH:69:ARG:HB2	8:AH:69:ARG:HH11	1.63	0.62
26:B1:19:GLN:O	26:B1:35:THR:HG22	1.99	0.62
31:B6:15:GLU:OE1	31:B6:18:ARG:HG3	1.99	0.62
35:BA:1503:U:H2'	35:BA:1504:C:C6	2.33	0.62
35:BA:1681:G:HO2'	35:BA:1762:A:H2'	1.63	0.62
35:BA:176:G:O2'	35:BA:177:G:H5'	1.99	0.62
35:BA:1882:C:H5'	35:BA:1883:G:OP2	1.99	0.62
38:BD:26:LYS:CD	38:BD:81:ALA:HB1	2.29	0.62
39:BE:101:ARG:NH2	39:BE:171:GLU:HB2	2.13	0.62
13:AM:11:ARG:HH22	41:BG:147:ASP:HB3	1.64	0.62
41:BG:85:GLY:C	41:BG:87:PRO:HD2	2.19	0.62
48:BR:24:GLN:NE2	48:BR:36:THR:HG21	2.12	0.62
53:BW:29:LEU:HD21	53:BW:33:ARG:HH21	1.64	0.62
53:BW:5:ALA:O	53:BW:6:ILE:HB	1.98	0.62
1:CA:1406:U:O2'	1:CA:1407:C:H5'	1.99	0.62
3:CC:108:ASN:OD1	3:CC:110:ASN:HB2	1.99	0.62
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.14	0.62
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.81	0.62
22:CY:51:U:H3'	22:CY:52:G:H8	1.63	0.62
25:D0:40:GLN:NE2	25:D0:43:THR:HA	2.14	0.62
35:DA:2113:U:H2'	35:DA:2114:A:C8	2.33	0.62
35:DA:1786:A:C2	35:DA:2606:C:H1'	2.34	0.62
35:DA:271(J):C:C3'	35:DA:271(K):U:H5''	2.29	0.62
35:DA:877:U:O2'	35:DA:878:A:H5''	1.99	0.62
41:DG:51:ARG:C	41:DG:53:LEU:H	2.01	0.62
42:DH:106:THR:HG22	42:DH:112:PRO:HB3	1.81	0.62
42:DH:126:PRO:O	42:DH:127:GLU:HG3	1.99	0.62
42:DH:85:LYS:NZ	42:DH:133:VAL:HB	2.13	0.62
45:DO:88:ASN:ND2	45:DO:90:GLN:H	1.96	0.62
35:DA:626:U:C2	46:DP:105:LEU:HG	2.34	0.62
1:AA:1116:C:H2'	1:AA:1117:G:O4'	1.99	0.62
1:AA:1422:G:O2'	1:AA:1423:G:H5'	1.99	0.62
1:AA:199:G:H2'	1:AA:200:G:H8	1.63	0.62
1:AA:950:U:H2'	1:AA:951:G:H8	1.65	0.62
2:AB:140:HIS:O	2:AB:143:GLU:HB2	1.99	0.62
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:94:ALA:O	9:AI:98:PRO:HG2	1.98	0.62
11:AK:33:THR:HG22	11:AK:39:PRO:N	2.14	0.62
35:BA:2417:C:H2'	35:BA:2418:A:H8	1.64	0.62
40:BF:183:VAL:O	40:BF:187:VAL:HG23	1.98	0.62
40:BF:70:THR:C	40:BF:72:ARG:H	2.03	0.62
46:BP:115:LEU:HA	46:BP:134:ALA:CB	2.28	0.62
49:BS:30:ARG:NH2	49:BS:62:LYS:HD2	2.14	0.62
56:BZ:72:ARG:O	56:BZ:73:GLN:HB2	1.97	0.62
3:CC:148:GLY:HA3	3:CC:172:ARG:O	1.99	0.62
8:CH:45:ILE:HG22	8:CH:63:LEU:HA	1.80	0.62
12:CL:53:ARG:HB3	12:CL:69:TYR:HE1	1.64	0.62
35:DA:1682:G:H5'	35:DA:1762:A:O2'	2.00	0.62
35:DA:2417:C:H2'	35:DA:2418:A:H8	1.64	0.62
35:DA:2836:U:H2'	35:DA:2837:G:C8	2.34	0.62
43:DI:120:ILE:CG2	43:DI:121:LYS:H	2.12	0.62
47:DQ:27:VAL:HB	47:DQ:137:TYR:HD1	1.64	0.62
1:AA:99:U:H2'	1:AA:100:C:C6	2.33	0.62
1:AA:102:G:H2'	1:AA:103:C:H6	1.63	0.62
1:AA:737:A:H2'	1:AA:738:C:C6	2.34	0.62
2:AB:139:LYS:O	2:AB:143:GLU:HG2	1.99	0.62
2:AB:178:ARG:NH2	8:AH:74:PRO:HG3	2.14	0.62
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.15	0.62
4:AD:80:GLU:O	4:AD:84:LYS:HG2	1.99	0.62
4:AD:81:GLU:O	4:AD:85:LYS:HB2	1.99	0.62
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.20	0.62
22:AY:72:C:C2	22:AY:73:A:H2	2.16	0.62
35:BA:1504:C:O2'	35:BA:1505:C:C5'	2.47	0.62
35:BA:1798:U:H5''	38:BD:260:ARG:HB3	1.82	0.62
35:BA:2069:G:O2'	35:BA:2070:G:H5'	1.99	0.62
35:BA:2534:A:H5'	35:BA:2534:A:H8	1.65	0.62
36:BB:106:G:O2'	36:BB:107:G:H5'	1.99	0.62
41:BG:125:PHE:C	41:BG:128:ARG:HG2	2.19	0.62
42:BH:103:LEU:CD2	42:BH:105:LEU:HD12	2.29	0.62
42:BH:126:PRO:O	42:BH:127:GLU:HG3	1.99	0.62
42:BH:158:HIS:O	42:BH:159:GLU:HB3	1.99	0.62
1:CA:1248:A:H2'	1:CA:1249:C:H5'	1.81	0.62
1:CA:277:C:O2'	1:CA:278:G:H5'	1.99	0.62
1:CA:501:C:H2'	1:CA:502:G:H8	1.65	0.62
4:CD:79:PHE:HE1	4:CD:204:ILE:HD13	1.64	0.62
5:CE:18:ARG:NH2	5:CE:25:ARG:HD2	2.15	0.62
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:104:VAL:HG12	12:CL:105:TYR:CD1	2.34	0.62
12:CL:33:ARG:HA	12:CL:33:ARG:HE	1.65	0.62
13:CM:10:PRO:O	13:CM:11:ARG:HG3	1.98	0.62
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.39	0.62
20:CT:81:LYS:O	20:CT:85:MET:HG2	1.99	0.62
23:CW:18:G:H22	23:CW:55:U:H1'	1.62	0.62
22:CY:68:C:H2'	22:CY:69:G:C8	2.31	0.62
31:D6:15:GLU:HG2	31:D6:18:ARG:HE	1.64	0.62
33:D8:4:MET:HE2	35:DA:593:G:O4'	1.99	0.62
35:DA:1264:G:H3'	35:DA:1265:A:H5''	1.80	0.62
38:DD:131:LEU:HD12	38:DD:131:LEU:N	2.14	0.62
41:DG:101:ILE:HD11	41:DG:105:LYS:NZ	2.14	0.62
43:DI:77:LEU:CD1	43:DI:101:LEU:HD13	2.28	0.62
48:DR:12:ARG:HH11	48:DR:12:ARG:HG3	1.64	0.62
49:DS:34:HIS:HB3	49:DS:53:SER:HB3	1.80	0.62
50:DT:28:VAL:HG13	50:DT:46:GLU:CA	2.26	0.62
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.34	0.62
2:AB:79:ASP:O	2:AB:82:ARG:HB3	2.00	0.62
5:AE:68:GLU:HG3	5:AE:70:PRO:HD3	1.81	0.62
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.67	0.62
10:AJ:28:ARG:HH12	10:AJ:34:VAL:H	1.48	0.62
11:AK:24:SER:HB3	11:AK:27:ASN:O	2.00	0.62
32:B7:19:ARG:HH11	32:B7:19:ARG:HG2	1.64	0.62
35:BA:1784:A:H4'	35:BA:1785:A:O5'	2.00	0.62
35:BA:589:C:O2'	35:BA:590:A:H5'	1.99	0.62
35:BA:813:U:H2'	35:BA:814:C:C6	2.34	0.62
37:BC:78:ALA:HB3	37:BC:83:ILE:CD1	2.29	0.62
38:BD:243:GLY:O	38:BD:244:ARG:HB3	1.99	0.62
42:BH:86:GLU:CB	42:BH:132:ARG:HB3	2.29	0.62
43:BI:4:ILE:HG12	43:BI:18:VAL:CG2	2.27	0.62
43:BI:9:LEU:H	43:BI:13:GLY:CA	2.13	0.62
45:BO:71:ARG:C	45:BO:73:ASP:H	2.03	0.62
35:BA:626:U:C2	46:BP:105:LEU:HG	2.34	0.62
48:BR:101:ALA:O	48:BR:102:GLU:HB2	1.99	0.62
50:BT:29:ARG:CB	50:BT:85:LYS:HA	2.28	0.62
58:CA:1800:PAR:H34	58:CA:1800:PAR:HN61	1.63	0.62
2:CB:79:ASP:O	2:CB:82:ARG:HB3	2.00	0.62
9:CI:15:ALA:HB2	9:CI:65:VAL:HB	1.82	0.62
12:CL:37:CYS:SG	12:CL:81:SER:HB2	2.40	0.62
14:CN:24:CYS:HB2	14:CN:29:ARG:HB3	1.80	0.62
23:CW:18:G:N2	23:CW:55:U:H1'	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1639:U:H2'	35:DA:1640:C:H5''	1.80	0.62
35:DA:2199:A:H3'	35:DA:2200:C:H6	1.64	0.62
38:DD:228:PRO:HD3	38:DD:235:GLY:CA	2.29	0.62
38:DD:61:LEU:O	38:DD:63:ARG:NH1	2.32	0.62
42:DH:158:HIS:O	42:DH:159:GLU:HB3	1.99	0.62
42:DH:55:PRO:HG2	42:DH:56:SER:H	1.63	0.62
43:DI:85:GLU:HG3	43:DI:86:THR:HG23	1.81	0.62
44:DN:102:ALA:O	44:DN:106:MET:HG3	2.00	0.62
44:DN:120:LEU:CD1	44:DN:122:VAL:HG23	2.30	0.62
45:DO:26:LYS:HB2	45:DO:30:ALA:HB2	1.82	0.62
48:DR:33:ARG:HD2	48:DR:33:ARG:N	2.15	0.62
50:DT:28:VAL:O	50:DT:29:ARG:HD3	1.99	0.62
50:DT:92:GLY:O	50:DT:94:ALA:N	2.27	0.62
53:DW:110:LYS:HG3	53:DW:111:HIS:H	1.63	0.62
55:DY:19:LYS:HB2	55:DY:19:LYS:NZ	2.15	0.62
56:DZ:99:TYR:HB3	56:DZ:123:ASP:OD1	2.00	0.62
1:AA:1239:A:H62	1:AA:1299:A:H62	1.46	0.62
1:AA:180:U:H2'	1:AA:181:G:C5'	2.20	0.62
6:AF:18:GLN:O	6:AF:21:LEU:HB2	1.99	0.62
1:AA:1308:U:H5'	13:AM:110:ARG:HD2	1.81	0.62
19:AS:16:LEU:H	19:AS:16:LEU:HD12	1.63	0.62
35:BA:2779:U:H4'	35:BA:2780:G:H5'	1.81	0.62
33:B8:2:PRO:HA	35:BA:591:C:O2	1.99	0.62
35:BA:74:A:H4'	35:BA:75:G:O5'	1.99	0.62
43:BI:118:LYS:CD	43:BI:119:PRO:HD2	2.23	0.62
45:BO:1:MET:CE	45:BO:67:LYS:HG2	2.28	0.62
48:BR:2:ARG:HG2	48:BR:5:LYS:NZ	2.13	0.62
50:BT:28:VAL:O	50:BT:29:ARG:HB2	2.00	0.62
45:BO:104:ARG:NE	50:BT:33:LYS:HD2	2.14	0.62
50:BT:57:PHE:O	50:BT:59:THR:N	2.32	0.62
51:BU:102:GLU:HG3	52:BV:2:PHE:CE1	2.34	0.62
51:BU:112:ARG:O	51:BU:115:ALA:HB3	1.98	0.62
52:BV:39:LEU:HD12	52:BV:47:VAL:CG1	2.28	0.62
1:CA:1308:U:H5'	13:CM:110:ARG:HD2	1.80	0.62
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.16	0.62
2:CB:50:GLU:HG3	2:CB:202:PRO:HG3	1.82	0.62
2:CB:69:LEU:HD22	2:CB:91:PRO:CB	2.29	0.62
1:CA:1298:C:H2'	7:CG:114:ARG:NH1	2.13	0.62
2:CB:178:ARG:NH2	8:CH:74:PRO:HG3	2.14	0.62
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	1.99	0.62
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D4:40:ILE:HG13	29:D4:57:ILE:HG21	1.81	0.62
33:D8:34:TRP:O	33:D8:35:GLN:HB2	1.98	0.62
35:DA:1709:U:H2'	35:DA:1710:C:C6	2.35	0.62
35:DA:17:G:H4'	51:DU:25:TRP:CH2	2.34	0.62
35:DA:2328:A:H2'	35:DA:2329:G:C8	2.35	0.62
35:DA:2444:G:OP2	40:DF:68:LYS:HE2	1.99	0.62
35:DA:271(M):G:O2'	35:DA:271(O):C:H5'	1.99	0.62
38:DD:231:HIS:ND1	38:DD:232:PRO:HD2	2.13	0.62
39:DE:103:ASP:OD2	39:DE:201:THR:HA	2.00	0.62
42:DH:102:ALA:CB	42:DH:117:PRO:HD3	2.26	0.62
42:DH:41:MET:SD	42:DH:41:MET:N	2.73	0.62
43:DI:72:LEU:HD12	43:DI:138:ILE:HD13	1.81	0.62
35:DA:558:G:P	44:DN:111:PRO:HD2	2.39	0.62
46:DP:144:GLU:N	46:DP:145:PRO:CD	2.63	0.62
46:DP:75:ILE:HD12	46:DP:75:ILE:N	2.14	0.62
35:DA:2010:G:H5''	53:DW:42:ARG:HB2	1.80	0.62
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.82	0.62
9:AI:114:TYR:H	9:AI:114:TYR:HD2	1.45	0.62
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.00	0.62
15:AO:5:LYS:O	15:AO:9:GLN:HG2	1.98	0.62
25:B0:20:ARG:HD3	25:B0:20:ARG:N	2.15	0.62
31:B6:47:THR:HB	31:B6:49:HIS:CE1	2.35	0.62
35:BA:1264:G:H3'	35:BA:1265:A:H5''	1.81	0.62
35:BA:1839:G:H5'	35:BA:1839:G:H8	1.63	0.62
35:BA:271(M):G:O2'	35:BA:271(O):C:H5'	1.99	0.62
35:BA:877:U:O2'	35:BA:878:A:H5''	1.99	0.62
36:BB:48:A:H4'	49:BS:95:HIS:CD2	2.32	0.62
42:BH:19:VAL:CG2	42:BH:44:VAL:HA	2.23	0.62
50:BT:38:ASN:HD22	50:BT:39:ARG:N	1.97	0.62
55:BY:7:VAL:HB	55:BY:8:LYS:HZ2	1.63	0.62
56:BZ:10:ARG:HH21	56:BZ:26:GLY:N	1.97	0.62
1:CA:797:C:OP1	11:CK:124:LYS:HE2	1.99	0.62
1:CA:818:G:C3'	1:CA:819:A:H5''	2.30	0.62
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.82	0.62
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.11	0.62
2:CB:55:PHE:HA	2:CB:58:ILE:CG1	2.28	0.62
7:CG:148:ASN:C	7:CG:150:ALA:H	2.01	0.62
13:CM:4:ILE:HA	13:CM:57:ARG:HD3	1.80	0.62
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.15	0.62
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.82	0.62
22:CY:33:U:C3'	22:CY:34:G:H5''	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:36:ILE:HD12	25:D0:37:LEU:N	2.14	0.62
35:DA:1153:C:H2'	35:DA:1154:G:O4'	2.00	0.62
35:DA:1839:G:H5'	35:DA:1839:G:H8	1.64	0.62
35:DA:993:G:O2'	52:DV:89:GLN:HG3	1.98	0.62
37:DC:87:GLU:HG2	37:DC:93:TYR:HA	1.81	0.62
38:DD:242:ARG:N	38:DD:242:ARG:HD2	2.14	0.62
42:DH:85:LYS:HG3	42:DH:145:ALA:HB2	1.80	0.62
43:DI:83:ALA:HB2	43:DI:88:ILE:HA	1.81	0.62
45:DO:104:ARG:NE	50:DT:33:LYS:HD2	2.14	0.62
46:DP:17:LYS:O	46:DP:17:LYS:HG2	1.99	0.62
48:DR:7:GLY:O	48:DR:8:ARG:HG2	1.99	0.62
50:DT:83:ILE:HD12	50:DT:83:ILE:O	1.98	0.62
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.80	0.62
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.00	0.62
2:AB:235:SER:O	2:AB:237:ALA:N	2.33	0.62
6:AF:39:LYS:HD2	6:AF:62:TRP:CZ3	2.31	0.62
10:AJ:30:SER:O	10:AJ:81:THR:HG23	2.00	0.62
12:AL:25:PRO:C	12:AL:27:LEU:N	2.52	0.62
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.00	0.62
19:AS:13:ASP:C	19:AS:15:LEU:H	2.03	0.62
22:AY:20:U:H2'	22:AY:21:A:H4'	1.81	0.62
26:B1:58:ILE:HD11	26:B1:60:PHE:CZ	2.34	0.62
31:B6:36:LEU:HD23	31:B6:36:LEU:H	1.65	0.62
35:BA:1952:A:C2	45:BO:22:ILE:HG23	2.35	0.62
38:BD:228:PRO:HD3	38:BD:235:GLY:CA	2.30	0.62
38:BD:182:LEU:O	38:BD:271:ILE:HG13	1.98	0.62
38:BD:27:THR:HG23	38:BD:27:THR:O	1.99	0.62
38:BD:33:LEU:HD13	38:BD:34:VAL:N	2.15	0.62
39:BE:11:MET:CB	39:BE:24:THR:HA	2.28	0.62
35:BA:2444:G:OP2	40:BF:68:LYS:HE2	2.00	0.62
41:BG:68:PRO:CB	41:BG:90:LEU:HD21	2.30	0.62
42:BH:89:ILE:N	42:BH:89:ILE:HD12	2.15	0.62
44:BN:55:VAL:HG22	44:BN:126:PRO:CA	2.28	0.62
45:BO:107:ARG:NH1	50:BT:36:GLU:H	1.98	0.62
45:BO:88:ASN:ND2	45:BO:90:GLN:H	1.96	0.62
46:BP:16:ARG:HD3	46:BP:18:ARG:N	2.03	0.62
55:BY:7:VAL:HB	55:BY:8:LYS:NZ	2.15	0.62
1:CA:473:G:H2'	1:CA:474:G:H8	1.65	0.62
1:CA:533:A:H1'	1:CA:534:U:OP1	2.00	0.62
1:CA:857:C:H2'	1:CA:858:G:O4'	1.98	0.62
12:CL:25:PRO:C	12:CL:27:LEU:N	2.53	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:27:LYS:HE3	13:CM:31:LYS:HE3	1.81	0.62
16:CP:50:LYS:HD3	16:CP:51:VAL:H	1.63	0.62
20:CT:45:GLN:C	20:CT:47:GLY:H	2.03	0.62
30:D5:33:CYS:SG	30:D5:36:CYS:HB2	2.40	0.62
35:DA:1485:G:H1'	35:DA:1505:C:N4	2.14	0.62
35:DA:1638:C:H4'	35:DA:2710:C:O2	1.99	0.62
35:DA:2308:G:H21	41:DG:79:ASN:ND2	1.97	0.62
35:DA:2327:A:H2'	35:DA:2328:A:C8	2.35	0.62
36:DB:60:C:H2'	36:DB:61:G:H8	1.64	0.62
43:DI:101:LEU:HG	43:DI:109:ILE:HD11	1.81	0.62
44:DN:65:LYS:O	44:DN:69:GLN:HG3	1.98	0.62
45:DO:71:ARG:C	45:DO:73:ASP:H	2.03	0.62
46:DP:8:PRO:O	46:DP:9:ASN:CB	2.47	0.62
52:DV:18:LEU:CG	52:DV:19:LYS:H	2.12	0.62
54:DX:8:ILE:N	54:DX:8:ILE:HD12	2.15	0.62
1:AA:39:G:O2'	1:AA:40:C:H5'	1.99	0.62
5:AE:6:PHE:HB3	5:AE:35:GLY:O	1.99	0.62
5:AE:8:GLU:HB2	5:AE:34:VAL:HG22	1.82	0.62
13:AM:90:LEU:C	13:AM:92:HIS:N	2.47	0.62
15:AO:64:ARG:HG3	15:AO:64:ARG:HH11	1.64	0.62
17:AQ:68:ARG:HG2	17:AQ:68:ARG:HH11	1.65	0.62
33:B8:34:TRP:O	33:B8:35:GLN:HB2	2.00	0.62
35:BA:136:G:H1	35:BA:143(A):C:H42	1.47	0.62
35:BA:1403:C:H5''	35:BA:1471:A:C1'	2.28	0.62
35:BA:1814:G:H2'	35:BA:1815:A:C8	2.34	0.62
35:BA:27:G:N2	35:BA:512:G:H2'	2.14	0.62
44:BN:23:LEU:H	44:BN:23:LEU:CD2	2.13	0.62
51:BU:83:LEU:HG	51:BU:88:ILE:CD1	2.29	0.62
1:CA:674:G:H2'	1:CA:675:A:H8	1.63	0.62
22:CV:17:C:H3'	22:CV:18:G:H5''	1.82	0.62
22:CV:61:C:H2'	22:CV:62:C:C6	2.35	0.62
23:CW:19:G:H5'	23:CW:20:U:C5	2.35	0.62
25:D0:20:ARG:N	25:D0:20:ARG:HD3	2.14	0.62
29:D4:36:VAL:HB	29:D4:37:PRO:HD2	1.81	0.62
35:DA:1405:U:H2'	35:DA:1406:U:H6	1.62	0.62
35:DA:57:C:O2'	35:DA:58:G:H5'	2.00	0.62
38:DD:108:PRO:HB3	38:DD:143:HIS:CE1	2.35	0.62
38:DD:271:ILE:O	38:DD:272:ALA:HB2	1.99	0.62
39:DE:77:ILE:HG22	39:DE:78:LEU:HG	1.81	0.62
41:DG:101:ILE:C	41:DG:101:ILE:HD13	2.20	0.62
47:DQ:41:TRP:HB3	47:DQ:94:VAL:HG21	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:10:LEU:CD2	48:DR:17:ARG:HD2	2.22	0.62
49:DS:54:LEU:HD22	49:DS:54:LEU:H	1.64	0.62
1:AA:106:C:H2'	1:AA:107:G:C8	2.32	0.62
3:AC:77:ILE:CG2	3:AC:81:GLY:HA2	2.30	0.62
1:AA:408:A:H4'	4:AD:112:VAL:HG11	1.82	0.62
4:AD:8:VAL:O	4:AD:10:ARG:N	2.27	0.62
1:AA:134:A:H61	16:AP:25:ARG:NH1	1.98	0.62
31:B6:10:LEU:HD12	33:B8:34:TRP:CD1	2.35	0.62
37:BC:68:LEU:CD1	37:BC:179:SER:HA	2.30	0.62
41:BG:128:ARG:C	41:BG:130:ASN:N	2.49	0.62
41:BG:129:GLY:HA2	41:BG:164:GLU:HA	1.81	0.62
43:BI:124:GLY:O	43:BI:142:VAL:HG22	1.99	0.62
46:BP:17:LYS:HG2	46:BP:17:LYS:O	1.99	0.62
50:BT:12:SER:O	50:BT:13:ARG:NH2	2.32	0.62
53:BW:86:LEU:HD12	53:BW:87:PRO:HD2	1.82	0.62
1:CA:1116:C:H2'	1:CA:1117:G:O4'	2.00	0.62
1:CA:1136:U:H5''	1:CA:1137:C:C4	2.34	0.62
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.83	0.62
1:CA:556:C:O2'	1:CA:557:G:H5'	2.00	0.62
1:CA:90:U:C5'	1:CA:91:C:H5'	2.30	0.62
3:CC:24:ALA:HB1	3:CC:28:GLN:O	1.99	0.62
3:CC:6:HIS:HB2	14:CN:49:HIS:HD2	1.65	0.62
22:CV:20:U:H3'	22:CV:21:A:H5''	1.79	0.62
22:CY:42:C:C3'	22:CY:43:C:H5''	2.27	0.62
26:D1:67:ILE:N	26:D1:68:PRO:CD	2.62	0.62
33:D8:2:PRO:HA	35:DA:591:C:O2	2.00	0.62
35:DA:2468:G:N2	35:DA:2481:G:H2'	2.12	0.62
37:DC:68:LEU:HD13	37:DC:179:SER:HA	1.82	0.62
39:DE:69:LYS:NZ	39:DE:89:ASP:HA	2.15	0.62
42:DH:66:GLY:CA	42:DH:69:ARG:HB2	2.24	0.62
45:DO:7:TYR:CE1	45:DO:20:MET:HE3	2.33	0.62
46:DP:144:GLU:HG2	46:DP:144:GLU:O	2.00	0.62
51:DU:17:ILE:HG23	51:DU:39:LEU:HD12	1.82	0.62
52:DV:39:LEU:HD12	52:DV:47:VAL:CG1	2.28	0.62
54:DX:8:ILE:H	54:DX:8:ILE:HD12	1.64	0.62
56:DZ:128:VAL:HG22	56:DZ:129:SER:N	2.15	0.62
1:AA:1452:C:H5'	1:AA:1456:G:C5	2.35	0.62
1:AA:243:A:H4'	1:AA:244:U:O5'	1.98	0.62
1:AA:353:A:H5'	1:AA:353:A:C8	2.32	0.62
4:AD:31:CYS:C	4:AD:33:MET:N	2.53	0.62
13:AM:76:ALA:HA	13:AM:79:LYS:CD	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B0:40:GLN:NE2	25:B0:43:THR:HA	2.15	0.62
35:BA:152:G:H1	35:BA:174:C:N4	1.96	0.62
35:BA:2317:C:H2'	35:BA:2318:G:H5'	1.80	0.62
35:BA:523:C:O2'	35:BA:524:U:H5'	2.00	0.62
35:BA:843:G:O2'	35:BA:844:C:H5'	2.00	0.62
41:BG:144:ILE:HD11	41:BG:148:MET:CB	2.30	0.62
46:BP:50:ARG:HG2	46:BP:50:ARG:HH21	1.65	0.62
47:BQ:27:VAL:HB	47:BQ:137:TYR:HD1	1.64	0.62
50:BT:62:THR:CG2	50:BT:75:ILE:HG12	2.29	0.62
53:BW:110:LYS:HG3	53:BW:111:HIS:H	1.65	0.62
55:BY:17:SER:HB3	55:BY:71:LYS:HB3	1.82	0.62
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.34	0.62
1:CA:484:G:H4'	1:CA:485:G:O5'	1.99	0.62
2:CB:140:HIS:O	2:CB:143:GLU:HB2	1.99	0.62
3:CC:70:VAL:CG1	3:CC:71:ALA:H	1.99	0.62
5:CE:79:GLU:HB3	5:CE:92:LYS:CG	2.30	0.62
6:CF:18:GLN:O	6:CF:21:LEU:HB2	2.00	0.62
1:CA:954:G:C4'	13:CM:120:LYS:HG3	2.17	0.62
14:CN:44:LEU:O	14:CN:44:LEU:HD12	1.99	0.62
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.20	0.62
23:CW:57:G:H2'	23:CW:57:G:N3	2.13	0.62
35:DA:1688:U:O2	35:DA:1700:A:H5'	2.00	0.62
35:DA:1721:G:C6	35:DA:1739:U:H5'	2.35	0.62
35:DA:2126:A:N6	35:DA:2163:C:H4'	2.14	0.62
35:DA:2152:G:H2'	35:DA:2153:G:H8	1.65	0.62
35:DA:2175:C:H1'	37:DC:215:THR:HA	1.82	0.62
35:DA:851:U:O2'	35:DA:852:G:H5'	1.99	0.62
37:DC:59:ARG:HB2	37:DC:62:VAL:CG2	2.29	0.62
50:DT:28:VAL:O	50:DT:29:ARG:HB2	1.98	0.62
45:DO:77:ILE:HD12	50:DT:73:GLU:O	2.00	0.62
55:DY:31:LEU:CB	55:DY:32:PRO:HA	2.30	0.62
1:AA:620:C:H2'	1:AA:621:A:O4'	1.99	0.61
1:AA:980:C:H5'	1:AA:981:U:C5	2.35	0.61
3:AC:187:ALA:O	3:AC:198:VAL:HG23	1.99	0.61
7:AG:146:GLU:OE2	7:AG:149:ARG:HD2	2.00	0.61
22:AY:25:C:H2'	22:AY:26:A:C8	2.31	0.61
35:BA:2523:G:C8	35:BA:2523:G:H5'	2.30	0.61
39:BE:101:ARG:NH1	39:BE:169:ASN:HD22	1.97	0.61
1:CA:1188:A:C2'	1:CA:1189:C:H5'	2.29	0.61
1:CA:39:G:O2'	1:CA:40:C:H5'	2.00	0.61
1:CA:437:U:O2'	1:CA:438:G:H5'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:408:A:H4'	4:CD:112:VAL:HG11	1.82	0.61
8:CH:103:VAL:CG2	8:CH:110:ALA:HB2	2.29	0.61
12:CL:24:VAL:HG12	12:CL:24:VAL:O	2.00	0.61
12:CL:28:LYS:C	12:CL:30:ALA:N	2.53	0.61
22:CY:1:G:N3	22:CY:1:G:H2'	2.15	0.61
35:DA:1800:C:OP1	38:DD:264:LYS:NZ	2.31	0.61
35:DA:2773:C:H2'	35:DA:2774:C:C6	2.34	0.61
35:DA:74:A:H4'	35:DA:75:G:O5'	2.00	0.61
44:DN:17:ASP:HB2	44:DN:55:VAL:HG12	1.82	0.61
50:DT:82:LEU:C	50:DT:84:GLN:H	2.04	0.61
52:DV:35:LEU:HB2	52:DV:57:VAL:HG13	1.81	0.61
55:DY:14:LEU:HD12	55:DY:15:VAL:N	2.08	0.61
3:AC:153:VAL:CG1	3:AC:196:LEU:HD12	2.30	0.61
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.68	0.61
31:B6:36:LEU:HB3	31:B6:50:ARG:NH1	2.15	0.61
33:B8:29:LYS:HD3	33:B8:44:LYS:HG2	1.82	0.61
33:B8:23:VAL:CG1	33:B8:46:ARG:HB3	2.30	0.61
35:BA:1259:G:O2'	35:BA:1260:G:H5'	2.00	0.61
35:BA:1485:G:H1'	35:BA:1505:C:N4	2.15	0.61
35:BA:1719:G:C2'	35:BA:1720:U:H5'	2.30	0.61
35:BA:17:G:H2'	35:BA:18:C:C6	2.34	0.61
35:BA:2126:A:N6	35:BA:2163:C:H4'	2.15	0.61
35:BA:2815:C:H2'	35:BA:2816:C:H6	1.65	0.61
38:BD:271:ILE:O	38:BD:272:ALA:HB2	2.00	0.61
39:BE:34:VAL:HG22	39:BE:48:GLN:HE21	1.66	0.61
41:BG:112:PRO:C	41:BG:113:ARG:HD3	2.19	0.61
42:BH:55:PRO:HG2	42:BH:56:SER:H	1.64	0.61
48:BR:10:LEU:CD2	48:BR:17:ARG:HD2	2.23	0.61
51:BU:70:ARG:HA	51:BU:74:LEU:O	2.00	0.61
1:CA:999:C:O2'	1:CA:1000:U:H5'	2.01	0.61
1:CA:711:G:O2'	1:CA:712:A:H5'	2.00	0.61
3:CC:70:VAL:O	3:CC:106:VAL:HG23	1.98	0.61
5:CE:65:ASN:O	5:CE:66:MET:HG3	1.99	0.61
8:CH:7:ALA:HB2	8:CH:85:ARG:HH11	1.63	0.61
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.03	0.61
1:CA:376:G:H4'	16:CP:5:ARG:HH11	1.65	0.61
26:D1:89:GLU:O	26:D1:93:GLU:HB2	2.00	0.61
31:D6:17:LYS:HD3	31:D6:17:LYS:O	2.00	0.61
31:D6:47:THR:HB	31:D6:49:HIS:CE1	2.35	0.61
35:DA:1042:G:N3	35:DA:1042:G:H2'	2.15	0.61
35:DA:2694:G:O2'	35:DA:2695:C:H5'	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:70:THR:C	40:DF:72:ARG:H	2.04	0.61
43:DI:72:LEU:O	43:DI:138:ILE:HG12	2.00	0.61
44:DN:55:VAL:HG22	44:DN:126:PRO:CA	2.26	0.61
46:DP:83:VAL:O	46:DP:114:ILE:HD12	1.99	0.61
52:DV:89:GLN:OE1	52:DV:90:PRO:HD2	2.00	0.61
56:DZ:10:ARG:HH22	56:DZ:26:GLY:N	1.98	0.61
56:DZ:10:ARG:NH2	56:DZ:37:VAL:O	2.33	0.61
56:DZ:121:HIS:ND1	56:DZ:171:ILE:HA	2.15	0.61
1:AA:77:G:H1	1:AA:92:C:N4	1.98	0.61
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.27	0.61
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.15	0.61
20:AT:82:SER:O	20:AT:86:ARG:HD3	2.00	0.61
26:B1:11:ARG:HB2	26:B1:12:PRO:HD2	1.82	0.61
35:BA:1141:U:P	44:BN:25:ARG:HH12	2.23	0.61
35:BA:2845:G:O2'	35:BA:2846:G:H5'	1.99	0.61
35:BA:580:C:H2'	35:BA:581:C:C6	2.35	0.61
35:BA:986:C:O2'	35:BA:987:G:H5'	2.01	0.61
39:BE:186:GLY:O	39:BE:188:VAL:N	2.32	0.61
42:BH:66:GLY:CA	42:BH:69:ARG:HB2	2.26	0.61
46:BP:9:ASN:C	46:BP:11:GLY:H	2.03	0.61
50:BT:27:THR:O	50:BT:28:VAL:CB	2.48	0.61
52:BV:51:VAL:HG12	52:BV:52:VAL:N	2.14	0.61
2:CB:139:LYS:O	2:CB:143:GLU:HG2	2.00	0.61
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.00	0.61
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.68	0.61
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.16	0.61
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.01	0.61
22:CV:66:U:H2'	22:CV:67:C:C6	2.35	0.61
30:D5:48:GLU:O	30:D5:50:GLY:N	2.34	0.61
32:D7:19:ARG:HG2	32:D7:19:ARG:HH11	1.63	0.61
33:D8:33:ASN:HA	33:D8:36:LYS:CD	2.31	0.61
35:DA:185:U:H4'	35:DA:218:A:H4'	1.83	0.61
37:DC:68:LEU:CD1	37:DC:179:SER:HA	2.30	0.61
37:DC:40:THR:HG21	37:DC:215:THR:CB	2.30	0.61
41:DG:37:VAL:HG21	41:DG:99:MET:HG3	1.82	0.61
43:DI:98:ALA:HB1	43:DI:109:ILE:HB	1.82	0.61
49:DS:14:VAL:HG13	49:DS:90:GLY:HA2	1.81	0.61
50:DT:78:LEU:O	50:DT:78:LEU:HD23	2.00	0.61
51:DU:34:LYS:HE2	51:DU:34:LYS:HA	1.81	0.61
53:DW:12:ILE:HG13	53:DW:42:ARG:HH11	1.64	0.61
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1281:U:H5'	1:AA:1282:C:OP2	2.01	0.61
1:AA:711:G:O2'	1:AA:712:A:H5'	2.00	0.61
4:AD:138:TYR:HD2	4:AD:138:TYR:C	2.04	0.61
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.15	0.61
7:AG:62:PHE:O	7:AG:66:VAL:HG23	2.01	0.61
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.13	0.61
17:AQ:58:GLU:C	17:AQ:59:ILE:HD13	2.21	0.61
35:BA:1363:C:H2'	35:BA:1364:G:H8	1.66	0.61
35:BA:1880:C:H6	35:BA:1880:C:H5'	1.65	0.61
35:BA:2617:C:O2'	35:BA:2618:G:H5'	2.01	0.61
35:BA:2700:C:O2'	35:BA:2701:C:H5'	2.00	0.61
35:BA:271(D):G:H1	35:BA:271(T):C:H42	1.46	0.61
35:BA:631:A:O2'	46:BP:67:MET:HB3	1.99	0.61
38:BD:228:PRO:HD3	38:BD:235:GLY:HA3	1.82	0.61
42:BH:41:MET:SD	42:BH:41:MET:N	2.73	0.61
43:BI:72:LEU:O	43:BI:138:ILE:HG12	1.99	0.61
40:BF:34:TRP:CZ2	46:BP:12:ALA:HB2	2.35	0.61
46:BP:146:VAL:O	46:BP:148:LEU:HG	2.00	0.61
48:BR:61:HIS:O	48:BR:65:LEU:HB2	2.01	0.61
52:BV:19:LYS:CE	52:BV:20:LEU:H	2.13	0.61
1:CA:312:C:H2'	1:CA:313:A:C8	2.36	0.61
1:CA:41:G:H2'	1:CA:42:G:H8	1.64	0.61
11:CK:123:LYS:HA	11:CK:126:ARG:HB2	1.80	0.61
13:CM:75:ALA:O	13:CM:79:LYS:HG3	2.00	0.61
26:D1:45:ASN:ND2	26:D1:47:GLN:NE2	2.47	0.61
26:D1:50:ARG:HG2	26:D1:59:THR:HG22	1.82	0.61
35:DA:1666:G:H1'	45:DO:3:GLN:NE2	2.16	0.61
35:DA:1880:C:H6	35:DA:1880:C:H5'	1.66	0.61
35:DA:271(R):G:H2'	35:DA:271(S):G:C8	2.33	0.61
35:DA:2759:G:O2'	35:DA:2760:C:H5'	2.00	0.61
35:DA:467:G:O2'	35:DA:468:G:H5'	2.00	0.61
35:DA:90:U:O2'	35:DA:92:A:H5''	2.00	0.61
35:DA:1801:G:OP2	38:DD:154:LYS:HE2	2.01	0.61
39:DE:34:VAL:HG22	39:DE:48:GLN:NE2	2.14	0.61
40:DF:24:LEU:O	40:DF:26:ALA:N	2.31	0.61
41:DG:47:LYS:HZ1	41:DG:82:LEU:HD12	1.62	0.61
41:DG:85:GLY:C	41:DG:87:PRO:HD2	2.20	0.61
47:DQ:39:PRO:O	47:DQ:40:ALA:HB2	2.00	0.61
56:DZ:97:GLU:HG2	56:DZ:127:LYS:HA	1.82	0.61
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.36	0.61
1:AA:1327:C:OP1	21:AU:20:LYS:HB3	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:170:U:O2'	1:AA:171:A:H5'	2.00	0.61
1:AA:296:U:H2'	1:AA:297:G:H8	1.64	0.61
1:AA:484:G:H4'	1:AA:485:G:O5'	2.00	0.61
1:AA:601:C:H2'	1:AA:602:A:H8	1.64	0.61
1:AA:818:G:C2'	1:AA:819:A:H5''	2.31	0.61
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.00	0.61
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.01	0.61
13:AM:76:ALA:HB2	13:AM:79:LYS:HZ3	1.64	0.61
19:AS:62:ILE:HG13	19:AS:63:THR:H	1.65	0.61
26:B1:3:LYS:CG	26:B1:4:VAL:H	2.12	0.61
35:BA:2870:C:H2'	35:BA:2871:C:O4'	2.01	0.61
35:BA:558:G:P	44:BN:111:PRO:HD2	2.40	0.61
35:BA:963:U:H2'	35:BA:964:C:C6	2.36	0.61
38:BD:53:PHE:CD1	38:BD:220:HIS:HA	2.35	0.61
40:BF:154:VAL:HG22	40:BF:191:ARG:HB3	1.82	0.61
42:BH:71:LEU:N	42:BH:74:ASN:HD22	1.98	0.61
46:BP:41:ARG:HA	46:BP:41:ARG:NE	2.15	0.61
51:BU:88:ILE:HG13	51:BU:88:ILE:O	1.99	0.61
53:BW:88:ARG:NH1	53:BW:94:ASP:OD1	2.33	0.61
55:BY:76:CYS:CB	55:BY:96:ILE:HD11	2.17	0.61
1:CA:243:A:H4'	1:CA:244:U:O5'	2.00	0.61
1:CA:501:C:H2'	1:CA:502:G:C8	2.35	0.61
1:CA:620:C:H2'	1:CA:621:A:O4'	1.99	0.61
4:CD:20:TYR:HA	4:CD:26:CYS:SG	2.40	0.61
9:CI:124:GLN:O	9:CI:125:TYR:HB3	2.00	0.61
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ3	1.64	0.61
19:CS:13:ASP:C	19:CS:15:LEU:H	2.03	0.61
25:D0:27:GLU:HG3	25:D0:68:GLU:HA	1.81	0.61
35:DA:1301:A:H4'	35:DA:1302:A:OP1	1.99	0.61
35:DA:2134:A:N6	35:DA:2157:G:H1'	2.15	0.61
38:DD:43:ARG:HB3	38:DD:54:ARG:HB2	1.83	0.61
38:DD:76:PRO:HG2	38:DD:98:VAL:CG2	2.31	0.61
41:DG:83:ARG:HH11	41:DG:84:LYS:HD2	1.66	0.61
46:DP:23:PRO:HD2	46:DP:33:ARG:NE	2.16	0.61
48:DR:87:TYR:HE1	48:DR:117:VAL:O	1.83	0.61
35:DA:1598:C:H5'	54:DX:36:LYS:HB2	1.81	0.61
55:DY:25:GLY:HA3	55:DY:39:VAL:CG1	2.29	0.61
56:DZ:150:LEU:HD21	56:DZ:172:ALA:HB3	1.81	0.61
13:AM:65:LYS:NZ	13:AM:65:LYS:HB3	2.16	0.61
1:AA:376:G:H4'	16:AP:5:ARG:HH11	1.64	0.61
31:B6:20:ASN:ND2	31:B6:21:TYR:N	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1682:G:H5'	35:BA:1762:A:O2'	2.01	0.61
35:BA:2134:A:N6	35:BA:2157:G:H1'	2.15	0.61
35:BA:2327:A:H2'	35:BA:2328:A:C8	2.36	0.61
52:BV:6:LYS:O	52:BV:37:VAL:HG21	2.00	0.61
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.35	0.61
1:CA:1519:A:H2'	1:CA:1520:G:H5'	1.82	0.61
1:CA:80:G:H3'	1:CA:81:U:C5'	2.28	0.61
1:CA:930:C:O2'	1:CA:931:C:H5'	2.01	0.61
1:CA:954:G:H4'	13:CM:120:LYS:CG	2.19	0.61
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.03	0.61
3:CC:77:ILE:CG2	3:CC:81:GLY:HA2	2.30	0.61
9:CI:20:ARG:HH11	9:CI:20:ARG:HG3	1.65	0.61
23:CW:5:G:O2'	23:CW:6:G:H5'	2.00	0.61
35:DA:2870:C:H2'	35:DA:2871:C:O4'	1.99	0.61
35:DA:71:A:C8	35:DA:71:A:H5'	2.34	0.61
35:DA:953:A:H2'	35:DA:954:G:H5'	1.82	0.61
38:DD:210:GLY:C	38:DD:212:SER:H	2.04	0.61
46:DP:146:VAL:O	46:DP:148:LEU:HG	2.00	0.61
1:AA:1478:C:H2'	1:AA:1479:C:C6	2.36	0.61
1:AA:328:C:H4'	1:AA:329:A:C5'	2.29	0.61
1:AA:90:U:C5'	1:AA:91:C:H5'	2.30	0.61
4:AD:38:TYR:CD2	4:AD:45:GLN:HB3	2.36	0.61
13:AM:75:ALA:O	13:AM:79:LYS:HG3	2.01	0.61
31:B6:17:LYS:O	31:B6:17:LYS:HD3	2.00	0.61
33:B8:4:MET:O	33:B8:62:LEU:HD12	2.01	0.61
38:BD:27:THR:HG23	38:BD:83:GLU:HB3	1.83	0.61
38:BD:35:LYS:O	38:BD:62:TYR:O	2.18	0.61
40:BF:124:LEU:HD12	40:BF:125:LEU:N	2.15	0.61
44:BN:42:TRP:HB3	51:BU:64:ARG:HD2	1.80	0.61
52:BV:38:LEU:HD23	52:BV:39:LEU:N	2.16	0.61
1:CA:1030(C):G:O2'	1:CA:1030(D):A:H5'	2.01	0.61
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.66	0.61
1:CA:199:G:H2'	1:CA:200:G:H8	1.64	0.61
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.82	0.61
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	2.01	0.61
15:CO:69:TYR:CZ	15:CO:73:GLU:HG3	2.35	0.61
27:D2:17:SER:HB2	27:D2:18:PRO:CD	2.29	0.61
28:D3:31:LEU:O	28:D3:32:GLN:HB2	2.00	0.61
29:D4:61:VAL:HG13	29:D4:65:CYS:SG	2.40	0.61
30:D5:46:CYS:O	30:D5:48:GLU:N	2.29	0.61
35:DA:1358:G:O2'	35:DA:1359:A:H5''	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1925:C:O2'	35:DA:1926:U:H5'	2.01	0.61
35:DA:2593:U:H2'	35:DA:2594:C:H6	1.66	0.61
36:DB:21:G:O6	36:DB:62:C:N3	2.33	0.61
38:DD:226:MET:HB3	38:DD:230:ASP:HB2	1.81	0.61
39:DE:95:ILE:CD1	39:DE:95:ILE:H	2.12	0.61
41:DG:121:ASN:HD22	41:DG:122:PRO:CD	2.12	0.61
41:DG:16:ARG:HE	41:DG:31:VAL:HG11	1.65	0.61
41:DG:47:LYS:HZ2	41:DG:82:LEU:HD12	1.66	0.61
43:DI:72:LEU:O	43:DI:138:ILE:HG23	2.00	0.61
48:DR:61:HIS:O	48:DR:65:LEU:HB2	2.00	0.61
51:DU:112:ARG:O	51:DU:115:ALA:HB3	2.01	0.61
51:DU:92:ARG:HH21	51:DU:95:LEU:CG	2.13	0.61
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.00	0.61
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.01	0.61
9:AI:15:ALA:HB2	9:AI:65:VAL:HB	1.82	0.61
1:AA:954:G:C4'	13:AM:120:LYS:HG3	2.19	0.61
13:AM:65:LYS:O	13:AM:66:LEU:HG	2.00	0.61
22:AV:17:C:H3'	22:AV:18:G:C5'	2.29	0.61
33:B8:28:GLY:O	33:B8:32:LEU:HG	2.01	0.61
35:BA:1141:U:H2'	44:BN:63:THR:HG21	1.82	0.61
46:BP:85:LEU:HD23	46:BP:85:LEU:N	2.15	0.61
49:BS:19:LYS:C	49:BS:20:ARG:HH11	2.05	0.61
36:BB:31:C:N4	49:BS:32:LEU:HD22	2.16	0.61
50:BT:106:SER:O	50:BT:107:ASP:HB3	2.01	0.61
35:BA:17:G:H4'	51:BU:25:TRP:CH2	2.36	0.61
35:BA:993:G:O2'	52:BV:89:GLN:HG3	2.00	0.61
35:BA:2012:G:O2'	53:BW:96:ILE:HD11	2.00	0.61
55:BY:26:LYS:HG2	55:BY:27:VAL:N	2.08	0.61
1:CA:1053:G:H3'	1:CA:1054:C:H5'	1.83	0.61
1:CA:106:C:H2'	1:CA:107:G:C8	2.32	0.61
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.01	0.61
22:CV:28:G:O2'	22:CV:29:G:H5'	2.00	0.61
35:DA:1022:G:O2'	35:DA:1023:U:OP2	2.18	0.61
35:DA:2845:G:O2'	35:DA:2846:G:H5'	2.00	0.61
37:DC:71:GLN:HG2	37:DC:73:ARG:HH21	1.64	0.61
39:DE:11:MET:HB2	39:DE:23:VAL:O	2.00	0.61
40:DF:20:LEU:HD22	40:DF:203:GLN:OE1	1.99	0.61
41:DG:133:LEU:HG	41:DG:157:ILE:HG23	1.83	0.61
41:DG:41:GLN:NE2	41:DG:155:MET:HB3	2.14	0.61
41:DG:36:LYS:HD2	41:DG:38:VAL:HG23	1.82	0.61
42:DH:85:LYS:HD2	42:DH:141:VAL:HG22	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:76:LYS:HB3	47:DQ:91:GLU:HG3	1.83	0.61
52:DV:51:VAL:HG12	52:DV:52:VAL:N	2.16	0.61
54:DX:35:THR:HG22	54:DX:37:THR:N	2.13	0.61
1:AA:1136:U:H5''	1:AA:1137:C:C4	2.36	0.61
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.36	0.61
1:AA:560:U:O2'	1:AA:561:U:OP2	2.19	0.61
1:AA:56:U:H2'	1:AA:57:G:C8	2.35	0.61
4:AD:11:LEU:C	4:AD:13:ARG:H	2.02	0.61
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.01	0.61
9:AI:124:GLN:O	9:AI:125:TYR:HB3	2.00	0.61
20:AT:32:ALA:O	20:AT:36:LEU:HB2	2.00	0.61
35:BA:1153:C:H2'	35:BA:1154:G:O4'	2.01	0.61
35:BA:1170:G:H1	35:BA:1179:C:N4	1.95	0.61
35:BA:185:U:H4'	35:BA:218:A:H4'	1.83	0.61
38:BD:226:MET:HB3	38:BD:230:ASP:HB2	1.81	0.61
42:BH:54:ARG:HB3	42:BH:65:HIS:CD2	2.35	0.61
48:BR:33:ARG:HD2	48:BR:33:ARG:N	2.16	0.61
49:BS:87:PHE:O	49:BS:88:ASP:HB2	2.01	0.61
52:BV:20:LEU:N	52:BV:20:LEU:HD12	2.16	0.61
1:CA:1281:U:H5'	1:CA:1282:C:OP2	2.01	0.61
3:CC:83:ARG:HG2	3:CC:83:ARG:HH11	1.65	0.61
13:CM:90:LEU:O	13:CM:92:HIS:N	2.34	0.61
19:CS:16:LEU:H	19:CS:16:LEU:HD12	1.66	0.61
25:D0:48:GLY:HA3	25:D0:80:HIS:HD2	1.65	0.61
26:D1:43:TYR:CD1	26:D1:43:TYR:N	2.68	0.61
28:D3:45:GLY:HA3	35:DA:851:U:O2'	2.01	0.61
31:D6:46:HIS:CB	31:D6:47:THR:N	2.64	0.61
35:DA:1504:C:O2'	35:DA:1505:C:C5'	2.49	0.61
35:DA:271(E):U:H2'	35:DA:271(F):C:C6	2.36	0.61
35:DA:631:A:O2'	46:DP:67:MET:HB3	2.01	0.61
38:DD:71:ASP:CB	38:DD:103:ARG:HH22	2.08	0.61
41:DG:82:LEU:CD2	41:DG:87:PRO:HG3	2.29	0.61
46:DP:9:ASN:C	46:DP:11:GLY:H	2.02	0.61
1:AA:288:A:H2'	1:AA:289:G:H4'	1.83	0.61
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.66	0.61
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.81	0.61
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.83	0.61
31:B6:46:HIS:CB	31:B6:47:THR:N	2.62	0.61
35:BA:1721:G:C6	35:BA:1739:U:H5'	2.36	0.61
38:BD:267:SER:C	38:BD:269:PHE:H	2.03	0.61
39:BE:11:MET:HB3	39:BE:24:THR:HA	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:2:LYS:O	40:BF:24:LEU:HG	2.00	0.61
41:BG:76:SER:HB3	41:BG:84:LYS:N	2.13	0.61
42:BH:149:ARG:HH21	42:BH:154:PRO:HG3	1.63	0.61
35:BA:2393:A:H5'	46:BP:62:LEU:HB3	1.83	0.61
46:BP:83:VAL:O	46:BP:114:ILE:HD12	2.01	0.61
49:BS:101:LEU:O	49:BS:101:LEU:HD22	2.01	0.61
51:BU:17:ILE:HG23	51:BU:39:LEU:HD12	1.82	0.61
51:BU:74:LEU:HD13	51:BU:79:PHE:HB2	1.81	0.61
54:BX:8:ILE:HD12	54:BX:8:ILE:N	2.16	0.61
55:BY:14:LEU:HD12	55:BY:15:VAL:N	2.10	0.61
56:BZ:106:GLY:O	56:BZ:107:THR:HG23	2.01	0.61
1:CA:1327:C:OP1	21:CU:20:LYS:HB3	2.00	0.61
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.32	0.61
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	1.83	0.61
6:CF:99:ALA:HB1	18:CR:23:LYS:NZ	2.15	0.61
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.10	0.61
22:CV:37:A:H3'	22:CV:38:A:H8	1.66	0.61
25:D0:20:ARG:NH1	35:DA:2357:U:OP1	2.34	0.61
35:DA:1242:A:H5'	35:DA:1243:G:OP2	2.00	0.61
35:DA:1396:U:H2'	35:DA:1396:U:O2	2.00	0.61
35:DA:142:A:H5"	35:DA:142(A):C:H5	1.65	0.61
35:DA:2463:C:O2'	35:DA:2464:C:H5'	2.00	0.61
35:DA:271(T):C:H6	35:DA:271(T):C:C5'	2.10	0.61
35:DA:286:C:C2'	35:DA:287:C:H5"	2.31	0.61
38:DD:65:ILE:CD1	38:DD:65:ILE:H	2.14	0.61
40:DF:154:VAL:HG22	40:DF:191:ARG:HB3	1.81	0.61
41:DG:120:LEU:HB2	41:DG:179:PRO:O	2.00	0.61
42:DH:89:ILE:N	42:DH:89:ILE:HD12	2.16	0.61
52:DV:38:LEU:HD23	52:DV:39:LEU:N	2.15	0.61
55:DY:49:VAL:O	55:DY:53:PRO:HG3	2.01	0.61
55:DY:76:CYS:HB3	55:DY:96:ILE:CD1	2.20	0.61
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.36	0.60
1:AA:37:U:O2'	1:AA:38:G:H5'	2.00	0.60
8:AH:84:ARG:NH2	8:AH:86:ILE:HD11	2.16	0.60
30:B5:20:ARG:NH1	35:BA:1266:G:OP2	2.34	0.60
35:BA:1657:C:O2'	35:BA:1658:C:H5'	2.01	0.60
41:BG:114:ILE:O	41:BG:115:ARG:C	2.39	0.60
41:BG:54:GLU:O	41:BG:58:GLN:HG3	2.01	0.60
43:BI:101:LEU:HG	43:BI:109:ILE:HD11	1.81	0.60
43:BI:72:LEU:HB3	43:BI:138:ILE:CD1	2.31	0.60
55:BY:11:ASP:OD1	55:BY:12:THR:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.13	0.60
6:CF:6:VAL:HG13	6:CF:90:VAL:HG22	1.81	0.60
9:CI:114:TYR:CD1	10:CJ:60:ARG:HG3	2.36	0.60
1:CA:133:U:OP1	20:CT:74:LYS:HE2	2.01	0.60
33:D8:23:VAL:CG1	33:D8:46:ARG:HB3	2.31	0.60
33:D8:28:GLY:O	33:D8:32:LEU:HG	2.00	0.60
35:DA:2569:G:O2'	35:DA:2570:G:H5'	2.01	0.60
35:DA:963:U:H2'	35:DA:964:C:C6	2.36	0.60
43:DI:118:LYS:NZ	43:DI:119:PRO:HG2	2.16	0.60
52:DV:19:LYS:CE	52:DV:20:LEU:H	2.14	0.60
56:DZ:102:LEU:CD1	56:DZ:123:ASP:HA	2.30	0.60
1:AA:1030(C):G:O2'	1:AA:1030(D):A:H5'	2.01	0.60
1:AA:1211:U:H5'	1:AA:1212:U:OP1	2.01	0.60
1:AA:1442(B):A:HO2'	1:AA:1443:G:H8	1.47	0.60
1:AA:67:C:O2'	1:AA:171:A:H1'	2.01	0.60
1:AA:340:U:O2'	1:AA:341:C:H5'	2.00	0.60
3:AC:206:GLU:O	3:AC:208:ILE:N	2.34	0.60
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.34	0.60
6:AF:33:TYR:HE2	6:AF:74:ASP:HB3	1.66	0.60
7:AG:47:CYS:HB3	7:AG:58:PRO:HG2	1.82	0.60
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.82	0.60
15:AO:3:ILE:HG12	15:AO:3:ILE:O	2.01	0.60
35:BA:1339:G:H21	35:BA:1603:A:H1'	1.66	0.60
35:BA:1666:G:H1'	45:BO:3:GLN:NE2	2.16	0.60
35:BA:2262:U:H2'	35:BA:2263:C:H5''	1.81	0.60
35:BA:271(T):C:C5'	35:BA:271(T):C:H6	2.11	0.60
35:BA:405:U:H3'	35:BA:406:G:H5'	1.84	0.60
37:BC:68:LEU:HD13	37:BC:179:SER:HA	1.82	0.60
39:BE:59:VAL:HG21	39:BE:63:LEU:HG	1.82	0.60
46:BP:48:PRO:HG2	46:BP:49:ARG:N	2.15	0.60
49:BS:54:LEU:H	49:BS:54:LEU:HD22	1.65	0.60
35:BA:1754:C:OP1	50:BT:96:ARG:NH1	2.32	0.60
1:CA:1211:U:H5'	1:CA:1212:U:OP1	2.00	0.60
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.30	0.60
1:CA:223:U:H2'	1:CA:224:C:H6	1.66	0.60
2:CB:223:ILE:CG2	2:CB:226:ARG:HH21	2.14	0.60
8:CH:84:ARG:HH11	8:CH:84:ARG:HG2	1.66	0.60
10:CJ:97:GLU:C	10:CJ:98:ILE:HD12	2.21	0.60
18:CR:37:VAL:HG23	18:CR:38:GLU:HG3	1.83	0.60
35:DA:99:U:O5'	35:DA:100:G:H5'	2.00	0.60
35:DA:1309:G:O2'	35:DA:1310:G:H5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:15:G:O2'	35:DA:16:G:H5'	2.02	0.60
35:DA:709:U:H2'	35:DA:710:G:H8	1.66	0.60
35:DA:1803:A:O2'	38:DD:259:THR:HG21	2.01	0.60
39:DE:203:LYS:HE2	39:DE:204:ALA:HB2	1.83	0.60
35:DA:1257:C:O2'	40:DF:84:VAL:HG23	2.00	0.60
43:DI:84:GLY:O	43:DI:85:GLU:HB3	2.00	0.60
46:DP:16:ARG:CZ	46:DP:16:ARG:HB2	2.31	0.60
48:DR:100:LEU:HD22	48:DR:100:LEU:H	1.65	0.60
49:DS:56:LEU:O	49:DS:56:LEU:HD23	2.01	0.60
53:DW:95:ILE:O	53:DW:95:ILE:HG13	2.00	0.60
55:DY:2:ARG:N	55:DY:4:LYS:HG2	2.16	0.60
55:DY:68:HIS:HB3	55:DY:71:LYS:HG2	1.83	0.60
56:DZ:47:VAL:HG12	56:DZ:51:ALA:HB2	1.83	0.60
2:AB:168:THR:HA	2:AB:171:ALA:HB2	1.82	0.60
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	2.00	0.60
7:AG:120:ILE:O	7:AG:124:LEU:HD12	2.01	0.60
10:AJ:4:ILE:HG12	10:AJ:100:THR:HG21	1.84	0.60
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.16	0.60
19:AS:40:ILE:HG12	19:AS:71:LEU:CD2	2.31	0.60
25:B0:27:GLU:HG3	25:B0:68:GLU:HA	1.82	0.60
27:B2:15:LYS:O	27:B2:15:LYS:HG3	2.01	0.60
27:B2:55:ARG:NH1	35:BA:75:G:H4'	2.16	0.60
31:B6:15:GLU:CD	31:B6:18:ARG:NE	2.49	0.60
35:BA:1358:G:O2'	35:BA:1359:A:H5''	2.00	0.60
35:BA:1447:G:H21	35:BA:1528:A:H62	1.49	0.60
35:BA:2262:U:H2'	35:BA:2263:C:C5'	2.31	0.60
35:BA:848:G:H8	35:BA:848:G:H5'	1.67	0.60
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.37	0.60
41:BG:47:LYS:HZ2	41:BG:82:LEU:HD12	1.63	0.60
43:BI:102:SER:O	43:BI:106:GLY:HA2	2.01	0.60
43:BI:118:LYS:NZ	43:BI:119:PRO:HG2	2.16	0.60
43:BI:69:LYS:HA	43:BI:136:VAL:HG21	1.83	0.60
55:BY:68:HIS:HB3	55:BY:71:LYS:HG2	1.83	0.60
56:BZ:7:ALA:HB3	56:BZ:61:LEU:HD23	1.82	0.60
1:CA:52:G:H2'	1:CA:53:A:H8	1.64	0.60
2:CB:212:GLN:CG	2:CB:235:SER:HB2	2.31	0.60
3:CC:153:VAL:HG12	3:CC:196:LEU:HD12	1.83	0.60
4:CD:209:ARG:HH11	4:CD:209:ARG:HG3	1.66	0.60
5:CE:137:GLU:OE2	5:CE:140:ARG:HD2	2.01	0.60
17:CQ:99:SER:O	17:CQ:100:LYS:HD3	2.01	0.60
27:D2:39:ALA:HA	27:D2:45:SER:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1924:C:H2'	35:DA:1925:C:H6	1.67	0.60
35:DA:2726:U:H6	45:DO:67:LYS:HZ3	1.46	0.60
35:DA:83:G:C2	35:DA:102:G:H2'	2.35	0.60
35:DA:83:G:N2	35:DA:102:G:H2'	2.16	0.60
38:DD:27:THR:HG23	38:DD:27:THR:O	2.00	0.60
39:DE:119:ARG:HG2	39:DE:160:TYR:CB	2.29	0.60
45:DO:3:GLN:HB2	45:DO:4:PRO:HD2	1.82	0.60
46:DP:105:LEU:H	46:DP:105:LEU:HD12	1.65	0.60
49:DS:93:LYS:HE3	49:DS:93:LYS:HA	1.81	0.60
50:DT:64:ARG:HA	50:DT:72:VAL:O	2.01	0.60
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.82	0.60
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.15	0.60
19:AS:40:ILE:HG12	19:AS:71:LEU:HD23	1.83	0.60
23:AW:58:A:H1'	23:AW:60:U:C5	2.37	0.60
33:B8:33:ASN:HA	33:B8:36:LYS:CD	2.31	0.60
35:BA:158:U:H4'	35:BA:171:G:C8	2.36	0.60
35:BA:1652:A:O2'	35:BA:1653:G:H5'	2.02	0.60
35:BA:2152:G:H2'	35:BA:2153:G:C8	2.37	0.60
35:BA:2672:G:H2'	35:BA:2673:G:H5''	1.83	0.60
35:BA:2681:C:H5	35:BA:2725:A:H62	1.50	0.60
35:BA:808:G:H2'	35:BA:809:G:H8	1.65	0.60
38:BD:166:GLN:CA	38:BD:166:GLN:HE21	2.14	0.60
38:BD:168:ARG:O	38:BD:169:GLU:HB2	2.01	0.60
38:BD:231:HIS:ND1	38:BD:232:PRO:HD2	2.17	0.60
41:BG:33:ARG:HB2	41:BG:162:THR:HG21	1.84	0.60
42:BH:102:ALA:CB	42:BH:117:PRO:HD3	2.25	0.60
46:BP:63:PRO:C	46:BP:65:ARG:H	2.04	0.60
47:BQ:141:GLN:HA	56:BZ:53:ILE:HG12	1.84	0.60
48:BR:87:TYR:HE1	48:BR:117:VAL:O	1.85	0.60
1:CA:1054:C:C4	22:CY:34:G:H1'	2.37	0.60
1:CA:59:A:H1'	1:CA:354:G:N2	2.16	0.60
1:CA:950:U:H4'	1:CA:971:G:N2	2.15	0.60
4:CD:61:LYS:HA	4:CD:203:VAL:HG22	1.83	0.60
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	2.09	0.60
7:CG:148:ASN:C	7:CG:150:ALA:N	2.53	0.60
8:CH:103:VAL:HG21	8:CH:110:ALA:HB2	1.83	0.60
8:CH:85:ARG:HH11	8:CH:85:ARG:HG3	1.66	0.60
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.00	0.60
19:CS:40:ILE:HG12	19:CS:71:LEU:CD2	2.31	0.60
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.16	0.60
22:CV:51:U:H2'	22:CV:52:G:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:582:G:H2'	35:DA:583:G:C8	2.36	0.60
35:DA:843:G:O2'	35:DA:844:C:H5'	2.01	0.60
38:DD:26:LYS:CE	38:DD:82:ILE:H	2.11	0.60
41:DG:15:VAL:HG21	41:DG:176:LEU:HD23	1.83	0.60
44:DN:23:LEU:CD2	44:DN:23:LEU:H	2.13	0.60
45:DO:88:ASN:ND2	45:DO:90:GLN:HB2	2.14	0.60
46:DP:85:LEU:HD23	46:DP:85:LEU:N	2.13	0.60
35:DA:1453:U:OP1	48:DR:77:ARG:HD3	2.02	0.60
55:DY:7:VAL:CB	55:DY:8:LYS:NZ	2.64	0.60
1:AA:148:G:H2'	1:AA:149:A:C8	2.35	0.60
10:AJ:97:GLU:C	10:AJ:98:ILE:HD12	2.21	0.60
14:AN:24:CYS:HB2	14:AN:29:ARG:HB3	1.83	0.60
14:AN:2:ALA:O	14:AN:6:LEU:HD12	2.01	0.60
15:AO:74:ASP:C	15:AO:76:GLU:H	2.04	0.60
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.82	0.60
35:BA:1042:G:N3	35:BA:1042:G:H2'	2.17	0.60
35:BA:1767:C:O2'	35:BA:1768:U:H5'	2.02	0.60
30:B5:7:PRO:HG2	35:BA:2016:U:O2	2.02	0.60
35:BA:2556:C:H2'	35:BA:2557:G:O4'	2.02	0.60
39:BE:186:GLY:C	39:BE:188:VAL:H	2.04	0.60
40:BF:21:ALA:O	40:BF:23:ASP:N	2.34	0.60
40:BF:78:ILE:N	40:BF:78:ILE:HD13	2.15	0.60
46:BP:48:PRO:O	46:BP:50:ARG:N	2.34	0.60
47:BQ:26:TYR:HB2	47:BQ:137:TYR:HB3	1.81	0.60
49:BS:92:TYR:CD1	49:BS:93:LYS:N	2.69	0.60
51:BU:68:ALA:O	51:BU:71:GLN:HB3	2.01	0.60
52:BV:35:LEU:HB2	52:BV:57:VAL:HG13	1.82	0.60
54:BX:66:LEU:HD23	54:BX:66:LEU:C	2.22	0.60
55:BY:95:LYS:HE2	55:BY:100:ALA:CB	2.31	0.60
5:CE:83:GLU:HG2	5:CE:88:LYS:HG3	1.84	0.60
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.24	0.60
10:CJ:30:SER:O	10:CJ:81:THR:HG23	2.00	0.60
10:CJ:97:GLU:O	10:CJ:98:ILE:HD12	2.01	0.60
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.66	0.60
22:CV:65:G:O2'	22:CV:66:U:H5'	2.01	0.60
25:D0:55:ARG:HG3	35:DA:2365:G:OP1	2.01	0.60
26:D1:44:PRO:HB2	26:D1:46:LEU:CD1	2.30	0.60
31:D6:36:LEU:HB3	31:D6:50:ARG:NH1	2.16	0.60
35:DA:1509(A):A:H2'	35:DA:1509(B):A:C8	2.36	0.60
35:DA:2523:G:H5'	35:DA:2523:G:C8	2.30	0.60
35:DA:2534:A:H5'	35:DA:2534:A:H8	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:603:A:H4'	35:DA:604:G:O5'	2.01	0.60
38:DD:27:THR:HG23	38:DD:83:GLU:HB3	1.83	0.60
43:DI:83:ALA:HA	43:DI:89:TYR:CE1	2.37	0.60
46:DP:9:ASN:C	46:DP:11:GLY:N	2.54	0.60
50:DT:125:ARG:CZ	50:DT:125:ARG:HA	2.31	0.60
51:DU:59:ARG:O	51:DU:63:VAL:HG23	2.01	0.60
55:DY:11:ASP:OD1	55:DY:12:THR:N	2.35	0.60
55:DY:66:PRO:O	55:DY:67:LEU:HB3	2.00	0.60
1:AA:501:C:H2'	1:AA:502:G:H8	1.67	0.60
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.75	0.60
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.01	0.60
13:AM:65:LYS:C	13:AM:66:LEU:N	2.55	0.60
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.84	0.60
27:B2:16:LEU:CD2	27:B2:20:GLU:HG2	2.31	0.60
27:B2:16:LEU:HD22	27:B2:20:GLU:CG	2.32	0.60
35:BA:15:G:O2'	35:BA:16:G:H5'	2.01	0.60
35:BA:2537:U:H2'	35:BA:2538:C:C6	2.35	0.60
35:BA:2735:G:H2'	35:BA:2736:G:H5''	1.84	0.60
35:BA:648:G:O2'	35:BA:649:G:H5'	2.02	0.60
35:BA:90:U:O2'	35:BA:92:A:H5''	2.00	0.60
36:BB:21:G:O6	36:BB:62:C:N3	2.34	0.60
39:BE:203:LYS:HE2	39:BE:204:ALA:HB2	1.83	0.60
44:BN:42:TRP:CE3	44:BN:48:MET:HE1	2.37	0.60
46:BP:21:ARG:O	46:BP:23:PRO:HD3	2.02	0.60
45:BO:104:ARG:HE	50:BT:33:LYS:HD2	1.67	0.60
51:BU:90:VAL:CG1	52:BV:39:LEU:HG	2.32	0.60
55:BY:66:PRO:O	55:BY:67:LEU:HB3	2.01	0.60
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.37	0.60
1:CA:575:G:OP1	1:CA:575:G:H4'	2.01	0.60
1:CA:601:C:H2'	1:CA:602:A:H8	1.66	0.60
1:CA:818:G:C2'	1:CA:819:A:H5''	2.31	0.60
2:CB:178:ARG:NH2	2:CB:196:LEU:HA	2.16	0.60
1:CA:1112:C:O2	3:CC:179:ARG:HG2	2.00	0.60
7:CG:57:GLU:N	7:CG:57:GLU:OE2	2.35	0.60
9:CI:17:VAL:HG11	9:CI:81:ILE:HA	1.82	0.60
9:CI:88:TYR:O	9:CI:89:ASN:HB2	2.01	0.60
30:D5:6:VAL:HG22	30:D5:7:PRO:HD2	1.83	0.60
35:DA:1784:A:H4'	35:DA:1785:A:O5'	2.02	0.60
35:DA:1952:A:C2	45:DO:22:ILE:HG23	2.36	0.60
35:DA:2672:G:H2'	35:DA:2673:G:H5''	1.83	0.60
40:DF:21:ALA:O	40:DF:23:ASP:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:72:LEU:HB3	43:DI:138:ILE:CD1	2.32	0.60
46:DP:49:ARG:HH21	46:DP:50:ARG:HH22	1.49	0.60
50:DT:57:PHE:O	50:DT:59:THR:N	2.34	0.60
51:DU:74:LEU:HD13	51:DU:79:PHE:HB2	1.82	0.60
51:DU:70:ARG:HA	51:DU:74:LEU:O	2.00	0.60
1:AA:197:A:N6	1:AA:221:C:H5'	2.15	0.60
4:AD:12:CYS:HA	4:AD:19:LEU:HD12	1.82	0.60
9:AI:20:ARG:HG3	9:AI:20:ARG:HH11	1.67	0.60
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.05	0.60
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.01	0.60
22:AY:5:G:H2'	22:AY:6:G:H8	1.64	0.60
34:B9:17:ILE:CG1	34:B9:26:ILE:HD11	2.32	0.60
35:BA:2823:A:OP1	39:BE:113:PHE:HB2	2.01	0.60
35:BA:624:C:O2'	35:BA:657:U:H5'	2.02	0.60
36:BB:60:C:H2'	36:BB:61:G:H8	1.66	0.60
38:BD:33:LEU:HD22	38:BD:34:VAL:N	2.17	0.60
38:BD:71:ASP:HB2	38:BD:103:ARG:NH2	2.10	0.60
55:BY:7:VAL:CG2	55:BY:8:LYS:HZ3	2.15	0.60
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.16	0.60
1:CA:472:A:H4'	16:CP:80:PHE:O	2.02	0.60
1:CA:73:G:H22	1:CA:96:U:H3	1.47	0.60
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.22	0.60
35:DA:1447:G:H21	35:DA:1528:A:H62	1.50	0.60
35:DA:172:C:H2'	35:DA:173:G:C8	2.36	0.60
35:DA:2262:U:H2'	35:DA:2263:C:H5''	1.83	0.60
35:DA:2556:C:H2'	35:DA:2557:G:O4'	2.01	0.60
38:DD:221:VAL:HG22	38:DD:226:MET:HE3	1.84	0.60
38:DD:33:LEU:HD13	38:DD:34:VAL:HG23	1.83	0.60
49:DS:101:LEU:O	49:DS:101:LEU:HD22	2.01	0.60
49:DS:93:LYS:HG3	49:DS:93:LYS:O	2.01	0.60
56:DZ:114:GLY:O	56:DZ:146:ILE:HG23	2.02	0.60
1:AA:277:C:O2'	1:AA:278:G:H5'	2.02	0.60
1:AA:639:G:O2'	1:AA:640:A:H5'	2.02	0.60
3:AC:64:VAL:O	3:AC:100:ALA:HB3	2.02	0.60
3:AC:6:HIS:HB2	14:AN:49:HIS:HD2	1.66	0.60
5:AE:51:VAL:CB	5:AE:52:PRO:HD3	2.29	0.60
1:AA:1381:U:C1'	7:AG:78:ARG:HH21	2.04	0.60
13:AM:66:LEU:N	13:AM:70:LEU:HB2	2.16	0.60
16:AP:8:ARG:HG2	16:AP:9:PHE:H	1.67	0.60
19:AS:6:LYS:HG2	19:AS:7:LYS:HE2	1.81	0.60
35:BA:2206:G:C2	35:BA:2207:G:H5'	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2310:A:O2'	35:BA:2311:A:C5'	2.50	0.60
35:BA:419:C:O2'	35:BA:420:C:H5'	2.00	0.60
35:BA:847:U:H2'	35:BA:848:G:C5'	2.32	0.60
38:BD:30:GLU:HG2	38:BD:63:ARG:CZ	2.32	0.60
47:BQ:16:ARG:HG2	47:BQ:17:LEU:H	1.67	0.60
48:BR:2:ARG:CD	48:BR:5:LYS:HE2	2.32	0.60
51:BU:62:ILE:CD1	51:BU:93:LYS:HG2	2.32	0.60
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.37	0.60
1:CA:1452:C:H4'	1:CA:1456:G:H5''	1.82	0.60
1:CA:148:G:H2'	1:CA:149:A:C8	2.35	0.60
1:CA:288:A:H2'	1:CA:289:G:H4'	1.82	0.60
4:CD:138:TYR:C	4:CD:138:TYR:HD2	2.05	0.60
1:CA:545:C:H5''	4:CD:72:GLU:HG2	1.83	0.60
7:CG:74:GLU:HG2	7:CG:91:VAL:HG22	1.83	0.60
10:CJ:28:ARG:HH12	10:CJ:34:VAL:H	1.48	0.60
35:DA:1439:A:H2'	35:DA:1440:G:O4'	2.01	0.60
35:DA:2681:C:H5	35:DA:2725:A:H62	1.50	0.60
35:DA:642:G:H21	35:DA:646:A:H2	1.49	0.60
37:DC:78:ALA:HB3	37:DC:83:ILE:CD1	2.32	0.60
41:DG:37:VAL:CG2	41:DG:99:MET:HG3	2.32	0.60
45:DO:1:MET:CE	45:DO:67:LYS:HG2	2.31	0.60
50:DT:12:SER:O	50:DT:13:ARG:NH2	2.34	0.60
55:DY:88:LYS:NZ	55:DY:93:GLY:CA	2.65	0.60
56:DZ:93:ASP:HA	56:DZ:130:PRO:CG	2.31	0.60
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.25	0.60
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.37	0.60
1:AA:818:G:O2'	1:AA:819:A:H5''	2.01	0.60
2:AB:212:GLN:CG	2:AB:235:SER:HB2	2.32	0.60
6:AF:47:ARG:HA	6:AF:57:GLN:HG2	1.84	0.60
1:AA:1128:C:C5'	9:AI:16:ARG:HH12	2.14	0.60
9:AI:89:ASN:C	9:AI:91:ASP:H	2.05	0.60
11:AK:123:LYS:HA	11:AK:126:ARG:HB2	1.84	0.60
13:AM:10:PRO:O	13:AM:11:ARG:HG3	2.01	0.60
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.01	0.60
35:BA:99:U:O5'	35:BA:100:G:H5'	2.01	0.60
35:BA:1257:C:O2'	40:BF:84:VAL:HG23	2.02	0.60
35:BA:1697:G:C3'	35:BA:1698:A:H5''	2.26	0.60
35:BA:2152:G:H2'	35:BA:2153:G:H8	1.65	0.60
35:BA:2836:U:H2'	35:BA:2837:G:C8	2.36	0.60
39:BE:11:MET:HB2	39:BE:23:VAL:O	2.01	0.60
39:BE:12:THR:HG23	50:BT:8:LYS:CE	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:125:PHE:CA	41:BG:128:ARG:HG2	2.32	0.60
41:BG:22:ARG:HB3	41:BG:22:ARG:HH11	1.64	0.60
42:BH:70:THR:C	42:BH:72:ILE:H	2.04	0.60
43:BI:93:THR:HG22	43:BI:119:PRO:HB3	1.84	0.60
43:BI:120:ILE:CG2	43:BI:121:LYS:H	2.15	0.60
44:BN:40:PRO:O	51:BU:64:ARG:HG3	2.02	0.60
45:BO:3:GLN:HB2	45:BO:4:PRO:HD2	1.82	0.60
48:BR:12:ARG:HG3	48:BR:12:ARG:HH11	1.67	0.60
1:CA:77:G:H1	1:CA:92:C:N4	1.99	0.60
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.37	0.60
4:CD:114:ARG:O	4:CD:117:ALA:HB3	2.02	0.60
5:CE:109:ILE:HG22	5:CE:110:LEU:HD23	1.83	0.60
5:CE:68:GLU:HG3	5:CE:70:PRO:HD3	1.83	0.60
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.16	0.60
8:CH:123:GLU:O	8:CH:127:LEU:HD23	2.02	0.60
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.17	0.60
1:CA:1320:C:H5'	19:CS:70:LYS:HG2	1.84	0.60
35:DA:1843:C:H5'	38:DD:253:GLN:NE2	2.17	0.60
35:DA:2152:G:H2'	35:DA:2153:G:C8	2.37	0.60
35:DA:2347:C:H2'	35:DA:2348:U:C6	2.37	0.60
35:DA:2389:G:H5''	35:DA:2390:U:O4'	2.02	0.60
35:DA:2591:C:OP2	38:DD:239:ARG:HB3	2.02	0.60
38:DD:110:GLY:O	38:DD:112:GLN:HG3	2.02	0.60
38:DD:267:SER:O	38:DD:269:PHE:N	2.34	0.60
38:DD:30:GLU:CD	38:DD:63:ARG:HE	2.06	0.60
41:DG:96:ARG:O	41:DG:99:MET:HB3	2.01	0.60
50:DT:38:ASN:HD22	50:DT:39:ARG:N	1.99	0.60
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	2.02	0.60
2:AB:77:ALA:CB	2:AB:211:ILE:HD13	2.21	0.60
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.29	0.60
11:AK:72:ALA:O	11:AK:77:MET:HB2	2.01	0.60
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.37	0.60
18:AR:59:SER:H	18:AR:62:GLU:HB2	1.67	0.60
35:BA:1827:C:O2'	35:BA:1828:G:H5'	2.02	0.60
35:BA:1887:C:C3'	35:BA:1888:G:H5''	2.31	0.60
35:BA:2328:A:H2'	35:BA:2329:G:C8	2.36	0.60
35:BA:2694:G:O2'	35:BA:2695:C:H5'	2.02	0.60
35:BA:2736:G:H5'	35:BA:2736:G:C8	2.37	0.60
39:BE:47:VAL:HG12	39:BE:49:LEU:CD1	2.30	0.60
40:BF:181:LEU:CD1	40:BF:186:ILE:HD11	2.25	0.60
40:BF:45:ARG:CZ	40:BF:97:TYR:CE1	2.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:9:ASN:C	46:BP:11:GLY:N	2.53	0.60
33:B8:59:LYS:CD	46:BP:50:ARG:HB3	2.22	0.60
50:BT:58:ASN:C	50:BT:58:ASN:HD22	2.06	0.60
1:CA:134:A:H61	16:CP:25:ARG:NH1	2.00	0.60
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.34	0.60
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.32	0.60
12:CL:27:LEU:HG	12:CL:62:SER:OG	2.01	0.60
20:CT:37:SER:O	20:CT:41:ILE:HG12	2.02	0.60
20:CT:82:SER:O	20:CT:86:ARG:HD3	2.02	0.60
27:D2:69:ARG:O	27:D2:70:GLN:HB3	2.01	0.60
41:DG:29:TRP:C	41:DG:31:VAL:H	2.05	0.60
43:DI:4:ILE:HG12	43:DI:18:VAL:CG2	2.29	0.60
50:DT:23:ARG:HG2	50:DT:120:ARG:NH1	2.17	0.60
51:DU:92:ARG:HG2	51:DU:92:ARG:HH11	1.67	0.60
55:DY:15:VAL:HG12	55:DY:16:ALA:N	2.17	0.60
56:DZ:4:ARG:HG2	56:DZ:58:VAL:CB	2.24	0.60
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.31	0.59
1:AA:954:G:H21	1:AA:1227:A:H62	1.50	0.59
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.30	0.59
3:AC:92:ALA:N	3:AC:99:VAL:HG11	2.17	0.59
8:AH:123:GLU:O	8:AH:127:LEU:HD23	2.00	0.59
12:AL:90:VAL:HG11	12:AL:93:LEU:HG	1.84	0.59
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.02	0.59
1:AA:472:A:H4'	16:AP:80:PHE:O	2.01	0.59
22:AV:27:G:H2'	22:AV:28:G:H8	1.67	0.59
29:B4:61:VAL:HG13	29:B4:65:CYS:SG	2.42	0.59
35:BA:1910:G:O2'	35:BA:1911:U:H5'	2.01	0.59
38:BD:33:LEU:HD13	38:BD:34:VAL:HG23	1.84	0.59
41:BG:125:PHE:H	41:BG:125:PHE:HD1	1.49	0.59
41:BG:61:ALA:HA	41:BG:64:THR:HG22	1.84	0.59
47:BQ:76:LYS:HB3	47:BQ:91:GLU:HG3	1.84	0.59
48:BR:113:LEU:HD12	48:BR:113:LEU:C	2.22	0.59
50:BT:107:ASP:CG	50:BT:108:ARG:N	2.55	0.59
51:BU:44:ASN:ND2	52:BV:75:PHE:HB3	2.17	0.59
1:CA:167:G:H2'	1:CA:168:G:C8	2.36	0.59
1:CA:197:A:N6	1:CA:221:C:H5'	2.17	0.59
3:CC:18:TRP:N	3:CC:18:TRP:CE3	2.70	0.59
9:CI:89:ASN:C	9:CI:91:ASP:H	2.06	0.59
9:CI:114:TYR:HD1	10:CJ:60:ARG:HG3	1.66	0.59
11:CK:54:ARG:HH12	23:CW:40:C:C5'	2.15	0.59
27:D2:55:ARG:O	27:D2:58:ALA:HB3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:36:LEU:HD23	31:D6:36:LEU:H	1.66	0.59
35:DA:2293:C:H42	35:DA:2339:G:H1	1.49	0.59
35:DA:2349:G:H8	35:DA:2349:G:H5'	1.67	0.59
35:DA:271(U):G:O2'	35:DA:271(V):G:H5'	2.01	0.59
35:DA:492:A:H2'	35:DA:493:G:O4'	2.02	0.59
40:DF:78:ILE:N	40:DF:78:ILE:HD13	2.17	0.59
42:DH:54:ARG:HB3	42:DH:65:HIS:CD2	2.35	0.59
43:DI:120:ILE:CG2	43:DI:121:LYS:N	2.64	0.59
43:DI:81:VAL:O	43:DI:82:ARG:CB	2.50	0.59
44:DN:62:VAL:HG22	44:DN:66:LYS:HB2	1.83	0.59
35:DA:1952:A:C4	45:DO:22:ILE:HD12	2.36	0.59
46:DP:41:ARG:NE	46:DP:41:ARG:HA	2.16	0.59
49:DS:14:VAL:HG12	49:DS:15:ARG:H	1.65	0.59
53:DW:10:VAL:HG21	53:DW:103:ILE:HG13	1.84	0.59
53:DW:20:VAL:O	53:DW:23:LEU:HB3	2.02	0.59
3:AC:18:TRP:CE3	3:AC:18:TRP:N	2.69	0.59
4:AD:134:ASP:OD2	4:AD:135:LEU:HD22	2.02	0.59
8:AH:122:ARG:HH11	8:AH:122:ARG:CB	2.12	0.59
8:AH:84:ARG:HG2	8:AH:84:ARG:HH11	1.66	0.59
12:AL:33:ARG:HA	12:AL:33:ARG:HE	1.66	0.59
16:AP:5:ARG:O	16:AP:20:VAL:HG13	2.01	0.59
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.67	0.59
26:B1:86:SER:HB2	26:B1:89:GLU:HB2	1.84	0.59
31:B6:15:GLU:HG2	31:B6:18:ARG:NE	2.16	0.59
35:BA:1505:C:H6	35:BA:1506:C:C6	2.20	0.59
35:BA:603:A:H4'	35:BA:604:G:O5'	2.02	0.59
37:BC:49:ILE:O	37:BC:51:PRO:HD3	2.02	0.59
38:BD:221:VAL:HG22	38:BD:226:MET:HE3	1.83	0.59
38:BD:242:ARG:HD2	38:BD:242:ARG:N	2.16	0.59
38:BD:248:SER:HB2	38:BD:249:PRO:HD2	1.83	0.59
39:BE:45:THR:CG2	39:BE:83:ASP:HA	2.31	0.59
41:BG:101:ILE:HG23	41:BG:102:PHE:H	1.67	0.59
43:BI:133:HIS:CB	43:BI:134:PRO:CD	2.78	0.59
50:BT:86:ILE:HG12	50:BT:87:ASP:H	1.67	0.59
52:BV:6:LYS:HG3	52:BV:11:GLN:HG2	1.84	0.59
56:BZ:10:ARG:HG3	56:BZ:18:LEU:HD11	1.84	0.59
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.17	0.59
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.36	0.59
3:CC:147:LYS:HG3	3:CC:204:LEU:O	2.02	0.59
4:CD:12:CYS:HA	4:CD:19:LEU:HD12	1.83	0.59
6:CF:47:ARG:HA	6:CF:57:GLN:HG2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:27:ALA:HA	10:CJ:30:SER:OG	2.01	0.59
13:CM:123:ALA:HB2	22:CY:39:U:C4'	2.31	0.59
26:D1:92:LYS:HG3	26:D1:93:GLU:N	2.16	0.59
35:DA:136:G:H1	35:DA:143(A):C:H42	1.48	0.59
35:DA:2732:G:C2'	35:DA:2733:A:H5'	2.32	0.59
38:DD:109:ASP:HB2	38:DD:197:GLY:CA	2.31	0.59
38:DD:166:GLN:HE21	38:DD:166:GLN:CA	2.14	0.59
38:DD:44:ASN:CB	38:DD:49:ILE:HA	2.22	0.59
39:DE:47:VAL:HG12	39:DE:49:LEU:CD1	2.30	0.59
39:DE:45:THR:CG2	39:DE:83:ASP:HA	2.30	0.59
40:DF:53:THR:HG23	40:DF:56:GLU:H	1.67	0.59
43:DI:93:THR:HG22	43:DI:119:PRO:HB3	1.84	0.59
35:DA:271(P):C:H5'	43:DI:46:ALA:HB2	1.83	0.59
47:DQ:16:ARG:HG2	47:DQ:17:LEU:H	1.67	0.59
52:DV:20:LEU:N	52:DV:20:LEU:HD12	2.17	0.59
52:DV:87:HIS:NE2	52:DV:89:GLN:HG2	2.17	0.59
47:DQ:137:TYR:CZ	56:DZ:81:ARG:NH1	2.69	0.59
1:AA:190:U:H2'	1:AA:191:G:H8	1.67	0.59
1:AA:838:G:C2'	1:AA:839:U:H5''	2.31	0.59
1:AA:865:A:H5'	1:AA:1078:U:C5	2.37	0.59
4:AD:114:ARG:HH11	4:AD:114:ARG:CG	2.13	0.59
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.61	0.59
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.65	0.59
7:AG:100:ALA:O	7:AG:104:LEU:HD23	2.02	0.59
8:AH:85:ARG:HD3	8:AH:86:ILE:N	2.17	0.59
10:AJ:57:LYS:HE3	10:AJ:60:ARG:NH2	2.17	0.59
11:AK:57:THR:CG2	11:AK:58:PRO:HD2	2.32	0.59
15:AO:69:TYR:CZ	15:AO:73:GLU:HG3	2.37	0.59
18:AR:37:VAL:HG23	18:AR:38:GLU:HG3	1.84	0.59
19:AS:58:VAL:HG23	19:AS:58:VAL:O	2.02	0.59
32:B7:46:VAL:HG12	32:B7:47:ARG:N	2.17	0.59
35:BA:1045:A:H2'	35:BA:1045:A:N3	2.17	0.59
35:BA:1411:C:H2'	35:BA:1412:A:C8	2.37	0.59
35:BA:1509(A):A:H2'	35:BA:1509(B):A:C8	2.37	0.59
35:BA:2735:G:O2'	35:BA:2736:G:H5''	2.03	0.59
35:BA:2759:G:O2'	35:BA:2760:C:H5'	2.01	0.59
28:B3:49:LYS:NZ	35:BA:850:C:O3'	2.34	0.59
35:BA:2073:C:H5''	38:BD:229:VAL:HG13	1.84	0.59
42:BH:89:ILE:HD11	42:BH:129:THR:O	2.01	0.59
44:BN:133:GLN:O	44:BN:134:ARG:HB3	2.03	0.59
46:BP:35:HIS:O	46:BP:36:LYS:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:95:ARG:HH11	50:BT:95:ARG:HB3	1.67	0.59
56:BZ:166:SER:HB2	56:BZ:167:PRO:CA	2.31	0.59
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.32	0.59
1:CA:1452:C:H5'	1:CA:1456:G:C4	2.37	0.59
1:CA:328:C:H4'	1:CA:329:A:C5'	2.31	0.59
1:CA:340:U:O2'	1:CA:341:C:H5'	2.02	0.59
1:CA:1206:G:H4'	3:CC:192:THR:O	2.03	0.59
3:CC:187:ALA:O	3:CC:198:VAL:HG23	2.02	0.59
7:CG:45:ASP:O	7:CG:49:ILE:HG12	2.02	0.59
14:CN:6:LEU:HD23	14:CN:9:LYS:HE2	1.84	0.59
32:D7:24:THR:HG23	32:D7:27:GLY:H	1.66	0.59
34:D9:17:ILE:CG1	34:D9:26:ILE:HD11	2.32	0.59
35:DA:1411:C:H2'	35:DA:1412:A:C8	2.37	0.59
35:DA:2025:C:H2'	35:DA:2026:C:C6	2.36	0.59
35:DA:2559:C:O2	35:DA:2559:C:H2'	2.00	0.59
35:DA:2735:G:H2'	35:DA:2736:G:H5''	1.84	0.59
36:DB:87:G:H3'	36:DB:88:C:H5''	1.83	0.59
37:DC:49:ILE:O	37:DC:51:PRO:HD3	2.02	0.59
38:DD:70:TRP:CH2	38:DD:150:LYS:HA	2.38	0.59
39:DE:8:LYS:HE3	39:DE:188:VAL:HG13	1.84	0.59
40:DF:45:ARG:CZ	40:DF:97:TYR:CE1	2.85	0.59
43:DI:123:LEU:HD22	43:DI:142:VAL:O	2.02	0.59
47:DQ:55:VAL:HG22	47:DQ:56:ARG:N	2.17	0.59
51:DU:62:ILE:CD1	51:DU:93:LYS:HG2	2.32	0.59
52:DV:2:PHE:O	52:DV:3:ALA:HB3	2.02	0.59
56:DZ:137:ILE:HG12	56:DZ:138:GLU:N	2.17	0.59
1:AA:429:U:H1'	1:AA:430:A:H5''	1.85	0.59
1:AA:580:U:H2'	1:AA:581:G:O4'	2.02	0.59
7:AG:57:GLU:N	7:AG:57:GLU:OE2	2.36	0.59
1:AA:1117:G:O3'	9:AI:104:ARG:HG3	2.02	0.59
17:AQ:22:LEU:HD12	17:AQ:23:VAL:H	1.66	0.59
29:B4:36:VAL:HB	29:B4:37:PRO:HD2	1.84	0.59
30:B5:30:LEU:HD23	30:B5:41:PRO:HA	1.83	0.59
35:BA:1719:G:O2'	35:BA:1720:U:H5'	2.02	0.59
35:BA:535:C:O2'	35:BA:536:A:H5'	2.03	0.59
35:BA:709:U:H2'	35:BA:710:G:H8	1.66	0.59
39:BE:103:ASP:OD2	39:BE:201:THR:HA	2.02	0.59
39:BE:48:GLN:HA	39:BE:80:GLU:HA	1.85	0.59
40:BF:1:MET:O	40:BF:3:GLU:N	2.35	0.59
43:BI:123:LEU:HD11	43:BI:144:VAL:HG13	1.83	0.59
45:BO:64:ARG:HG3	45:BO:83:ALA:HB3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:62:LEU:HD23	46:BP:62:LEU:H	1.67	0.59
49:BS:56:LEU:O	49:BS:56:LEU:HD23	2.03	0.59
51:BU:112:ARG:CG	51:BU:112:ARG:HH11	2.14	0.59
52:BV:24:LYS:O	52:BV:25:LEU:HD23	2.01	0.59
52:BV:89:GLN:OE1	52:BV:90:PRO:HD2	2.03	0.59
1:CA:102:G:H2'	1:CA:103:C:C6	2.38	0.59
1:CA:1165:C:H2'	1:CA:1166:G:C8	2.33	0.59
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.37	0.59
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.83	0.59
1:CA:5:U:N3	4:CD:86:LYS:HE2	2.17	0.59
1:CA:639:G:O2'	1:CA:640:A:H5'	2.02	0.59
3:CC:79:ARG:NH1	3:CC:79:ARG:HB3	2.17	0.59
10:CJ:51:ARG:O	10:CJ:52:GLY:O	2.20	0.59
10:CJ:57:LYS:HE3	10:CJ:60:ARG:NH2	2.18	0.59
15:CO:64:ARG:HH11	15:CO:64:ARG:HG3	1.66	0.59
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.83	0.59
19:CS:15:LEU:HD22	19:CS:15:LEU:N	2.17	0.59
19:CS:6:LYS:HG2	19:CS:7:LYS:HE2	1.85	0.59
27:D2:69:ARG:HH11	27:D2:69:ARG:HG2	1.68	0.59
35:DA:195:A:OP1	46:DP:46:LYS:HE2	2.02	0.59
35:DA:2184:G:H2'	35:DA:2185:C:C6	2.37	0.59
35:DA:2310:A:O2'	35:DA:2311:A:C5'	2.50	0.59
35:DA:2790:A:N3	35:DA:2790:A:H2'	2.17	0.59
35:DA:2823:A:OP1	39:DE:113:PHE:HB2	2.02	0.59
41:DG:45:GLU:OE1	41:DG:47:LYS:HG2	2.03	0.59
41:DG:83:ARG:O	41:DG:84:LYS:HB2	2.01	0.59
44:DN:125:GLY:HA3	44:DN:126:PRO:C	2.23	0.59
50:DT:86:ILE:HG12	50:DT:87:ASP:H	1.65	0.59
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.03	0.59
1:AA:575:G:OP1	1:AA:575:G:H4'	2.02	0.59
1:AA:659:U:O2'	1:AA:660:G:H5'	2.02	0.59
2:AB:14:GLY:O	2:AB:15:VAL:HG22	2.03	0.59
2:AB:183:PRO:HA	2:AB:198:ASP:OD1	2.03	0.59
3:AC:79:ARG:NH1	3:AC:79:ARG:HB3	2.17	0.59
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.31	0.59
5:AE:81:GLU:HB3	5:AE:88:LYS:NZ	2.18	0.59
8:AH:7:ALA:CB	8:AH:85:ARG:HG3	2.32	0.59
12:AL:28:LYS:C	12:AL:30:ALA:N	2.54	0.59
15:AO:78:TYR:OH	15:AO:88:ARG:HD2	2.02	0.59
15:AO:82:ILE:O	15:AO:82:ILE:HD13	2.02	0.59
26:B1:91:LYS:HA	26:B1:94:LEU:CD1	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B9:11:CYS:SG	34:B9:12:ASP:N	2.76	0.59
35:BA:1844:C:O2'	35:BA:1845:G:H5'	2.01	0.59
35:BA:2547:U:H2'	35:BA:2548:G:C8	2.37	0.59
35:BA:2702:U:H5	35:BA:2705:A:H61	1.47	0.59
35:BA:2735:G:H2'	35:BA:2736:G:C5'	2.32	0.59
35:BA:582:G:H2'	35:BA:583:G:C8	2.37	0.59
43:BI:12:LEU:H	43:BI:12:LEU:HD23	1.67	0.59
44:BN:2:LYS:O	44:BN:4:TYR:CZ	2.55	0.59
46:BP:16:ARG:CZ	46:BP:16:ARG:HB2	2.32	0.59
48:BR:83:ILE:O	48:BR:86:ARG:HG3	2.02	0.59
1:CA:114:U:H2'	1:CA:115:G:C8	2.37	0.59
1:CA:1490:C:O2'	1:CA:1491:G:H5'	2.02	0.59
7:CG:100:ALA:O	7:CG:104:LEU:HD23	2.01	0.59
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.85	0.59
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.17	0.59
31:D6:17:LYS:HB3	31:D6:18:ARG:NH1	2.17	0.59
32:D7:46:VAL:HG12	32:D7:47:ARG:N	2.17	0.59
33:D8:62:LEU:N	33:D8:63:PRO:HD2	2.17	0.59
35:DA:1505:C:H6	35:DA:1506:C:C6	2.21	0.59
35:DA:1907:G:O2'	35:DA:1908:C:H5'	2.02	0.59
35:DA:2735:G:H2'	35:DA:2736:G:C5'	2.33	0.59
40:DF:116:ASP:OD1	40:DF:119:ARG:NH2	2.35	0.59
41:DG:111:LEU:HD23	41:DG:114:ILE:HD12	1.85	0.59
43:DI:102:SER:O	43:DI:106:GLY:HA2	2.01	0.59
44:DN:120:LEU:HD11	44:DN:122:VAL:HG23	1.83	0.59
45:DO:64:ARG:HG3	45:DO:83:ALA:HB3	1.85	0.59
47:DQ:26:TYR:HB2	47:DQ:137:TYR:HB3	1.84	0.59
48:DR:81:ASP:O	48:DR:82:GLU:HB2	2.02	0.59
56:DZ:30:ASN:ND2	56:DZ:33:LEU:H	2.00	0.59
56:DZ:4:ARG:CG	56:DZ:58:VAL:HB	2.27	0.59
1:AA:1313:U:H2'	1:AA:1314:C:H6	1.67	0.59
1:AA:533:A:H1'	1:AA:534:U:OP1	2.02	0.59
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.01	0.59
4:AD:19:LEU:HD12	4:AD:19:LEU:H	1.67	0.59
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.02	0.59
9:AI:116:LYS:HZ3	9:AI:116:LYS:HB3	1.66	0.59
12:AL:37:CYS:SG	12:AL:81:SER:HB2	2.43	0.59
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.03	0.59
18:AR:86:VAL:O	18:AR:87:ARG:HD3	2.02	0.59
22:AY:18:G:N1	22:AY:57:G:N7	2.50	0.59
35:BA:2349:G:H5'	35:BA:2349:G:H8	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2790:A:H2'	35:BA:2790:A:N3	2.17	0.59
35:BA:2864:G:H5'	35:BA:2864:G:H8	1.68	0.59
35:BA:286:C:C2'	35:BA:287:C:H5''	2.29	0.59
35:BA:528:A:H2	35:BA:2043:C:C5'	2.16	0.59
38:BD:65:ILE:HD13	38:BD:65:ILE:H	1.65	0.59
41:BG:121:ASN:HD22	41:BG:123:ASN:H	1.49	0.59
42:BH:89:ILE:HD12	42:BH:89:ILE:H	1.67	0.59
43:BI:84:GLY:O	43:BI:85:GLU:HB3	2.02	0.59
46:BP:101:VAL:C	46:BP:103:ALA:H	2.04	0.59
46:BP:105:LEU:H	46:BP:105:LEU:HD12	1.68	0.59
46:BP:9:ASN:O	46:BP:11:GLY:N	2.36	0.59
1:CA:243:A:H4'	1:CA:244:U:C5'	2.33	0.59
1:CA:657:G:O2'	1:CA:658:G:H5'	2.03	0.59
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.23	0.59
24:CX:17:U:O2'	24:CX:18:C:H5'	2.03	0.59
26:D1:51:VAL:CG2	26:D1:74:VAL:HG21	2.31	0.59
33:D8:56:GLU:HA	33:D8:59:LYS:HZ2	1.68	0.59
35:DA:1344:G:H4'	35:DA:1384:A:C5	2.37	0.59
35:DA:2069:G:H2'	35:DA:2070:G:H5'	1.84	0.59
35:DA:2443:C:H2'	35:DA:2444:G:H8	1.68	0.59
35:DA:2702:U:H5	35:DA:2705:A:H61	1.49	0.59
35:DA:816:C:O2'	35:DA:817:C:H5'	2.02	0.59
39:DE:11:MET:HB3	39:DE:24:THR:HA	1.82	0.59
42:DH:70:THR:C	42:DH:72:ILE:H	2.04	0.59
54:DX:8:ILE:HD11	54:DX:42:ALA:HB1	1.84	0.59
1:AA:1000:U:H2'	1:AA:1001:A:C8	2.37	0.59
1:AA:545:C:H5''	4:AD:72:GLU:HG2	1.84	0.59
1:AA:554:C:H2'	1:AA:555:C:H6	1.67	0.59
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.23	0.59
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.02	0.59
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.03	0.59
13:AM:13:LYS:CA	13:AM:44:ARG:HH11	2.13	0.59
16:AP:8:ARG:CG	16:AP:9:PHE:N	2.66	0.59
35:BA:1301:A:H4'	35:BA:1302:A:OP1	2.02	0.59
35:BA:2773:C:H2'	35:BA:2774:C:C6	2.34	0.59
36:BB:87:G:H3'	36:BB:88:C:H5''	1.84	0.59
45:BO:2:ILE:HD11	45:BO:82:ASN:ND2	2.17	0.59
46:BP:50:ARG:NH2	46:BP:50:ARG:HG2	2.17	0.59
51:BU:110:VAL:O	51:BU:114:LYS:HD2	2.02	0.59
55:BY:76:CYS:HB3	55:BY:96:ILE:CD1	2.16	0.59
55:BY:88:LYS:NZ	55:BY:93:GLY:CA	2.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:52:SER:O	56:BZ:54:HIS:N	2.36	0.59
1:CA:190:U:H2'	1:CA:191:G:H8	1.67	0.59
1:CA:533:A:O2'	1:CA:534:U:H5''	2.02	0.59
1:CA:67:C:O2'	1:CA:171:A:H1'	2.02	0.59
3:CC:92:ALA:N	3:CC:99:VAL:HG11	2.17	0.59
5:CE:51:VAL:CB	5:CE:52:PRO:HD3	2.24	0.59
8:CH:69:ARG:HH11	8:CH:69:ARG:HB2	1.66	0.59
23:CW:58:A:H1'	23:CW:60:U:C5	2.38	0.59
31:D6:10:LEU:HD12	33:D8:34:TRP:CD1	2.38	0.59
35:DA:1719:G:C2'	35:DA:1720:U:H5'	2.33	0.59
35:DA:2206:G:C2	35:DA:2207:G:H5'	2.37	0.59
35:DA:247:G:H4'	35:DA:386:G:C5	2.37	0.59
35:DA:914:C:C2'	35:DA:915:C:H5'	2.33	0.59
40:DF:124:LEU:HD12	40:DF:125:LEU:N	2.18	0.59
42:DH:20:ALA:HB2	42:DH:25:LYS:HZ2	1.67	0.59
48:DR:101:ALA:O	48:DR:102:GLU:HB2	2.02	0.59
50:DT:106:SER:O	50:DT:107:ASP:HB3	2.02	0.59
54:DX:12:VAL:HG21	54:DX:17:ALA:HB1	1.84	0.59
55:DY:42:VAL:HG12	55:DY:65:ALA:HB3	1.84	0.59
1:AA:999:C:O2'	1:AA:1000:U:H5'	2.02	0.59
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.67	0.59
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.38	0.59
1:AA:167:G:H2'	1:AA:168:G:C8	2.37	0.59
1:AA:533:A:O2'	1:AA:534:U:H5''	2.03	0.59
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.32	0.59
2:AB:91:PRO:N	2:AB:154:LEU:HD12	2.17	0.59
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.03	0.59
13:AM:76:ALA:CA	13:AM:79:LYS:HZ2	2.15	0.59
17:AQ:99:SER:O	17:AQ:100:LYS:HD3	2.03	0.59
29:B4:51:TYR:CD2	41:BG:2:PRO:HG2	2.38	0.59
31:B6:32:ASN:O	31:B6:33:LYS:HB2	2.01	0.59
35:BA:1439:A:H2'	35:BA:1440:G:O4'	2.01	0.59
35:BA:1658:C:OP1	39:BE:132:HIS:ND1	2.36	0.59
35:BA:2389:G:H5''	35:BA:2390:U:O4'	2.02	0.59
37:BC:193:ILE:O	37:BC:197:GLU:N	2.36	0.59
38:BD:109:ASP:HB2	38:BD:197:GLY:CA	2.33	0.59
38:BD:206:LEU:HD23	38:BD:211:ARG:HH11	1.68	0.59
39:BE:101:ARG:CZ	39:BE:171:GLU:HB2	2.33	0.59
40:BF:24:LEU:O	40:BF:26:ALA:N	2.30	0.59
41:BG:22:ARG:CB	41:BG:22:ARG:HH11	2.16	0.59
43:BI:48:GLU:C	43:BI:50:ARG:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:28:THR:HG22	44:BN:29:LYS:N	2.17	0.59
44:BN:62:VAL:HG22	44:BN:66:LYS:HB2	1.83	0.59
47:BQ:55:VAL:HG22	47:BQ:56:ARG:N	2.17	0.59
35:BA:1155:A:OP2	51:BU:58:ARG:NH1	2.36	0.59
52:BV:2:PHE:O	52:BV:3:ALA:HB3	2.03	0.59
55:BY:28:LYS:O	55:BY:38:ILE:HB	2.02	0.59
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.85	0.59
2:CB:8:LYS:O	2:CB:12:GLU:HG3	2.03	0.59
4:CD:80:GLU:O	4:CD:84:LYS:HG2	2.01	0.59
6:CF:39:LYS:HD2	6:CF:62:TRP:CZ3	2.35	0.59
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.85	0.59
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.17	0.59
13:CM:65:LYS:C	13:CM:66:LEU:N	2.55	0.59
13:CM:67:GLU:OE2	13:CM:71:ARG:NH2	2.35	0.59
3:CC:30:ARG:HH22	14:CN:35:ARG:CA	2.15	0.59
35:DA:1024:G:C3'	35:DA:1025:G:H5''	2.33	0.59
35:DA:142:A:H5'	35:DA:142(A):C:OP2	2.03	0.59
35:DA:1799:G:H5'	35:DA:1819:A:N6	2.18	0.59
35:DA:589:C:O2'	35:DA:590:A:H5'	2.02	0.59
35:DA:627:A:N7	46:DP:84:ASN:ND2	2.50	0.59
35:DA:808:G:H2'	35:DA:809:G:C8	2.37	0.59
38:DD:35:LYS:HD3	38:DD:36:PRO:HD3	1.84	0.59
41:DG:111:LEU:HD22	41:DG:117:PHE:HE2	1.68	0.59
42:DH:137:ASP:OD1	42:DH:138:LYS:N	2.36	0.59
43:DI:38:LEU:HD12	43:DI:38:LEU:N	2.06	0.59
45:DO:107:ARG:NH1	50:DT:36:GLU:H	1.99	0.59
45:DO:86:ILE:H	45:DO:86:ILE:HD12	1.68	0.59
1:AA:52:G:H2'	1:AA:53:A:H8	1.68	0.59
5:AE:18:ARG:NH2	5:AE:25:ARG:HD2	2.18	0.59
5:AE:19:MET:O	5:AE:20:GLN:HB2	2.03	0.59
11:AK:21:ILE:HD13	11:AK:82:VAL:HG13	1.85	0.59
13:AM:40:ASN:O	13:AM:43:THR:HG23	2.03	0.59
1:AA:668:G:O2'	15:AO:46:HIS:HB3	2.03	0.59
19:AS:13:ASP:O	19:AS:15:LEU:N	2.36	0.59
23:AW:37:A:H2'	23:AW:38:A:O4'	2.03	0.59
23:AW:38:A:C2'	23:AW:39:U:H5''	2.32	0.59
28:B3:31:LEU:O	28:B3:32:GLN:HB2	2.00	0.59
33:B8:14:VAL:HG21	33:B8:22:VAL:CG1	2.33	0.59
33:B8:56:GLU:HA	33:B8:59:LYS:NZ	2.17	0.59
35:BA:1547:C:O2'	35:BA:1548:C:H5'	2.02	0.59
35:BA:1639:U:H2'	35:BA:1640:C:H5''	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2133:G:H2'	35:BA:2157:G:N2	2.18	0.59
35:BA:2569:G:O2'	35:BA:2570:G:H5'	2.01	0.59
35:BA:271(E):U:H2'	35:BA:271(F):C:C6	2.37	0.59
35:BA:969:U:H2'	35:BA:970:C:C6	2.38	0.59
38:BD:26:LYS:HE2	38:BD:82:ILE:HB	1.85	0.59
40:BF:32:LEU:HD22	40:BF:112:MET:HE3	1.84	0.59
44:BN:19:GLU:HG3	44:BN:20:GLY:N	2.17	0.59
35:BA:952:G:P	47:BQ:16:ARG:HH22	2.26	0.59
51:BU:92:ARG:CZ	51:BU:92:ARG:HB2	2.32	0.59
1:CA:1116:C:H3'	1:CA:1117:G:H5''	1.84	0.59
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.68	0.59
1:CA:1432:G:OP1	50:DT:107:ASP:HB2	2.02	0.59
1:CA:630:G:H2'	1:CA:631:G:H5''	1.85	0.59
7:CG:37:ASN:ND2	9:CI:40:LEU:HA	2.18	0.59
35:DA:1278:A:O2'	35:DA:1279:G:H5'	2.03	0.59
35:DA:2195:C:O2'	35:DA:2196:C:H5'	2.03	0.59
37:DC:36:LYS:HZ2	37:DC:36:LYS:HA	1.68	0.59
38:DD:227:ASN:HB3	38:DD:228:PRO:CD	2.29	0.59
38:DD:53:PHE:CD1	38:DD:220:HIS:HA	2.38	0.59
47:DQ:37:LEU:HD11	47:DQ:130:LYS:HB2	1.84	0.59
54:DX:66:LEU:C	54:DX:66:LEU:HD23	2.22	0.59
1:AA:1004:A:H2'	1:AA:1005:A:H5'	1.85	0.59
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.37	0.59
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.85	0.59
4:AD:209:ARG:HH11	4:AD:209:ARG:HG3	1.67	0.59
5:AE:79:GLU:HB3	5:AE:92:LYS:CG	2.33	0.59
7:AG:57:GLU:CD	7:AG:57:GLU:H	2.07	0.59
10:AJ:80:LYS:HE3	10:AJ:80:LYS:O	2.03	0.59
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.66	0.59
13:AM:65:LYS:C	13:AM:66:LEU:HG	2.24	0.59
23:AW:56:C:C3'	23:AW:57:G:H5''	2.32	0.59
25:B0:53:MET:HB3	25:B0:59:LEU:HD23	1.84	0.59
35:BA:1755:A:H2'	35:BA:1756:G:H5'	1.85	0.59
35:BA:1786:A:C2	35:BA:2606:C:H1'	2.37	0.59
35:BA:523:C:C2'	35:BA:524:U:H5'	2.33	0.59
41:BG:39:ILE:HD13	41:BG:155:MET:CE	2.33	0.59
47:BQ:12:GLN:HE21	47:BQ:73:PRO:HD3	1.67	0.59
49:BS:93:LYS:O	49:BS:93:LYS:HG3	2.03	0.59
50:BT:23:ARG:HG2	50:BT:120:ARG:NH1	2.18	0.59
51:BU:64:ARG:NH2	51:BU:64:ARG:HG2	2.18	0.59
55:BY:95:LYS:CG	55:BY:100:ALA:HA	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.03	0.59
1:CA:1243:C:OP2	21:CU:10:ARG:CZ	2.51	0.59
1:CA:274:A:H4'	1:CA:275:G:OP1	2.03	0.59
1:CA:429:U:H1'	1:CA:430:A:H5''	1.85	0.59
1:CA:554:C:H2'	1:CA:555:C:H6	1.66	0.59
1:CA:950:U:H2'	1:CA:951:G:H8	1.67	0.59
4:CD:31:CYS:C	4:CD:33:MET:N	2.54	0.59
7:CG:62:PHE:O	7:CG:66:VAL:HG23	2.02	0.59
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.85	0.59
19:CS:40:ILE:HG12	19:CS:71:LEU:HD23	1.84	0.59
22:CY:15:G:H22	22:CY:59:U:H3	1.50	0.59
26:D1:5:CYS:SG	26:D1:62:VAL:HG23	2.42	0.59
35:DA:1045:A:H2'	35:DA:1045:A:N3	2.18	0.59
35:DA:1037:G:H1	35:DA:1118:C:H42	1.50	0.59
35:DA:1171:G:H5'	35:DA:1173:G:OP2	2.02	0.59
35:DA:1887:C:C3'	35:DA:1888:G:H5''	2.32	0.59
26:D1:35:THR:OG1	35:DA:2079:U:O3'	2.20	0.59
35:DA:2262:U:H2'	35:DA:2263:C:C5'	2.32	0.59
38:DD:130:ALA:HA	38:DD:192:THR:HA	1.84	0.59
38:DD:243:GLY:O	38:DD:244:ARG:HB3	2.02	0.59
43:DI:12:LEU:HD23	43:DI:12:LEU:H	1.68	0.59
46:DP:48:PRO:O	46:DP:50:ARG:N	2.36	0.59
47:DQ:43:THR:OG1	47:DQ:45:GLN:HG2	2.02	0.59
49:DS:48:LEU:N	49:DS:48:LEU:HD12	2.18	0.59
1:AA:977:A:C2'	1:AA:978:A:H5'	2.32	0.58
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.05	0.58
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.83	0.58
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.67	0.58
7:AG:121:ALA:O	7:AG:125:MET:HG3	2.03	0.58
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.68	0.58
16:AP:20:VAL:HG21	16:AP:32:TYR:HB3	1.85	0.58
22:AY:9:A:C8	22:AY:46:G:N2	2.71	0.58
22:AY:6:G:O2'	22:AY:7:A:H5'	2.03	0.58
26:B1:46:LEU:HB3	26:B1:63:ALA:HA	1.85	0.58
31:B6:15:GLU:CG	31:B6:18:ARG:HH21	2.16	0.58
35:BA:1171:G:H5'	35:BA:1173:G:OP2	2.03	0.58
35:BA:1300:U:H1'	35:BA:1626:G:C2	2.38	0.58
35:BA:481:G:H1'	35:BA:506:G:H21	1.65	0.58
35:BA:588:U:O5'	35:BA:588:U:H6	1.86	0.58
41:BG:112:PRO:C	41:BG:113:ARG:CA	2.66	0.58
45:BO:77:ILE:HD12	50:BT:73:GLU:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:62:LEU:CD2	46:BP:62:LEU:H	2.16	0.58
49:BS:105:ALA:C	49:BS:107:GLU:H	2.05	0.58
54:BX:8:ILE:H	54:BX:8:ILE:HD12	1.67	0.58
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.03	0.58
2:CB:68:ILE:HG12	2:CB:90:MET:HE1	1.85	0.58
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.30	0.58
15:CO:76:GLU:O	15:CO:78:TYR:N	2.36	0.58
15:CO:78:TYR:OH	15:CO:88:ARG:HD2	2.02	0.58
15:CO:82:ILE:O	15:CO:82:ILE:HD13	2.03	0.58
25:D0:51:VAL:CG2	25:D0:81:VAL:HG23	2.33	0.58
27:D2:32:LEU:HA	27:D2:53:LEU:HD13	1.85	0.58
28:D3:19:GLN:HE22	28:D3:52:HIS:CE1	2.19	0.58
35:DA:1141:U:H2'	44:DN:63:THR:HG21	1.84	0.58
35:DA:1339:G:H21	35:DA:1603:A:H1'	1.67	0.58
35:DA:438:G:O2'	35:DA:440:G:H5'	2.04	0.58
35:DA:922:U:H2'	35:DA:923:C:C6	2.38	0.58
38:DD:35:LYS:HE3	38:DD:36:PRO:CA	2.33	0.58
39:DE:154:LYS:HG2	39:DE:156:MET:HE3	1.84	0.58
40:DF:24:LEU:CD1	40:DF:25:PRO:HD3	2.30	0.58
46:DP:9:ASN:O	46:DP:11:GLY:N	2.35	0.58
55:DY:16:ALA:HA	55:DY:21:LYS:HD2	1.84	0.58
1:AA:493:G:HO2'	1:AA:494:U:H6	1.49	0.58
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.03	0.58
4:AD:196:LEU:N	4:AD:196:LEU:HD12	2.17	0.58
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.03	0.58
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.85	0.58
6:AF:97:PHE:O	18:AR:31:LEU:HD23	2.02	0.58
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.33	0.58
10:AJ:6:ILE:CD1	10:AJ:72:VAL:HB	2.30	0.58
13:AM:90:LEU:O	13:AM:92:HIS:N	2.35	0.58
13:AM:89:GLY:O	13:AM:92:HIS:HB2	2.02	0.58
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.16	0.58
22:AV:25:C:O2'	22:AV:26:A:H5'	2.03	0.58
35:BA:142:A:H5''	35:BA:142(A):C:H5	1.68	0.58
35:BA:614(C):A:O2'	35:BA:615:G:O4'	2.21	0.58
44:BN:120:LEU:CD1	44:BN:122:VAL:HG23	2.33	0.58
35:BA:1952:A:C4	45:BO:22:ILE:HD12	2.37	0.58
46:BP:144:GLU:N	46:BP:145:PRO:CD	2.65	0.58
35:BA:907:U:OP1	47:BQ:24:GLY:N	2.36	0.58
52:BV:38:LEU:C	52:BV:39:LEU:HD13	2.24	0.58
54:BX:34:ALA:HA	54:BX:38:GLU:OE1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:29:GLU:N	55:BY:29:GLU:CD	2.56	0.58
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.03	0.58
1:CA:255:G:H2'	1:CA:256:U:C6	2.38	0.58
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.37	0.58
1:CA:818:G:O2'	1:CA:819:A:H5''	2.03	0.58
1:CA:977:A:C2'	1:CA:978:A:H5'	2.33	0.58
6:CF:19:LEU:HD11	6:CF:59:TYR:CE2	2.38	0.58
8:CH:7:ALA:CB	8:CH:85:ARG:HG3	2.33	0.58
10:CJ:92:THR:HG23	10:CJ:93:GLY:H	1.68	0.58
13:CM:106:ASN:O	13:CM:107:ALA:CB	2.50	0.58
13:CM:116:THR:HG22	13:CM:117:VAL:N	2.18	0.58
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.84	0.58
27:D2:18:PRO:CG	27:D2:19:VAL:H	2.11	0.58
34:D9:4:ARG:HB2	35:DA:2466:C:OP1	2.04	0.58
35:DA:2203:U:H1'	38:DD:151:LYS:HE3	1.85	0.58
35:DA:2547:U:H2'	35:DA:2548:G:C8	2.38	0.58
35:DA:614(C):A:O2'	35:DA:615:G:O4'	2.20	0.58
35:DA:706:A:C2	35:DA:707:G:H1'	2.39	0.58
35:DA:709:U:H2'	35:DA:710:G:C8	2.37	0.58
35:DA:850:C:O2'	35:DA:851:U:H5'	2.01	0.58
41:DG:68:PRO:HB2	41:DG:90:LEU:HD21	1.84	0.58
42:DH:85:LYS:HD2	42:DH:141:VAL:CG1	2.31	0.58
47:DQ:59:ARG:HG3	47:DQ:59:ARG:HH11	1.67	0.58
48:DR:83:ILE:O	48:DR:86:ARG:HG3	2.03	0.58
50:DT:107:ASP:CG	50:DT:108:ARG:N	2.56	0.58
55:DY:31:LEU:CD2	55:DY:31:LEU:N	2.66	0.58
55:DY:28:LYS:O	55:DY:38:ILE:HB	2.02	0.58
56:DZ:165:VAL:HG12	56:DZ:166:SER:N	2.10	0.58
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.38	0.58
1:AA:501:C:H2'	1:AA:502:G:C8	2.37	0.58
1:AA:630:G:H2'	1:AA:631:G:H5''	1.84	0.58
2:AB:97:TRP:CZ3	2:AB:173:ALA:HA	2.39	0.58
3:AC:24:ALA:HB1	3:AC:28:GLN:O	2.03	0.58
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.03	0.58
20:AT:81:LYS:O	20:AT:85:MET:HG2	2.02	0.58
23:AW:14:A:H3'	23:AW:15:G:H8	1.69	0.58
31:B6:17:LYS:C	31:B6:18:ARG:HD3	2.23	0.58
35:BA:1332:G:H22	35:BA:1609:A:C2'	2.16	0.58
35:BA:271(P):C:H5'	43:BI:46:ALA:HB2	1.85	0.58
37:BC:36:LYS:HG3	37:BC:37:PHE:N	2.17	0.58
39:BE:67:PHE:HD2	39:BE:68:ALA:H	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:80:SER:O	42:BH:81:GLU:HB2	2.02	0.58
44:BN:67:LEU:HB3	44:BN:88:GLU:HG2	1.84	0.58
48:BR:81:ASP:O	48:BR:82:GLU:HB2	2.03	0.58
1:CA:1313:U:H2'	1:CA:1314:C:H6	1.67	0.58
1:CA:339:C:H2'	1:CA:340:U:H6	1.69	0.58
1:CA:678:U:H2'	1:CA:679:C:C6	2.38	0.58
3:CC:172:ARG:NH1	3:CC:172:ARG:HB3	2.18	0.58
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.77	0.58
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.85	0.58
7:CG:6:ARG:HH21	7:CG:94:ARG:HH22	1.50	0.58
9:CI:3:GLN:CG	9:CI:20:ARG:HH12	2.15	0.58
13:CM:110:ARG:HH11	13:CM:110:ARG:HG2	1.69	0.58
14:CN:2:ALA:O	14:CN:6:LEU:HD12	2.02	0.58
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	1.85	0.58
16:CP:8:ARG:CG	16:CP:9:PHE:N	2.66	0.58
18:CR:37:VAL:CG2	18:CR:38:GLU:H	2.09	0.58
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.02	0.58
19:CS:62:ILE:HG13	19:CS:63:THR:H	1.67	0.58
23:CW:55:U:C6	23:CW:57:G:H5'	2.38	0.58
35:DA:1921:G:O2'	35:DA:1922:G:H5'	2.03	0.58
35:DA:270:A:O2'	35:DA:271:A:H5'	2.03	0.58
35:DA:675:A:OP1	40:DF:63:LYS:HE2	2.03	0.58
38:DD:154:LYS:C	38:DD:155:LEU:HD12	2.23	0.58
46:DP:70:GLN:HB3	46:DP:72:PRO:HD2	1.85	0.58
45:DO:104:ARG:HE	50:DT:33:LYS:HD2	1.68	0.58
44:DN:40:PRO:O	51:DU:64:ARG:HG3	2.03	0.58
56:DZ:94:GLU:O	56:DZ:96:VAL:HG23	2.03	0.58
2:AB:178:ARG:HH21	8:AH:74:PRO:HG3	1.68	0.58
2:AB:223:ILE:CG2	2:AB:226:ARG:HH21	2.14	0.58
5:AE:16:THR:O	5:AE:17:ALA:HB2	2.03	0.58
9:AI:88:TYR:O	9:AI:89:ASN:HB2	2.02	0.58
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.51	0.58
13:AM:67:GLU:OE2	13:AM:71:ARG:NH2	2.36	0.58
25:B0:51:VAL:CG2	25:B0:81:VAL:HG23	2.34	0.58
35:BA:2369:A:O2'	35:BA:2370:G:H5'	2.03	0.58
35:BA:2491:U:O2'	35:BA:2492:U:H5'	2.03	0.58
38:BD:28:GLU:N	38:BD:29:PRO:CD	2.66	0.58
41:BG:108:ASN:C	41:BG:112:PRO:HG2	2.23	0.58
41:BG:18:GLU:OE1	41:BG:22:ARG:HD2	2.03	0.58
50:BT:67:SER:O	50:BT:68:TYR:HB2	2.03	0.58
56:BZ:87:ASP:OD2	56:BZ:87:ASP:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.69	0.58
1:CA:1270:C:O2'	1:CA:1271:G:H5'	2.02	0.58
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.37	0.58
1:CA:1442(B):A:N1	50:DT:118:ARG:NH2	2.51	0.58
1:CA:545:C:O2'	1:CA:546:G:H5'	2.04	0.58
1:CA:954:G:H21	1:CA:1227:A:H62	1.50	0.58
3:CC:153:VAL:CG1	3:CC:196:LEU:HD12	2.33	0.58
8:CH:16:ALA:HB2	8:CH:24:THR:OG1	2.04	0.58
9:CI:78:LYS:HE3	9:CI:101:PHE:CE2	2.38	0.58
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.28	0.58
15:CO:39:LEU:HD12	15:CO:59:MET:HE2	1.84	0.58
30:D5:58:LEU:CD1	30:D5:58:LEU:H	2.16	0.58
31:D6:32:ASN:O	31:D6:33:LYS:HB2	2.02	0.58
33:D8:50:LEU:O	33:D8:52:LYS:N	2.37	0.58
35:DA:2777:G:H5''	35:DA:2778:A:C5'	2.33	0.58
36:DB:105:A:H2'	36:DB:106:G:O4'	2.03	0.58
44:DN:128:HIS:NE2	44:DN:134:ARG:HD3	2.18	0.58
51:DU:31:SER:C	51:DU:33:ARG:H	2.07	0.58
55:DY:39:VAL:O	55:DY:40:GLU:CD	2.42	0.58
55:DY:81:LYS:HB2	55:DY:96:ILE:CG2	2.34	0.58
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.86	0.58
3:AC:83:ARG:HG2	3:AC:83:ARG:HH11	1.68	0.58
15:AO:82:ILE:HG12	15:AO:87:ILE:HB	1.85	0.58
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.39	0.58
30:B5:58:LEU:H	30:B5:58:LEU:CD1	2.15	0.58
31:B6:15:GLU:OE1	31:B6:18:ARG:CG	2.51	0.58
35:BA:2146:C:H4'	35:BA:2147:G:C8	2.39	0.58
35:BA:2491:U:C5'	35:BA:2570:G:H5''	2.25	0.58
33:B8:4:MET:HE2	35:BA:593:G:O4'	2.04	0.58
38:BD:35:LYS:HE3	38:BD:36:PRO:CA	2.33	0.58
42:BH:85:LYS:HD2	42:BH:141:VAL:CG1	2.31	0.58
45:BO:49:ARG:NH1	45:BO:49:ARG:HG2	2.19	0.58
46:BP:30:THR:CG2	46:BP:31:ALA:H	1.98	0.58
50:BT:125:ARG:CZ	50:BT:125:ARG:HA	2.32	0.58
50:BT:13:ARG:NH1	50:BT:15:VAL:HG22	2.19	0.58
50:BT:57:PHE:O	50:BT:59:THR:HG22	2.03	0.58
51:BU:74:LEU:HD12	51:BU:74:LEU:O	2.04	0.58
55:BY:2:ARG:C	55:BY:4:LYS:H	2.06	0.58
55:BY:81:LYS:HB2	55:BY:96:ILE:CG2	2.34	0.58
1:CA:1054:C:N4	22:CY:34:G:H1'	2.19	0.58
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:474:G:H2'	1:CA:475:G:C8	2.39	0.58
1:CA:597:G:H2'	1:CA:598:U:H5'	1.85	0.58
2:CB:91:PRO:N	2:CB:154:LEU:HD12	2.18	0.58
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.86	0.58
8:CH:122:ARG:HH11	8:CH:122:ARG:CB	2.16	0.58
12:CL:70:ILE:CD1	12:CL:77:LEU:HD12	2.34	0.58
19:CS:51:VAL:O	19:CS:58:VAL:HG22	2.03	0.58
20:CT:32:ALA:O	20:CT:36:LEU:HB2	2.02	0.58
13:CM:118:ALA:HB3	22:CV:29:G:H5''	1.85	0.58
25:D0:53:MET:HB3	25:D0:59:LEU:HD23	1.86	0.58
33:D8:61:LEU:HD12	33:D8:63:PRO:CD	2.33	0.58
35:DA:1336:A:H2'	35:DA:1337:G:H8	1.68	0.58
35:DA:2402:C:H2'	35:DA:2403:C:H5'	1.86	0.58
35:DA:405:U:H3'	35:DA:406:G:H5'	1.86	0.58
39:DE:101:ARG:CZ	39:DE:171:GLU:HB2	2.34	0.58
40:DF:1:MET:O	40:DF:3:GLU:N	2.36	0.58
43:DI:123:LEU:HD11	43:DI:144:VAL:CG1	2.33	0.58
46:DP:105:LEU:HD12	46:DP:105:LEU:N	2.18	0.58
47:DQ:132:VAL:CB	56:DZ:81:ARG:NH1	2.66	0.58
50:DT:84:GLN:O	50:DT:85:LYS:HB2	2.03	0.58
54:DX:35:THR:HG22	54:DX:36:LYS:N	2.18	0.58
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.39	0.58
2:AB:51:LEU:HB3	2:AB:55:PHE:CE2	2.39	0.58
4:AD:20:TYR:HA	4:AD:26:CYS:SG	2.44	0.58
5:AE:81:GLU:HB3	5:AE:88:LYS:HZ1	1.69	0.58
7:AG:6:ARG:HH21	7:AG:94:ARG:HH22	1.50	0.58
11:AK:105:VAL:O	11:AK:107:SER:N	2.37	0.58
13:AM:19:LEU:CB	13:AM:25:ILE:HG21	2.34	0.58
15:AO:39:LEU:HD12	15:AO:59:MET:HE1	1.86	0.58
1:AA:1320:C:H5'	19:AS:70:LYS:HG2	1.84	0.58
22:AY:42:C:H3'	22:AY:43:C:H5''	1.84	0.58
30:B5:43:HIS:HA	35:BA:2884:U:H5	1.69	0.58
35:BA:1688:U:O2	35:BA:1700:A:H5'	2.04	0.58
35:BA:1777:U:O2'	35:BA:1778:U:H5'	2.04	0.58
25:B0:55:ARG:HG3	35:BA:2365:G:OP1	2.03	0.58
35:BA:2516:G:C5	35:BA:2517:C:C4	2.92	0.58
36:BB:52:A:H62	49:BS:33:LYS:HG2	1.67	0.58
41:BG:51:ARG:N	41:BG:51:ARG:HE	2.01	0.58
49:BS:65:VAL:O	49:BS:67:ARG:N	2.37	0.58
50:BT:129:ARG:NH1	50:BT:131:ALA:HB3	2.18	0.58
50:BT:50:ILE:CD1	50:BT:64:ARG:HB3	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.38	0.58
1:CA:1401:G:H2'	1:CA:1402:C:O4'	2.03	0.58
5:CE:103:GLY:O	5:CE:106:PRO:HD2	2.04	0.58
7:CG:120:ILE:O	7:CG:124:LEU:HD12	2.04	0.58
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	2.03	0.58
13:CM:66:LEU:N	13:CM:70:LEU:HB2	2.18	0.58
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	1.85	0.58
16:CP:4:ILE:HA	16:CP:20:VAL:O	2.04	0.58
18:CR:53:ARG:HE	18:CR:59:SER:C	2.07	0.58
32:D7:28:ARG:NH2	35:DA:1368:G:OP1	2.37	0.58
35:DA:1040:C:N4	35:DA:1115:G:H1	2.00	0.58
35:DA:1403:C:H5''	35:DA:1471:A:C1'	2.31	0.58
35:DA:158:U:H4'	35:DA:171:G:C8	2.38	0.58
42:DH:89:ILE:H	42:DH:89:ILE:HD12	1.69	0.58
43:DI:61:ARG:HB3	43:DI:133:HIS:NE2	2.18	0.58
44:DN:96:GLU:H	44:DN:96:GLU:CD	2.07	0.58
50:DT:82:LEU:O	50:DT:84:GLN:N	2.37	0.58
55:DY:2:ARG:C	55:DY:4:LYS:H	2.07	0.58
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.39	0.58
1:AA:1363(A):A:C4'	1:AA:1364:U:H5''	2.29	0.58
1:AA:474:G:H2'	1:AA:475:G:C8	2.38	0.58
1:AA:801:U:H2'	1:AA:802:A:C8	2.39	0.58
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.84	0.58
26:B1:44:PRO:O	26:B1:46:LEU:HD13	2.04	0.58
26:B1:82:LEU:HB3	26:B1:90:ILE:CD1	2.32	0.58
35:BA:1040:C:N4	35:BA:1115:G:H1	2.00	0.58
35:BA:1231:G:H2'	35:BA:1232:G:H8	1.69	0.58
35:BA:2506:U:C3'	35:BA:2506:U:C6	2.87	0.58
35:BA:271(U):G:O2'	35:BA:271(V):G:H5'	2.03	0.58
38:BD:267:SER:O	38:BD:269:PHE:N	2.36	0.58
38:BD:35:LYS:HD3	38:BD:36:PRO:HD3	1.84	0.58
39:BE:134:ILE:C	39:BE:134:ILE:HD13	2.24	0.58
41:BG:14:GLU:H	41:BG:17:PRO:HD2	1.68	0.58
50:BT:89:VAL:HG12	50:BT:91:ARG:HG3	1.86	0.58
55:BY:31:LEU:CD2	55:BY:31:LEU:N	2.65	0.58
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.85	0.58
1:CA:291:C:O2'	1:CA:292:G:H5'	2.03	0.58
4:CD:68:TYR:OH	4:CD:196:LEU:HD21	2.03	0.58
5:CE:143:ARG:NH1	8:CH:77:GLU:OE1	2.35	0.58
11:CK:21:ILE:HD13	11:CK:82:VAL:HG13	1.86	0.58
19:CS:67:VAL:HG23	19:CS:68:GLY:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:187:C:H5''	20:CT:86:ARG:HG3	1.86	0.58
31:D6:36:LEU:HD13	31:D6:50:ARG:HH12	1.69	0.58
33:D8:15:LYS:HB2	46:DP:65:ARG:HH12	1.67	0.58
35:DA:1652:A:O2'	35:DA:1653:G:H5'	2.03	0.58
35:DA:2815:C:H2'	35:DA:2816:C:H6	1.67	0.58
38:DD:182:LEU:O	38:DD:271:ILE:HG13	2.04	0.58
38:DD:18:VAL:HG12	38:DD:19:ALA:N	2.17	0.58
38:DD:228:PRO:HD3	38:DD:235:GLY:HA3	1.86	0.58
35:DA:1798:U:H5''	38:DD:260:ARG:HB3	1.86	0.58
39:DE:93:VAL:HG11	39:DE:181:LEU:O	2.03	0.58
41:DG:113:ARG:HG2	41:DG:113:ARG:HH11	1.68	0.58
41:DG:72:ARG:NH1	41:DG:86:MET:HG2	2.16	0.58
42:DH:71:LEU:N	42:DH:74:ASN:HD22	2.00	0.58
43:DI:132:PRO:HG2	43:DI:133:HIS:NE2	2.18	0.58
48:DR:79:LEU:HA	48:DR:83:ILE:HG13	1.85	0.58
50:DT:46:GLU:CD	50:DT:88:ILE:HD11	2.24	0.58
55:DY:12:THR:O	55:DY:75:ILE:HG22	2.04	0.58
55:DY:42:VAL:O	55:DY:64:GLU:HA	2.04	0.58
55:DY:7:VAL:CG2	55:DY:8:LYS:HZ3	2.15	0.58
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.67	0.58
1:AA:678:U:H2'	1:AA:679:C:C6	2.38	0.58
2:AB:8:LYS:O	2:AB:12:GLU:HG3	2.04	0.58
2:AB:44:LEU:CD1	2:AB:44:LEU:H	2.11	0.58
3:AC:30:ARG:HH22	14:AN:35:ARG:CA	2.17	0.58
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	1.84	0.58
4:AD:150:GLU:N	4:AD:150:GLU:OE1	2.34	0.58
8:AH:69:ARG:NH1	8:AH:69:ARG:HB2	2.18	0.58
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.18	0.58
11:AK:74:ALA:C	11:AK:76:GLY:H	2.06	0.58
35:BA:141:A:C8	35:BA:1408:C:O2'	2.51	0.58
35:BA:1762:A:H8	35:BA:1762:A:O5'	1.87	0.58
35:BA:2195:C:O2'	35:BA:2196:C:H5'	2.03	0.58
35:BA:2347:C:H2'	35:BA:2348:U:H6	1.68	0.58
35:BA:1637:A:H4'	35:BA:2711:A:O2'	2.03	0.58
35:BA:271(Q):G:HO2'	35:BA:271(R):G:H8	1.52	0.58
35:BA:2771:C:H2'	35:BA:2772:C:C6	2.38	0.58
38:BD:210:GLY:C	38:BD:212:SER:H	2.07	0.58
38:BD:26:LYS:HE2	38:BD:82:ILE:N	2.16	0.58
38:BD:43:ARG:HB3	38:BD:54:ARG:HB2	1.84	0.58
39:BE:24:THR:CB	39:BE:186:GLY:HA2	2.31	0.58
42:BH:155:SER:O	42:BH:156:ALA:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:28:THR:N	44:BN:106:MET:HE1	2.18	0.58
44:BN:96:GLU:H	44:BN:96:GLU:CD	2.05	0.58
45:BO:104:ARG:HH12	50:BT:35:LYS:HD3	1.69	0.58
47:BQ:140:ALA:HA	56:BZ:99:TYR:CD1	2.38	0.58
47:BQ:41:TRP:HB3	47:BQ:94:VAL:HG21	1.86	0.58
45:BO:107:ARG:HH11	50:BT:36:GLU:H	1.51	0.58
1:CA:1004:A:H2'	1:CA:1005:A:H5'	1.84	0.58
1:CA:1117:G:O3'	9:CI:104:ARG:HG3	2.03	0.58
1:CA:1466:C:C2'	1:CA:1467:G:H5'	2.34	0.58
1:CA:793:U:O2	1:CA:1516:G:H4'	2.04	0.58
1:CA:828:A:H2'	1:CA:829:G:O4'	2.03	0.58
4:CD:147:ALA:CB	4:CD:182:LYS:HB3	2.34	0.58
4:CD:38:TYR:CD2	4:CD:45:GLN:HB3	2.38	0.58
11:CK:74:ALA:C	11:CK:76:GLY:H	2.07	0.58
11:CK:95:ILE:HD13	11:CK:95:ILE:N	2.19	0.58
15:CO:3:ILE:O	15:CO:3:ILE:HG12	2.03	0.58
1:CA:1319:A:P	19:CS:5:LEU:HD21	2.43	0.58
22:CV:76:8AN:H2'	35:DA:2602:A:N6	2.19	0.58
28:D3:17:LYS:HD2	28:D3:20:LYS:HD2	1.85	0.58
30:D5:2:ALA:HA	35:DA:2015:A:C1'	2.32	0.58
31:D6:16:CYS:N	31:D6:47:THR:HG21	2.18	0.58
35:DA:1740:G:H4'	35:DA:1741:A:OP1	2.03	0.58
35:DA:1844:C:O2'	35:DA:1845:G:H5'	2.04	0.58
35:DA:2236:C:H2'	35:DA:2237:G:H5'	1.85	0.58
35:DA:2672:G:C3'	35:DA:2673:G:H5''	2.34	0.58
35:DA:2736:G:C8	35:DA:2736:G:H5'	2.38	0.58
35:DA:671:C:OP1	46:DP:43:GLY:HA2	2.03	0.58
37:DC:193:ILE:O	37:DC:197:GLU:N	2.36	0.58
39:DE:186:GLY:C	39:DE:188:VAL:H	2.06	0.58
39:DE:186:GLY:O	39:DE:188:VAL:N	2.36	0.58
45:DO:47:ILE:HG13	45:DO:48:PRO:HD2	1.86	0.58
46:DP:114:ILE:O	46:DP:130:PHE:HA	2.03	0.58
49:DS:17:ARG:C	49:DS:19:LYS:H	2.06	0.58
51:DU:8:VAL:HG11	51:DU:12:ARG:CZ	2.34	0.58
1:AA:1442:G:N7	1:AA:1442(B):A:C2	2.71	0.58
1:AA:243:A:O2'	1:AA:244:U:OP2	2.22	0.58
1:AA:828:A:H2'	1:AA:829:G:O4'	2.03	0.58
1:AA:948:C:C5	13:AM:106:ASN:ND2	2.72	0.58
2:AB:55:PHE:HA	2:AB:58:ILE:HG12	1.86	0.58
8:AH:119:LEU:HD12	8:AH:124:ALA:CA	2.34	0.58
10:AJ:27:ALA:HA	10:AJ:30:SER:OG	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:21:ILE:HG12	11:AK:94:ALA:HB1	1.86	0.58
1:AA:568:G:N7	12:AL:5:PRO:HD3	2.18	0.58
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.39	0.58
22:AY:68:C:H2'	22:AY:69:G:H8	1.68	0.58
25:B0:6:GLY:O	25:B0:7:LEU:HG	2.03	0.58
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.18	0.58
30:B5:7:PRO:HA	35:BA:2615:U:C2	2.38	0.58
35:BA:2645:G:C3'	35:BA:2646:C:H5'	2.27	0.58
35:BA:2672:G:C3'	35:BA:2673:G:H5''	2.34	0.58
35:BA:642:G:H21	35:BA:646:A:H2	1.50	0.58
39:BE:30:PRO:O	39:BE:32:PRO:HD3	2.04	0.58
43:BI:77:LEU:CD1	43:BI:101:LEU:HD13	2.29	0.58
43:BI:92:VAL:CG1	43:BI:120:ILE:HD12	2.32	0.58
43:BI:81:VAL:HG11	43:BI:88:ILE:HD13	1.84	0.58
45:BO:35:VAL:HG21	45:BO:69:ILE:CD1	2.34	0.58
46:BP:114:ILE:O	46:BP:130:PHE:HA	2.04	0.58
50:BT:28:VAL:HG13	50:BT:46:GLU:CA	2.25	0.58
50:BT:78:LEU:O	50:BT:78:LEU:HD23	2.04	0.58
56:BZ:117:LEU:HD13	56:BZ:144:LEU:HG	1.85	0.58
1:CA:1195:C:H2'	1:CA:1197:G:O4'	2.03	0.58
1:CA:1228:C:P	13:CM:108:ARG:HH22	2.27	0.58
1:CA:728:A:H2'	1:CA:729:A:C8	2.37	0.58
1:CA:801:U:H2'	1:CA:802:A:C8	2.39	0.58
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.18	0.58
6:CF:91:VAL:HG12	6:CF:92:LYS:O	2.03	0.58
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.03	0.58
13:CM:88:ARG:HA	13:CM:98:VAL:CG1	2.34	0.58
23:CW:50:U:O2'	23:CW:51:U:H5'	2.04	0.58
35:DA:1019:U:H3	35:DA:1142(A):A:H62	1.52	0.58
35:DA:1448:G:H2'	35:DA:1449:A:C8	2.39	0.58
35:DA:1685:C:H2'	35:DA:1686:C:C5'	2.25	0.58
30:D5:7:PRO:HG2	35:DA:2016:U:O2	2.04	0.58
25:D0:43:THR:H	35:DA:2331:G:H4'	1.68	0.58
35:DA:2334:G:C4	49:DS:15:ARG:NH1	2.71	0.58
35:DA:2543:G:H2'	35:DA:2544:G:H8	1.69	0.58
35:DA:2777:G:H5''	35:DA:2778:A:H5''	1.86	0.58
35:DA:443:A:H1'	35:DA:1201:C:O4'	2.04	0.58
35:DA:541:C:H2'	35:DA:542:C:C6	2.38	0.58
41:DG:63:ILE:HG13	41:DG:64:THR:N	2.19	0.58
44:DN:29:LYS:O	44:DN:33:LEU:HB2	2.04	0.58
46:DP:71:VAL:HG13	46:DP:72:PRO:CD	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DU:66:ASN:HB2	51:DU:76:TYR:HB2	1.86	0.58
55:DY:46:LYS:N	55:DY:62:GLU:HG2	2.18	0.58
56:DZ:81:ARG:HG3	56:DZ:81:ARG:O	2.04	0.58
1:AA:1116:C:H3'	1:AA:1117:G:H5''	1.84	0.58
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.39	0.58
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.03	0.58
1:AA:671:G:O2'	1:AA:672:U:H5'	2.04	0.58
1:AA:579:G:C5'	1:AA:728:A:H1'	2.33	0.58
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.86	0.58
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.16	0.58
1:AA:5:U:N3	4:AD:86:LYS:HE2	2.19	0.58
11:AK:27:ASN:HB2	11:AK:55:LYS:HE2	1.85	0.58
18:AR:50:ILE:HD11	18:AR:74:ARG:NH1	2.19	0.58
1:AA:1319:A:P	19:AS:5:LEU:HD21	2.44	0.58
35:BA:1685:C:H2'	35:BA:1686:C:C5'	2.26	0.58
35:BA:2415:G:H4'	46:BP:67:MET:H	1.68	0.58
48:BR:33:ARG:O	48:BR:34:ILE:HD13	2.03	0.58
50:BT:64:ARG:HA	50:BT:72:VAL:O	2.03	0.58
51:BU:59:ARG:O	51:BU:63:VAL:HG23	2.03	0.58
55:BY:46:LYS:HD3	55:BY:47:LYS:NZ	2.19	0.58
1:CA:1525:G:H2'	1:CA:1526:G:C8	2.39	0.58
1:CA:200:G:N2	1:CA:201:C:H1'	2.19	0.58
1:CA:264:U:O2'	17:CQ:64:PRO:HB2	2.03	0.58
4:CD:150:GLU:OE1	4:CD:150:GLU:N	2.32	0.58
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.04	0.58
13:CM:100:GLY:O	13:CM:101:GLN:HG3	2.04	0.58
13:CM:65:LYS:O	13:CM:66:LEU:HG	2.03	0.58
35:DA:1146:C:O2'	35:DA:1147:C:H5'	2.04	0.58
35:DA:1697:G:C3'	35:DA:1698:A:H5''	2.28	0.58
35:DA:1863:G:H2'	35:DA:1864:U:O4'	2.03	0.58
35:DA:1637:A:H4'	35:DA:2711:A:O2'	2.04	0.58
35:DA:861:A:H2'	35:DA:862:G:O4'	2.04	0.58
38:DD:210:GLY:C	38:DD:212:SER:N	2.57	0.58
41:DG:111:LEU:O	41:DG:112:PRO:O	2.21	0.58
43:DI:92:VAL:HG12	43:DI:120:ILE:HB	1.84	0.58
46:DP:34:GLY:O	46:DP:35:HIS:CB	2.52	0.58
47:DQ:45:GLN:O	47:DQ:49:ALA:HB2	2.04	0.58
47:DQ:63:LYS:HZ3	56:DZ:175:VAL:HB	1.67	0.58
55:DY:45:VAL:HG13	55:DY:60:PHE:O	2.04	0.58
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.03	0.57
1:AA:165:C:H2'	1:AA:166:G:H8	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.85	0.57
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	2.04	0.57
9:AI:17:VAL:HG13	9:AI:81:ILE:HD13	1.84	0.57
13:AM:25:ILE:HD11	13:AM:66:LEU:CD2	2.35	0.57
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.18	0.57
25:B0:36:ILE:HD12	25:B0:37:LEU:N	2.19	0.57
25:B0:4:LYS:O	25:B0:5:LYS:HB2	2.04	0.57
34:B9:24:TYR:O	34:B9:25:VAL:HG23	2.04	0.57
35:BA:102:G:OP1	35:BA:102:G:H4'	2.03	0.57
35:BA:1740:G:H4'	35:BA:1741:A:OP1	2.04	0.57
35:BA:1799:G:H5'	35:BA:1819:A:N6	2.19	0.57
35:BA:1924:C:H2'	35:BA:1925:C:H6	1.67	0.57
35:BA:2223:G:H2'	35:BA:2224:G:H5'	1.86	0.57
35:BA:2443:C:H2'	35:BA:2444:G:H8	1.69	0.57
35:BA:285:C:H2'	35:BA:286:C:H5''	1.86	0.57
36:BB:45:A:OP2	41:BG:96:ARG:NH2	2.37	0.57
38:BD:110:GLY:O	38:BD:112:GLN:HG3	2.03	0.57
35:BA:2680:C:H5'	39:BE:189:PRO:HA	1.85	0.57
39:BE:53:PRO:O	39:BE:54:GLN:O	2.22	0.57
47:BQ:109:VAL:HG12	47:BQ:110:THR:N	2.19	0.57
47:BQ:43:THR:OG1	47:BQ:45:GLN:HG2	2.04	0.57
35:BA:2469:A:O2'	47:BQ:56:ARG:HD3	2.04	0.57
50:BT:82:LEU:C	50:BT:84:GLN:H	2.06	0.57
52:BV:5:VAL:HG21	52:BV:35:LEU:HG	1.85	0.57
55:BY:45:VAL:HG13	55:BY:60:PHE:O	2.04	0.57
1:CA:1363(A):A:C4'	1:CA:1364:U:H5''	2.29	0.57
1:CA:1504:G:C8	1:CA:1504:G:H5'	2.39	0.57
1:CA:552:U:O2'	1:CA:553:A:H5'	2.04	0.57
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.85	0.57
7:CG:121:ALA:O	7:CG:125:MET:HG3	2.03	0.57
7:CG:50:ILE:O	7:CG:54:THR:HG22	2.03	0.57
7:CG:57:GLU:CD	7:CG:57:GLU:H	2.07	0.57
8:CH:12:ARG:HD3	8:CH:25:ASP:O	2.04	0.57
9:CI:17:VAL:HG13	9:CI:81:ILE:HD13	1.85	0.57
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.85	0.57
11:CK:57:THR:HG23	11:CK:58:PRO:HD2	1.84	0.57
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.87	0.57
13:CM:82:MET:HG2	13:CM:82:MET:O	2.04	0.57
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.33	0.57
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.04	0.57
32:D7:11:LYS:HE2	35:DA:686:G:C5'	2.32	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1755:A:H2'	35:DA:1756:G:H5'	1.86	0.57
35:DA:2133:G:H2'	35:DA:2157:G:N2	2.19	0.57
35:DA:2619:C:H1'	39:DE:156:MET:HE1	1.86	0.57
35:DA:361:G:H2'	35:DA:362:U:H5''	1.86	0.57
35:DA:874:G:O2'	35:DA:875:G:H5'	2.04	0.57
44:DN:42:TRP:CE3	44:DN:48:MET:HE1	2.39	0.57
46:DP:96:THR:O	46:DP:100:LEU:HD23	2.04	0.57
47:DQ:59:ARG:O	47:DQ:60:ARG:HB2	2.04	0.57
30:D5:20:ARG:NH1	53:DW:15:ARG:NH1	2.52	0.57
53:DW:84:ARG:HB2	53:DW:96:ILE:CG2	2.34	0.57
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.86	0.57
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.85	0.57
4:AD:61:LYS:HA	4:AD:203:VAL:HG22	1.85	0.57
5:AE:76:ILE:HG23	5:AE:142:LEU:HD13	1.85	0.57
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.86	0.57
7:AG:60:LYS:NZ	7:AG:64:GLN:HB2	2.18	0.57
20:AT:54:LYS:HA	20:AT:57:ARG:NH2	2.18	0.57
22:AV:67:C:H2'	22:AV:68:C:C6	2.38	0.57
25:B0:43:THR:H	35:BA:2331:G:H4'	1.68	0.57
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.19	0.57
35:BA:1448:G:H2'	35:BA:1449:A:C8	2.39	0.57
26:B1:26:ARG:NH2	35:BA:389:G:H5''	2.18	0.57
35:BA:709:U:H2'	35:BA:710:G:C8	2.39	0.57
37:BC:40:THR:HG21	37:BC:215:THR:CB	2.34	0.57
39:BE:108:SER:O	39:BE:162:ALA:HA	2.04	0.57
40:BF:116:ASP:OD1	40:BF:119:ARG:NH2	2.36	0.57
41:BG:22:ARG:NH1	41:BG:22:ARG:HB3	2.19	0.57
42:BH:68:THR:O	42:BH:70:THR:O	2.22	0.57
44:BN:23:LEU:N	44:BN:23:LEU:HD23	2.16	0.57
33:B8:13:ARG:HD2	46:BP:61:ARG:HH11	1.69	0.57
50:BT:27:THR:CG2	50:BT:28:VAL:H	2.06	0.57
55:BY:7:VAL:CB	55:BY:8:LYS:NZ	2.67	0.57
56:BZ:145:GLU:HG3	56:BZ:146:ILE:HG12	1.86	0.57
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.03	0.57
1:CA:665:A:H2'	1:CA:725:G:N2	2.19	0.57
2:CB:178:ARG:O	8:CH:71:GLY:HA2	2.04	0.57
5:CE:103:GLY:O	5:CE:105:VAL:N	2.37	0.57
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.04	0.57
8:CH:119:LEU:HD12	8:CH:124:ALA:CA	2.33	0.57
19:CS:13:ASP:O	19:CS:15:LEU:N	2.36	0.57
35:DA:1116:C:H2'	35:DA:1117:G:H5'	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:176:G:O2'	35:DA:177:G:H5'	2.04	0.57
35:DA:445:C:O2'	35:DA:446:G:H5'	2.04	0.57
35:DA:782:A:H5'	35:DA:783:A:C2	2.39	0.57
39:DE:101:ARG:NH1	39:DE:169:ASN:HD22	1.99	0.57
43:DI:72:LEU:HD21	43:DI:107:VAL:HG21	1.86	0.57
44:DN:28:THR:HG22	44:DN:29:LYS:N	2.20	0.57
46:DP:59:LEU:CA	46:DP:61:ARG:CZ	2.67	0.57
49:DS:69:VAL:O	49:DS:72:ALA:HB3	2.03	0.57
51:DU:55:ARG:HA	51:DU:58:ARG:CG	2.34	0.57
55:DY:95:LYS:HE2	55:DY:100:ALA:CB	2.34	0.57
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.19	0.57
1:AA:880:C:OP2	12:AL:6:THR:HG21	2.03	0.57
7:AG:20:ASP:HB3	7:AG:23:VAL:CG2	2.33	0.57
9:AI:116:LYS:O	9:AI:118:LYS:N	2.38	0.57
9:AI:26:VAL:HG13	9:AI:61:ALA:O	2.04	0.57
10:AJ:8:LEU:HD23	10:AJ:95:GLU:O	2.05	0.57
15:AO:76:GLU:O	15:AO:78:TYR:N	2.37	0.57
17:AQ:76:LEU:HG	17:AQ:77:VAL:N	2.19	0.57
1:AA:1054:C:N4	22:AY:34:G:H1'	2.19	0.57
28:B3:19:GLN:HE22	28:B3:52:HIS:CE1	2.18	0.57
35:BA:1593:G:H2'	35:BA:1594:G:H5''	1.85	0.57
30:B5:2:ALA:HA	35:BA:2015:A:C1'	2.30	0.57
35:BA:484:C:H2'	35:BA:485:C:H6	1.70	0.57
41:BG:121:ASN:C	41:BG:121:ASN:HD22	2.06	0.57
45:BO:26:LYS:HB2	45:BO:30:ALA:CB	2.35	0.57
49:BS:48:LEU:N	49:BS:48:LEU:HD12	2.18	0.57
2:CB:178:ARG:HH21	8:CH:74:PRO:HG3	1.68	0.57
2:CB:212:GLN:HG3	2:CB:235:SER:HB2	1.86	0.57
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	1.87	0.57
5:CE:76:ILE:HG23	5:CE:142:LEU:HD13	1.87	0.57
13:CM:89:GLY:O	13:CM:92:HIS:HB2	2.03	0.57
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.70	0.57
19:CS:24:ALA:O	19:CS:25:LYS:HB2	2.04	0.57
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.19	0.57
27:D2:21:LEU:HD12	27:D2:64:LEU:HG	1.85	0.57
30:D5:20:ARG:NH1	35:DA:1266:G:OP2	2.37	0.57
35:DA:1762:A:H8	35:DA:1762:A:O5'	1.85	0.57
35:DA:2707:G:H2'	35:DA:2708:G:H8	1.69	0.57
35:DA:969:U:H2'	35:DA:970:C:C6	2.39	0.57
42:DH:25:LYS:HB3	42:DH:32:GLU:OE2	2.05	0.57
44:DN:2:LYS:O	44:DN:4:TYR:CZ	2.57	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:26:LYS:HE2	48:DR:71:GLN:H	1.69	0.57
49:DS:65:VAL:O	49:DS:67:ARG:N	2.38	0.57
51:DU:88:ILE:O	51:DU:88:ILE:HG13	2.03	0.57
51:DU:92:ARG:HB2	51:DU:92:ARG:CZ	2.32	0.57
53:DW:22:ASP:HA	53:DW:25:ARG:HH12	1.69	0.57
56:DZ:31:ARG:HD2	56:DZ:32:HIS:CE1	2.39	0.57
1:AA:1206:G:H4'	3:AC:192:THR:O	2.04	0.57
1:AA:1223:C:OP2	1:AA:1224:G:H2'	2.04	0.57
1:AA:1442(A):G:H3'	1:AA:1442(A):G:OP2	2.04	0.57
1:AA:200:G:N2	1:AA:201:C:H1'	2.20	0.57
5:AE:93:PRO:HA	5:AE:118:ILE:HD12	1.85	0.57
6:AF:91:VAL:HG11	18:AR:72:ARG:NH1	2.19	0.57
6:AF:99:ALA:HB1	18:AR:23:LYS:NZ	2.19	0.57
13:AM:82:MET:HG2	13:AM:82:MET:O	2.03	0.57
16:AP:82:GLN:NE2	16:AP:82:GLN:N	2.53	0.57
22:AV:68:C:C3'	22:AV:69:G:H5''	2.33	0.57
31:B6:15:GLU:HG3	31:B6:47:THR:OG1	2.04	0.57
33:B8:61:LEU:HD12	33:B8:63:PRO:CD	2.34	0.57
35:BA:1844:C:H2'	35:BA:1845:G:H8	1.69	0.57
35:BA:2732:G:C2'	35:BA:2733:A:H5'	2.33	0.57
35:BA:869:G:O2'	35:BA:870:A:H5'	2.03	0.57
39:BE:70:ALA:O	39:BE:71:GLY:C	2.41	0.57
42:BH:118:PRO:HG2	42:BH:121:ILE:HB	1.85	0.57
42:BH:137:ASP:OD1	42:BH:138:LYS:N	2.37	0.57
45:BO:105:GLU:HA	45:BO:108:GLU:CD	2.24	0.57
46:BP:101:VAL:HG12	46:BP:107:LYS:H	1.68	0.57
54:BX:84:ALA:HB3	54:BX:87:GLN:OE1	2.05	0.57
55:BY:43:ASN:O	55:BY:44:ILE:C	2.41	0.57
55:BY:2:ARG:N	55:BY:4:LYS:HG2	2.19	0.57
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.04	0.57
1:CA:1439:C:H42	1:CA:1462:G:H1	1.52	0.57
1:CA:543:C:H2'	1:CA:544:G:H8	1.69	0.57
1:CA:591:U:H2'	1:CA:592:G:C8	2.39	0.57
1:CA:67:C:H2'	1:CA:68:G:C8	2.39	0.57
1:CA:511:C:H1'	4:CD:43:HIS:NE2	2.17	0.57
5:CE:101:ILE:HG12	5:CE:119:LEU:HA	1.85	0.57
7:CG:60:LYS:NZ	7:CG:64:GLN:HB2	2.19	0.57
7:CG:79:ARG:HH11	7:CG:79:ARG:HG3	1.69	0.57
15:CO:76:GLU:C	15:CO:78:TYR:H	2.07	0.57
20:CT:26:ASN:HB3	20:CT:71:THR:OG1	2.04	0.57
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:152:G:H1	35:DA:174:C:N4	1.95	0.57
35:DA:2808:U:O2'	35:DA:2809:A:H5'	2.03	0.57
35:DA:2828:C:O2'	35:DA:2829:C:H5'	2.04	0.57
35:DA:941:A:H4'	46:DP:35:HIS:NE2	2.19	0.57
38:DD:26:LYS:HE2	38:DD:82:ILE:N	2.17	0.57
40:DF:83:PHE:O	40:DF:85:GLY:N	2.37	0.57
13:CM:7:VAL:HG22	41:DG:115:ARG:HA	1.86	0.57
46:DP:101:VAL:C	46:DP:103:ALA:H	2.08	0.57
55:DY:38:ILE:HG22	55:DY:39:VAL:N	2.19	0.57
56:DZ:52:SER:OG	56:DZ:53:ILE:HD12	2.04	0.57
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.69	0.57
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.39	0.57
1:AA:243:A:H4'	1:AA:244:U:C5'	2.34	0.57
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.39	0.57
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.19	0.57
7:AG:37:ASN:ND2	9:AI:40:LEU:HA	2.19	0.57
8:AH:123:GLU:O	8:AH:126:LYS:HB3	2.04	0.57
13:AM:91:ARG:NH1	19:AS:81:ARG:NH2	2.52	0.57
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.86	0.57
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.19	0.57
23:AW:68:C:O2'	23:AW:69:G:H5'	2.05	0.57
29:B4:39:ARG:C	29:B4:40:ILE:HD12	2.25	0.57
31:B6:36:LEU:HD13	31:B6:50:ARG:HH12	1.68	0.57
35:BA:1350:C:O2'	35:BA:1351:C:H5'	2.04	0.57
35:BA:1709:U:H2'	35:BA:1710:C:C6	2.38	0.57
35:BA:1925:C:O2'	35:BA:1926:U:H5'	2.04	0.57
35:BA:2069:G:H2'	35:BA:2070:G:H5'	1.85	0.57
35:BA:2818:G:O2'	35:BA:2819:G:H5'	2.05	0.57
35:BA:549:G:H2'	35:BA:551:G:O4'	2.05	0.57
35:BA:2175:C:C1'	37:BC:215:THR:HA	2.33	0.57
42:BH:41:MET:SD	42:BH:55:PRO:HD3	2.45	0.57
45:BO:88:ASN:ND2	45:BO:90:GLN:HB2	2.13	0.57
47:BQ:137:TYR:N	47:BQ:137:TYR:HD2	1.98	0.57
47:BQ:18:LYS:HD2	47:BQ:18:LYS:N	2.18	0.57
47:BQ:59:ARG:HG3	47:BQ:59:ARG:HH11	1.68	0.57
49:BS:35:ILE:H	49:BS:53:SER:HB3	1.70	0.57
51:BU:92:ARG:HG2	51:BU:92:ARG:HH11	1.67	0.57
52:BV:87:HIS:NE2	52:BV:89:GLN:HG2	2.19	0.57
53:BW:82:LEU:HD12	53:BW:98:LYS:O	2.04	0.57
54:BX:71:GLY:C	54:BX:72:LYS:HD2	2.24	0.57
55:BY:38:ILE:C	55:BY:39:VAL:HG23	2.24	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:353:A:H5'	1:CA:353:A:C8	2.34	0.57
1:CA:37:U:O2'	1:CA:38:G:H5'	2.05	0.57
1:CA:389:A:H2'	1:CA:390:C:C5'	2.34	0.57
1:CA:644:G:H2'	1:CA:645:C:H5'	1.86	0.57
2:CB:97:TRP:CZ3	2:CB:173:ALA:HA	2.40	0.57
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.34	0.57
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.68	0.57
1:CA:1226:C:O2'	13:CM:111:LYS:NZ	2.37	0.57
15:CO:74:ASP:C	15:CO:76:GLU:H	2.07	0.57
16:CP:20:VAL:HG21	16:CP:32:TYR:HB3	1.86	0.57
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.39	0.57
22:CY:43:C:OP1	22:CY:43:C:H4'	2.04	0.57
26:D1:71:TYR:CE1	43:DI:27:ARG:HD2	2.39	0.57
35:DA:1639:U:O2'	35:DA:1640:C:H5''	2.04	0.57
35:DA:2369:A:O2'	35:DA:2370:G:H5'	2.05	0.57
35:DA:263:C:H2'	35:DA:264:C:O4'	2.05	0.57
35:DA:848:G:H8	35:DA:848:G:H5'	1.69	0.57
35:DA:986:C:O2'	35:DA:987:G:H5'	2.05	0.57
38:DD:31:LYS:HZ2	38:DD:94:LEU:HD11	1.69	0.57
39:DE:93:VAL:HG12	39:DE:175:VAL:HG23	1.86	0.57
35:DA:320:A:H2'	40:DF:136:THR:HG21	1.87	0.57
44:DN:17:ASP:OD1	44:DN:56:ASN:HB3	2.04	0.57
44:DN:67:LEU:HB3	44:DN:88:GLU:HG2	1.86	0.57
44:DN:90:MET:HB3	44:DN:98:VAL:HG22	1.84	0.57
46:DP:125:VAL:O	46:DP:145:PRO:HD2	2.05	0.57
50:DT:89:VAL:HG21	50:DT:91:ARG:NH2	2.20	0.57
1:AA:1439:C:N4	1:AA:1462:G:H1	2.01	0.57
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.15	0.57
4:AD:206:PHE:O	4:AD:209:ARG:HB2	2.05	0.57
12:AL:27:LEU:HG	12:AL:62:SER:OG	2.04	0.57
35:BA:1116:C:H2'	35:BA:1117:G:H5'	1.87	0.57
35:BA:768:G:O2'	35:BA:1379:A:N6	2.37	0.57
35:BA:1686:C:H2'	35:BA:1687:G:O4'	2.05	0.57
35:BA:2113:U:H2'	35:BA:2114:A:H8	1.69	0.57
35:BA:2306:C:C5	35:BA:2307:G:H1'	2.40	0.57
35:BA:247:G:H4'	35:BA:386:G:C5	2.40	0.57
35:BA:438:G:O2'	35:BA:440:G:H5'	2.04	0.57
35:BA:481:G:O5'	55:BY:47:LYS:HE2	2.05	0.57
35:BA:588:U:H2'	35:BA:589:C:C6	2.40	0.57
35:BA:627:A:N7	46:BP:84:ASN:ND2	2.51	0.57
35:BA:808:G:H2'	35:BA:809:G:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:130:ALA:HA	38:BD:192:THR:HA	1.86	0.57
38:BD:65:ILE:H	38:BD:65:ILE:CD1	2.17	0.57
41:BG:81:LYS:O	41:BG:82:LEU:O	2.23	0.57
50:BT:106:SER:O	50:BT:107:ASP:CB	2.52	0.57
51:BU:34:LYS:HA	51:BU:34:LYS:HE2	1.85	0.57
55:BY:16:ALA:HA	55:BY:21:LYS:HD2	1.86	0.57
55:BY:28:LYS:N	55:BY:28:LYS:HZ2	2.02	0.57
56:BZ:31:ARG:HB2	56:BZ:32:HIS:CE1	2.40	0.57
56:BZ:47:VAL:HA	56:BZ:50:GLN:OE1	2.04	0.57
56:BZ:59:LEU:CD1	56:BZ:69:THR:HG21	2.35	0.57
1:CA:1504:G:H5'	1:CA:1504:G:H8	1.70	0.57
1:CA:165:C:H2'	1:CA:166:G:H8	1.68	0.57
1:CA:580:U:H2'	1:CA:581:G:O4'	2.03	0.57
2:CB:154:LEU:HD23	2:CB:154:LEU:N	2.20	0.57
3:CC:113:ALA:HA	3:CC:116:VAL:CG2	2.35	0.57
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.04	0.57
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.20	0.57
1:CA:948:C:C5	13:CM:106:ASN:ND2	2.72	0.57
6:CF:62:TRP:HB2	18:CR:35:ARG:HH12	1.69	0.57
20:CT:104:LEU:HD23	20:CT:105:SER:H	1.68	0.57
23:CW:44:G:H5''	23:CW:45:U:OP2	2.03	0.57
27:D2:43:GLN:NE2	27:D2:44:LEU:H	2.02	0.57
27:D2:4:SER:O	27:D2:7:ARG:HG2	2.04	0.57
35:DA:1019:U:H2'	35:DA:1020:A:C8	2.38	0.57
35:DA:1363:C:H2'	35:DA:1364:G:C8	2.40	0.57
35:DA:2506:U:C3'	35:DA:2506:U:C6	2.87	0.57
35:DA:2693:A:H2'	35:DA:2694:G:H8	1.69	0.57
35:DA:523:C:C2'	35:DA:524:U:H5'	2.34	0.57
35:DA:855:G:H2'	35:DA:856:C:H6	1.68	0.57
36:DB:29:A:H2'	36:DB:30:C:C6	2.40	0.57
38:DD:26:LYS:CD	38:DD:81:ALA:HB1	2.32	0.57
39:DE:2:LYS:HE2	39:DE:95:ILE:HG22	1.85	0.57
35:DA:481:G:O5'	55:DY:47:LYS:HE2	2.03	0.57
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.40	0.57
1:AA:312:C:H2'	1:AA:313:A:C8	2.39	0.57
6:AF:82:ARG:HB2	6:AF:85:VAL:CG2	2.35	0.57
10:AJ:33:GLN:N	10:AJ:75:ILE:HG12	2.19	0.57
11:AK:33:THR:HB	11:AK:38:ASN:N	2.20	0.57
13:AM:100:GLY:O	13:AM:101:GLN:HG3	2.05	0.57
35:BA:1434:A:H61	35:BA:1558:A:H62	1.52	0.57
35:BA:158:U:H2'	35:BA:158:U:O2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2025:C:H2'	35:BA:2026:C:C6	2.40	0.57
35:BA:207:A:H2'	35:BA:208:C:O4'	2.05	0.57
35:BA:2206:G:H21	35:BA:2207:G:C5'	2.07	0.57
35:BA:2335:A:O2'	35:BA:2336:A:H5''	2.04	0.57
35:BA:889:C:H1'	35:BA:890:A:O4'	2.04	0.57
39:BE:34:VAL:HG22	39:BE:48:GLN:NE2	2.19	0.57
41:BG:91:ARG:HH11	41:BG:91:ARG:HG3	1.69	0.57
43:BI:81:VAL:O	43:BI:82:ARG:CB	2.52	0.57
43:BI:92:VAL:O	43:BI:92:VAL:HG22	2.04	0.57
48:BR:100:LEU:HD22	48:BR:100:LEU:H	1.70	0.57
50:BT:28:VAL:HG22	50:BT:46:GLU:C	2.24	0.57
51:BU:8:VAL:HG11	51:BU:12:ARG:CZ	2.34	0.57
47:BQ:130:LYS:HZ3	56:BZ:80:ARG:HD2	1.70	0.57
1:CA:161:A:O2'	1:CA:162:A:H5'	2.04	0.57
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.40	0.57
1:CA:636:U:H2'	1:CA:637:G:H8	1.69	0.57
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	2.05	0.57
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.04	0.57
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.87	0.57
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.04	0.57
7:CG:73:MET:HG2	7:CG:90:GLU:HA	1.87	0.57
9:CI:63:ILE:HD13	9:CI:77:ILE:HG23	1.87	0.57
1:CA:1199:U:H4'	10:CJ:54:PHE:CE1	2.39	0.57
13:CM:10:PRO:CB	13:CM:18:ALA:HB1	2.34	0.57
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.86	0.57
23:CW:15:G:N2	23:CW:59:U:C2	2.72	0.57
1:CA:1054:C:N3	22:CY:34:G:H1'	2.19	0.57
30:D5:42:PRO:HB2	30:D5:43:HIS:CD2	2.39	0.57
31:D6:19:ARG:CG	31:D6:20:ASN:N	2.51	0.57
34:D9:24:TYR:O	34:D9:25:VAL:HG23	2.04	0.57
35:DA:102:G:OP1	35:DA:102:G:H4'	2.04	0.57
35:DA:1040:C:H6	35:DA:1040:C:OP2	1.88	0.57
35:DA:1503:U:H2'	35:DA:1504:C:H6	1.70	0.57
35:DA:1767:C:O2'	35:DA:1768:U:H5'	2.04	0.57
35:DA:588:U:H2'	35:DA:589:C:C6	2.39	0.57
35:DA:626:U:O2	46:DP:105:LEU:HG	2.05	0.57
35:DA:952:G:P	47:DQ:16:ARG:HH22	2.27	0.57
39:DE:67:PHE:HD2	39:DE:68:ALA:H	1.51	0.57
47:DQ:18:LYS:N	47:DQ:18:LYS:HD2	2.20	0.57
49:DS:105:ALA:C	49:DS:107:GLU:H	2.06	0.57
55:DY:96:ILE:HD12	55:DY:99:CYS:HB3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:161:A:O2'	1:AA:162:A:H5'	2.05	0.57
1:AA:339:C:H2'	1:AA:340:U:H6	1.68	0.57
1:AA:413:G:N2	1:AA:429:U:OP2	2.35	0.57
2:AB:212:GLN:HG3	2:AB:235:SER:HB2	1.86	0.57
3:AC:110:ASN:C	3:AC:112:SER:H	2.08	0.57
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.19	0.57
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.05	0.57
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.40	0.57
13:AM:20:THR:C	13:AM:22:ILE:H	2.08	0.57
15:AO:73:GLU:O	15:AO:74:ASP:HB2	2.05	0.57
15:AO:76:GLU:C	15:AO:78:TYR:H	2.08	0.57
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.35	0.57
19:AS:67:VAL:HG23	19:AS:68:GLY:H	1.69	0.57
31:B6:28:ARG:O	31:B6:32:ASN:CB	2.52	0.57
33:B8:50:LEU:O	33:B8:52:LYS:N	2.37	0.57
35:BA:1042:G:H5'	35:BA:1043:C:OP2	2.05	0.57
35:BA:1171:G:H3'	35:BA:1173:G:C4'	2.26	0.57
35:BA:1355:G:O2'	35:BA:1356:G:H5'	2.03	0.57
33:B8:34:TRP:HB2	35:BA:2420:C:OP1	2.04	0.57
35:BA:2502:G:H5''	35:BA:2503:A:H5''	1.87	0.57
35:BA:922:U:H2'	35:BA:923:C:C6	2.40	0.57
38:BD:221:VAL:HG22	38:BD:226:MET:CE	2.34	0.57
43:BI:81:VAL:HG12	43:BI:82:ARG:N	2.18	0.57
46:BP:94:GLU:HG3	46:BP:124:LYS:HB3	1.87	0.57
46:BP:34:GLY:O	46:BP:35:HIS:CB	2.52	0.57
35:BA:832:G:OP1	46:BP:40:SER:HB3	2.04	0.57
49:BS:65:VAL:C	49:BS:67:ARG:N	2.58	0.57
35:BA:2683:C:P	50:BT:53:ARG:NH2	2.78	0.57
53:BW:10:VAL:HG21	53:BW:103:ILE:HG13	1.86	0.57
55:BY:42:VAL:HG12	55:BY:65:ALA:HB3	1.87	0.57
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.40	0.57
1:CA:167:G:H2'	1:CA:168:G:H8	1.70	0.57
1:CA:636:U:H2'	1:CA:637:G:C8	2.40	0.57
1:CA:773:G:O2'	1:CA:774:G:H5'	2.04	0.57
1:CA:895:G:H2'	1:CA:896:C:C6	2.40	0.57
2:CB:160:ASP:O	2:CB:161:ALA:HB2	2.04	0.57
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.20	0.57
5:CE:16:THR:O	5:CE:17:ALA:HB2	2.04	0.57
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.33	0.57
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.25	0.57
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D5:10:LYS:HB2	35:DA:2017:U:O2	2.05	0.57
34:D9:10:ILE:HD11	34:D9:34:GLN:NE2	2.19	0.57
35:DA:1332:G:H22	35:DA:1609:A:C2'	2.18	0.57
35:DA:1636:C:H2'	35:DA:1637:A:C8	2.40	0.57
35:DA:2206:G:H21	35:DA:2207:G:C5'	2.10	0.57
35:DA:2335:A:O2'	35:DA:2336:A:H5''	2.03	0.57
30:D5:7:PRO:HA	35:DA:2615:U:C2	2.39	0.57
35:DA:2777:G:H4'	35:DA:2778:A:H5'	1.86	0.57
41:DG:114:ILE:HG12	41:DG:140:ILE:HD13	1.87	0.57
46:DP:63:PRO:C	46:DP:65:ARG:H	2.05	0.57
47:DQ:62:GLY:H	47:DQ:109:VAL:HG22	1.69	0.57
48:DR:74:LYS:HD2	48:DR:77:ARG:NH2	2.20	0.57
50:DT:67:SER:O	50:DT:68:TYR:HB2	2.05	0.57
30:D5:20:ARG:NH2	53:DW:15:ARG:NH1	2.53	0.57
55:DY:43:ASN:O	55:DY:44:ILE:C	2.43	0.57
56:DZ:98:MET:O	56:DZ:98:MET:HG3	2.03	0.57
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.05	0.57
1:AA:1434:A:C2'	1:AA:1435:G:H5'	2.34	0.57
1:AA:665:A:H2'	1:AA:725:G:N2	2.19	0.57
1:AA:946:A:H2'	1:AA:947:G:C8	2.40	0.57
7:AG:50:ILE:O	7:AG:54:THR:HG22	2.05	0.57
9:AI:3:GLN:CG	9:AI:20:ARG:HH12	2.17	0.57
11:AK:95:ILE:HD13	11:AK:95:ILE:N	2.19	0.57
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.69	0.57
35:BA:1266:G:O4'	53:BW:15:ARG:NH2	2.37	0.57
35:BA:1863:G:H2'	35:BA:1864:U:O4'	2.04	0.57
35:BA:78:A:H2'	35:BA:79:G:H8	1.69	0.57
41:BG:128:ARG:HB3	41:BG:130:ASN:ND2	2.20	0.57
42:BH:46:GLU:O	42:BH:47:GLU:HB3	2.05	0.57
44:BN:125:GLY:HA3	44:BN:126:PRO:C	2.22	0.57
50:BT:23:ARG:HB2	50:BT:24:PRO:HD2	1.86	0.57
51:BU:13:LYS:HD3	51:BU:13:LYS:N	2.20	0.57
54:BX:12:VAL:HG11	54:BX:27:THR:OG1	2.05	0.57
35:BA:71:A:H2	54:BX:31:HIS:CE1	2.22	0.57
55:BY:17:SER:OG	55:BY:18:GLY:N	2.36	0.57
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.70	0.57
1:CA:1525:G:H2'	1:CA:1526:G:H8	1.70	0.57
1:CA:190:U:H2'	1:CA:191:G:C8	2.39	0.57
4:CD:134:ASP:OD2	4:CD:135:LEU:HD22	2.04	0.57
8:CH:123:GLU:O	8:CH:126:LYS:HB3	2.04	0.57
11:CK:69:ALA:O	11:CK:73:MET:HG2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:100:GLY:C	13:CM:101:GLN:HG3	2.25	0.57
23:CW:57:G:H2'	23:CW:58:A:C5'	2.35	0.57
27:D2:69:ARG:O	27:D2:70:GLN:CB	2.52	0.57
35:DA:1336:A:H2'	35:DA:1337:G:C8	2.40	0.57
35:DA:1593:G:H2'	35:DA:1594:G:H5''	1.86	0.57
35:DA:1910:G:O2'	35:DA:1911:U:H5'	2.04	0.57
35:DA:2113:U:H2'	35:DA:2114:A:H8	1.70	0.57
35:DA:549:G:H2'	35:DA:551:G:O4'	2.05	0.57
35:DA:78:A:H2'	35:DA:79:G:H8	1.70	0.57
40:DF:160:ASN:OD1	40:DF:163:VAL:HG23	2.05	0.57
45:DO:107:ARG:HH11	50:DT:36:GLU:H	1.53	0.57
50:DT:95:ARG:HB3	50:DT:95:ARG:HH11	1.69	0.57
51:DU:90:VAL:CG1	52:DV:39:LEU:HG	2.35	0.57
51:DU:44:ASN:ND2	52:DV:75:PHE:HB3	2.19	0.57
35:DA:2012:G:O2'	53:DW:96:ILE:HD11	2.04	0.57
1:AA:1228:C:O3'	13:AM:116:THR:HA	2.05	0.57
1:AA:1276:G:C2'	1:AA:1277:C:H5'	2.34	0.57
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.40	0.57
1:AA:489:C:H2'	1:AA:490:G:C8	2.40	0.57
1:AA:924:C:H2'	1:AA:925:G:C8	2.39	0.57
2:AB:154:LEU:HD23	2:AB:154:LEU:N	2.19	0.57
8:AH:16:ALA:HB2	8:AH:24:THR:OG1	2.04	0.57
12:AL:62:SER:O	12:AL:64:TYR:HD1	1.87	0.57
26:B1:94:LEU:O	26:B1:96:LYS:N	2.38	0.57
27:B2:3:LEU:CD2	27:B2:7:ARG:HH12	2.11	0.57
31:B6:22:ALA:HB2	31:B6:39:TYR:CE2	2.40	0.57
35:BA:2334:G:C4	49:BS:15:ARG:NH1	2.73	0.57
35:BA:2402:C:H2'	35:BA:2403:C:H5'	1.86	0.57
35:BA:2787:C:O2	35:BA:2787:C:C2'	2.52	0.57
43:BI:120:ILE:CG2	43:BI:121:LYS:N	2.68	0.57
45:BO:93:PRO:HB3	45:BO:114:ILE:CD1	2.35	0.57
50:BT:89:VAL:HG21	50:BT:91:ARG:NH2	2.20	0.57
35:BA:1598:C:H5'	54:BX:36:LYS:HB2	1.86	0.57
1:CA:1000:U:H2'	1:CA:1001:A:C8	2.40	0.57
1:CA:1104:G:O5'	2:CB:111:ARG:HD2	2.05	0.57
1:CA:1276:G:C2'	1:CA:1277:C:H5'	2.34	0.57
1:CA:222:U:H2'	1:CA:223:U:C6	2.40	0.57
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.35	0.57
2:CB:51:LEU:HB3	2:CB:55:PHE:CE2	2.39	0.57
5:CE:67:VAL:HG22	5:CE:68:GLU:N	2.20	0.57
10:CJ:4:ILE:HG12	10:CJ:100:THR:HG21	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:9:ILE:N	13:CM:9:ILE:HD12	2.20	0.57
15:CO:73:GLU:O	15:CO:74:ASP:HB2	2.04	0.57
30:D5:43:HIS:HA	35:DA:2884:U:H5	1.69	0.57
31:D6:28:ARG:O	31:D6:32:ASN:CB	2.52	0.57
35:DA:158:U:H2'	35:DA:158:U:O2	2.04	0.57
35:DA:1794:U:H2'	35:DA:1795:C:H6	1.68	0.57
35:DA:2146:C:H4'	35:DA:2147:G:C8	2.40	0.57
35:DA:2022:U:O2'	35:DA:2617:C:H5'	2.05	0.57
35:DA:52:A:O2'	35:DA:53:A:H5'	2.05	0.57
35:DA:847:U:H2'	35:DA:848:G:C5'	2.33	0.57
36:DB:29:A:H2'	36:DB:30:C:H6	1.69	0.57
37:DC:128:GLY:C	37:DC:130:ILE:H	2.08	0.57
38:DD:28:GLU:N	38:DD:29:PRO:CD	2.67	0.57
41:DG:28:VAL:O	41:DG:31:VAL:HG12	2.04	0.57
42:DH:100:GLY:C	42:DH:102:ALA:H	2.07	0.57
43:DI:48:GLU:C	43:DI:50:ARG:H	2.07	0.57
50:DT:58:ASN:C	50:DT:58:ASN:HD22	2.06	0.57
52:DV:24:LYS:O	52:DV:25:LEU:HD23	2.05	0.57
54:DX:12:VAL:HG11	54:DX:27:THR:HG23	1.87	0.57
55:DY:95:LYS:CG	55:DY:100:ALA:HA	2.35	0.57
56:DZ:47:VAL:O	56:DZ:51:ALA:N	2.37	0.57
1:AA:1231:G:O2'	1:AA:1232:U:H5'	2.05	0.56
1:AA:1126:U:OP2	1:AA:1281:U:O2	2.23	0.56
1:AA:895:G:H2'	1:AA:896:C:C6	2.40	0.56
2:AB:178:ARG:NH2	2:AB:196:LEU:HA	2.20	0.56
2:AB:21:ARG:NH1	2:AB:38:GLY:HA3	2.20	0.56
3:AC:32:LEU:HD22	3:AC:59:ARG:HH11	1.70	0.56
5:AE:79:GLU:HB3	5:AE:92:LYS:HG2	1.87	0.56
6:AF:6:VAL:HG13	6:AF:90:VAL:HG22	1.87	0.56
9:AI:21:PRO:HA	9:AI:58:ARG:O	2.04	0.56
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.20	0.56
13:AM:110:ARG:HH11	13:AM:110:ARG:HG2	1.68	0.56
19:AS:24:ALA:O	19:AS:25:LYS:HB2	2.04	0.56
20:AT:104:LEU:HD23	20:AT:105:SER:H	1.66	0.56
31:B6:17:LYS:HB3	31:B6:18:ARG:NH1	2.19	0.56
35:BA:1024:G:C3'	35:BA:1025:G:H5''	2.35	0.56
35:BA:171:G:H2'	35:BA:172:C:C6	2.40	0.56
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.40	0.56
35:BA:861:A:H2'	35:BA:862:G:O4'	2.04	0.56
37:BC:36:LYS:CG	37:BC:37:PHE:N	2.67	0.56
38:BD:93:ALA:HB2	38:BD:107:ALA:HB2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:270:ILE:C	38:BD:271:ILE:HG12	2.24	0.56
38:BD:30:GLU:CG	38:BD:63:ARG:NE	2.68	0.56
35:BA:779:U:OP1	38:BD:49:ILE:HG23	2.05	0.56
40:BF:17:ARG:HG3	40:BF:17:ARG:NH1	2.11	0.56
42:BH:85:LYS:HE2	42:BH:145:ALA:HB2	1.87	0.56
44:BN:128:HIS:NE2	44:BN:134:ARG:HD3	2.19	0.56
44:BN:3:THR:C	44:BN:5:VAL:H	2.07	0.56
46:BP:29:LYS:HB3	46:BP:34:GLY:H	1.70	0.56
47:BQ:80:GLU:HG2	47:BQ:80:GLU:O	2.05	0.56
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.40	0.56
5:CE:67:VAL:HG13	5:CE:69:VAL:HG23	1.87	0.56
8:CH:69:ARG:NH1	8:CH:69:ARG:HB2	2.19	0.56
9:CI:116:LYS:O	9:CI:118:LYS:N	2.37	0.56
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.20	0.56
13:CM:65:LYS:C	13:CM:66:LEU:HG	2.26	0.56
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	2.20	0.56
31:D6:16:CYS:H	31:D6:47:THR:HG21	1.70	0.56
33:D8:34:TRP:HB2	35:DA:2420:C:OP1	2.05	0.56
35:DA:1157:G:O2'	35:DA:1158:C:H5'	2.05	0.56
35:DA:1259:G:O2'	35:DA:1260:G:H5'	2.05	0.56
35:DA:1484:G:H3'	35:DA:1485:G:C5'	2.35	0.56
35:DA:1547:C:O2'	35:DA:1548:C:H5'	2.05	0.56
35:DA:2172:U:H3'	35:DA:2173:A:C8	2.38	0.56
35:DA:435:C:H2'	35:DA:436:C:H5'	1.86	0.56
35:DA:443:A:N7	40:DF:45:ARG:HD2	2.20	0.56
35:DA:869:G:O2'	35:DA:870:A:H5'	2.04	0.56
37:DC:68:LEU:HB2	37:DC:70:LYS:HG2	1.87	0.56
38:DD:11:PRO:O	38:DD:13:ARG:N	2.33	0.56
35:DA:779:U:OP1	38:DD:49:ILE:HG23	2.04	0.56
38:DD:35:LYS:O	38:DD:62:TYR:O	2.22	0.56
39:DE:12:THR:O	39:DE:23:VAL:HG22	2.05	0.56
39:DE:2:LYS:CE	39:DE:95:ILE:HG22	2.34	0.56
40:DF:116:ASP:O	40:DF:120:GLU:HG3	2.04	0.56
42:DH:118:PRO:HG2	42:DH:121:ILE:HB	1.87	0.56
42:DH:155:SER:O	42:DH:156:ALA:HB3	2.05	0.56
42:DH:19:VAL:CG2	42:DH:44:VAL:HA	2.26	0.56
50:DT:106:SER:HA	50:DT:110:ILE:HG13	1.87	0.56
50:DT:28:VAL:HG22	50:DT:46:GLU:C	2.26	0.56
53:DW:92:ARG:HG2	53:DW:92:ARG:HH11	1.69	0.56
54:DX:12:VAL:HG11	54:DX:27:THR:CG2	2.35	0.56
55:DY:17:SER:CB	55:DY:71:LYS:HB3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:45:ASP:O	56:DZ:49:ARG:HG2	2.04	0.56
1:AA:102:G:H2'	1:AA:103:C:C6	2.39	0.56
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.40	0.56
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.05	0.56
5:AE:67:VAL:HG22	5:AE:68:GLU:N	2.19	0.56
8:AH:53:VAL:O	8:AH:54:ASP:HB2	2.05	0.56
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.25	0.56
10:AJ:63:PHE:HZ	14:AN:45:ARG:HG3	1.70	0.56
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.39	0.56
32:B7:9:ARG:NH1	35:BA:1310:G:OP2	2.38	0.56
35:BA:1801:G:OP2	38:BD:154:LYS:HE2	2.05	0.56
35:BA:2473:U:O2	35:BA:2473:U:H2'	2.04	0.56
35:BA:435:C:H2'	35:BA:436:C:H5'	1.87	0.56
39:BE:101:ARG:NE	39:BE:171:GLU:HB2	2.20	0.56
35:BA:320:A:H2'	40:BF:136:THR:HG21	1.87	0.56
40:BF:33:LEU:HD22	40:BF:112:MET:HG2	1.87	0.56
44:BN:58:ASP:C	44:BN:60:ILE:H	2.07	0.56
45:BO:88:ASN:O	45:BO:91:LEU:N	2.38	0.56
49:BS:26:LEU:HG	49:BS:39:ILE:HD13	1.86	0.56
50:BT:32:TYR:CD2	50:BT:32:TYR:N	2.73	0.56
51:BU:20:LEU:CB	51:BU:39:LEU:HD11	2.34	0.56
53:BW:12:ILE:HG13	53:BW:42:ARG:HH11	1.68	0.56
53:BW:82:LEU:H	53:BW:82:LEU:HD12	1.69	0.56
54:BX:35:THR:HG22	54:BX:36:LYS:N	2.18	0.56
56:BZ:124:ILE:HD12	56:BZ:155:LEU:CD2	2.35	0.56
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.39	0.56
1:CA:245:C:O2'	1:CA:246:A:H5'	2.05	0.56
1:CA:275:G:H5'	17:CQ:14:LYS:HZ3	1.69	0.56
1:CA:413:G:N2	1:CA:429:U:OP2	2.38	0.56
2:CB:55:PHE:HA	2:CB:58:ILE:HG12	1.87	0.56
12:CL:62:SER:HB2	12:CL:64:TYR:CD1	2.40	0.56
1:CA:1318:A:H1'	19:CS:37:ARG:HH21	1.70	0.56
22:CV:19:G:H21	22:CV:57:G:H1'	1.70	0.56
22:CY:48:C:H2'	22:CY:48:C:OP2	2.05	0.56
26:D1:43:TYR:HD1	26:D1:43:TYR:N	2.00	0.56
35:DA:2305:A:H5''	41:DG:134:GLY:HA3	1.87	0.56
35:DA:2864:G:H8	35:DA:2864:G:H5'	1.70	0.56
35:DA:768:G:O2'	35:DA:1379:A:N6	2.39	0.56
35:DA:889:C:H1'	35:DA:890:A:O4'	2.05	0.56
37:DC:78:ALA:HB1	37:DC:82:LYS:HB2	1.87	0.56
40:DF:34:TRP:CZ2	46:DP:12:ALA:HB2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:85:VAL:HG22	49:DS:106:ARG:HB2	1.87	0.56
50:DT:23:ARG:HB2	50:DT:24:PRO:HD2	1.86	0.56
30:D5:20:ARG:CZ	53:DW:15:ARG:NH1	2.68	0.56
56:DZ:69:THR:CG2	56:DZ:90:VAL:HA	2.35	0.56
56:DZ:69:THR:HG22	56:DZ:90:VAL:CA	2.34	0.56
1:AA:114:U:H2'	1:AA:115:G:C8	2.40	0.56
1:AA:511:C:H1'	4:AD:43:HIS:NE2	2.18	0.56
3:AC:157:ILE:CD1	3:AC:166:GLU:HB2	2.35	0.56
5:AE:67:VAL:HG13	5:AE:69:VAL:HG23	1.87	0.56
9:AI:78:LYS:HE3	9:AI:101:PHE:CE2	2.40	0.56
10:AJ:27:ALA:HB3	10:AJ:34:VAL:HG21	1.87	0.56
13:AM:52:GLU:O	13:AM:56:LEU:HB2	2.05	0.56
3:AC:30:ARG:HH11	14:AN:38:GLY:N	2.03	0.56
23:AW:75:C:H5''	26:B1:30:VAL:HG21	1.86	0.56
35:BA:2481:G:O2'	35:BA:2482:G:P	2.63	0.56
35:BA:874:G:O2'	35:BA:875:G:H5'	2.04	0.56
37:BC:49:ILE:HG22	37:BC:50:ASP:OD1	2.06	0.56
38:BD:154:LYS:C	38:BD:155:LEU:HD12	2.25	0.56
38:BD:39:LYS:HZ2	38:BD:87:ASN:HB3	1.68	0.56
42:BH:41:MET:O	42:BH:43:VAL:HG13	2.06	0.56
46:BP:108:LYS:C	46:BP:110:TYR:H	2.08	0.56
46:BP:70:GLN:HB3	46:BP:72:PRO:HD2	1.87	0.56
51:BU:62:ILE:HD12	51:BU:76:TYR:OH	2.04	0.56
56:BZ:96:VAL:HG22	56:BZ:97:GLU:N	2.20	0.56
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.40	0.56
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.71	0.56
6:CF:100:ASN:HD21	18:CR:23:LYS:CE	2.18	0.56
11:CK:27:ASN:HB2	11:CK:55:LYS:HE2	1.86	0.56
13:CM:49:THR:HB	13:CM:52:GLU:HG3	1.86	0.56
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.20	0.56
10:CJ:63:PHE:HZ	14:CN:45:ARG:HG3	1.70	0.56
20:CT:27:LYS:O	20:CT:27:LYS:HD3	2.05	0.56
28:D3:49:LYS:NZ	35:DA:850:C:O3'	2.38	0.56
35:DA:1155:A:OP2	51:DU:58:ARG:NH1	2.38	0.56
35:DA:1350:C:O2'	35:DA:1351:C:H5'	2.06	0.56
35:DA:2491:U:C5'	35:DA:2570:G:H5''	2.22	0.56
35:DA:648:G:O2'	35:DA:649:G:H5'	2.04	0.56
35:DA:769:G:O2'	35:DA:770:G:H5'	2.04	0.56
37:DC:77:ILE:HG12	37:DC:77:ILE:O	2.06	0.56
39:DE:69:LYS:HZ1	39:DE:89:ASP:HA	1.70	0.56
40:DF:24:LEU:HB3	40:DF:25:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:9:ILE:HG23	40:DF:13:SER:O	2.06	0.56
41:DG:146:TYR:C	41:DG:148:MET:H	2.08	0.56
41:DG:2:PRO:O	41:DG:3:LEU:CB	2.52	0.56
40:DF:34:TRP:HB2	46:DP:10:PRO:O	2.05	0.56
49:DS:14:VAL:HG12	49:DS:15:ARG:N	2.19	0.56
49:DS:16:ASN:ND2	49:DS:92:TYR:CE1	2.73	0.56
1:AA:824:C:H4'	8:AH:1:MET:H1	1.70	0.56
3:AC:54:ARG:HH12	3:AC:56:ASP:HB2	1.70	0.56
6:AF:16:GLN:HG3	4:CD:197:PRO:HD3	1.87	0.56
7:AG:15:ASP:H	7:AG:20:ASP:N	2.03	0.56
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.68	0.56
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.25	0.56
19:AS:10:PHE:CZ	19:AS:70:LYS:HD2	2.40	0.56
20:AT:26:ASN:ND2	20:AT:26:ASN:H	2.03	0.56
27:B2:14:ARG:HH11	27:B2:14:ARG:HG3	1.70	0.56
35:BA:2172:U:H3'	35:BA:2173:A:C8	2.38	0.56
35:BA:2173:A:H2'	35:BA:2174:C:H5'	1.87	0.56
35:BA:2801(A):A:C4'	35:BA:2802:G:H5'	2.23	0.56
35:BA:742:G:O2'	35:BA:743:G:H5'	2.06	0.56
35:BA:953:A:H2'	35:BA:954:G:H5'	1.87	0.56
38:BD:71:ASP:CB	38:BD:103:ARG:HH22	2.10	0.56
40:BF:198:ALA:O	40:BF:201:VAL:HG12	2.05	0.56
42:BH:41:MET:CG	42:BH:55:PRO:HD3	2.34	0.56
44:BN:114:ARG:O	44:BN:118:LYS:HG3	2.06	0.56
46:BP:96:THR:O	46:BP:100:LEU:HD23	2.05	0.56
1:CA:1125:U:H5''	1:CA:1126:U:H5	1.70	0.56
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.40	0.56
1:CA:163:C:H2'	1:CA:164:U:C6	2.39	0.56
1:CA:731:G:O2'	1:CA:732:C:H5'	2.06	0.56
2:CB:237:ALA:H	2:CB:239:VAL:HG23	1.69	0.56
3:CC:157:ILE:CD1	3:CC:166:GLU:HB2	2.35	0.56
4:CD:11:LEU:O	4:CD:13:ARG:O	2.23	0.56
8:CH:84:ARG:HH22	8:CH:86:ILE:HD11	1.69	0.56
16:CP:51:VAL:O	16:CP:53:VAL:N	2.38	0.56
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.03	0.56
1:CA:103:C:OP2	20:CT:14:LYS:HE3	2.05	0.56
23:CW:16:U:C3'	23:CW:17:C:H5'	2.35	0.56
35:DA:141:A:C8	35:DA:1408:C:O2'	2.49	0.56
35:DA:1657:C:O2'	35:DA:1658:C:H5'	2.05	0.56
35:DA:171:G:H2'	35:DA:172:C:C6	2.41	0.56
38:DD:270:ILE:C	38:DD:271:ILE:HG12	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:89:ASP:O	39:DE:90:THR:CB	2.54	0.56
41:DG:88:ILE:HG23	41:DG:89:GLY:N	2.20	0.56
43:DI:118:LYS:HZ2	43:DI:119:PRO:HG2	1.71	0.56
56:DZ:11:GLU:H	56:DZ:11:GLU:CD	2.08	0.56
56:DZ:10:ARG:NH2	56:DZ:26:GLY:H	2.03	0.56
1:AA:1125:U:H5'	1:AA:1126:U:H5	1.71	0.56
1:AA:1195:C:H2'	1:AA:1197:G:O4'	2.06	0.56
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.20	0.56
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.40	0.56
1:AA:226:G:O2'	1:AA:227:G:H5'	2.06	0.56
1:AA:597:G:H2'	1:AA:598:U:H5'	1.87	0.56
3:AC:179:ARG:HG3	3:AC:179:ARG:O	2.06	0.56
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.21	0.56
4:AD:30:LYS:C	4:AD:32:ALA:N	2.53	0.56
9:AI:121:ARG:HH11	9:AI:121:ARG:HG2	1.68	0.56
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.26	0.56
12:AL:62:SER:HB2	12:AL:64:TYR:CD1	2.41	0.56
23:AW:52:G:H2'	23:AW:53:G:H8	1.71	0.56
23:AW:74:C:H4'	26:B1:23:LYS:HB2	1.86	0.56
27:B2:56:GLN:O	27:B2:60:LEU:HG	2.05	0.56
35:BA:1242:A:H5'	35:BA:1243:G:OP2	2.05	0.56
35:BA:1786:A:H3'	35:BA:1787:A:C8	2.40	0.56
31:B6:27:LYS:HD2	35:BA:2285:C:OP2	2.05	0.56
35:BA:263:C:H2'	35:BA:264:C:O4'	2.05	0.56
40:BF:53:THR:HG23	40:BF:56:GLU:H	1.70	0.56
41:BG:139:LEU:HD23	41:BG:140:ILE:N	2.20	0.56
42:BH:104:GLU:HA	42:BH:113:VAL:O	2.06	0.56
43:BI:37:VAL:HG12	43:BI:38:LEU:N	2.21	0.56
43:BI:58:LEU:C	43:BI:60:GLU:N	2.57	0.56
44:BN:133:GLN:O	44:BN:134:ARG:CB	2.54	0.56
47:BQ:16:ARG:CG	47:BQ:17:LEU:H	2.17	0.56
51:BU:89:GLU:HG2	52:BV:50:PRO:CG	2.36	0.56
53:BW:20:VAL:O	53:BW:23:LEU:HB3	2.05	0.56
55:BY:12:THR:O	55:BY:75:ILE:HG22	2.06	0.56
55:BY:74:PRO:O	55:BY:80:GLY:HA2	2.04	0.56
1:CA:170:U:O2'	1:CA:171:A:H5'	2.05	0.56
1:CA:556:C:C2'	1:CA:557:G:H5'	2.36	0.56
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	2.06	0.56
7:CG:145:ALA:C	7:CG:147:ALA:N	2.59	0.56
10:CJ:78:ASN:ND2	10:CJ:80:LYS:H	2.04	0.56
13:CM:25:ILE:HD11	13:CM:66:LEU:CD2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:5:ARG:O	16:CP:20:VAL:HG13	2.04	0.56
16:CP:82:GLN:NE2	16:CP:82:GLN:N	2.52	0.56
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.21	0.56
25:D0:8:GLY:O	25:D0:9:SER:HB3	2.05	0.56
26:D1:50:ARG:HA	26:D1:59:THR:HG22	1.87	0.56
27:D2:43:GLN:HE22	27:D2:46:GLN:HE22	1.53	0.56
31:D6:34:LEU:CD2	31:D6:36:LEU:HD22	2.34	0.56
35:DA:1434:A:H61	35:DA:1558:A:H62	1.53	0.56
35:DA:1889:A:H2'	35:DA:1890:A:C8	2.40	0.56
35:DA:752:A:O2'	35:DA:753:C:OP2	2.22	0.56
38:DD:43:ARG:HH11	38:DD:44:ASN:CG	2.08	0.56
42:DH:65:HIS:CE1	42:DH:69:ARG:HD3	2.41	0.56
46:DP:13:ASN:O	46:DP:15:ARG:N	2.37	0.56
46:DP:16:ARG:HD3	46:DP:18:ARG:N	2.04	0.56
50:DT:27:THR:CG2	50:DT:28:VAL:H	2.06	0.56
56:DZ:47:VAL:HG12	56:DZ:51:ALA:CB	2.36	0.56
56:DZ:79:ARG:HH11	56:DZ:79:ARG:HG2	1.71	0.56
56:DZ:80:ARG:O	56:DZ:81:ARG:C	2.44	0.56
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.71	0.56
1:AA:591:U:H2'	1:AA:592:G:C8	2.40	0.56
1:AA:625:G:O2'	1:AA:626:U:H5'	2.05	0.56
3:AC:147:LYS:HG3	3:AC:204:LEU:O	2.05	0.56
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	1.87	0.56
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.20	0.56
19:AS:62:ILE:HG13	19:AS:63:THR:N	2.21	0.56
20:AT:57:ARG:HB2	20:AT:57:ARG:NH1	2.21	0.56
22:AY:76:8AN:H5'A	22:AY:77:PHA:O	2.06	0.56
26:B1:6:GLU:HG3	26:B1:61:ARG:O	2.05	0.56
29:B4:40:ILE:HG23	29:B4:57:ILE:HG22	1.87	0.56
33:B8:30:ARG:O	33:B8:31:HIS:HB3	2.05	0.56
35:BA:1309:G:O2'	35:BA:1310:G:H5'	2.05	0.56
35:BA:1352:U:O2'	35:BA:1353:A:H5'	2.05	0.56
35:BA:1956:U:H2'	35:BA:1957:C:H5'	1.87	0.56
35:BA:2099:U:O2	35:BA:2099:U:H2'	2.06	0.56
35:BA:2201:C:O2'	35:BA:2202:C:H5'	2.06	0.56
35:BA:2689:U:H5''	35:BA:2690:C:H5'	1.87	0.56
35:BA:613:G:H5'	35:BA:613:G:C8	2.40	0.56
35:BA:80:G:O2'	35:BA:81:G:H5'	2.05	0.56
35:BA:991:C:O2'	35:BA:992:C:H5'	2.05	0.56
37:BC:128:GLY:C	37:BC:130:ILE:H	2.08	0.56
35:BA:2177:C:H1'	37:BC:44:HIS:CD2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:77:ILE:O	37:BC:77:ILE:HG12	2.05	0.56
39:BE:2:LYS:HE2	39:BE:95:ILE:HG22	1.88	0.56
44:BN:29:LYS:O	44:BN:33:LEU:HB2	2.05	0.56
46:BP:71:VAL:HG13	46:BP:72:PRO:CD	2.34	0.56
49:BS:17:ARG:C	49:BS:19:LYS:H	2.08	0.56
50:BT:38:ASN:HD22	50:BT:40:THR:N	2.04	0.56
50:BT:46:GLU:CD	50:BT:88:ILE:HD11	2.26	0.56
45:BO:77:ILE:HD13	50:BT:74:ARG:HG2	1.86	0.56
52:BV:22:VAL:O	52:BV:23:GLU:HB2	2.06	0.56
1:CA:946:A:H2'	1:CA:947:G:C8	2.41	0.56
4:CD:176:LEU:HD12	4:CD:177:ASP:H	1.69	0.56
5:CE:79:GLU:HB3	5:CE:92:LYS:HG2	1.87	0.56
9:CI:21:PRO:HA	9:CI:58:ARG:O	2.06	0.56
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.40	0.56
1:CA:1280:A:H5''	10:CJ:40:LEU:HD12	1.86	0.56
10:CJ:33:GLN:N	10:CJ:75:ILE:HG12	2.19	0.56
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.20	0.56
11:CK:56:GLY:O	11:CK:89:ALA:HB3	2.05	0.56
13:CM:3:ARG:HA	13:CM:9:ILE:HG13	1.88	0.56
22:CV:61:C:H2'	22:CV:62:C:H6	1.69	0.56
27:D2:13:ALA:HA	27:D2:16:LEU:CD1	2.35	0.56
29:D4:39:ARG:C	29:D4:40:ILE:HD12	2.25	0.56
30:D5:30:LEU:HD23	30:D5:41:PRO:HA	1.86	0.56
32:D7:9:ARG:NH1	35:DA:1310:G:OP2	2.39	0.56
33:D8:4:MET:O	33:D8:62:LEU:HD12	2.05	0.56
35:DA:1270:C:H5''	35:DA:1271:G:H5'	1.87	0.56
35:DA:2747:G:O6	35:DA:2755:C:H5''	2.06	0.56
35:DA:89:G:H3'	35:DA:90:U:H5''	1.87	0.56
37:DC:36:LYS:CG	37:DC:37:PHE:N	2.68	0.56
42:DH:140:LYS:O	42:DH:144:VAL:HG23	2.05	0.56
47:DQ:16:ARG:CG	47:DQ:17:LEU:H	2.18	0.56
47:DQ:55:VAL:CG2	47:DQ:56:ARG:N	2.68	0.56
50:DT:3:ARG:HH11	50:DT:3:ARG:HG3	1.71	0.56
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	0.56
1:AA:187:C:H5''	20:AT:86:ARG:HG3	1.88	0.56
3:AC:113:ALA:HA	3:AC:116:VAL:CG2	2.34	0.56
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.88	0.56
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.20	0.56
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.88	0.56
10:AJ:30:SER:HB2	10:AJ:80:LYS:C	2.26	0.56
12:AL:28:LYS:HE2	12:AL:33:ARG:HH22	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B3:22:ALA:HA	28:B3:46:ASN:HD22	1.70	0.56
34:B9:4:ARG:HB2	35:BA:2466:C:OP1	2.06	0.56
35:BA:17:G:H2'	35:BA:18:C:H6	1.71	0.56
35:BA:2223:G:C2'	35:BA:2224:G:H5'	2.36	0.56
35:BA:2236:C:H2'	35:BA:2237:G:H5'	1.86	0.56
35:BA:2777:G:H5''	35:BA:2778:A:C5'	2.36	0.56
35:BA:443:A:H1'	35:BA:1201:C:O4'	2.05	0.56
40:BF:192:LEU:HD23	40:BF:193:VAL:N	2.21	0.56
41:BG:101:ILE:HG23	41:BG:102:PHE:N	2.20	0.56
43:BI:72:LEU:HD21	43:BI:107:VAL:HG21	1.86	0.56
43:BI:94:ALA:CB	43:BI:111:PRO:HA	2.36	0.56
45:BO:104:ARG:HH11	45:BO:104:ARG:HB2	1.71	0.56
47:BQ:103:MET:HE1	47:BQ:125:LEU:HD13	1.87	0.56
51:BU:92:ARG:HD2	52:BV:11:GLN:NE2	2.20	0.56
55:BY:42:VAL:O	55:BY:64:GLU:HA	2.05	0.56
1:CA:1060:C:H4'	10:CJ:52:GLY:H	1.70	0.56
1:CA:1152:A:H5'	10:CJ:70:ARG:HH22	1.70	0.56
1:CA:1442:G:C5	1:CA:1442(B):A:C2	2.94	0.56
3:CC:110:ASN:C	3:CC:112:SER:H	2.09	0.56
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.88	0.56
5:CE:28:PHE:O	5:CE:47:LYS:HA	2.06	0.56
29:D4:40:ILE:HG23	29:D4:57:ILE:HG22	1.88	0.56
35:DA:2037:G:H2'	35:DA:2038:G:C8	2.39	0.56
35:DA:2512:C:H2'	35:DA:2513:G:O4'	2.05	0.56
35:DA:2563:U:H2'	35:DA:2565:A:OP2	2.04	0.56
35:DA:2617:C:O2'	35:DA:2618:G:H5'	2.05	0.56
35:DA:588:U:H6	35:DA:588:U:O5'	1.89	0.56
39:DE:48:GLN:HA	39:DE:80:GLU:HA	1.85	0.56
41:DG:107:LEU:HD22	41:DG:177:GLY:O	2.06	0.56
41:DG:21:ARG:HD3	41:DG:22:ARG:N	2.21	0.56
43:DI:31:LEU:HB2	43:DI:32:PRO:HD3	1.87	0.56
46:DP:111:ARG:CZ	46:DP:149:GLU:HG3	2.36	0.56
46:DP:126:VAL:HG12	46:DP:148:LEU:HD11	1.88	0.56
46:DP:48:PRO:CG	46:DP:49:ARG:H	2.16	0.56
47:DQ:141:GLN:HE22	56:DZ:72:ARG:CA	2.05	0.56
49:DS:26:LEU:HG	49:DS:39:ILE:HD13	1.87	0.56
49:DS:35:ILE:HG22	49:DS:53:SER:HB2	1.88	0.56
50:DT:106:SER:O	50:DT:107:ASP:CB	2.53	0.56
51:DU:66:ASN:O	51:DU:70:ARG:HB2	2.06	0.56
52:DV:24:LYS:HA	52:DV:92:THR:HG23	1.87	0.56
54:DX:71:GLY:C	54:DX:72:LYS:HD2	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:27:LYS:HD3	2:AB:195:ASP:CG	2.26	0.56
3:AC:79:ARG:HH11	3:AC:79:ARG:HB3	1.71	0.56
3:AC:9:GLY:HA2	3:AC:12:LEU:HB2	1.88	0.56
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.87	0.56
10:AJ:51:ARG:O	10:AJ:52:GLY:O	2.23	0.56
14:AN:3:ARG:CB	14:AN:3:ARG:HH11	2.19	0.56
26:B1:7:ILE:HD11	26:B1:70:VAL:HG22	1.86	0.56
30:B5:10:LYS:HB2	35:BA:2017:U:O2	2.06	0.56
35:BA:649:G:H2'	35:BA:650:C:C6	2.41	0.56
35:BA:2175:C:H1'	37:BC:215:THR:CA	2.35	0.56
39:BE:12:THR:O	39:BE:23:VAL:HG22	2.05	0.56
42:BH:25:LYS:HB3	42:BH:32:GLU:OE2	2.05	0.56
47:BQ:14:ARG:HG2	47:BQ:14:ARG:HH11	1.70	0.56
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.41	0.56
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.71	0.56
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.05	0.56
1:CA:627:G:H2'	1:CA:628:G:H8	1.71	0.56
3:CC:34:LEU:HD21	3:CC:38:ARG:NH1	2.21	0.56
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.67	0.56
5:CE:81:GLU:HB3	5:CE:88:LYS:HZ1	1.70	0.56
5:CE:93:PRO:HA	5:CE:118:ILE:HD12	1.87	0.56
10:CJ:30:SER:HB2	10:CJ:80:LYS:C	2.26	0.56
15:CO:10:LYS:HG3	15:CO:11:VAL:N	2.19	0.56
17:CQ:8:GLY:HA3	17:CQ:22:LEU:O	2.05	0.56
20:CT:26:ASN:ND2	20:CT:26:ASN:H	2.03	0.56
23:CW:15:G:H22	23:CW:59:U:H1'	1.70	0.56
35:DA:1493:C:H4'	35:DA:1494:A:OP1	2.05	0.56
38:DD:11:PRO:C	38:DD:13:ARG:H	2.08	0.56
41:DG:91:ARG:CG	41:DG:92:VAL:N	2.69	0.56
42:DH:85:LYS:HE2	42:DH:145:ALA:HB2	1.87	0.56
44:DN:19:GLU:HG3	44:DN:20:GLY:N	2.21	0.56
54:DX:84:ALA:HB3	54:DX:87:GLN:OE1	2.06	0.56
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.06	0.56
1:AA:67:C:H2'	1:AA:68:G:C8	2.41	0.56
2:AB:160:ASP:O	2:AB:161:ALA:HB2	2.05	0.56
2:AB:68:ILE:HG12	2:AB:90:MET:HE1	1.87	0.56
3:AC:36:ASP:O	3:AC:39:ILE:HB	2.06	0.56
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.87	0.56
16:AP:51:VAL:O	16:AP:52:ASP:C	2.44	0.56
18:AR:61:LYS:O	18:AR:65:ILE:HG12	2.06	0.56
23:AW:38:A:H2'	23:AW:39:U:C4'	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:15:G:H22	22:AY:59:U:H3	1.54	0.56
26:B1:80:LEU:HD23	26:B1:81:LYS:N	2.20	0.56
32:B7:11:LYS:HE2	35:BA:686:G:C5'	2.30	0.56
32:B7:47:ARG:NH2	35:BA:1311:G:C4	2.74	0.56
35:BA:172:C:H2'	35:BA:173:G:C8	2.38	0.56
35:BA:2127:G:H2'	35:BA:2128:C:C6	2.41	0.56
35:BA:2184:G:H2'	35:BA:2185:C:C6	2.40	0.56
35:BA:2298:A:H2'	35:BA:2299:G:O4'	2.06	0.56
33:B8:62:LEU:CD1	35:BA:242:G:H5''	2.31	0.56
35:BA:573:G:O2'	35:BA:574:C:H3'	2.06	0.56
38:BD:112:GLN:HB2	38:BD:115:GLN:HE21	1.69	0.56
43:BI:132:PRO:HG2	43:BI:133:HIS:NE2	2.21	0.56
50:BT:106:SER:HA	50:BT:110:ILE:HG13	1.87	0.56
53:BW:3:ALA:HB2	53:BW:58:ALA:HA	1.88	0.56
53:BW:88:ARG:HB2	53:BW:92:ARG:CB	2.31	0.56
53:BW:95:ILE:O	53:BW:95:ILE:HG13	2.04	0.56
55:BY:46:LYS:N	55:BY:62:GLU:HG2	2.18	0.56
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.88	0.56
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.40	0.56
1:CA:878:G:H5''	8:CH:89:PRO:HG2	1.88	0.56
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.86	0.56
2:CB:27:LYS:HD3	2:CB:195:ASP:CG	2.26	0.56
3:CC:34:LEU:HD23	3:CC:35:GLU:N	2.19	0.56
3:CC:59:ARG:HG2	3:CC:63:ASN:O	2.06	0.56
4:CD:33:MET:HE3	4:CD:37:PRO:HA	1.88	0.56
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.05	0.56
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.05	0.56
10:CJ:8:LEU:HD13	10:CJ:20:ALA:CB	2.36	0.56
14:CN:40:CYS:O	14:CN:44:LEU:HB3	2.05	0.56
19:CS:49:ILE:N	19:CS:49:ILE:HD12	2.21	0.56
21:CU:6:ARG:O	21:CU:8:THR:N	2.37	0.56
23:CW:39:U:H2'	23:CW:40:C:H6	1.70	0.56
35:DA:1686:C:H2'	35:DA:1687:G:O4'	2.04	0.56
38:DD:10:THR:HG23	38:DD:13:ARG:HB3	1.88	0.56
44:DN:46:VAL:O	44:DN:47:ALA:HB3	2.06	0.56
44:DN:58:ASP:C	44:DN:60:ILE:H	2.09	0.56
45:DO:63:VAL:HG23	45:DO:83:ALA:HB3	1.88	0.56
46:DP:108:LYS:C	46:DP:110:TYR:H	2.09	0.56
46:DP:94:GLU:HG3	46:DP:124:LYS:HB3	1.87	0.56
47:DQ:80:GLU:HG2	47:DQ:80:GLU:O	2.06	0.56
35:DA:1651:G:OP1	48:DR:40:LYS:HE3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DX:34:ALA:HA	54:DX:38:GLU:OE1	2.05	0.56
55:DY:101:LYS:HG2	55:DY:102:CYS:N	2.20	0.56
1:AA:103:C:OP2	20:AT:14:LYS:HE3	2.06	0.56
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.06	0.56
1:AA:556:C:C2'	1:AA:557:G:H5'	2.36	0.56
1:AA:773:G:O2'	1:AA:774:G:H5'	2.06	0.56
2:AB:164:VAL:O	2:AB:186:ALA:HB1	2.06	0.56
3:AC:34:LEU:HD21	3:AC:38:ARG:NH1	2.21	0.56
8:AH:82:HIS:CD2	8:AH:138:TRP:HE1	2.21	0.56
1:AA:1054:C:C4	22:AY:34:G:H1'	2.40	0.56
25:B0:68:GLU:HG3	25:B0:80:HIS:HB2	1.87	0.56
35:BA:2693:A:H2'	35:BA:2694:G:H8	1.71	0.56
35:BA:2808:U:O2'	35:BA:2809:A:H5'	2.05	0.56
36:BB:105:A:H2'	36:BB:106:G:O4'	2.06	0.56
39:BE:92:THR:N	39:BE:95:ILE:HD11	2.21	0.56
40:BF:132:VAL:CG2	40:BF:133:ASN:H	1.99	0.56
41:BG:115:ARG:HD3	41:BG:115:ARG:N	2.20	0.56
43:BI:31:LEU:HB2	43:BI:32:PRO:HD3	1.88	0.56
45:BO:119:PRO:O	50:BT:68:TYR:HE1	1.89	0.56
46:BP:101:VAL:HG12	46:BP:107:LYS:N	2.20	0.56
53:BW:84:ARG:HB2	53:BW:96:ILE:CG2	2.36	0.56
56:BZ:144:LEU:HD12	56:BZ:174:VAL:HG23	1.88	0.56
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.70	0.56
1:CA:1404:C:H2'	1:CA:1405:G:H8	1.71	0.56
1:CA:708:C:H2'	1:CA:709:G:H8	1.71	0.56
2:CB:21:ARG:NH1	2:CB:38:GLY:HA3	2.21	0.56
3:CC:52:LEU:CD2	3:CC:52:LEU:H	2.17	0.56
4:CD:30:LYS:C	4:CD:32:ALA:N	2.52	0.56
5:CE:40:ARG:HH11	5:CE:40:ARG:CG	2.19	0.56
5:CE:81:GLU:HB3	5:CE:88:LYS:NZ	2.20	0.56
9:CI:121:ARG:HH11	9:CI:121:ARG:HG2	1.71	0.56
12:CL:41:ARG:HH12	12:CL:57:LYS:NZ	2.04	0.56
13:CM:3:ARG:CA	13:CM:9:ILE:HG13	2.36	0.56
16:CP:51:VAL:O	16:CP:52:ASP:C	2.44	0.56
25:D0:32:ARG:H	25:D0:35:ASN:ND2	2.04	0.56
35:DA:1173:G:H3'	35:DA:1174:A:C5'	2.36	0.56
35:DA:1669:A:H5''	35:DA:2550:G:OP1	2.06	0.56
35:DA:1711:C:H2'	35:DA:1712:C:C6	2.41	0.56
35:DA:1719:G:O2'	35:DA:1720:U:H5'	2.06	0.56
41:DG:33:ARG:O	41:DG:161:THR:HG22	2.05	0.56
41:DG:60:LEU:HD12	41:DG:68:PRO:HG3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:46:GLU:O	42:DH:47:GLU:HB3	2.06	0.56
46:DP:101:VAL:HG12	46:DP:107:LYS:H	1.69	0.56
55:DY:17:SER:OG	55:DY:18:GLY:N	2.35	0.56
55:DY:27:VAL:CA	55:DY:28:LYS:NZ	2.68	0.56
56:DZ:92:SER:O	56:DZ:130:PRO:HG2	2.06	0.56
56:DZ:165:VAL:CG1	56:DZ:166:SER:H	2.09	0.56
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.71	0.56
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.71	0.56
1:AA:1442:G:H2'	50:BT:118:ARG:HH12	1.71	0.56
1:AA:255:G:H2'	1:AA:256:U:C6	2.41	0.56
1:AA:445:G:H2'	1:AA:446:G:H8	1.71	0.56
1:AA:708:C:H2'	1:AA:709:G:H8	1.71	0.56
3:AC:157:ILE:HD13	3:AC:166:GLU:HB2	1.88	0.56
4:AD:150:GLU:HA	4:AD:153:ARG:HD2	1.88	0.56
4:AD:158:ILE:O	4:AD:162:LEU:HB2	2.06	0.56
10:AJ:32:ALA:CB	10:AJ:76:ASN:H	2.18	0.56
1:AA:1280:A:H5''	10:AJ:40:LEU:HD12	1.87	0.56
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.88	0.56
14:AN:6:LEU:HD23	14:AN:9:LYS:HE2	1.88	0.56
17:AQ:8:GLY:HA3	17:AQ:22:LEU:O	2.06	0.56
22:AY:19:G:H22	35:BA:881:G:H21	1.54	0.56
30:B5:6:VAL:HG23	35:BA:2015:A:C2	2.41	0.56
35:BA:1037:G:H1	35:BA:1118:C:H42	1.53	0.56
35:BA:1278:A:O2'	35:BA:1279:G:H5'	2.06	0.56
35:BA:1444:G:H2'	35:BA:1445(A):C:C5	2.40	0.56
35:BA:32:C:C2'	35:BA:33:U:H5'	2.36	0.56
35:BA:541:C:H2'	35:BA:542:C:C6	2.41	0.56
37:BC:22:ILE:HG22	37:BC:25:ALA:H	1.70	0.56
35:BA:320:A:OP2	40:BF:137:LYS:HD2	2.06	0.56
41:BG:46:ALA:CB	41:BG:88:ILE:HD13	2.23	0.56
43:BI:61:ARG:HB3	43:BI:133:HIS:NE2	2.21	0.56
44:BN:102:ALA:O	44:BN:106:MET:HG3	2.06	0.56
35:BA:195:A:OP1	46:BP:46:LYS:HE2	2.06	0.56
48:BR:26:LYS:HE2	48:BR:71:GLN:H	1.70	0.56
49:BS:88:ASP:OD2	49:BS:89:ARG:N	2.39	0.56
49:BS:96:GLY:C	49:BS:98:VAL:N	2.58	0.56
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.40	0.56
1:CA:296:U:H2'	1:CA:297:G:C8	2.41	0.56
1:CA:370:C:H2'	1:CA:371:G:H8	1.71	0.56
1:CA:392:G:H2'	1:CA:393:A:C8	2.41	0.56
1:CA:402:G:O2'	1:CA:403:C:H5'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:32:LEU:HD22	3:CC:59:ARG:HH11	1.71	0.56
4:CD:10:ARG:HH11	4:CD:10:ARG:HG2	1.70	0.56
8:CH:53:VAL:O	8:CH:54:ASP:HB2	2.05	0.56
23:CW:39:U:H4'	23:CW:39:U:OP1	2.06	0.56
25:D0:4:LYS:O	25:D0:5:LYS:HB2	2.06	0.56
28:D3:22:ALA:HA	28:D3:46:ASN:HD22	1.70	0.56
35:DA:207:A:H2'	35:DA:208:C:O4'	2.05	0.56
35:DA:2173:A:H2'	35:DA:2174:C:H5'	1.88	0.56
35:DA:2298:A:H2'	35:DA:2299:G:O4'	2.06	0.56
35:DA:2352:A:C2'	35:DA:2353:G:H5'	2.36	0.56
35:DA:30:G:O2'	35:DA:31:C:H5'	2.06	0.56
36:DB:111:G:C2'	36:DB:112:U:H5'	2.36	0.56
36:DB:6:C:O2'	49:DS:29:PHE:HE1	1.87	0.56
38:DD:125:ILE:HG22	38:DD:125:ILE:O	2.06	0.56
41:DG:9:ARG:O	41:DG:13:GLU:HG2	2.06	0.56
42:DH:80:SER:O	42:DH:81:GLU:HB2	2.04	0.56
44:DN:68:GLU:HG2	44:DN:88:GLU:CD	2.27	0.56
49:DS:88:ASP:OD2	49:DS:89:ARG:N	2.39	0.56
50:DT:57:PHE:O	50:DT:59:THR:HG22	2.06	0.56
50:DT:32:TYR:CG	50:DT:81:PRO:HB2	2.41	0.56
52:DV:22:VAL:O	52:DV:23:GLU:HB2	2.06	0.56
4:AD:68:TYR:OH	4:AD:196:LEU:HD21	2.05	0.55
27:B2:7:ARG:HH11	27:B2:7:ARG:HG2	1.71	0.55
35:BA:1270:C:H5''	35:BA:1271:G:H5'	1.87	0.55
35:BA:1484:G:H3'	35:BA:1485:G:C5'	2.35	0.55
35:BA:692:C:O2'	35:BA:693:C:H5'	2.06	0.55
39:BE:9:VAL:HG13	39:BE:25:VAL:O	2.06	0.55
44:BN:17:ASP:OD1	44:BN:56:ASN:HB3	2.05	0.55
35:BA:662:G:P	46:BP:18:ARG:HD2	2.45	0.55
47:BQ:133:ARG:HG3	47:BQ:133:ARG:HH11	1.71	0.55
48:BR:34:ILE:HG22	48:BR:35:THR:N	2.21	0.55
35:BA:71:A:H2	54:BX:31:HIS:HE1	1.53	0.55
56:BZ:118:GLN:NE2	56:BZ:175:VAL:HG21	2.21	0.55
56:BZ:17:ALA:HA	56:BZ:20:ARG:HG3	1.87	0.55
2:CB:137:ARG:HD3	2:CB:137:ARG:C	2.27	0.55
2:CB:8:LYS:HA	2:CB:217:ARG:HH22	1.71	0.55
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.17	0.55
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.06	0.55
13:CM:20:THR:C	13:CM:22:ILE:H	2.08	0.55
25:D0:27:GLU:HA	25:D0:67:VAL:O	2.06	0.55
33:D8:13:ARG:HD2	46:DP:61:ARG:HH11	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1312:U:H4'	35:DA:1313:U:O5'	2.04	0.55
35:DA:2177:C:H1'	37:DC:44:HIS:CD2	2.41	0.55
35:DA:2516:G:C5	35:DA:2517:C:C4	2.93	0.55
35:DA:2689:U:O2'	35:DA:2690:C:OP2	2.19	0.55
35:DA:2703:C:O2	35:DA:2703:C:H2'	2.05	0.55
40:DF:136:THR:O	40:DF:140:LEU:HB2	2.05	0.55
41:DG:101:ILE:HD11	41:DG:105:LYS:HZ3	1.70	0.55
41:DG:58:GLN:O	41:DG:62:LEU:HD13	2.07	0.55
42:DH:68:THR:HG22	42:DH:72:ILE:HD11	1.87	0.55
44:DN:28:THR:N	44:DN:106:MET:HE1	2.21	0.55
47:DQ:63:LYS:NZ	56:DZ:175:VAL:HB	2.20	0.55
49:DS:65:VAL:C	49:DS:67:ARG:N	2.59	0.55
49:DS:95:HIS:O	49:DS:96:GLY:O	2.24	0.55
52:DV:47:VAL:O	52:DV:48:GLY:C	2.45	0.55
52:DV:4:ILE:HG22	52:DV:4:ILE:O	2.05	0.55
55:DY:28:LYS:HZ2	55:DY:28:LYS:N	2.03	0.55
56:DZ:144:LEU:HD21	56:DZ:150:LEU:CD1	2.36	0.55
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.88	0.55
8:AH:26:VAL:HG23	8:AH:27:PRO:HD2	1.87	0.55
16:AP:51:VAL:O	16:AP:53:VAL:N	2.39	0.55
17:AQ:33:GLY:O	17:AQ:34:LYS:O	2.24	0.55
25:B0:8:GLY:O	25:B0:9:SER:HB3	2.05	0.55
35:BA:1019:U:H2'	35:BA:1020:A:C8	2.41	0.55
35:BA:2101:G:H2'	35:BA:2102:U:O4'	2.06	0.55
35:BA:2475:C:H5'	35:BA:2476:A:OP2	2.06	0.55
35:BA:2703:C:O2	35:BA:2703:C:H2'	2.05	0.55
35:BA:946:G:O2'	35:BA:947:G:H5'	2.06	0.55
35:BA:2175:C:H1'	37:BC:215:THR:N	2.20	0.55
38:BD:18:VAL:CG1	38:BD:19:ALA:N	2.69	0.55
38:BD:28:GLU:CD	38:BD:28:GLU:N	2.60	0.55
39:BE:16:ARG:O	39:BE:18:ASP:N	2.38	0.55
41:BG:101:ILE:C	41:BG:101:ILE:HD13	2.26	0.55
50:BT:28:VAL:HG22	50:BT:46:GLU:HA	1.87	0.55
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.72	0.55
1:CA:489:C:H2'	1:CA:490:G:C8	2.41	0.55
2:CB:167:PRO:HG3	2:CB:188:ALA:CB	2.36	0.55
3:CC:79:ARG:HH11	3:CC:79:ARG:HB3	1.71	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.21	0.55
5:CE:19:MET:O	5:CE:20:GLN:HB2	2.06	0.55
10:CJ:34:VAL:HG12	10:CJ:35:SER:N	2.21	0.55
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:16:CYS:H	31:D6:47:THR:CG2	2.19	0.55
35:DA:1751:C:H2'	35:DA:1752:C:C6	2.41	0.55
35:DA:2101:G:H2'	35:DA:2102:U:O4'	2.06	0.55
35:DA:2233:U:H2'	35:DA:2234:G:C8	2.41	0.55
35:DA:624:C:O2'	35:DA:657:U:H5'	2.06	0.55
36:DB:65:C:N4	36:DB:109:C:H2'	2.15	0.55
37:DC:49:ILE:HG22	37:DC:50:ASP:OD1	2.06	0.55
38:DD:30:GLU:HG2	38:DD:63:ARG:CZ	2.35	0.55
39:DE:70:ALA:O	39:DE:71:GLY:C	2.45	0.55
41:DG:12:TYR:HA	41:DG:16:ARG:CB	2.36	0.55
1:AA:221:C:H2'	1:AA:222:U:H6	1.71	0.55
1:AA:370:C:H2'	1:AA:371:G:H8	1.71	0.55
1:AA:389:A:H2'	1:AA:390:C:C5'	2.35	0.55
1:AA:779:C:O2'	1:AA:780:A:H5'	2.07	0.55
4:AD:11:LEU:O	4:AD:13:ARG:O	2.23	0.55
5:AE:101:ILE:HG12	5:AE:119:LEU:HA	1.88	0.55
7:AG:111:ARG:NH2	7:AG:122:HIS:HB3	2.21	0.55
8:AH:85:ARG:C	8:AH:85:ARG:HD3	2.26	0.55
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.89	0.55
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.88	0.55
16:AP:49:LEU:HG	16:AP:49:LEU:O	2.07	0.55
31:B6:16:CYS:N	31:B6:47:THR:HG21	2.22	0.55
35:BA:1344:G:H4'	35:BA:1384:A:C5	2.40	0.55
35:BA:1438:U:O2'	35:BA:1439:A:H5'	2.06	0.55
35:BA:1661:G:O2'	35:BA:1662:C:H5'	2.06	0.55
35:BA:1884:A:H2'	35:BA:1885:A:C5'	2.19	0.55
35:BA:2199:A:H3'	35:BA:2200:C:C6	2.41	0.55
35:BA:2463:C:O2'	35:BA:2464:C:H5'	2.06	0.55
35:BA:2707:G:H2'	35:BA:2708:G:H8	1.70	0.55
35:BA:626:U:O2	46:BP:105:LEU:HG	2.06	0.55
39:BE:93:VAL:HG12	39:BE:175:VAL:HG23	1.87	0.55
40:BF:24:LEU:HB3	40:BF:25:PRO:HD2	1.88	0.55
43:BI:132:PRO:O	43:BI:133:HIS:C	2.45	0.55
35:BA:2358:G:H22	46:BP:55:ARG:HH22	1.54	0.55
47:BQ:55:VAL:CG2	47:BQ:56:ARG:N	2.69	0.55
49:BS:26:LEU:HG	49:BS:39:ILE:HD11	1.86	0.55
49:BS:35:ILE:HG22	49:BS:53:SER:HB2	1.89	0.55
50:BT:32:TYR:CD2	50:BT:81:PRO:O	2.59	0.55
53:BW:75:TYR:CD1	53:BW:104:THR:HB	2.42	0.55
54:BX:64:LYS:HD3	54:BX:73:ARG:HD2	1.88	0.55
54:BX:65:ARG:HG2	54:BX:65:ARG:NH1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:39:VAL:O	55:BY:40:GLU:CD	2.45	0.55
55:BY:80:GLY:O	55:BY:81:LYS:O	2.25	0.55
56:BZ:101:PRO:O	56:BZ:102:LEU:HD23	2.05	0.55
1:CA:532:A:H2	1:CA:1207:G:O4'	1.90	0.55
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.21	0.55
1:CA:560:U:H5'	1:CA:566:G:N2	2.21	0.55
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.05	0.55
7:CG:111:ARG:NH2	7:CG:122:HIS:HB3	2.21	0.55
8:CH:26:VAL:HG23	8:CH:27:PRO:HD2	1.88	0.55
10:CJ:84:GLN:NE2	10:CJ:88:LEU:HD23	2.22	0.55
11:CK:33:THR:HB	11:CK:38:ASN:N	2.22	0.55
13:CM:40:ASN:O	13:CM:43:THR:HG23	2.05	0.55
23:CW:48:C:H2'	23:CW:59:U:H4'	1.88	0.55
22:CY:74:C:H6	22:CY:74:C:H5'	1.71	0.55
30:D5:55:ARG:O	30:D5:56:LYS:CB	2.52	0.55
31:D6:17:LYS:C	31:D6:18:ARG:HD3	2.26	0.55
33:D8:30:ARG:O	33:D8:31:HIS:HB3	2.06	0.55
35:DA:1167:U:H2'	35:DA:1168:G:C8	2.41	0.55
35:DA:2735:G:O2'	35:DA:2736:G:H5''	2.05	0.55
35:DA:523:C:O2'	35:DA:524:U:H5'	2.05	0.55
35:DA:528:A:C2	35:DA:2043:C:H4'	2.41	0.55
35:DA:528:A:H2	35:DA:2043:C:C5'	2.18	0.55
35:DA:573:G:O2'	35:DA:574:C:H3'	2.06	0.55
35:DA:271(M):G:H5''	43:DI:57:ARG:HH12	1.72	0.55
44:DN:1:MET:HG2	44:DN:2:LYS:H	1.71	0.55
45:DO:88:ASN:OD1	45:DO:92:GLU:O	2.24	0.55
46:DP:47:ASP:HB3	46:DP:48:PRO:C	2.26	0.55
51:DU:62:ILE:HD12	51:DU:76:TYR:OH	2.05	0.55
44:DN:38:HIS:O	51:DU:67:ALA:HB1	2.06	0.55
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.89	0.55
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.06	0.55
1:AA:630:G:N3	1:AA:630:G:H2'	2.22	0.55
1:AA:841:U:H3'	1:AA:848:C:C5'	2.36	0.55
10:AJ:34:VAL:HG12	10:AJ:35:SER:N	2.21	0.55
11:AK:34:ASP:OD1	11:AK:38:ASN:HB2	2.05	0.55
11:AK:41:THR:HG21	11:AK:71:LYS:HB3	1.88	0.55
12:AL:37:CYS:HA	12:AL:57:LYS:O	2.06	0.55
14:AN:37:PHE:C	14:AN:39:LEU:H	2.10	0.55
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.06	0.55
22:AV:53:G:H2'	22:AV:54:U:C6	2.42	0.55
22:AY:64:A:H2'	22:AY:65:G:H8	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:64:ALA:HA	26:B1:67:ILE:CG1	2.36	0.55
35:BA:1167:U:H2'	35:BA:1168:G:C8	2.42	0.55
37:BC:64:LEU:O	37:BC:66:HIS:N	2.40	0.55
48:BR:74:LYS:HD2	48:BR:77:ARG:NH2	2.20	0.55
50:BT:131:ALA:C	50:BT:133:GLU:H	2.10	0.55
1:AA:346:G:H5'	50:BT:41:ARG:HG3	1.88	0.55
1:CA:1363:C:H5'	1:CA:1363(A):A:O5'	2.06	0.55
1:CA:1457:G:O2'	1:CA:1458:G:H5'	2.06	0.55
1:CA:630:G:N3	1:CA:630:G:H2'	2.22	0.55
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.05	0.55
2:CB:223:ILE:HG22	2:CB:226:ARG:NH2	2.21	0.55
11:CK:41:THR:HG21	11:CK:71:LYS:HB3	1.88	0.55
3:CC:30:ARG:HH11	14:CN:38:GLY:N	2.03	0.55
1:CA:668:G:O2'	15:CO:46:HIS:HB3	2.06	0.55
31:D6:15:GLU:CD	31:D6:41:PRO:HG3	2.27	0.55
35:DA:17:G:H2'	35:DA:18:C:H6	1.71	0.55
35:DA:1934:C:O2'	35:DA:1935:G:H5'	2.06	0.55
35:DA:2099:U:H2'	35:DA:2099:U:O2	2.05	0.55
35:DA:2223:G:H2'	35:DA:2224:G:H5'	1.88	0.55
35:DA:2347:C:H2'	35:DA:2348:U:H6	1.71	0.55
35:DA:2680:C:H5'	39:DE:189:PRO:HA	1.89	0.55
35:DA:2681:C:H5	35:DA:2725:A:N6	2.05	0.55
35:DA:833:U:H2'	35:DA:834:C:C6	2.42	0.55
39:DE:12:THR:HG23	50:DT:8:LYS:CE	2.36	0.55
35:DA:2052:G:O4'	39:DE:142:GLY:HA3	2.06	0.55
39:DE:53:PRO:O	39:DE:54:GLN:O	2.25	0.55
41:DG:115:ARG:NH2	41:DG:136:ARG:HG3	2.21	0.55
44:DN:114:ARG:O	44:DN:118:LYS:HG3	2.06	0.55
45:DO:77:ILE:HD13	50:DT:74:ARG:HG2	1.87	0.55
46:DP:47:ASP:HB3	46:DP:48:PRO:O	2.06	0.55
56:DZ:10:ARG:NH2	56:DZ:25:PRO:CA	2.68	0.55
56:DZ:153:SER:C	56:DZ:155:LEU:H	2.10	0.55
56:DZ:10:ARG:HH22	56:DZ:26:GLY:H	1.54	0.55
1:AA:1152:A:H5'	10:AJ:70:ARG:HH22	1.71	0.55
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.71	0.55
1:AA:539:A:H2'	1:AA:540:G:H8	1.71	0.55
1:AA:728:A:H2'	1:AA:729:A:C8	2.41	0.55
4:AD:147:ALA:CB	4:AD:182:LYS:HB3	2.36	0.55
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.89	0.55
8:AH:12:ARG:HD3	8:AH:25:ASP:O	2.05	0.55
8:AH:44:PHE:HB3	8:AH:80:ILE:HD11	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.37	0.55
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.21	0.55
15:AO:10:LYS:HG3	15:AO:11:VAL:N	2.21	0.55
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.37	0.55
20:AT:30:LYS:CE	20:AT:72:LEU:HD21	2.32	0.55
1:AA:1243:C:OP2	21:AU:10:ARG:CZ	2.54	0.55
23:AW:39:U:OP1	23:AW:39:U:H4'	2.07	0.55
30:B5:36:CYS:HB3	30:B5:38:ALA:H	1.72	0.55
30:B5:6:VAL:CG2	30:B5:7:PRO:HD2	2.36	0.55
31:B6:34:LEU:CD2	31:B6:36:LEU:HD22	2.34	0.55
35:BA:1528(A):A:N7	35:BA:1529:G:C8	2.74	0.55
35:BA:2263:C:O2'	35:BA:2264:C:H5'	2.06	0.55
35:BA:361:G:H2'	35:BA:362:U:H5''	1.88	0.55
35:BA:553:G:H2'	35:BA:554:U:O4'	2.07	0.55
36:BB:41:U:H5	41:BG:69:ALA:HB1	1.69	0.55
42:BH:100:GLY:C	42:BH:102:ALA:H	2.08	0.55
46:BP:105:LEU:HD12	46:BP:105:LEU:N	2.21	0.55
46:BP:62:LEU:HD23	46:BP:62:LEU:N	2.22	0.55
47:BQ:110:THR:HG23	47:BQ:113:GLN:OE1	2.07	0.55
51:BU:8:VAL:CG1	51:BU:12:ARG:NE	2.70	0.55
52:BV:24:LYS:HA	52:BV:92:THR:HG23	1.87	0.55
1:CA:1410:G:O2'	1:CA:1411:C:H5'	2.07	0.55
1:CA:226:G:O2'	1:CA:227:G:H5'	2.07	0.55
1:CA:41:G:H2'	1:CA:42:G:C8	2.42	0.55
1:CA:659:U:O2'	1:CA:660:G:H5'	2.06	0.55
3:CC:54:ARG:HH12	3:CC:56:ASP:HB2	1.70	0.55
7:CG:152:ALA:O	7:CG:155:ARG:HG3	2.07	0.55
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.87	0.55
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.35	0.55
22:CY:8:U:H4'	22:CY:48:C:H4'	1.89	0.55
25:D0:68:GLU:HG3	25:D0:80:HIS:HB2	1.88	0.55
27:D2:61:LEU:O	27:D2:64:LEU:N	2.39	0.55
31:D6:27:LYS:HD2	35:DA:2285:C:OP2	2.06	0.55
35:DA:1048:A:H4'	35:DA:1049:C:C5	2.42	0.55
35:DA:2107:C:H2'	35:DA:2108:C:O4'	2.06	0.55
35:DA:2306:C:C5	35:DA:2307:G:H1'	2.41	0.55
35:DA:839:U:H2'	35:DA:840:C:C6	2.40	0.55
35:DA:907:U:OP1	47:DQ:24:GLY:N	2.40	0.55
37:DC:59:ARG:HH21	37:DC:199:HIS:CB	2.19	0.55
38:DD:24:ILE:O	38:DD:26:LYS:NZ	2.38	0.55
38:DD:93:ALA:HB2	38:DD:107:ALA:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:148:MET:O	41:DG:148:MET:HE2	2.06	0.55
41:DG:42:GLY:O	41:DG:43:LEU:HB2	2.06	0.55
45:DO:105:GLU:HA	45:DO:108:GLU:CD	2.26	0.55
45:DO:88:ASN:O	45:DO:91:LEU:N	2.39	0.55
46:DP:97:PRO:O	46:DP:99:LEU:N	2.37	0.55
45:DO:104:ARG:HH12	50:DT:35:LYS:HD3	1.70	0.55
51:DU:58:ARG:O	51:DU:62:ILE:HG12	2.06	0.55
52:DV:6:LYS:HG3	52:DV:11:GLN:HG2	1.88	0.55
53:DW:80:PRO:O	53:DW:100:THR:HG21	2.06	0.55
53:DW:68:ARG:HB3	53:DW:109:GLU:HB3	1.89	0.55
53:DW:82:LEU:HD12	53:DW:82:LEU:H	1.71	0.55
55:DY:81:LYS:CD	55:DY:97:ARG:HB3	2.31	0.55
56:DZ:43:GLU:O	56:DZ:47:VAL:HG23	2.06	0.55
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.06	0.55
1:AA:296:U:H2'	1:AA:297:G:C8	2.42	0.55
2:AB:178:ARG:O	8:AH:71:GLY:HA2	2.07	0.55
2:AB:237:ALA:H	2:AB:239:VAL:HG23	1.70	0.55
6:AF:19:LEU:HD23	6:AF:23:LYS:HD3	1.89	0.55
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.26	0.55
11:AK:57:THR:HG23	11:AK:58:PRO:HD2	1.87	0.55
11:AK:69:ALA:O	11:AK:73:MET:HG2	2.06	0.55
6:AF:62:TRP:HB2	18:AR:35:ARG:HH12	1.71	0.55
18:AR:36:ASN:O	18:AR:40:LEU:HD12	2.06	0.55
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.72	0.55
21:AU:6:ARG:O	21:AU:8:THR:N	2.36	0.55
23:AW:39:U:O2	23:AW:39:U:H5'	2.07	0.55
23:AW:68:C:H2'	23:AW:69:G:H8	1.71	0.55
22:AY:16:U:H3'	22:AY:17:C:C5'	2.35	0.55
26:B1:57:GLU:O	26:B1:57:GLU:HG2	2.07	0.55
35:BA:1921:G:O2'	35:BA:1922:G:H5'	2.07	0.55
35:BA:2661:G:H2'	35:BA:2662:A:C8	2.41	0.55
35:BA:271(S):G:O2'	35:BA:271(T):C:H5''	2.06	0.55
39:BE:93:VAL:HG11	39:BE:181:LEU:O	2.06	0.55
39:BE:54:GLN:HA	39:BE:72:VAL:HG11	1.89	0.55
40:BF:11:VAL:HG12	40:BF:12:LEU:H	1.72	0.55
40:BF:34:TRP:HB2	46:BP:10:PRO:O	2.07	0.55
46:BP:146:VAL:HG13	46:BP:147:LEU:N	2.22	0.55
48:BR:21:TYR:OH	48:BR:43:GLU:HG2	2.06	0.55
52:BV:47:VAL:O	52:BV:48:GLY:C	2.44	0.55
56:BZ:30:ASN:OD1	56:BZ:33:LEU:HB3	2.07	0.55
1:CA:1437:C:H2'	1:CA:1438:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:671:G:O2'	1:CA:672:U:H5'	2.07	0.55
1:CA:839:U:H2'	1:CA:839:U:O2	2.07	0.55
1:CA:841:U:H3'	1:CA:848:C:C5'	2.36	0.55
2:CB:21:ARG:HD2	2:CB:38:GLY:C	2.27	0.55
4:CD:18:LYS:CB	4:CD:33:MET:HG2	2.30	0.55
10:CJ:38:ILE:HG13	10:CJ:71:LEU:HB3	1.89	0.55
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.07	0.55
19:CS:18:LYS:O	19:CS:22:LEU:HD23	2.07	0.55
19:CS:36:ARG:NH1	19:CS:53:ASN:HA	2.22	0.55
33:D8:46:ARG:O	33:D8:47:LYS:HB3	2.06	0.55
33:D8:56:GLU:HA	33:D8:59:LYS:NZ	2.21	0.55
35:DA:2636:U:OP1	39:DE:80:GLU:HG3	2.06	0.55
35:DA:2718:G:H2'	35:DA:2719:G:O4'	2.06	0.55
39:DE:101:ARG:NE	39:DE:171:GLU:HB2	2.22	0.55
39:DE:92:THR:N	39:DE:95:ILE:HD11	2.20	0.55
43:DI:59:ALA:O	43:DI:63:ALA:HB3	2.07	0.55
46:DP:132:LYS:O	46:DP:136:GLU:HG3	2.07	0.55
1:AA:274:A:H4'	1:AA:275:G:OP1	2.05	0.55
1:AA:41:G:H2'	1:AA:42:G:C8	2.41	0.55
1:AA:545:C:O2'	1:AA:546:G:H5'	2.07	0.55
3:AC:152:ILE:HG13	3:AC:199:LYS:HB2	1.89	0.55
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.42	0.55
11:AK:95:ILE:H	11:AK:95:ILE:HD13	1.72	0.55
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.06	0.55
30:B5:55:ARG:O	30:B5:56:LYS:CB	2.51	0.55
35:BA:89:G:H3'	35:BA:90:U:H5''	1.87	0.55
37:BC:68:LEU:HB2	37:BC:70:LYS:HG2	1.87	0.55
35:BA:674:G:C1'	40:BF:74:ARG:HD3	2.36	0.55
41:BG:64:THR:HG23	41:BG:65:GLY:N	2.22	0.55
42:BH:44:VAL:O	42:BH:46:GLU:N	2.38	0.55
46:BP:111:ARG:CZ	46:BP:149:GLU:HG3	2.37	0.55
46:BP:13:ASN:ND2	46:BP:13:ASN:C	2.57	0.55
47:BQ:62:GLY:H	47:BQ:109:VAL:HG22	1.71	0.55
35:BA:2495:G:H5''	47:BQ:82:ARG:HB3	1.88	0.55
48:BR:9:LYS:O	48:BR:10:LEU:HD23	2.07	0.55
50:BT:35:LYS:HG3	50:BT:36:GLU:N	2.22	0.55
55:BY:81:LYS:CD	55:BY:97:ARG:HB3	2.33	0.55
47:BQ:141:GLN:OXT	56:BZ:99:TYR:O	2.25	0.55
1:CA:243:A:O2'	1:CA:244:U:OP2	2.24	0.55
1:CA:59:A:C5'	1:CA:60:A:H5''	2.37	0.55
1:CA:738:C:H5''	6:CF:69:GLU:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:805:C:H2'	1:CA:806:C:C6	2.40	0.55
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.07	0.55
1:CA:619:U:N3	4:CD:135:LEU:HD21	2.21	0.55
11:CK:34:ASP:OD1	11:CK:38:ASN:HB2	2.07	0.55
12:CL:11:VAL:HG21	17:CQ:34:LYS:HD3	1.88	0.55
19:CS:29:ARG:HD2	19:CS:30:LEU:H	1.71	0.55
35:DA:2236:C:C2'	35:DA:2237:G:H5'	2.37	0.55
35:DA:272(D):G:H2'	35:DA:272(E):G:H8	1.72	0.55
38:DD:166:GLN:CA	38:DD:166:GLN:NE2	2.70	0.55
39:DE:5:LEU:N	39:DE:5:LEU:HD23	2.21	0.55
40:DF:126:VAL:HG13	40:DF:193:VAL:HG13	1.89	0.55
41:DG:115:ARG:NH1	41:DG:140:ILE:HD11	2.19	0.55
42:DH:87:LEU:HD23	42:DH:164:TYR:HA	1.88	0.55
42:DH:89:ILE:HG12	42:DH:129:THR:HA	1.89	0.55
45:DO:49:ARG:NH1	45:DO:49:ARG:HG2	2.20	0.55
46:DP:101:VAL:CB	46:DP:107:LYS:HA	2.34	0.55
46:DP:29:LYS:N	46:DP:29:LYS:HD2	2.22	0.55
51:DU:20:LEU:CB	51:DU:39:LEU:HD11	2.35	0.55
51:DU:64:ARG:NH2	51:DU:64:ARG:HG2	2.15	0.55
51:DU:89:GLU:HG2	52:DV:50:PRO:CG	2.37	0.55
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.40	0.55
1:AA:190:U:H2'	1:AA:191:G:C8	2.40	0.55
2:AB:136:VAL:HA	2:AB:139:LYS:HB2	1.89	0.55
2:AB:168:THR:HG23	2:AB:192:SER:CB	2.37	0.55
2:AB:69:LEU:HD22	2:AB:91:PRO:CB	2.31	0.55
1:AA:1190:G:P	3:AC:5:ILE:HG13	2.47	0.55
6:AF:42:GLU:O	6:AF:44:GLY:N	2.40	0.55
7:AG:145:ALA:C	7:AG:147:ALA:N	2.60	0.55
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.06	0.55
22:AY:74:C:H2'	22:AY:75:C:H5'	1.89	0.55
25:B0:53:MET:CB	25:B0:59:LEU:HD23	2.37	0.55
26:B1:12:PRO:HB3	26:B1:43:TYR:CD2	2.38	0.55
34:B9:10:ILE:HD11	34:B9:34:GLN:NE2	2.22	0.55
35:BA:1312:U:H4'	35:BA:1313:U:O5'	2.06	0.55
35:BA:1680:U:H2'	35:BA:1681:G:O4'	2.07	0.55
35:BA:2305:A:C2	35:BA:2306:C:H1'	2.42	0.55
35:BA:829:A:N7	35:BA:2247:A:O2'	2.35	0.55
36:BB:65:C:N4	36:BB:109:C:H2'	2.16	0.55
35:BA:322:A:OP2	40:BF:169:ASN:HB2	2.07	0.55
44:BN:120:LEU:HD11	44:BN:122:VAL:HG23	1.88	0.55
50:BT:82:LEU:O	50:BT:84:GLN:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:151:HIS:O	56:BZ:152:ALA:HB3	2.06	0.55
56:BZ:94:GLU:O	56:BZ:96:VAL:N	2.37	0.55
2:CB:114:ARG:HD3	2:CB:117:GLU:OE1	2.07	0.55
1:CA:1190:G:P	3:CC:5:ILE:HG13	2.46	0.55
12:CL:28:LYS:HE2	12:CL:33:ARG:HH22	1.72	0.55
25:D0:4:LYS:HD2	35:DA:2252:G:O6	2.07	0.55
27:D2:48:HIS:CD2	35:DA:96:G:H4'	2.42	0.55
35:DA:118:A:OP2	35:DA:119:A:H5''	2.06	0.55
35:DA:1444:G:H2'	35:DA:1445(A):C:C5	2.42	0.55
35:DA:2528:U:H2'	35:DA:2530:A:O5'	2.07	0.55
35:DA:2689:U:H5''	35:DA:2690:C:H5'	1.89	0.55
35:DA:2786:U:O2'	39:DE:62:PRO:HA	2.07	0.55
40:DF:192:LEU:HD23	40:DF:193:VAL:N	2.22	0.55
41:DG:91:ARG:HG2	41:DG:92:VAL:H	1.70	0.55
42:DH:104:GLU:HA	42:DH:113:VAL:O	2.06	0.55
43:DI:92:VAL:HG22	43:DI:92:VAL:O	2.07	0.55
44:DN:25:ARG:NH1	44:DN:25:ARG:CG	2.57	0.55
47:DQ:12:GLN:HE21	47:DQ:73:PRO:HD3	1.72	0.55
50:DT:14:TYR:N	50:DT:14:TYR:CD1	2.74	0.55
45:DO:119:PRO:O	50:DT:68:TYR:HE1	1.90	0.55
55:DY:27:VAL:HA	55:DY:28:LYS:NZ	2.21	0.55
55:DY:38:ILE:C	55:DY:39:VAL:HG23	2.26	0.55
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.41	0.55
1:AA:386:C:O2'	1:AA:387:U:H5'	2.07	0.55
1:AA:552:U:O2'	1:AA:553:A:H5'	2.06	0.55
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.36	0.55
2:AB:48:MET:CG	2:AB:49:GLU:N	2.64	0.55
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.72	0.55
17:AQ:6:LEU:O	17:AQ:58:GLU:HA	2.07	0.55
35:BA:1021:A:C3'	35:BA:1021:A:C8	2.89	0.55
35:BA:83:G:C2	35:BA:102:G:H2'	2.42	0.55
35:BA:1116:C:C2'	35:BA:1117:G:H5'	2.37	0.55
35:BA:1847:A:H3'	35:BA:1848:A:H5'	1.88	0.55
35:BA:1862:G:O2'	35:BA:1863:G:H5'	2.07	0.55
35:BA:2828:C:O2'	35:BA:2829:C:H5'	2.07	0.55
38:BD:13:ARG:HA	38:BD:16:MET:HE3	1.88	0.55
38:BD:35:LYS:HB2	38:BD:63:ARG:CG	2.37	0.55
39:BE:101:ARG:NH1	39:BE:169:ASN:ND2	2.50	0.55
40:BF:9:ILE:HG23	40:BF:13:SER:O	2.05	0.55
40:BF:191:ARG:HH11	40:BF:191:ARG:HG2	1.72	0.55
40:BF:83:PHE:O	40:BF:85:GLY:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:41:MET:HG2	42:BH:55:PRO:CD	2.37	0.55
43:BI:12:LEU:HG	43:BI:12:LEU:O	2.07	0.55
45:BO:63:VAL:HG23	45:BO:83:ALA:HB3	1.89	0.55
1:CA:1126:U:OP2	1:CA:1281:U:O2	2.25	0.55
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.07	0.55
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.72	0.55
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.25	0.55
5:CE:8:GLU:HB2	5:CE:34:VAL:HG22	1.88	0.55
6:CF:42:GLU:O	6:CF:44:GLY:N	2.40	0.55
8:CH:44:PHE:HB3	8:CH:80:ILE:HD11	1.89	0.55
11:CK:105:VAL:O	11:CK:107:SER:N	2.39	0.55
14:CN:37:PHE:C	14:CN:39:LEU:H	2.10	0.55
6:CF:60:PHE:CE2	18:CR:78:LEU:HD21	2.42	0.55
18:CR:82:THR:O	18:CR:83:GLU:HB3	2.06	0.55
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.72	0.55
22:CV:34:G:H2'	22:CV:35:A:H8	1.72	0.55
25:D0:53:MET:CB	25:D0:59:LEU:HD23	2.37	0.55
28:D3:38:GLU:HG3	28:D3:39:ASP:H	1.71	0.55
31:D6:22:ALA:HB2	31:D6:39:TYR:CE2	2.42	0.55
35:DA:1914:C:H2'	35:DA:1915:U:O4'	2.06	0.55
30:D5:4:HIS:O	35:DA:2056:G:N2	2.40	0.55
35:DA:2728:U:O2'	35:DA:2729:G:H5'	2.07	0.55
35:DA:285:C:H2'	35:DA:286:C:H5''	1.89	0.55
35:DA:729:G:N7	38:DD:208:LYS:HB2	2.22	0.55
39:DE:30:PRO:O	39:DE:32:PRO:HD3	2.07	0.55
41:DG:77:ILE:H	41:DG:83:ARG:HB3	1.72	0.55
43:DI:81:VAL:HG11	43:DI:88:ILE:HD13	1.88	0.55
43:DI:94:ALA:CB	43:DI:111:PRO:HA	2.37	0.55
44:DN:65:LYS:O	44:DN:69:GLN:CG	2.55	0.55
45:DO:17:ARG:O	45:DO:18:LYS:HG3	2.06	0.55
48:DR:2:ARG:CD	48:DR:5:LYS:HE2	2.37	0.55
51:DU:8:VAL:CG1	51:DU:12:ARG:NE	2.70	0.55
52:DV:38:LEU:C	52:DV:39:LEU:HD13	2.26	0.55
56:DZ:10:ARG:HH21	56:DZ:25:PRO:HA	1.70	0.55
56:DZ:150:LEU:N	56:DZ:150:LEU:HD13	2.09	0.55
1:AA:978:A:O2'	1:AA:1322:C:N3	2.40	0.55
1:AA:167:G:H2'	1:AA:168:G:H8	1.71	0.55
2:AB:8:LYS:HA	2:AB:217:ARG:HH22	1.72	0.55
2:AB:21:ARG:HD2	2:AB:38:GLY:C	2.27	0.55
2:AB:13:ALA:HB2	2:AB:44:LEU:HD23	1.89	0.55
2:AB:47:THR:O	2:AB:51:LEU:HD12	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.88	0.55
4:AD:25:ARG:HA	4:AD:28:SER:OG	2.07	0.55
7:AG:154:TYR:O	7:AG:156:TRP:N	2.39	0.55
13:AM:28:ALA:O	13:AM:30:ALA:N	2.40	0.55
17:AQ:81:ARG:HD3	17:AQ:84:LEU:HD11	1.89	0.55
22:AV:41:C:H2'	22:AV:41:C:O2	2.06	0.55
23:AW:12:U:H3	23:AW:23:A:N6	2.03	0.55
25:B0:60:PHE:CE2	35:BA:2365:G:H4'	2.42	0.55
31:B6:15:GLU:CD	31:B6:41:PRO:HG3	2.27	0.55
33:B8:15:LYS:HB2	46:BP:65:ARG:HH12	1.70	0.55
35:BA:1494:A:C2'	35:BA:1495:A:H5''	2.37	0.55
35:BA:1518:U:H2'	35:BA:1519:G:O4'	2.07	0.55
35:BA:528:A:C2	35:BA:2043:C:H4'	2.42	0.55
35:BA:2203:U:H1'	38:BD:151:LYS:HE3	1.87	0.55
35:BA:290:G:O2'	35:BA:291:C:H5'	2.07	0.55
35:BA:336:C:O2'	35:BA:337:C:H5'	2.07	0.55
30:B5:16:ARG:NH2	35:BA:517:C:OP1	2.39	0.55
38:BD:11:PRO:C	38:BD:13:ARG:H	2.10	0.55
39:BE:39:PRO:O	39:BE:41:LYS:N	2.40	0.55
42:BH:141:VAL:CG1	42:BH:142:GLY:N	2.70	0.55
43:BI:10:GLU:O	43:BI:12:LEU:HD23	2.07	0.55
43:BI:115:ALA:HB2	43:BI:131:LYS:HE2	1.89	0.55
46:BP:101:VAL:CB	46:BP:107:LYS:HA	2.35	0.55
46:BP:80:TYR:CE1	46:BP:111:ARG:HD3	2.41	0.55
50:BT:32:TYR:CG	50:BT:81:PRO:HB2	2.41	0.55
50:BT:84:GLN:O	50:BT:85:LYS:HB2	2.07	0.55
51:BU:66:ASN:HB2	51:BU:76:TYR:HB2	1.87	0.55
55:BY:101:LYS:HG2	55:BY:102:CYS:N	2.21	0.55
55:BY:8:LYS:H	55:BY:8:LYS:CD	2.14	0.55
56:BZ:41:LEU:HD23	56:BZ:41:LEU:C	2.27	0.55
47:BQ:141:GLN:CB	56:BZ:98:MET:HA	2.37	0.55
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.42	0.55
4:CD:206:PHE:O	4:CD:209:ARG:HB2	2.07	0.55
1:CA:546:G:P	4:CD:72:GLU:HB3	2.47	0.55
10:CJ:32:ALA:CB	10:CJ:76:ASN:H	2.20	0.55
3:CC:6:HIS:HB2	14:CN:49:HIS:CD2	2.42	0.55
18:CR:87:ARG:HG2	18:CR:87:ARG:O	2.06	0.55
20:CT:57:ARG:HH11	20:CT:57:ARG:HB2	1.72	0.55
32:D7:47:ARG:NH2	35:DA:1311:G:C4	2.75	0.55
35:DA:1019:U:H3	35:DA:1142(A):A:N6	2.05	0.55
35:DA:2262:U:C2'	35:DA:2263:C:C5'	2.81	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2494:G:H2'	35:DA:2495:G:H8	1.71	0.55
35:DA:320:A:OP2	40:DF:137:LYS:HD2	2.06	0.55
38:DD:77:ALA:HB2	38:DD:97:TYR:CD2	2.41	0.55
39:DE:116:VAL:O	39:DE:117:MET:CB	2.55	0.55
40:DF:111:ALA:HB2	40:DF:206:ILE:HD13	1.89	0.55
35:DA:673:C:H5'	40:DF:54:ARG:NH1	2.19	0.55
41:DG:116:ASP:O	41:DG:117:PHE:CB	2.55	0.55
41:DG:125:PHE:O	41:DG:128:ARG:HG2	2.06	0.55
44:DN:3:THR:C	44:DN:5:VAL:H	2.11	0.55
44:DN:76:SER:O	44:DN:78:TYR:N	2.40	0.55
46:DP:35:HIS:O	46:DP:36:LYS:HB2	2.07	0.55
49:DS:92:TYR:CD1	49:DS:93:LYS:N	2.69	0.55
54:DX:24:GLY:O	54:DX:82:GLN:HA	2.07	0.55
1:AA:163:C:H2'	1:AA:164:U:C6	2.39	0.54
1:AA:392:G:H2'	1:AA:393:A:C8	2.42	0.54
1:AA:438:G:H4'	4:AD:123:HIS:ND1	2.22	0.54
1:AA:805:C:H2'	1:AA:806:C:C6	2.42	0.54
1:AA:993:G:H2'	1:AA:995:C:H41	1.72	0.54
2:AB:72:GLY:HA2	2:AB:165:VAL:CG2	2.38	0.54
5:AE:103:GLY:O	5:AE:105:VAL:N	2.40	0.54
5:AE:47:LYS:HD2	5:AE:47:LYS:N	2.22	0.54
6:AF:91:VAL:HG12	6:AF:92:LYS:O	2.07	0.54
20:AT:57:ARG:HH11	20:AT:57:ARG:HB2	1.72	0.54
20:AT:87:LYS:HG3	20:AT:91:LEU:HD11	1.89	0.54
25:B0:36:ILE:HD13	25:B0:58:THR:CG2	2.35	0.54
26:B1:91:LYS:CA	26:B1:94:LEU:HD12	2.37	0.54
28:B3:38:GLU:HG3	28:B3:39:ASP:H	1.72	0.54
30:B5:20:ARG:NH2	53:BW:15:ARG:NH1	2.55	0.54
35:BA:1494:A:N3	35:BA:1494:A:H3'	2.22	0.54
35:BA:1503:U:H2'	35:BA:1504:C:H6	1.70	0.54
35:BA:2718:G:H2'	35:BA:2719:G:O4'	2.07	0.54
35:BA:313:C:O2'	35:BA:314:A:H5'	2.08	0.54
35:BA:833:U:H2'	35:BA:834:C:C6	2.42	0.54
36:BB:29:A:H2'	36:BB:30:C:C6	2.42	0.54
36:BB:29:A:H2'	36:BB:30:C:H6	1.72	0.54
44:BN:121:LYS:HD2	44:BN:121:LYS:N	2.22	0.54
46:BP:33:ARG:O	46:BP:35:HIS:O	2.25	0.54
47:BQ:141:GLN:CA	56:BZ:53:ILE:HG12	2.37	0.54
49:BS:105:ALA:C	49:BS:107:GLU:N	2.60	0.54
50:BT:3:ARG:HH11	50:BT:3:ARG:HG3	1.71	0.54
45:BO:77:ILE:CD1	50:BT:74:ARG:HG2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:92:ARG:HH11	53:BW:92:ARG:HG2	1.72	0.54
55:BY:96:ILE:HD12	55:BY:99:CYS:HB3	1.89	0.54
56:BZ:103:ARG:HD2	56:BZ:136:PHE:CG	2.42	0.54
1:CA:865:A:H5'	1:CA:1078:U:C5	2.42	0.54
2:CB:168:THR:HG23	2:CB:192:SER:CB	2.37	0.54
2:CB:82:ARG:HB2	2:CB:94:ASN:HD21	1.72	0.54
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.20	0.54
4:CD:158:ILE:O	4:CD:162:LEU:HB2	2.07	0.54
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.42	0.54
22:CV:50:U:O2'	22:CV:51:U:H5'	2.06	0.54
23:CW:59:U:H2'	23:CW:60:U:O4'	2.07	0.54
31:D6:52:VAL:CG1	31:D6:53:LYS:N	2.69	0.54
33:D8:62:LEU:HD13	35:DA:242:G:C5'	2.28	0.54
35:DA:1270:C:H5''	35:DA:1271:G:C5'	2.37	0.54
35:DA:1485:G:H1'	35:DA:1505:C:H41	1.71	0.54
35:DA:2473:U:O2	35:DA:2473:U:H2'	2.05	0.54
35:DA:2661:G:H2'	35:DA:2662:A:C8	2.42	0.54
40:DF:33:LEU:HD22	40:DF:112:MET:HG2	1.88	0.54
40:DF:132:VAL:CG2	40:DF:133:ASN:H	1.99	0.54
40:DF:59:TYR:HB3	40:DF:78:ILE:HD11	1.89	0.54
41:DG:54:GLU:O	41:DG:57:ALA:HB3	2.07	0.54
41:DG:76:SER:CB	41:DG:83:ARG:HB2	2.37	0.54
42:DH:23:ARG:O	42:DH:24:VAL:HG13	2.07	0.54
43:DI:37:VAL:HG12	43:DI:38:LEU:N	2.22	0.54
35:DA:910:A:N7	47:DQ:13:GLN:HG3	2.20	0.54
48:DR:34:ILE:HG22	48:DR:35:THR:N	2.22	0.54
51:DU:13:LYS:HD3	51:DU:13:LYS:N	2.21	0.54
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.85	0.54
1:AA:1445:C:O2'	1:AA:1446:U:H5'	2.08	0.54
1:AA:543:C:H2'	1:AA:544:G:H8	1.72	0.54
1:AA:627:G:H2'	1:AA:628:G:H8	1.71	0.54
1:AA:683:G:H2'	1:AA:684:A:H8	1.72	0.54
1:AA:795:C:H1'	1:AA:1506:U:C6	2.42	0.54
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.72	0.54
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.42	0.54
10:AJ:84:GLN:NE2	10:AJ:88:LEU:HD23	2.21	0.54
12:AL:70:ILE:CD1	12:AL:77:LEU:HD12	2.38	0.54
13:AM:3:ARG:CA	13:AM:9:ILE:HG13	2.37	0.54
17:AQ:9:VAL:HG21	17:AQ:84:LEU:HD13	1.89	0.54
22:AV:74:C:H2'	22:AV:75:C:H5'	1.89	0.54
25:B0:26:TYR:CE2	35:BA:857:C:H1'	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1001:A:H2'	35:BA:1002:G:O4'	2.07	0.54
35:BA:1652:A:H2'	35:BA:1653:G:H5'	1.89	0.54
35:BA:2022:U:O2'	35:BA:2617:C:H5'	2.07	0.54
35:BA:57:C:O2'	35:BA:58:G:H5'	2.06	0.54
37:BC:59:ARG:HB2	37:BC:62:VAL:CG2	2.28	0.54
38:BD:161:THR:O	38:BD:196:VAL:HG23	2.08	0.54
39:BE:109:LYS:HB3	48:BR:2:ARG:HH12	1.72	0.54
40:BF:136:THR:O	40:BF:140:LEU:HB2	2.07	0.54
40:BF:160:ASN:OD1	40:BF:163:VAL:HG23	2.08	0.54
40:BF:5:ALA:N	40:BF:18:ARG:O	2.36	0.54
44:BN:90:MET:HB3	44:BN:98:VAL:HG22	1.89	0.54
50:BT:3:ARG:HG3	50:BT:6:LEU:HD13	1.88	0.54
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.43	0.54
1:CA:179:A:H2'	1:CA:180:U:C6	2.43	0.54
1:CA:35:G:H2'	1:CA:36:C:C6	2.43	0.54
1:CA:977:A:H2'	1:CA:978:A:H5'	1.89	0.54
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.37	0.54
10:CJ:4:ILE:HB	10:CJ:74:ILE:CD1	2.37	0.54
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.80	0.54
1:CA:1228:C:O3'	13:CM:116:THR:HA	2.07	0.54
17:CQ:22:LEU:HD12	17:CQ:23:VAL:H	1.71	0.54
18:CR:44:LEU:O	18:CR:45:SER:C	2.45	0.54
33:D8:14:VAL:HG21	33:D8:22:VAL:CG1	2.37	0.54
35:DA:1494:A:C2'	35:DA:1495:A:H5''	2.36	0.54
35:DA:589:C:H2'	35:DA:590:A:C8	2.42	0.54
35:DA:649:G:H2'	35:DA:650:C:C6	2.42	0.54
35:DA:675:A:N6	35:DA:676:A:N6	2.54	0.54
35:DA:71:A:H2	54:DX:31:HIS:CE1	2.25	0.54
36:DB:78:A:C2	36:DB:100:A:C4	2.96	0.54
37:DC:22:ILE:HG22	37:DC:25:ALA:H	1.71	0.54
38:DD:70:TRP:CD1	38:DD:70:TRP:C	2.80	0.54
44:DN:133:GLN:O	44:DN:134:ARG:HB3	2.07	0.54
45:DO:1:MET:HE3	45:DO:67:LYS:HG2	1.87	0.54
46:DP:140:ALA:O	46:DP:141:ALA:HB3	2.07	0.54
47:DQ:133:ARG:HH11	47:DQ:133:ARG:HG3	1.72	0.54
47:DQ:60:ARG:HB2	47:DQ:60:ARG:NH1	2.22	0.54
50:DT:35:LYS:HG3	50:DT:36:GLU:N	2.22	0.54
45:DO:77:ILE:CD1	50:DT:74:ARG:HG2	2.38	0.54
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.42	0.54
3:AC:122:GLU:O	3:AC:126:ARG:HG3	2.08	0.54
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:78:ASN:ND2	10:AJ:80:LYS:H	2.06	0.54
12:AL:41:ARG:HH12	12:AL:57:LYS:NZ	2.04	0.54
13:AM:27:LYS:HE3	13:AM:31:LYS:CE	2.38	0.54
16:AP:58:TYR:C	16:AP:58:TYR:CD1	2.81	0.54
22:AV:65:G:O2'	22:AV:66:U:H5'	2.07	0.54
30:B5:35:GLU:O	30:B5:49:CYS:CB	2.55	0.54
35:BA:1843:C:H5'	38:BD:253:GLN:NE2	2.22	0.54
35:BA:2136:C:H2'	35:BA:2137:C:C6	2.39	0.54
38:BD:44:ASN:CB	38:BD:49:ILE:HA	2.23	0.54
42:BH:27:LYS:HA	42:BH:32:GLU:HG3	1.89	0.54
44:BN:43:THR:O	44:BN:46:VAL:HG12	2.07	0.54
46:BP:9:ASN:N	46:BP:10:PRO:HD2	2.22	0.54
50:BT:27:THR:OG1	50:BT:28:VAL:N	2.40	0.54
51:BU:66:ASN:O	51:BU:70:ARG:HB2	2.07	0.54
52:BV:25:LEU:C	52:BV:27:ALA:H	2.11	0.54
53:BW:22:ASP:HA	53:BW:25:ARG:HH12	1.70	0.54
1:CA:445:G:H2'	1:CA:446:G:H8	1.71	0.54
1:CA:821:G:O2'	1:CA:822:C:H5'	2.08	0.54
17:CQ:31:LEU:HD12	17:CQ:31:LEU:O	2.06	0.54
19:CS:62:ILE:HG13	19:CS:63:THR:N	2.21	0.54
19:CS:10:PHE:CZ	19:CS:70:LYS:HD2	2.40	0.54
22:CY:39:U:H2'	22:CY:40:C:C6	2.42	0.54
26:D1:84:GLY:O	26:D1:86:SER:N	2.40	0.54
35:DA:1116:C:C2'	35:DA:1117:G:H5'	2.36	0.54
35:DA:1231:G:H2'	35:DA:1232:G:H8	1.72	0.54
35:DA:1518:U:H2'	35:DA:1519:G:O4'	2.06	0.54
35:DA:1300:U:H1'	35:DA:1626:G:C2	2.42	0.54
35:DA:2175:C:C1'	37:DC:215:THR:HA	2.37	0.54
35:DA:271(K):U:H3	43:DI:50:ARG:NH1	2.04	0.54
35:DA:2870:C:C2'	35:DA:2871:C:H5'	2.37	0.54
35:DA:706:A:H2'	35:DA:707:G:O4'	2.07	0.54
39:DE:175:VAL:O	39:DE:175:VAL:HG13	2.08	0.54
39:DE:44:TYR:O	39:DE:45:THR:CB	2.54	0.54
43:DI:78:THR:HG23	43:DI:141:LYS:HB2	1.89	0.54
48:DR:9:LYS:O	48:DR:10:LEU:HD23	2.08	0.54
50:DT:3:ARG:HG3	50:DT:6:LEU:HD13	1.89	0.54
50:DT:32:TYR:CD2	50:DT:81:PRO:O	2.61	0.54
55:DY:29:GLU:N	55:DY:29:GLU:CD	2.61	0.54
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.42	0.54
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.42	0.54
1:AA:222:U:H2'	1:AA:223:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:352:C:H2'	1:AA:352:C:O2	2.07	0.54
1:AA:636:U:H2'	1:AA:637:G:C8	2.42	0.54
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.27	0.54
2:AB:83:MET:SD	2:AB:234:PRO:HG2	2.48	0.54
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.07	0.54
11:AK:99:GLN:NE2	11:AK:105:VAL:HG11	2.21	0.54
12:AL:22:SER:C	12:AL:24:VAL:H	2.11	0.54
12:AL:22:SER:C	12:AL:24:VAL:N	2.60	0.54
13:AM:14:ARG:CZ	13:AM:42:ALA:HA	2.37	0.54
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.08	0.54
31:B6:30:THR:O	31:B6:31:PRO:C	2.45	0.54
32:B7:28:ARG:NH2	35:BA:1368:G:OP1	2.40	0.54
35:BA:1412:A:H2'	35:BA:1413:G:C8	2.43	0.54
35:BA:1751:C:H2'	35:BA:1752:C:C6	2.43	0.54
35:BA:1914:C:H2'	35:BA:1915:U:O4'	2.07	0.54
35:BA:2037:G:H2'	35:BA:2038:G:C8	2.43	0.54
35:BA:557:U:H2'	35:BA:558:G:C8	2.41	0.54
35:BA:582:G:H2'	35:BA:583:G:H8	1.73	0.54
38:BD:131:LEU:HB2	38:BD:136:ILE:HD11	1.90	0.54
41:BG:132:ASN:OD1	41:BG:158:ALA:HB2	2.07	0.54
41:BG:42:GLY:O	41:BG:43:LEU:HB2	2.07	0.54
42:BH:65:HIS:CE1	42:BH:69:ARG:HD3	2.41	0.54
40:BF:116:ASP:OD2	46:BP:5:ASP:N	2.40	0.54
35:BA:2009:G:N3	48:BR:107:ASP:HA	2.23	0.54
35:BA:1651:G:OP1	48:BR:40:LYS:HE3	2.07	0.54
52:BV:39:LEU:CD1	52:BV:47:VAL:HG11	2.33	0.54
55:BY:8:LYS:HE2	55:BY:72:VAL:HG23	1.89	0.54
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.42	0.54
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.70	0.54
1:CA:824:C:H4'	8:CH:1:MET:H1	1.73	0.54
2:CB:83:MET:SD	2:CB:234:PRO:HG2	2.47	0.54
3:CC:152:ILE:HG13	3:CC:199:LYS:HB2	1.89	0.54
4:CD:23:GLY:O	4:CD:27:TYR:HD1	1.89	0.54
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.21	0.54
6:CF:19:LEU:HD23	6:CF:23:LYS:HD3	1.89	0.54
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.23	0.54
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.89	0.54
11:CK:95:ILE:H	11:CK:95:ILE:HD13	1.72	0.54
13:CM:27:LYS:HE3	13:CM:31:LYS:CE	2.37	0.54
17:CQ:81:ARG:HD3	17:CQ:84:LEU:HD11	1.89	0.54
22:CV:77:PHA:N	22:CY:77:PHA:N	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:11:ARG:O	25:D0:14:ARG:NH2	2.35	0.54
26:D1:53:VAL:O	26:D1:53:VAL:HG12	2.08	0.54
26:D1:50:ARG:HG2	26:D1:59:THR:CG2	2.37	0.54
35:DA:1042:G:H5'	35:DA:1043:C:OP2	2.08	0.54
35:DA:1786:A:H3'	35:DA:1787:A:C8	2.42	0.54
35:DA:2127:G:H5'	37:DC:36:LYS:CE	2.28	0.54
39:DE:24:THR:CB	39:DE:186:GLY:HA2	2.35	0.54
42:DH:41:MET:SD	42:DH:55:PRO:HD3	2.48	0.54
43:DI:77:LEU:HD21	43:DI:101:LEU:HD13	1.90	0.54
45:DO:104:ARG:HH11	45:DO:104:ARG:HB2	1.72	0.54
46:DP:101:VAL:HG12	46:DP:107:LYS:N	2.23	0.54
49:DS:49:VAL:HG21	49:DS:77:ALA:HA	1.89	0.54
50:DT:129:ARG:NH1	50:DT:131:ALA:HB3	2.22	0.54
51:DU:74:LEU:HD12	51:DU:74:LEU:O	2.08	0.54
56:DZ:15:PRO:O	56:DZ:19:ARG:HG3	2.07	0.54
1:AA:1027:C:H1'	1:AA:1035:A:N1	2.22	0.54
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.08	0.54
1:AA:793:U:O2	1:AA:1516:G:H4'	2.08	0.54
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.43	0.54
12:AL:74:GLY:O	12:AL:102:ARG:NH2	2.40	0.54
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.55	0.54
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.89	0.54
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.72	0.54
19:AS:44:MET:SD	19:AS:44:MET:N	2.80	0.54
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.07	0.54
23:AW:57:G:N3	23:AW:57:G:H2'	2.21	0.54
23:AW:2:C:N4	23:AW:71:G:H1	2.02	0.54
35:BA:1908:C:H2'	35:BA:1909:C:H6	1.72	0.54
23:AW:76:A:O2'	35:BA:2394:C:N3	2.39	0.54
35:BA:564:C:O2'	35:BA:565:C:H5'	2.07	0.54
37:BC:59:ARG:HH21	37:BC:199:HIS:CB	2.20	0.54
44:BN:120:LEU:C	44:BN:121:LYS:HD2	2.28	0.54
44:BN:78:TYR:N	44:BN:78:TYR:CD1	2.76	0.54
47:BQ:59:ARG:O	47:BQ:60:ARG:HB2	2.06	0.54
48:BR:2:ARG:HD3	48:BR:5:LYS:CE	2.35	0.54
52:BV:4:ILE:O	52:BV:4:ILE:HG22	2.08	0.54
47:BQ:19:GLY:HA3	56:BZ:79:ARG:HH22	1.73	0.54
1:CA:261:U:OP2	20:CT:79:ARG:NH2	2.40	0.54
1:CA:402:G:C2'	1:CA:403:C:H5'	2.38	0.54
1:CA:924:C:H2'	1:CA:925:G:C8	2.42	0.54
2:CB:55:PHE:HA	2:CB:58:ILE:CB	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:107:ARG:HB3	4:CD:174:LEU:HD13	1.89	0.54
5:CE:76:ILE:HD12	5:CE:118:ILE:CD1	2.38	0.54
7:CG:15:ASP:H	7:CG:20:ASP:N	2.03	0.54
8:CH:82:HIS:HD2	8:CH:138:TRP:NE1	2.05	0.54
10:CJ:27:ALA:HB3	10:CJ:34:VAL:HG21	1.88	0.54
10:CJ:6:ILE:CD1	10:CJ:72:VAL:HB	2.33	0.54
11:CK:21:ILE:HG12	11:CK:94:ALA:HB1	1.89	0.54
12:CL:55:VAL:HG13	12:CL:68:ALA:O	2.07	0.54
16:CP:19:ILE:CG2	16:CP:36:ILE:HG13	2.36	0.54
17:CQ:33:GLY:O	17:CQ:34:LYS:O	2.26	0.54
19:CS:41:VAL:O	19:CS:44:MET:SD	2.66	0.54
35:DA:1192:G:O2'	35:DA:1193:G:H5'	2.07	0.54
35:DA:1509(A):A:H2'	35:DA:1509(B):A:H8	1.70	0.54
35:DA:2150:U:H2'	35:DA:2151:G:H8	1.71	0.54
35:DA:2393:A:C5'	46:DP:62:LEU:HB3	2.37	0.54
35:DA:613:G:C8	35:DA:613:G:H5'	2.42	0.54
38:DD:126:GLN:HG3	38:DD:129:ASN:ND2	2.23	0.54
39:DE:111:ARG:HB2	39:DE:160:TYR:O	2.08	0.54
41:DG:29:TRP:C	41:DG:31:VAL:N	2.60	0.54
42:DH:27:LYS:HG2	42:DH:32:GLU:CD	2.28	0.54
46:DP:33:ARG:O	46:DP:34:GLY:C	2.45	0.54
49:DS:19:LYS:C	49:DS:20:ARG:HH11	2.09	0.54
55:DY:6:HIS:CE1	55:DY:30:VAL:HG11	2.43	0.54
56:DZ:128:VAL:CG2	56:DZ:132:ASN:HB2	2.37	0.54
1:AA:1434:A:H2'	1:AA:1435:G:H5'	1.90	0.54
1:AA:1499:A:C1'	1:AA:1520:G:H5'	2.35	0.54
1:AA:291:C:O2'	1:AA:292:G:H5'	2.06	0.54
1:AA:950:U:H4'	1:AA:971:G:N2	2.22	0.54
1:AA:546:G:P	4:AD:72:GLU:HB3	2.47	0.54
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.07	0.54
14:AN:37:PHE:O	14:AN:39:LEU:HG	2.08	0.54
12:AL:11:VAL:HG21	17:AQ:34:LYS:HD3	1.89	0.54
26:B1:53:VAL:CG2	26:B1:74:VAL:HG13	2.35	0.54
29:B4:51:TYR:CD1	41:BG:2:PRO:HD2	2.42	0.54
35:BA:1039:G:C6	35:BA:1040:C:N4	2.76	0.54
35:BA:118:A:OP2	35:BA:119:A:H5''	2.08	0.54
35:BA:2257:U:O2'	35:BA:2258:C:H5'	2.08	0.54
35:BA:320:A:H3'	40:BF:136:THR:CG2	2.38	0.54
43:BI:92:VAL:HG12	43:BI:120:ILE:HB	1.90	0.54
43:BI:58:LEU:O	43:BI:60:GLU:N	2.41	0.54
45:BO:17:ARG:O	45:BO:18:LYS:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BO:47:ILE:HG13	45:BO:48:PRO:HD2	1.88	0.54
49:BS:95:HIS:O	49:BS:96:GLY:O	2.25	0.54
50:BT:85:LYS:O	50:BT:85:LYS:HG2	2.07	0.54
55:BY:88:LYS:HZ3	55:BY:93:GLY:CA	2.20	0.54
56:BZ:168:GLU:OE2	56:BZ:168:GLU:HA	2.07	0.54
56:BZ:146:ILE:CG2	56:BZ:177:PRO:HD3	2.37	0.54
1:CA:539:A:H2'	1:CA:540:G:H8	1.70	0.54
1:CA:980:C:H3'	1:CA:981:U:C6	2.43	0.54
2:CB:13:ALA:HB2	2:CB:44:LEU:HD23	1.89	0.54
5:CE:35:GLY:HA3	5:CE:112:LEU:O	2.07	0.54
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.43	0.54
11:CK:111:ASP:OD2	18:CR:84:LYS:HE3	2.06	0.54
12:CL:22:SER:C	12:CL:24:VAL:N	2.61	0.54
12:CL:37:CYS:HA	12:CL:57:LYS:O	2.06	0.54
12:CL:74:GLY:O	12:CL:102:ARG:NH2	2.40	0.54
14:CN:37:PHE:HB3	14:CN:39:LEU:HD12	1.89	0.54
16:CP:58:TYR:C	16:CP:58:TYR:CD1	2.81	0.54
19:CS:23:ASN:HA	19:CS:26:GLY:HA2	1.89	0.54
22:CV:34:G:O2'	22:CV:35:A:H5'	2.07	0.54
31:D6:42:TRP:HA	31:D6:42:TRP:CE3	2.43	0.54
35:DA:108:U:H2'	35:DA:109:G:H8	1.71	0.54
35:DA:1528(A):A:N7	35:DA:1529:G:C8	2.76	0.54
35:DA:1710:C:O2'	35:DA:1711:C:H5'	2.08	0.54
35:DA:2469:A:O2'	47:DQ:56:ARG:HD3	2.06	0.54
35:DA:786:C:O2'	35:DA:787:U:H5'	2.07	0.54
38:DD:16:MET:CE	38:DD:208:LYS:HD2	2.38	0.54
45:DO:68:GLU:HB3	45:DO:78:ARG:HB2	1.90	0.54
45:DO:93:PRO:HB3	45:DO:114:ILE:CD1	2.38	0.54
46:DP:29:LYS:HB3	46:DP:34:GLY:H	1.71	0.54
47:DQ:14:ARG:HH11	47:DQ:14:ARG:HG2	1.71	0.54
49:DS:74:ALA:HB1	49:DS:103:GLU:CG	2.37	0.54
49:DS:96:GLY:C	49:DS:98:VAL:N	2.60	0.54
35:DA:2683:C:P	50:DT:53:ARG:NH2	2.81	0.54
55:DY:80:GLY:O	55:DY:81:LYS:O	2.25	0.54
4:AD:107:ARG:HB3	4:AD:174:LEU:CD1	2.38	0.54
7:AG:5:ARG:C	7:AG:7:ALA:H	2.10	0.54
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.23	0.54
13:AM:88:ARG:HA	13:AM:98:VAL:CG1	2.36	0.54
22:AV:30:G:C2'	22:AV:31:A:H5'	2.37	0.54
23:AW:38:A:H2'	23:AW:39:U:H5''	1.90	0.54
35:BA:1020:A:N1	35:BA:1141:U:H1'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1794:U:H2'	35:BA:1795:C:H6	1.73	0.54
35:BA:2099:U:H3	35:BA:2190:G:H1	1.56	0.54
36:BB:78:A:C2	36:BB:100:A:C4	2.94	0.54
37:BC:78:ALA:HB1	37:BC:82:LYS:HB2	1.89	0.54
38:BD:166:GLN:CA	38:BD:166:GLN:NE2	2.70	0.54
39:BE:2:LYS:HA	39:BE:84:PHE:CE2	2.42	0.54
39:BE:9:VAL:HG23	39:BE:9:VAL:O	2.06	0.54
40:BF:116:ASP:O	40:BF:120:GLU:HG3	2.07	0.54
41:BG:141:PHE:HB3	41:BG:142:PRO:CD	2.35	0.54
42:BH:27:LYS:HG2	42:BH:32:GLU:CD	2.28	0.54
45:BO:71:ARG:O	45:BO:73:ASP:N	2.40	0.54
46:BP:101:VAL:HG23	46:BP:102:ARG:N	2.22	0.54
46:BP:132:LYS:O	46:BP:136:GLU:HG3	2.07	0.54
55:BY:27:VAL:HA	55:BY:28:LYS:NZ	2.23	0.54
55:BY:31:LEU:CB	55:BY:32:PRO:CA	2.85	0.54
56:BZ:152:ALA:HB2	56:BZ:168:GLU:HA	1.89	0.54
1:CA:1462:G:O2'	1:CA:1463:C:H5'	2.07	0.54
1:CA:627:G:O2'	1:CA:628:G:H5'	2.08	0.54
1:CA:865:A:H2	1:CA:918:A:H4'	1.73	0.54
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.23	0.54
12:CL:27:LEU:N	12:CL:27:LEU:HD22	2.23	0.54
17:CQ:76:LEU:HG	17:CQ:77:VAL:N	2.22	0.54
31:D6:12:GLU:HB3	31:D6:23:THR:HG22	1.89	0.54
32:D7:19:ARG:HG2	32:D7:19:ARG:NH1	2.22	0.54
35:DA:1375:C:H2'	35:DA:1376:C:H6	1.71	0.54
35:DA:1661:G:O2'	35:DA:1662:C:H5'	2.08	0.54
35:DA:16:G:O2'	35:DA:17:G:H5'	2.07	0.54
35:DA:2127:G:H2'	35:DA:2128:C:C6	2.42	0.54
35:DA:2175:C:H1'	37:DC:215:THR:N	2.22	0.54
35:DA:2818:G:O2'	35:DA:2819:G:H5'	2.07	0.54
38:DD:218:ARG:HG3	38:DD:218:ARG:HH11	1.71	0.54
39:DE:27:LEU:HD23	50:DT:1:MET:CE	2.38	0.54
40:DF:11:VAL:HG12	40:DF:12:LEU:H	1.71	0.54
40:DF:198:ALA:O	40:DF:201:VAL:HG12	2.07	0.54
41:DG:172:LEU:CD2	41:DG:173:LEU:HD23	2.35	0.54
43:DI:12:LEU:O	43:DI:12:LEU:HG	2.08	0.54
44:DN:23:LEU:N	44:DN:23:LEU:HD23	2.19	0.54
46:DP:80:TYR:CD1	46:DP:111:ARG:HB3	2.43	0.54
49:DS:105:ALA:C	49:DS:107:GLU:N	2.60	0.54
50:DT:32:TYR:CD2	50:DT:32:TYR:N	2.75	0.54
50:DT:85:LYS:HZ2	50:DT:85:LYS:HB3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:12:THR:HG23	50:DT:8:LYS:HZ1	1.73	0.54
1:AA:179:A:H2'	1:AA:180:U:C6	2.42	0.54
1:AA:221:C:O2'	1:AA:222:U:H5'	2.07	0.54
1:AA:332:G:H2'	1:AA:333:G:H8	1.72	0.54
2:AB:197:VAL:HB	2:AB:200:ILE:CG1	2.38	0.54
2:AB:220:ASP:C	2:AB:222:ILE:H	2.10	0.54
3:AC:59:ARG:HG2	3:AC:63:ASN:O	2.08	0.54
4:AD:176:LEU:HD12	4:AD:177:ASP:H	1.71	0.54
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.55	0.54
20:AT:23:ARG:HA	20:AT:26:ASN:HD21	1.73	0.54
25:B0:53:MET:HB3	25:B0:59:LEU:CD2	2.38	0.54
27:B2:32:LEU:HD23	27:B2:32:LEU:O	2.07	0.54
35:BA:271(M):G:C2'	35:BA:271(N):U:H5''	2.37	0.54
35:BA:2777:G:H4'	35:BA:2778:A:H5'	1.88	0.54
35:BA:614(C):A:O2'	35:BA:615:G:P	2.66	0.54
35:BA:911:A:C5	47:BQ:9:TYR:CD1	2.96	0.54
38:BD:231:HIS:CG	38:BD:232:PRO:HD2	2.43	0.54
41:BG:171:ALA:C	41:BG:175:LEU:HD12	2.28	0.54
41:BG:88:ILE:HG23	41:BG:89:GLY:N	2.22	0.54
44:BN:18:ALA:O	44:BN:20:GLY:N	2.41	0.54
45:BO:31:LYS:HB3	45:BO:32:TYR:CD1	2.42	0.54
46:BP:33:ARG:O	46:BP:34:GLY:C	2.45	0.54
47:BQ:60:ARG:HB2	47:BQ:60:ARG:NH1	2.23	0.54
47:BQ:42:ILE:HD13	47:BQ:97:VAL:CG2	2.38	0.54
49:BS:16:ASN:ND2	49:BS:92:TYR:CE1	2.76	0.54
51:BU:98:LEU:HD21	52:BV:2:PHE:CZ	2.42	0.54
52:BV:40:LEU:N	52:BV:40:LEU:CD2	2.71	0.54
30:B5:20:ARG:NH1	53:BW:15:ARG:NH1	2.56	0.54
47:BQ:141:GLN:NE2	56:BZ:72:ARG:HD3	2.23	0.54
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.43	0.54
1:CA:137:C:N4	1:CA:226:G:H1	1.98	0.54
1:CA:93:G:H2'	1:CA:93:G:N3	2.22	0.54
1:CA:993:G:H2'	1:CA:995:C:H41	1.73	0.54
3:CC:110:ASN:O	3:CC:112:SER:N	2.41	0.54
4:CD:107:ARG:HB3	4:CD:174:LEU:CD1	2.37	0.54
6:CF:11:ASN:O	6:CF:14:LEU:HG	2.08	0.54
10:CJ:8:LEU:HD23	10:CJ:95:GLU:O	2.08	0.54
13:CM:14:ARG:CZ	13:CM:42:ALA:HA	2.38	0.54
17:CQ:7:THR:O	17:CQ:23:VAL:HG13	2.08	0.54
21:CU:18:TYR:CD2	21:CU:24:ARG:HG2	2.42	0.54
35:DA:1713:U:O2'	35:DA:1714:G:H5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2475:C:H5'	35:DA:2476:A:OP2	2.08	0.54
35:DA:829:A:N7	35:DA:2247:A:O2'	2.37	0.54
37:DC:212:VAL:O	37:DC:213:TYR:CB	2.56	0.54
38:DD:26:LYS:HD2	38:DD:27:THR:HG22	1.88	0.54
38:DD:35:LYS:HB2	38:DD:63:ARG:CG	2.38	0.54
41:DG:83:ARG:HD3	41:DG:84:LYS:HG3	1.89	0.54
42:DH:41:MET:CG	42:DH:55:PRO:HD3	2.37	0.54
44:DN:15:LEU:HG	44:DN:134:ARG:HD2	1.89	0.54
35:DA:1141:U:OP1	44:DN:25:ARG:NH1	2.40	0.54
45:DO:23:ARG:HD2	45:DO:24:VAL:N	2.22	0.54
47:DQ:109:VAL:HG12	47:DQ:110:THR:N	2.23	0.54
47:DQ:141:GLN:HB2	56:DZ:98:MET:HA	1.89	0.54
47:DQ:16:ARG:HG2	47:DQ:17:LEU:N	2.23	0.54
51:DU:62:ILE:HD13	51:DU:93:LYS:HG2	1.88	0.54
55:DY:2:ARG:CD	55:DY:3:VAL:HG23	2.37	0.54
56:DZ:13:GLU:HB3	56:DZ:18:LEU:HD11	1.88	0.54
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.42	0.54
1:AA:1411:C:O2'	1:AA:1412:C:H5'	2.08	0.54
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.39	0.54
1:AA:821:G:O2'	1:AA:822:C:H5'	2.08	0.54
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.43	0.54
2:AB:57:PHE:O	2:AB:61:LEU:HB2	2.08	0.54
4:AD:107:ARG:HB3	4:AD:174:LEU:HD13	1.90	0.54
4:AD:46:LYS:O	4:AD:47:ARG:C	2.46	0.54
5:AE:35:GLY:HA3	5:AE:112:LEU:O	2.08	0.54
7:AG:152:ALA:O	7:AG:155:ARG:HG3	2.07	0.54
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.23	0.54
10:AJ:8:LEU:HG	10:AJ:96:ILE:HG22	1.90	0.54
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.88	0.54
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.88	0.54
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.07	0.54
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.89	0.54
16:AP:19:ILE:CG2	16:AP:36:ILE:HG13	2.37	0.54
18:AR:53:ARG:HE	18:AR:59:SER:C	2.11	0.54
11:AK:111:ASP:OD2	18:AR:84:LYS:HE3	2.07	0.54
19:AS:36:ARG:NH1	19:AS:53:ASN:HA	2.23	0.54
27:B2:34:GLU:HA	27:B2:34:GLU:OE1	2.08	0.54
31:B6:10:LEU:CD1	33:B8:34:TRP:CD1	2.91	0.54
33:B8:56:GLU:O	33:B8:59:LYS:HE3	2.07	0.54
35:BA:1019:U:H3	35:BA:1142(A):A:H62	1.54	0.54
35:BA:142:A:H5'	35:BA:142(A):C:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2148:G:O2'	35:BA:2149:G:H5'	2.08	0.54
38:BD:77:ALA:HB2	38:BD:97:TYR:CD2	2.43	0.54
40:BF:53:THR:O	40:BF:57:VAL:HG23	2.08	0.54
42:BH:89:ILE:HG12	42:BH:129:THR:HA	1.88	0.54
46:BP:32:THR:CG2	46:BP:37:GLY:HA2	2.37	0.54
56:BZ:15:PRO:O	56:BZ:17:ALA:N	2.40	0.54
1:CA:1184:G:H2'	1:CA:1185:G:H8	1.73	0.54
1:CA:1368:G:OP2	9:CI:112:LYS:HE3	2.08	0.54
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.42	0.54
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.07	0.54
1:CA:521:G:O2'	1:CA:522:C:H5'	2.08	0.54
2:CB:136:VAL:HA	2:CB:139:LYS:HB2	1.90	0.54
3:CC:73:PRO:C	3:CC:75:VAL:H	2.11	0.54
4:CD:46:LYS:O	4:CD:47:ARG:C	2.46	0.54
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.07	0.54
6:CF:87:ARG:HG2	6:CF:87:ARG:NH1	2.22	0.54
13:CM:52:GLU:O	13:CM:56:LEU:HB2	2.08	0.54
34:D9:11:CYS:SG	34:D9:12:ASP:N	2.81	0.54
35:DA:1001:A:H2'	35:DA:1002:G:O4'	2.08	0.54
35:DA:1163:G:O2'	35:DA:1164:G:H5'	2.08	0.54
35:DA:1847:A:H3'	35:DA:1848:A:H5'	1.88	0.54
35:DA:1917:U:O2'	35:DA:1918:A:H5'	2.07	0.54
35:DA:2175:C:H1'	37:DC:215:THR:CA	2.38	0.54
35:DA:2282:G:O2'	35:DA:2283:C:OP2	2.25	0.54
35:DA:553:G:H2'	35:DA:554:U:O4'	2.07	0.54
35:DA:582:G:H2'	35:DA:583:G:H8	1.73	0.54
35:DA:2127:G:H4'	37:DC:36:LYS:HG2	1.90	0.54
39:DE:54:GLN:HA	39:DE:72:VAL:HG11	1.89	0.54
39:DE:1:MET:HG2	39:DE:83:ASP:O	2.07	0.54
39:DE:91:VAL:HG13	39:DE:95:ILE:HG12	1.90	0.54
41:DG:120:LEU:H	41:DG:181:ARG:H	1.56	0.54
40:DF:38:ARG:HH12	46:DP:16:ARG:HH22	1.56	0.54
50:DT:131:ALA:C	50:DT:133:GLU:H	2.10	0.54
50:DT:38:ASN:HD22	50:DT:40:THR:N	2.05	0.54
56:DZ:30:ASN:HA	56:DZ:89:PHE:HE2	1.73	0.54
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.08	0.54
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.42	0.54
1:AA:636:U:H2'	1:AA:637:G:H8	1.73	0.54
1:AA:853:G:H2'	1:AA:854:G:H8	1.72	0.54
2:AB:115:LEU:HD12	2:AB:142:LEU:CD1	2.38	0.54
3:AC:73:PRO:HA	3:AC:76:VAL:CG1	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1060:C:H4'	10:AJ:52:GLY:H	1.73	0.54
1:AA:521:G:O5'	12:AL:73:GLU:HG3	2.08	0.54
13:AM:29:ARG:HB3	13:AM:64:TRP:CZ2	2.42	0.54
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.07	0.54
25:B0:27:GLU:HA	25:B0:67:VAL:O	2.07	0.54
30:B5:3:LYS:HG3	30:B5:4:HIS:H	1.73	0.54
30:B5:40:LYS:HD3	30:B5:45:VAL:C	2.28	0.54
35:BA:1288:U:C2	35:BA:1327:C:O2	2.61	0.54
35:BA:1509(A):A:H2'	35:BA:1509(B):A:H8	1.72	0.54
35:BA:1800:C:OP1	38:BD:264:LYS:NZ	2.36	0.54
35:BA:1920:C:O2'	35:BA:1921:G:H5'	2.07	0.54
35:BA:1930:G:N2	35:BA:1968:G:H2'	2.23	0.54
35:BA:2870:C:C2'	35:BA:2871:C:H5'	2.38	0.54
35:BA:321:G:OP2	40:BF:136:THR:HG22	2.07	0.54
35:BA:330:A:O2'	35:BA:331:A:C8	2.58	0.54
36:BB:40:U:H1'	36:BB:45:A:H61	1.72	0.54
37:BC:82:LYS:HE3	37:BC:151:GLU:N	2.23	0.54
41:BG:44:GLY:N	41:BG:88:ILE:HG21	2.05	0.54
44:BN:15:LEU:HG	44:BN:134:ARG:HD2	1.89	0.54
46:BP:101:VAL:CG2	46:BP:102:ARG:N	2.71	0.54
46:BP:146:VAL:HG13	46:BP:147:LEU:H	1.73	0.54
47:BQ:103:MET:HE2	47:BQ:125:LEU:HD13	1.90	0.54
54:BX:12:VAL:HG21	54:BX:17:ALA:HB1	1.89	0.54
56:BZ:103:ARG:CG	56:BZ:136:PHE:HB2	2.38	0.54
1:CA:184:G:H2'	1:CA:185:A:C8	2.43	0.54
1:CA:309:G:H1'	1:CA:608:A:C2	2.43	0.54
1:CA:651:C:H2'	1:CA:652:U:C6	2.43	0.54
4:CD:114:ARG:HH11	4:CD:114:ARG:CG	2.15	0.54
8:CH:82:HIS:CD2	8:CH:138:TRP:HE1	2.21	0.54
13:CM:80:ARG:C	13:CM:82:MET:H	2.12	0.54
23:CW:21:A:H8	23:CW:21:A:H5'	1.73	0.54
31:D6:15:GLU:HG3	31:D6:41:PRO:HG3	1.89	0.54
35:DA:1243:G:O2'	46:DP:9:ASN:HA	2.08	0.54
35:DA:1862:G:O2'	35:DA:1863:G:H5'	2.08	0.54
35:DA:271(Q):G:HO2'	35:DA:271(R):G:H8	1.52	0.54
35:DA:484:C:H2'	35:DA:485:C:H6	1.73	0.54
35:DA:661:C:H2'	35:DA:662:G:H8	1.73	0.54
35:DA:688:U:H2'	35:DA:689:A:H8	1.74	0.54
41:DG:64:THR:HG23	41:DG:66:GLN:N	2.15	0.54
46:DP:9:ASN:N	46:DP:10:PRO:HD2	2.23	0.54
51:DU:98:LEU:HD21	52:DV:2:PHE:CZ	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:100:VAL:N	56:DZ:124:ILE:O	2.41	0.54
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.09	0.53
3:AC:172:ARG:NH1	3:AC:172:ARG:HB3	2.23	0.53
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.20	0.53
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.08	0.53
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.35	0.53
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.28	0.53
10:AJ:8:LEU:HD13	10:AJ:20:ALA:CB	2.37	0.53
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.29	0.53
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.73	0.53
31:B6:16:CYS:H	31:B6:47:THR:HG21	1.73	0.53
35:BA:1234:U:H2'	35:BA:1235:G:H5'	1.90	0.53
35:BA:1847:A:H3'	35:BA:1848:A:C5'	2.38	0.53
35:BA:2512:C:H2'	35:BA:2513:G:O4'	2.08	0.53
35:BA:271(M):G:H5''	43:BI:57:ARG:HH12	1.71	0.53
35:BA:320:A:C2'	40:BF:136:THR:HG21	2.38	0.53
36:BB:56:G:C5'	41:BG:27:ASN:ND2	2.70	0.53
41:BG:85:GLY:O	41:BG:87:PRO:CD	2.55	0.53
47:BQ:109:VAL:CG1	47:BQ:113:GLN:HB2	2.39	0.53
3:CC:126:ARG:HG2	3:CC:126:ARG:NH1	2.24	0.53
3:CC:156:ARG:NH2	3:CC:161:GLU:HA	2.23	0.53
3:CC:90:GLU:O	3:CC:93:LYS:HB3	2.08	0.53
4:CD:25:ARG:HA	4:CD:28:SER:OG	2.07	0.53
6:CF:12:PRO:HD3	6:CF:58:GLY:HA2	1.91	0.53
8:CH:85:ARG:C	8:CH:85:ARG:HD3	2.29	0.53
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	1.90	0.53
12:CL:90:VAL:HG11	12:CL:93:LEU:HG	1.88	0.53
13:CM:91:ARG:NH1	19:CS:81:ARG:NH2	2.56	0.53
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.56	0.53
30:D5:3:LYS:HG3	30:D5:4:HIS:H	1.73	0.53
35:DA:128:C:H2'	35:DA:129:C:H6	1.73	0.53
35:DA:2632:A:H2	39:DE:61:ARG:HD3	1.72	0.53
35:DA:32:C:C2'	35:DA:33:U:H5'	2.38	0.53
35:DA:460:A:H2'	35:DA:461:C:O4'	2.08	0.53
35:DA:661:C:H2'	35:DA:662:G:C8	2.43	0.53
37:DC:38:ASP:HB2	37:DC:181:PRO:CB	2.38	0.53
37:DC:64:LEU:O	37:DC:66:HIS:N	2.41	0.53
40:DF:114:VAL:HG21	40:DF:202:PHE:CZ	2.42	0.53
40:DF:23:ASP:O	40:DF:115:ALA:HA	2.08	0.53
35:DA:320:A:C2'	40:DF:136:THR:HG21	2.38	0.53
43:DI:132:PRO:O	43:DI:133:HIS:C	2.47	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:78:THR:HA	43:DI:141:LYS:O	2.08	0.53
52:DV:5:VAL:HG21	52:DV:35:LEU:HG	1.90	0.53
52:DV:2:PHE:HB3	52:DV:41:GLY:C	2.28	0.53
53:DW:82:LEU:HD12	53:DW:98:LYS:O	2.07	0.53
54:DX:65:ARG:HG2	54:DX:65:ARG:NH1	2.21	0.53
56:DZ:80:ARG:HH11	56:DZ:80:ARG:HG3	1.72	0.53
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.43	0.53
1:AA:795:C:H1'	1:AA:1506:U:C5	2.43	0.53
1:AA:402:G:O2'	1:AA:403:C:H5'	2.07	0.53
1:AA:644:G:H2'	1:AA:645:C:H5'	1.90	0.53
3:AC:110:ASN:O	3:AC:112:SER:N	2.41	0.53
3:AC:126:ARG:HG2	3:AC:126:ARG:NH1	2.23	0.53
6:AF:100:ASN:HD21	18:AR:23:LYS:CE	2.20	0.53
13:AM:16:ASP:HA	13:AM:34:LEU:HD11	1.89	0.53
14:AN:40:CYS:O	14:AN:44:LEU:HB3	2.08	0.53
19:AS:14:HIS:C	19:AS:15:LEU:HD22	2.27	0.53
20:AT:27:LYS:O	20:AT:27:LYS:HD3	2.08	0.53
7:AG:143:ARG:NH1	23:AW:42:C:H5''	2.23	0.53
35:BA:2591:C:H2'	35:BA:2592:G:C8	2.43	0.53
55:BY:27:VAL:CA	55:BY:28:LYS:NZ	2.69	0.53
55:BY:54:LYS:O	55:BY:55:TYR:O	2.26	0.53
1:CA:1086:U:O2'	1:CA:1087:G:H5'	2.09	0.53
1:CA:1190:G:H3'	3:CC:3:ASN:HD21	1.74	0.53
1:CA:954:G:H21	1:CA:1227:A:N6	2.06	0.53
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.90	0.53
1:CA:132:C:O2'	1:CA:133:U:H5'	2.07	0.53
1:CA:221:C:O2'	1:CA:222:U:H5'	2.08	0.53
1:CA:352:C:O2	1:CA:352:C:H2'	2.07	0.53
1:CA:853:G:H2'	1:CA:854:G:H8	1.74	0.53
2:CB:47:THR:O	2:CB:51:LEU:HD12	2.07	0.53
2:CB:72:GLY:HA2	2:CB:165:VAL:CG2	2.37	0.53
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	1.90	0.53
11:CK:20:TYR:C	11:CK:21:ILE:HD12	2.29	0.53
12:CL:37:CYS:HA	12:CL:58:VAL:HG22	1.89	0.53
16:CP:43:LYS:HG2	16:CP:48:TRP:CE2	2.43	0.53
18:CR:36:ASN:O	18:CR:40:LEU:HD12	2.08	0.53
6:CF:97:PHE:CD2	18:CR:65:ILE:HD12	2.43	0.53
18:CR:74:ARG:HB3	18:CR:81:PHE:CE1	2.42	0.53
22:CV:17:C:C3'	22:CV:18:G:H5''	2.38	0.53
22:CY:51:U:H2'	22:CY:52:G:C8	2.42	0.53
22:CY:75:C:H2'	22:CY:76:8AN:C8	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:32:LEU:CA	27:D2:53:LEU:HD13	2.38	0.53
31:D6:19:ARG:N	31:D6:19:ARG:HD2	2.22	0.53
31:D6:30:THR:O	31:D6:31:PRO:C	2.46	0.53
35:DA:1494:A:H3'	35:DA:1494:A:N3	2.23	0.53
35:DA:729:G:H2'	35:DA:1775:U:O2	2.08	0.53
35:DA:1908:C:H2'	35:DA:1909:C:H6	1.73	0.53
35:DA:2476:A:N1	35:DA:2477:C:C5	2.77	0.53
35:DA:2687:U:H2'	35:DA:2688:U:O4'	2.08	0.53
35:DA:2749:A:H2'	35:DA:2750:A:C8	2.44	0.53
35:DA:70:G:H2'	35:DA:113:G:O2'	2.08	0.53
35:DA:80:G:O2'	35:DA:81:G:H5'	2.08	0.53
37:DC:82:LYS:HE3	37:DC:151:GLU:N	2.23	0.53
38:DD:35:LYS:O	38:DD:36:PRO:C	2.46	0.53
35:DA:674:G:C1'	40:DF:74:ARG:HD3	2.36	0.53
42:DH:33:LEU:HD21	42:DH:136:ILE:CG2	2.38	0.53
42:DH:41:MET:O	42:DH:43:VAL:HG13	2.07	0.53
43:DI:115:ALA:HB2	43:DI:131:LYS:HE2	1.90	0.53
46:DP:32:THR:CG2	46:DP:37:GLY:HA2	2.38	0.53
47:DQ:136:ALA:HA	56:DZ:48:PHE:CE1	2.43	0.53
49:DS:26:LEU:HG	49:DS:39:ILE:HD11	1.89	0.53
51:DU:95:LEU:CD1	52:DV:4:ILE:HG23	2.39	0.53
56:DZ:71:VAL:HG12	56:DZ:88:PHE:CE2	2.43	0.53
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.73	0.53
1:AA:1483:A:H2	35:BA:1959:G:N3	2.06	0.53
1:AA:137:C:N4	1:AA:226:G:H1	2.00	0.53
2:AB:137:ARG:HD3	2:AB:137:ARG:C	2.28	0.53
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.89	0.53
6:AF:11:ASN:O	6:AF:14:LEU:HG	2.08	0.53
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.82	0.53
25:B0:32:ARG:H	25:B0:35:ASN:ND2	2.04	0.53
32:B7:19:ARG:NH1	32:B7:19:ARG:HG2	2.23	0.53
35:BA:1266:G:C8	53:BW:15:ARG:NH2	2.77	0.53
35:BA:1300:U:O2	35:BA:1300:U:O4'	2.26	0.53
35:BA:1410:G:O2'	35:BA:1411:C:H5'	2.09	0.53
35:BA:2107:C:H2'	35:BA:2108:C:O4'	2.07	0.53
35:BA:2352:A:C2'	35:BA:2353:G:H5'	2.37	0.53
35:BA:2632:A:H2	39:BE:61:ARG:HD3	1.71	0.53
35:BA:2728:U:O2'	35:BA:2729:G:H5'	2.08	0.53
35:BA:272(D):G:H2'	35:BA:272(E):G:H8	1.73	0.53
35:BA:445:C:O2'	35:BA:446:G:H5'	2.08	0.53
35:BA:52:A:O2'	35:BA:53:A:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:589:C:H2'	35:BA:590:A:C8	2.43	0.53
35:BA:673:C:H5'	40:BF:54:ARG:NH1	2.23	0.53
35:BA:706:A:C2	35:BA:707:G:H1'	2.43	0.53
38:BD:16:MET:CE	38:BD:208:LYS:HD2	2.39	0.53
38:BD:43:ARG:HH11	38:BD:44:ASN:CG	2.11	0.53
39:BE:69:LYS:C	39:BE:71:GLY:N	2.62	0.53
41:BG:137:GLU:CB	41:BG:152:LEU:HD11	2.36	0.53
41:BG:21:ARG:HD2	41:BG:21:ARG:C	2.28	0.53
41:BG:57:ALA:HB2	41:BG:90:LEU:HD11	1.89	0.53
44:BN:1:MET:HG2	44:BN:2:LYS:H	1.71	0.53
44:BN:3:THR:C	44:BN:5:VAL:N	2.60	0.53
44:BN:68:GLU:HG2	44:BN:88:GLU:CD	2.28	0.53
46:BP:110:TYR:O	46:BP:111:ARG:O	2.26	0.53
46:BP:80:TYR:CD1	46:BP:111:ARG:HB3	2.44	0.53
46:BP:24:GLY:O	46:BP:25:SER:HB3	2.09	0.53
50:BT:14:TYR:CD1	50:BT:14:TYR:N	2.76	0.53
55:BY:95:LYS:CD	55:BY:100:ALA:HA	2.38	0.53
47:BQ:141:GLN:HB2	56:BZ:99:TYR:H	1.72	0.53
1:CA:1027:C:H1'	1:CA:1035:A:N1	2.23	0.53
1:CA:1466:C:O2'	1:CA:1467:G:H5'	2.09	0.53
1:CA:509:A:H2'	1:CA:510:A:C8	2.42	0.53
2:CB:91:PRO:CD	2:CB:155:LEU:HD23	2.37	0.53
3:CC:122:GLU:O	3:CC:126:ARG:HG3	2.07	0.53
4:CD:156:GLU:O	4:CD:159:ARG:HB2	2.09	0.53
5:CE:11:ILE:HD11	5:CE:33:VAL:CG2	2.38	0.53
7:CG:86:GLN:NE2	23:CW:39:U:H5	2.06	0.53
9:CI:88:TYR:O	9:CI:89:ASN:CB	2.56	0.53
12:CL:83:VAL:HG13	12:CL:84:LEU:N	2.22	0.53
22:CY:72:C:H2'	22:CY:72:C:O2	2.09	0.53
30:D5:6:VAL:CG2	30:D5:7:PRO:HD2	2.39	0.53
34:D9:19:ARG:O	34:D9:20:HIS:HB2	2.08	0.53
35:DA:1165:U:H2'	35:DA:1166:C:C6	2.43	0.53
35:DA:315:G:H2'	35:DA:316:C:C6	2.43	0.53
35:DA:6:A:N3	35:DA:6:A:H2'	2.24	0.53
38:DD:26:LYS:HE2	38:DD:82:ILE:HB	1.89	0.53
39:DE:33:VAL:HG13	39:DE:69:LYS:HZ1	1.73	0.53
41:DG:56:ALA:HB2	41:DG:153:ARG:CZ	2.38	0.53
47:DQ:59:ARG:HG3	47:DQ:59:ARG:NH1	2.23	0.53
47:DQ:78:PRO:HB2	47:DQ:81:VAL:HG11	1.90	0.53
48:DR:94:TYR:CD1	48:DR:94:TYR:N	2.76	0.53
49:DS:18:ILE:C	49:DS:20:ARG:H	2.10	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.08	0.53
1:AA:390:C:H2'	1:AA:391:G:C8	2.42	0.53
1:AA:402:G:C2'	1:AA:403:C:H5'	2.37	0.53
2:AB:114:ARG:HD3	2:AB:117:GLU:OE1	2.08	0.53
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.42	0.53
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.08	0.53
9:AI:63:ILE:HD13	9:AI:77:ILE:HG23	1.89	0.53
13:AM:13:LYS:O	13:AM:45:VAL:HG23	2.09	0.53
19:AS:18:LYS:O	19:AS:22:LEU:HD23	2.09	0.53
20:AT:13:LEU:HD12	20:AT:14:LYS:N	2.23	0.53
26:B1:45:ASN:ND2	35:BA:2090:G:H21	2.05	0.53
26:B1:82:LEU:HD22	26:B1:82:LEU:N	2.23	0.53
29:B4:39:ARG:O	29:B4:57:ILE:HB	2.09	0.53
31:B6:51:GLU:O	31:B6:52:VAL:CB	2.57	0.53
35:BA:1173:G:H3'	35:BA:1174:A:C5'	2.36	0.53
35:BA:1270:C:H5''	35:BA:1271:G:C5'	2.37	0.53
35:BA:128:C:H2'	35:BA:129:C:C6	2.44	0.53
35:BA:1636:C:H2'	35:BA:1637:A:C8	2.43	0.53
30:B5:4:HIS:O	35:BA:2056:G:N2	2.41	0.53
35:BA:2203:U:O2'	38:BD:151:LYS:HG3	2.08	0.53
35:BA:2533:A:H2'	35:BA:2534:A:C5'	2.32	0.53
35:BA:2672:G:C2'	35:BA:2673:G:H5''	2.39	0.53
35:BA:675:A:N6	35:BA:676:A:N6	2.56	0.53
35:BA:83:G:N2	35:BA:102:G:H2'	2.23	0.53
35:BA:941:A:H4'	46:BP:35:HIS:NE2	2.23	0.53
36:BB:44:G:H1'	36:BB:47:C:N4	2.24	0.53
38:BD:206:LEU:HD23	38:BD:211:ARG:NH1	2.23	0.53
39:BE:116:VAL:O	39:BE:117:MET:CB	2.52	0.53
39:BE:75:VAL:O	39:BE:77:ILE:N	2.30	0.53
35:BA:2636:U:OP1	39:BE:80:GLU:HG3	2.08	0.53
41:BG:43:LEU:HB2	41:BG:88:ILE:HG21	1.91	0.53
42:BH:47:GLU:CG	42:BH:48:GLY:N	2.62	0.53
43:BI:81:VAL:CG2	43:BI:142:VAL:HB	2.37	0.53
35:BA:661:C:H4'	46:BP:16:ARG:NH1	2.23	0.53
47:BQ:16:ARG:HG2	47:BQ:17:LEU:N	2.22	0.53
47:BQ:45:GLN:O	47:BQ:49:ALA:HB2	2.09	0.53
48:BR:79:LEU:HA	48:BR:83:ILE:HG13	1.89	0.53
49:BS:85:VAL:HG22	49:BS:106:ARG:HB2	1.91	0.53
49:BS:106:ARG:O	49:BS:106:ARG:HD2	2.09	0.53
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.73	0.53
1:CA:1191:A:P	3:CC:3:ASN:HD21	2.32	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.74	0.53
1:CA:221:C:H2'	1:CA:222:U:H6	1.72	0.53
1:CA:699:C:H2'	1:CA:700:G:H5'	1.91	0.53
1:CA:966:G:C2	22:CV:34:G:H5'	2.43	0.53
2:CB:114:ARG:HG3	2:CB:114:ARG:HH11	1.73	0.53
2:CB:115:LEU:HD12	2:CB:142:LEU:CD1	2.37	0.53
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.61	0.53
6:CF:17:SER:O	6:CF:21:LEU:HD23	2.08	0.53
6:CF:3:ARG:HG2	6:CF:93:SER:HB2	1.90	0.53
8:CH:88:LYS:NZ	8:CH:88:LYS:HB2	2.24	0.53
26:D1:19:GLN:O	26:D1:35:THR:HG22	2.08	0.53
27:D2:2:LYS:CB	35:DA:97:C:H5"	2.38	0.53
34:D9:17:ILE:HG21	34:D9:19:ARG:HE	1.72	0.53
35:DA:2126:A:H8	35:DA:2126:A:OP2	1.92	0.53
35:DA:2771:C:H2'	35:DA:2772:C:C6	2.43	0.53
37:DC:58:VAL:C	37:DC:59:ARG:HD3	2.29	0.53
37:DC:74:VAL:HG12	37:DC:76:ALA:H	1.74	0.53
42:DH:89:ILE:HD11	42:DH:129:THR:O	2.07	0.53
42:DH:44:VAL:O	42:DH:46:GLU:N	2.39	0.53
43:DI:58:LEU:O	43:DI:60:GLU:N	2.42	0.53
50:DT:13:ARG:HH12	50:DT:15:VAL:CG2	2.21	0.53
54:DX:29:TRP:HA	54:DX:29:TRP:CE3	2.44	0.53
55:DY:54:LYS:O	55:DY:55:TYR:O	2.27	0.53
56:DZ:127:LYS:N	56:DZ:162:GLU:O	2.41	0.53
1:AA:692:U:H2'	1:AA:694:A:OP2	2.09	0.53
1:AA:725:G:H2'	1:AA:726:C:H6	1.74	0.53
1:AA:878:G:H5"	8:AH:89:PRO:HG2	1.89	0.53
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.73	0.53
2:AB:239:VAL:O	2:AB:241:GLU:N	2.41	0.53
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	1.90	0.53
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.89	0.53
12:AL:55:VAL:CG1	12:AL:56:ALA:H	2.20	0.53
18:AR:87:ARG:HG2	18:AR:87:ARG:HH11	1.74	0.53
19:AS:23:ASN:HA	19:AS:26:GLY:HA2	1.89	0.53
1:AA:1498:U:C5	24:AX:17:U:H5'	2.43	0.53
22:AY:64:A:H2'	22:AY:65:G:C8	2.44	0.53
30:B5:40:LYS:NZ	30:B5:49:CYS:SG	2.74	0.53
33:B8:27:THR:HG22	46:BP:61:ARG:HA	1.91	0.53
26:B1:45:ASN:HD21	35:BA:2090:G:H21	1.56	0.53
35:BA:2128:C:H2'	35:BA:2129:C:H6	1.73	0.53
35:BA:2687:U:H2'	35:BA:2688:U:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2726:U:H6	45:BO:67:LYS:HZ3	1.54	0.53
35:BA:404:C:C4'	35:BA:405:U:H5'	2.32	0.53
36:BB:89:G:N2	36:BB:90:A:C2	2.77	0.53
41:BG:144:ILE:HD11	41:BG:148:MET:CG	2.39	0.53
43:BI:79:ILE:CD1	43:BI:80:PRO:HD2	2.36	0.53
46:BP:45:LEU:CD2	46:BP:46:LYS:N	2.68	0.53
36:BB:52:A:N7	49:BS:33:LYS:CE	2.71	0.53
49:BS:74:ALA:HB1	49:BS:103:GLU:CG	2.38	0.53
54:BX:8:ILE:HD11	54:BX:42:ALA:HB1	1.90	0.53
56:BZ:124:ILE:CD1	56:BZ:155:LEU:HD21	2.36	0.53
2:CB:144:ARG:O	2:CB:147:LYS:HB3	2.08	0.53
2:CB:239:VAL:O	2:CB:241:GLU:N	2.41	0.53
3:CC:157:ILE:HD13	3:CC:166:GLU:HB2	1.90	0.53
10:CJ:28:ARG:HG2	10:CJ:28:ARG:HH11	1.73	0.53
11:CK:99:GLN:NE2	11:CK:105:VAL:HG11	2.24	0.53
13:CM:19:LEU:CB	13:CM:25:ILE:HG21	2.38	0.53
25:D0:53:MET:HB3	25:D0:59:LEU:CD2	2.39	0.53
25:D0:60:PHE:CZ	35:DA:2365:G:H4'	2.44	0.53
29:D4:52:SER:OG	29:D4:53:THR:N	2.42	0.53
30:D5:36:CYS:HB3	30:D5:38:ALA:H	1.72	0.53
30:D5:51:TYR:CB	30:D5:54:GLY:HA3	2.39	0.53
35:DA:1266:G:C8	53:DW:15:ARG:NH2	2.77	0.53
35:DA:1680:U:H2'	35:DA:1681:G:O4'	2.09	0.53
35:DA:290:G:O2'	35:DA:291:C:H5'	2.09	0.53
35:DA:887:A:H1'	35:DA:889:C:N4	2.24	0.53
38:DD:231:HIS:CG	38:DD:232:PRO:HD2	2.43	0.53
38:DD:241:PRO:O	38:DD:242:ARG:HB2	2.08	0.53
39:DE:16:ARG:O	39:DE:18:ASP:N	2.39	0.53
39:DE:39:PRO:O	39:DE:41:LYS:N	2.41	0.53
41:DG:76:SER:HB2	41:DG:83:ARG:HB2	1.90	0.53
43:DI:29:TYR:HE1	43:DI:33:ARG:HE	1.56	0.53
44:DN:120:LEU:C	44:DN:121:LYS:HD2	2.29	0.53
35:DA:956:G:H5''	47:DQ:77:LYS:HD2	1.91	0.53
48:DR:104:ARG:HH12	48:DR:109:ALA:HB3	1.73	0.53
51:DU:112:ARG:HG2	51:DU:112:ARG:NH1	2.22	0.53
55:DY:14:LEU:CD1	55:DY:15:VAL:N	2.66	0.53
55:DY:74:PRO:O	55:DY:80:GLY:HA2	2.09	0.53
56:DZ:117:LEU:N	56:DZ:117:LEU:HD23	2.24	0.53
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.09	0.53
2:AB:114:ARG:HH11	2:AB:114:ARG:HG3	1.73	0.53
2:AB:211:ILE:O	2:AB:215:LEU:HD23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.43	0.53
7:AG:53:LYS:O	7:AG:54:THR:CB	2.57	0.53
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.29	0.53
13:AM:10:PRO:CB	13:AM:18:ALA:HB1	2.39	0.53
13:AM:74:VAL:O	13:AM:78:ILE:HG13	2.08	0.53
13:AM:76:ALA:HA	13:AM:79:LYS:HZ2	1.72	0.53
17:AQ:31:LEU:HG	17:AQ:32:TYR:CE2	2.44	0.53
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.26	0.53
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.24	0.53
27:B2:14:ARG:HD3	27:B2:63:VAL:HG13	1.90	0.53
31:B6:12:GLU:HB3	31:B6:23:THR:HG22	1.91	0.53
35:BA:1050:A:C4	35:BA:1051:G:N7	2.77	0.53
35:BA:1396:U:O2	35:BA:1396:U:C2'	2.57	0.53
35:BA:1711:C:H2'	35:BA:1712:C:C6	2.44	0.53
39:BE:47:VAL:HG23	39:BE:84:PHE:O	2.08	0.53
40:BF:80:ALA:O	40:BF:83:PHE:HB2	2.08	0.53
43:BI:77:LEU:HD21	43:BI:101:LEU:HD13	1.90	0.53
44:BN:76:SER:O	44:BN:78:TYR:N	2.42	0.53
46:BP:63:PRO:C	46:BP:65:ARG:N	2.62	0.53
47:BQ:19:GLY:O	47:BQ:20:ALA:HB3	2.09	0.53
53:BW:68:ARG:HB3	53:BW:109:GLU:HB3	1.90	0.53
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.08	0.53
1:CA:1496:C:H2'	1:CA:1497:G:C8	2.44	0.53
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.09	0.53
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.24	0.53
5:CE:35:GLY:HA2	5:CE:40:ARG:O	2.09	0.53
7:CG:154:TYR:O	7:CG:156:TRP:N	2.42	0.53
9:CI:35:GLU:HA	9:CI:38:GLN:HB2	1.91	0.53
9:CI:9:ARG:HG3	9:CI:14:VAL:HG13	1.90	0.53
12:CL:60:LEU:HD22	12:CL:60:LEU:N	2.23	0.53
13:CM:11:ARG:NH2	41:DG:146:TYR:HD2	2.06	0.53
25:D0:60:PHE:CE2	35:DA:2365:G:H4'	2.44	0.53
26:D1:24:ALA:HB2	26:D1:32:LYS:HE3	1.88	0.53
30:D5:39:MET:HG3	53:DW:34:ASN:OD1	2.09	0.53
33:D8:25:MET:SD	46:DP:64:LYS:HD2	2.49	0.53
35:DA:128:C:H2'	35:DA:129:C:C6	2.44	0.53
35:DA:2591:C:H2'	35:DA:2592:G:C8	2.44	0.53
35:DA:404:C:C4'	35:DA:405:U:H5'	2.34	0.53
38:DD:28:GLU:CD	38:DD:28:GLU:N	2.62	0.53
38:DD:33:LEU:HA	38:DD:36:PRO:HG3	1.90	0.53
41:DG:126:ASP:O	41:DG:128:ARG:NH2	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:126:ASP:HA	41:DG:166:ASP:HB2	1.90	0.53
42:DH:27:LYS:HA	42:DH:32:GLU:HG3	1.90	0.53
46:DP:80:TYR:CE1	46:DP:111:ARG:HD3	2.43	0.53
47:DQ:110:THR:HG23	47:DQ:113:GLN:OE1	2.09	0.53
47:DQ:32:TYR:CE2	47:DQ:133:ARG:HG2	2.44	0.53
49:DS:36:TYR:N	49:DS:36:TYR:CD1	2.77	0.53
50:DT:55:ASN:HD22	50:DT:58:ASN:ND2	1.94	0.53
51:DU:112:ARG:CG	51:DU:112:ARG:HH11	2.16	0.53
53:DW:110:LYS:HG3	53:DW:111:HIS:ND1	2.24	0.53
56:DZ:150:LEU:O	56:DZ:151:HIS:HB3	2.07	0.53
1:AA:737:A:O2'	6:AF:72:VAL:HG11	2.09	0.53
2:AB:55:PHE:HA	2:AB:58:ILE:CB	2.38	0.53
4:AD:18:LYS:HB2	4:AD:33:MET:CG	2.31	0.53
6:AF:15:ASP:HA	4:CD:20:TYR:CE1	2.44	0.53
7:AG:37:ASN:HD22	9:AI:40:LEU:HD23	1.74	0.53
13:AM:5:ALA:HB3	13:AM:8:GLU:HB2	1.91	0.53
18:AR:35:ARG:O	18:AR:37:VAL:N	2.38	0.53
27:B2:65:ASN:HB3	27:B2:69:ARG:NH2	2.23	0.53
35:BA:1019:U:H3	35:BA:1142(A):A:N6	2.07	0.53
35:BA:1187:G:O5'	35:BA:1187:G:H8	1.92	0.53
35:BA:1493:C:H4'	35:BA:1494:A:OP1	2.07	0.53
35:BA:171:G:O2'	35:BA:172:C:H5'	2.09	0.53
35:BA:1917:U:O2'	35:BA:1918:A:H5'	2.09	0.53
35:BA:1956:U:C2'	35:BA:1957:C:H5'	2.39	0.53
35:BA:2199:A:H5'	35:BA:2200:C:OP2	2.08	0.53
35:BA:2228:G:OP1	38:BD:261:LYS:HE3	2.08	0.53
35:BA:2681:C:H5	35:BA:2725:A:N6	2.05	0.53
35:BA:622:G:O2'	35:BA:623:G:H5'	2.09	0.53
37:BC:212:VAL:O	37:BC:213:TYR:CB	2.56	0.53
37:BC:93:TYR:O	37:BC:94:VAL:HG13	2.09	0.53
38:BD:241:PRO:O	38:BD:242:ARG:HB2	2.09	0.53
38:BD:33:LEU:HA	38:BD:36:PRO:HG3	1.89	0.53
35:BA:2786:U:O2'	39:BE:62:PRO:HA	2.08	0.53
40:BF:59:TYR:HB3	40:BF:78:ILE:HD11	1.89	0.53
42:BH:35:VAL:O	42:BH:37:VAL:HG23	2.09	0.53
43:BI:78:THR:HA	43:BI:141:LYS:O	2.09	0.53
43:BI:78:THR:HG23	43:BI:141:LYS:HB2	1.90	0.53
43:BI:83:ALA:HB2	43:BI:88:ILE:HA	1.88	0.53
43:BI:94:ALA:C	43:BI:96:ASP:H	2.10	0.53
49:BS:49:VAL:HG21	49:BS:77:ALA:HA	1.91	0.53
50:BT:13:ARG:HA	50:BT:13:ARG:NH1	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:83:ILE:O	50:BT:84:GLN:CB	2.57	0.53
53:BW:28:SER:HA	53:BW:70:TYR:HB2	1.91	0.53
54:BX:29:TRP:CE3	54:BX:29:TRP:HA	2.44	0.53
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.72	0.53
1:CA:52:G:H2'	1:CA:53:A:C8	2.42	0.53
1:CA:779:C:O2'	1:CA:780:A:H5'	2.09	0.53
1:CA:940:C:H2'	1:CA:941:G:C8	2.44	0.53
9:CI:13:ALA:HA	9:CI:67:GLY:O	2.09	0.53
10:CJ:16:LEU:C	10:CJ:16:LEU:HD13	2.29	0.53
19:CS:79:THR:O	19:CS:80:TYR:CB	2.57	0.53
20:CT:13:LEU:HD12	20:CT:14:LYS:N	2.23	0.53
20:CT:40:ALA:HB2	20:CT:55:ILE:CG2	2.39	0.53
27:D2:35:LEU:HD22	27:D2:50:ILE:CG1	2.38	0.53
31:D6:20:ASN:ND2	31:D6:21:TYR:N	2.52	0.53
35:DA:1656:C:H2'	35:DA:1657:C:H6	1.74	0.53
35:DA:2009:G:N3	48:DR:107:ASP:HA	2.24	0.53
35:DA:2263:C:O2'	35:DA:2264:C:H5'	2.09	0.53
30:D5:3:LYS:CE	35:DA:2611:U:H1'	2.37	0.53
35:DA:614(C):A:O2'	35:DA:615:G:P	2.67	0.53
35:DA:662:G:P	46:DP:18:ARG:HD2	2.48	0.53
35:DA:692:C:O2'	35:DA:693:C:H5'	2.08	0.53
28:D3:52:HIS:CD2	36:DB:83:G:H4'	2.43	0.53
37:DC:93:TYR:O	37:DC:94:VAL:HG13	2.09	0.53
39:DE:61:ARG:HB3	39:DE:62:PRO:CD	2.39	0.53
35:DA:320:A:H3'	40:DF:136:THR:CG2	2.39	0.53
41:DG:22:ARG:NH1	41:DG:23:PHE:CE1	2.77	0.53
44:DN:18:ALA:O	44:DN:20:GLY:N	2.42	0.53
45:DO:26:LYS:HB2	45:DO:30:ALA:CB	2.38	0.53
46:DP:62:LEU:H	46:DP:62:LEU:CD2	2.22	0.53
48:DR:78:LYS:O	48:DR:83:ILE:HG12	2.09	0.53
50:DT:66:VAL:HA	50:DT:71:GLY:HA2	1.91	0.53
35:DA:1011:G:P	51:DU:77:SER:HG	2.31	0.53
55:DY:50:ARG:HG3	55:DY:58:GLY:HA2	1.91	0.53
56:DZ:110:GLY:HA3	56:DZ:145:GLU:CG	2.39	0.53
1:AA:370:C:O2'	1:AA:371:G:H5'	2.09	0.53
1:AA:521:G:O2'	1:AA:522:C:H5'	2.08	0.53
3:AC:6:HIS:HB2	14:AN:49:HIS:CD2	2.44	0.53
3:AC:90:GLU:O	3:AC:93:LYS:HB3	2.08	0.53
4:AD:18:LYS:CB	4:AD:33:MET:HG2	2.30	0.53
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.09	0.53
6:AF:20:ALA:HB2	4:CD:195:ALA:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:17:SER:C	6:AF:21:LEU:HD23	2.29	0.53
8:AH:40:ALA:C	8:AH:42:GLU:H	2.11	0.53
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.09	0.53
9:AI:49:PRO:HA	9:AI:101:PHE:CE1	2.44	0.53
10:AJ:24:VAL:HG21	10:AJ:37:PRO:CG	2.39	0.53
12:AL:83:VAL:HG13	12:AL:84:LEU:N	2.24	0.53
13:AM:29:ARG:HD3	13:AM:64:TRP:CE2	2.44	0.53
22:AV:53:G:H2'	22:AV:54:U:H6	1.73	0.53
31:B6:47:THR:CG2	31:B6:48:VAL:H	2.18	0.53
31:B6:51:GLU:O	31:B6:52:VAL:HB	2.09	0.53
34:B9:17:ILE:HG21	34:B9:19:ARG:HE	1.73	0.53
35:BA:999:U:C2'	35:BA:1000:A:C5'	2.86	0.53
35:BA:1048:A:H4'	35:BA:1049:C:C5	2.44	0.53
35:BA:1192:G:O2'	35:BA:1193:G:H5'	2.08	0.53
35:BA:2579:C:H2'	35:BA:2580:U:O4'	2.08	0.53
30:B5:3:LYS:CE	35:BA:2611:U:H1'	2.37	0.53
35:BA:285:C:C3'	35:BA:286:C:H5''	2.39	0.53
35:BA:671:C:OP1	46:BP:43:GLY:HA2	2.09	0.53
38:BD:118:VAL:HG22	38:BD:119:ALA:N	2.24	0.53
38:BD:218:ARG:HG3	38:BD:218:ARG:HH11	1.73	0.53
38:BD:28:GLU:CD	38:BD:28:GLU:H	2.12	0.53
39:BE:61:ARG:HB3	39:BE:62:PRO:CD	2.39	0.53
41:BG:106:LEU:HA	41:BG:110:ALA:HB3	1.91	0.53
42:BH:68:THR:C	42:BH:70:THR:N	2.58	0.53
43:BI:78:THR:OG1	43:BI:141:LYS:HB2	2.09	0.53
43:BI:1:MET:O	43:BI:20:ASP:HA	2.09	0.53
45:BO:23:ARG:HD2	45:BO:24:VAL:N	2.22	0.53
47:BQ:78:PRO:HB2	47:BQ:81:VAL:HG11	1.90	0.53
51:BU:62:ILE:HD13	51:BU:93:LYS:HG2	1.89	0.53
52:BV:15:GLU:O	52:BV:16:PRO:C	2.46	0.53
2:CB:211:ILE:O	2:CB:215:LEU:HD23	2.09	0.53
3:CC:113:ALA:HB2	3:CC:202:ILE:CG1	2.39	0.53
7:CG:113:GLU:HG3	7:CG:119:ARG:HA	1.91	0.53
9:CI:124:GLN:O	9:CI:125:TYR:CB	2.57	0.53
1:CA:1149:C:OP1	9:CI:9:ARG:HD3	2.09	0.53
18:CR:25:THR:HG22	18:CR:42:ARG:NH1	2.23	0.53
20:CT:87:LYS:HG3	20:CT:91:LEU:HD11	1.90	0.53
22:CV:49:C:H2'	22:CV:50:U:H6	1.73	0.53
25:D0:29:GLN:HG2	35:DA:923:C:C4'	2.39	0.53
26:D1:64:ALA:HA	26:D1:67:ILE:CD1	2.38	0.53
27:D2:43:GLN:O	27:D2:44:LEU:CB	2.51	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1050:A:C4	35:DA:1051:G:N7	2.77	0.53
35:DA:2099:U:H3	35:DA:2190:G:H1	1.57	0.53
35:DA:2128:C:H2'	35:DA:2129:C:H6	1.73	0.53
35:DA:2787:C:H1'	39:DE:61:ARG:HG2	1.90	0.53
35:DA:2846:G:H2'	35:DA:2847:U:O4'	2.08	0.53
25:D0:77:ARG:HH22	35:DA:857:C:H5'	1.73	0.53
35:DA:991:C:O2'	35:DA:992:C:H5'	2.09	0.53
36:DB:44:G:H1'	36:DB:47:C:N4	2.23	0.53
38:DD:221:VAL:HG22	38:DD:226:MET:HE2	1.90	0.53
38:DD:30:GLU:CG	38:DD:63:ARG:NE	2.71	0.53
41:DG:56:ALA:CB	41:DG:153:ARG:NE	2.71	0.53
42:DH:149:ARG:NH2	42:DH:154:PRO:HG3	2.23	0.53
45:DO:35:VAL:HG21	45:DO:69:ILE:CD1	2.39	0.53
49:DS:104:GLY:C	49:DS:106:ARG:H	2.11	0.53
50:DT:28:VAL:HG22	50:DT:46:GLU:HA	1.90	0.53
50:DT:28:VAL:O	50:DT:29:ARG:CB	2.57	0.53
1:AA:105:G:H2'	1:AA:106:C:C6	2.44	0.53
1:AA:918:A:O2'	1:AA:919:A:H5'	2.09	0.53
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.09	0.53
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.38	0.53
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.37	0.53
12:AL:27:LEU:N	12:AL:27:LEU:HD22	2.24	0.53
1:AA:636:U:C5'	17:AQ:2:PRO:HG3	2.39	0.53
22:AY:33:U:C3'	22:AY:34:G:H5''	2.38	0.53
31:B6:42:TRP:CE3	31:B6:42:TRP:HA	2.43	0.53
35:BA:2747:G:O6	35:BA:2755:C:H5''	2.08	0.53
35:BA:492:A:H2'	35:BA:493:G:O4'	2.09	0.53
35:BA:6:A:N3	35:BA:6:A:H2'	2.24	0.53
35:BA:90:U:H2'	35:BA:90:U:O2	2.09	0.53
37:BC:36:LYS:HA	37:BC:36:LYS:NZ	2.24	0.53
37:BC:58:VAL:C	37:BC:59:ARG:HD3	2.29	0.53
38:BD:112:GLN:H	38:BD:115:GLN:NE2	2.06	0.53
39:BE:57:LYS:C	39:BE:59:VAL:N	2.62	0.53
35:BA:2787:C:H1'	39:BE:61:ARG:HG2	1.90	0.53
39:BE:89:ASP:O	39:BE:90:THR:CB	2.55	0.53
41:BG:5:VAL:HG12	41:BG:104:GLU:OE1	2.09	0.53
41:BG:83:ARG:HH11	41:BG:84:LYS:HD2	1.73	0.53
46:BP:83:VAL:CG1	46:BP:112:LEU:HD21	2.35	0.53
46:BP:29:LYS:HD2	46:BP:29:LYS:N	2.24	0.53
35:BA:910:A:N7	47:BQ:13:GLN:HG3	2.23	0.53
47:BQ:21:THR:O	47:BQ:22:LYS:C	2.47	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:42:ILE:HD13	47:BQ:97:VAL:HG23	1.91	0.53
49:BS:18:ILE:C	49:BS:20:ARG:H	2.12	0.53
49:BS:89:ARG:O	49:BS:90:GLY:O	2.27	0.53
50:BT:31:SER:C	50:BT:32:TYR:CD2	2.82	0.53
53:BW:110:LYS:HG3	53:BW:111:HIS:ND1	2.24	0.53
1:CA:176:C:H2'	1:CA:177:C:C6	2.44	0.53
1:CA:332:G:H2'	1:CA:333:G:H8	1.74	0.53
2:CB:57:PHE:O	2:CB:61:LEU:HB2	2.09	0.53
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.90	0.53
6:CF:40:VAL:HG13	6:CF:40:VAL:O	2.09	0.53
12:CL:22:SER:C	12:CL:24:VAL:H	2.12	0.53
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.56	0.53
1:CA:521:G:O5'	12:CL:73:GLU:HG3	2.08	0.53
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.29	0.53
20:CT:26:ASN:N	20:CT:26:ASN:ND2	2.57	0.53
22:CV:41:C:N3	22:CV:42:C:C5	2.77	0.53
23:CW:25:C:H2'	23:CW:26:A:H8	1.74	0.53
35:DA:1108:U:H2'	35:DA:1109:C:C5'	2.39	0.53
35:DA:1594:G:C5'	35:DA:1594:G:C8	2.87	0.53
35:DA:1777:U:O2'	35:DA:1778:U:H5'	2.08	0.53
35:DA:999:U:O2'	35:DA:1000:A:H5''	2.08	0.53
38:DD:3:VAL:CG1	38:DD:17:THR:HB	2.38	0.53
39:DE:101:ARG:NH1	39:DE:169:ASN:ND2	2.52	0.53
44:DN:62:VAL:HG13	44:DN:62:VAL:O	2.08	0.53
45:DO:31:LYS:HB3	45:DO:32:TYR:CD1	2.44	0.53
45:DO:71:ARG:O	45:DO:73:ASP:N	2.40	0.53
46:DP:146:VAL:HG13	46:DP:147:LEU:N	2.23	0.53
48:DR:11:ASN:O	48:DR:12:ARG:HB2	2.08	0.53
49:DS:14:VAL:HG13	49:DS:90:GLY:CA	2.39	0.53
50:DT:28:VAL:HG21	50:DT:88:ILE:CD1	2.38	0.53
50:DT:23:ARG:HA	50:DT:52:ILE:HD11	1.90	0.53
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.44	0.53
1:AA:1490:C:H2'	1:AA:1491:G:H8	1.72	0.53
1:AA:977:A:H2'	1:AA:978:A:H5'	1.90	0.53
4:AD:170:VAL:CG2	4:AD:171:GLY:H	2.19	0.53
10:AJ:28:ARG:HH11	10:AJ:28:ARG:HG2	1.73	0.53
15:AO:9:GLN:HA	15:AO:12:ILE:HD12	1.90	0.53
23:AW:16:U:C4	23:AW:18:G:H3'	2.43	0.53
30:B5:42:PRO:HB2	30:B5:43:HIS:CD2	2.44	0.53
35:BA:1666:G:C2'	35:BA:1667:G:H5'	2.39	0.53
35:BA:1718:G:H1	35:BA:1744:C:N4	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:271(K):U:H3	43:BI:50:ARG:NH1	2.06	0.53
35:BA:65:C:O2'	35:BA:66:C:H5'	2.09	0.53
38:BD:147:LEU:CD1	38:BD:155:LEU:HD11	2.35	0.53
35:BA:729:G:N7	38:BD:208:LYS:HB2	2.23	0.53
40:BF:52:LYS:HD3	40:BF:56:GLU:O	2.09	0.53
56:BZ:150:LEU:HD22	56:BZ:150:LEU:C	2.29	0.53
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.73	0.53
1:CA:1484:C:O2'	35:DA:1961:C:H5'	2.08	0.53
1:CA:826:C:H2'	1:CA:827:U:C6	2.44	0.53
1:CA:79:G:O6	1:CA:90:U:H4'	2.09	0.53
2:CB:220:ASP:C	2:CB:222:ILE:H	2.12	0.53
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.74	0.53
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.21	0.53
4:CD:119:GLN:HG3	4:CD:123:HIS:HD2	1.67	0.53
4:CD:145:GLU:HG2	4:CD:184:LYS:HZ3	1.73	0.53
13:CM:66:LEU:O	13:CM:67:GLU:C	2.46	0.53
13:CM:5:ALA:HB3	13:CM:8:GLU:HB2	1.90	0.53
19:CS:15:LEU:HD12	19:CS:31:ILE:HD11	1.91	0.53
20:CT:30:LYS:CE	20:CT:72:LEU:HD21	2.34	0.53
31:D6:10:LEU:HD22	31:D6:10:LEU:N	2.24	0.53
35:DA:30:G:H2'	35:DA:31:C:C6	2.44	0.53
35:DA:633:A:H2'	35:DA:634:C:H5'	1.91	0.53
35:DA:686:G:H21	35:DA:788:A:H61	1.57	0.53
35:DA:902:C:O2'	35:DA:903:C:H5'	2.08	0.53
36:DB:79:C:H2'	36:DB:80:U:O4'	2.09	0.53
36:DB:89:G:N2	36:DB:90:A:C2	2.77	0.53
37:DC:168:THR:HA	37:DC:173:ALA:HB1	1.91	0.53
39:DE:17:ASP:O	39:DE:18:ASP:CB	2.56	0.53
41:DG:7:LEU:HB3	41:DG:100:TRP:CE3	2.44	0.53
41:DG:110:ALA:HA	41:DG:140:ILE:HG22	1.91	0.53
45:DO:2:ILE:HD11	45:DO:82:ASN:HD22	1.73	0.53
49:DS:106:ARG:HD2	49:DS:106:ARG:O	2.09	0.53
49:DS:35:ILE:H	49:DS:53:SER:HB3	1.73	0.53
50:DT:83:ILE:O	50:DT:84:GLN:CB	2.57	0.53
54:DX:14:SER:H	54:DX:17:ALA:HB3	1.74	0.53
56:DZ:108:PRO:CG	56:DZ:117:LEU:HD22	2.34	0.53
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.52
1:AA:954:G:H21	1:AA:1227:A:N6	2.07	0.52
1:AA:1313:U:H2'	1:AA:1314:C:C6	2.44	0.52
1:AA:1442(A):G:C8	50:BT:118:ARG:HD2	2.44	0.52
1:AA:1443:G:H2'	1:AA:1443:G:N3	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:184:G:H2'	1:AA:185:A:C8	2.43	0.52
8:AH:82:HIS:HD2	8:AH:138:TRP:NE1	2.04	0.52
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.39	0.52
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.41	0.52
13:AM:11:ARG:O	13:AM:13:LYS:N	2.42	0.52
15:AO:82:ILE:HD11	15:AO:87:ILE:O	2.09	0.52
18:AR:44:LEU:O	18:AR:45:SER:C	2.45	0.52
18:AR:82:THR:O	18:AR:83:GLU:HB3	2.09	0.52
19:AS:16:LEU:H	19:AS:16:LEU:CD1	2.22	0.52
23:AW:18:G:H1	23:AW:55:U:C1'	2.20	0.52
25:B0:56:ASP:O	25:B0:57:PHE:CB	2.57	0.52
35:BA:1713:U:O2'	35:BA:1714:G:H5'	2.09	0.52
30:B5:2:ALA:CA	35:BA:2015:A:H1'	2.34	0.52
35:BA:2464:C:O2'	35:BA:2465:C:P	2.67	0.52
38:BD:201:HIS:O	38:BD:204:ILE:HG12	2.08	0.52
39:BE:70:ALA:O	39:BE:72:VAL:N	2.43	0.52
39:BE:1:MET:HG2	39:BE:83:ASP:O	2.09	0.52
42:BH:13:LYS:O	42:BH:15:VAL:N	2.33	0.52
44:BN:89:LYS:O	44:BN:93:THR:HG23	2.09	0.52
49:BS:98:VAL:HG12	49:BS:100:ALA:HB2	1.90	0.52
50:BT:124:ASP:C	50:BT:126:ALA:H	2.12	0.52
50:BT:28:VAL:HG22	50:BT:46:GLU:CA	2.39	0.52
52:BV:19:LYS:C	52:BV:20:LEU:HD12	2.29	0.52
52:BV:38:LEU:O	52:BV:51:VAL:HG13	2.09	0.52
54:BX:14:SER:H	54:BX:17:ALA:HB3	1.73	0.52
55:BY:17:SER:CB	55:BY:71:LYS:HB3	2.39	0.52
1:CA:1494:G:N7	58:CA:1800:PAR:N32	2.57	0.52
1:CA:877:C:O2'	1:CA:878:G:H5'	2.10	0.52
2:CB:116:GLU:HA	2:CB:119:GLU:CB	2.38	0.52
2:CB:44:LEU:HD12	2:CB:44:LEU:N	2.16	0.52
3:CC:139:GLN:O	3:CC:143:GLU:HB2	2.09	0.52
3:CC:195:VAL:CG1	3:CC:196:LEU:N	2.71	0.52
7:CG:37:ASN:HD22	9:CI:40:LEU:HD23	1.74	0.52
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.89	0.52
13:CM:16:ASP:HA	13:CM:34:LEU:HD11	1.91	0.52
13:CM:79:LYS:O	13:CM:82:MET:HB3	2.10	0.52
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.09	0.52
22:CV:32:U:H2'	22:CV:32:U:O2	2.08	0.52
26:D1:51:VAL:HG21	26:D1:74:VAL:CG2	2.37	0.52
26:D1:66:HIS:C	26:D1:68:PRO:HD2	2.28	0.52
29:D4:39:ARG:O	29:D4:57:ILE:HB	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D5:16:ARG:NH2	35:DA:517:C:OP1	2.42	0.52
31:D6:19:ARG:O	31:D6:20:ASN:O	2.27	0.52
35:DA:1150:C:O2'	35:DA:1151:G:H5'	2.09	0.52
35:DA:1532:C:O2	35:DA:1532:C:C2'	2.56	0.52
35:DA:1666:G:C2'	35:DA:1667:G:H5'	2.39	0.52
35:DA:1751:C:O2'	35:DA:1752:C:H5'	2.09	0.52
35:DA:2201:C:O2'	35:DA:2202:C:H5'	2.09	0.52
35:DA:999:U:C2'	35:DA:1000:A:C5'	2.87	0.52
36:DB:109:C:H5'	36:DB:110:G:O5'	2.09	0.52
38:DD:206:LEU:HD23	38:DD:211:ARG:HH11	1.72	0.52
41:DG:60:LEU:O	41:DG:63:ILE:HG12	2.09	0.52
42:DH:41:MET:HG2	42:DH:55:PRO:CD	2.38	0.52
35:DA:832:G:OP1	46:DP:40:SER:HB3	2.09	0.52
47:DQ:109:VAL:CG1	47:DQ:113:GLN:HB2	2.38	0.52
48:DR:99:LYS:H	48:DR:99:LYS:CD	2.22	0.52
50:DT:88:ILE:HG22	50:DT:89:VAL:H	1.74	0.52
52:DV:46:VAL:HG22	52:DV:47:VAL:N	2.22	0.52
53:DW:88:ARG:NH1	53:DW:94:ASP:OD1	2.41	0.52
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.71	0.52
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.74	0.52
1:AA:232:G:H2'	1:AA:233:C:H6	1.74	0.52
1:AA:424:G:O2'	1:AA:425:G:H5'	2.09	0.52
1:AA:511:C:HO2'	1:AA:512:U:H6	1.57	0.52
1:AA:954:G:H4'	13:AM:120:LYS:CG	2.22	0.52
2:AB:91:PRO:CD	2:AB:155:LEU:HD23	2.39	0.52
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.40	0.52
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.72	0.52
5:AE:45:PHE:CE2	5:AE:47:LYS:HE3	2.44	0.52
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.25	0.52
1:AA:1368:G:OP2	9:AI:112:LYS:HE3	2.08	0.52
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.40	0.52
12:AL:37:CYS:HA	12:AL:58:VAL:HG22	1.90	0.52
13:AM:66:LEU:O	13:AM:67:GLU:C	2.47	0.52
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.25	0.52
17:AQ:68:ARG:O	17:AQ:68:ARG:HG3	2.09	0.52
21:AU:18:TYR:CD2	21:AU:24:ARG:HG2	2.44	0.52
22:AY:59:U:O2'	22:AY:60:U:H5'	2.10	0.52
35:BA:1042:G:H1'	35:BA:1114:G:H22	1.72	0.52
35:BA:1165:U:H2'	35:BA:1166:C:C6	2.44	0.52
35:BA:286:C:C2'	35:BA:287:C:C5'	2.87	0.52
35:BA:774:A:H2	35:BA:787:U:O2'	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B0:77:ARG:HH22	35:BA:857:C:H5'	1.74	0.52
36:BB:111:G:C2'	36:BB:112:U:H5'	2.39	0.52
38:BD:70:TRP:CD1	38:BD:70:TRP:C	2.83	0.52
39:BE:33:VAL:HG13	39:BE:69:LYS:NZ	2.24	0.52
44:BN:65:LYS:O	44:BN:69:GLN:CG	2.57	0.52
45:BO:1:MET:HE2	45:BO:67:LYS:HG2	1.91	0.52
46:BP:107:LYS:C	46:BP:109:GLY:N	2.63	0.52
46:BP:126:VAL:HG12	46:BP:148:LEU:HD11	1.90	0.52
47:BQ:42:ILE:CD1	47:BQ:42:ILE:N	2.72	0.52
48:BR:104:ARG:HH12	48:BR:109:ALA:HB3	1.74	0.52
49:BS:13:ARG:O	49:BS:14:VAL:CB	2.57	0.52
49:BS:69:VAL:O	49:BS:72:ALA:HB3	2.10	0.52
51:BU:104:GLN:OE1	51:BU:104:GLN:N	2.42	0.52
55:BY:14:LEU:CD1	55:BY:15:VAL:N	2.68	0.52
55:BY:81:LYS:CB	55:BY:96:ILE:HG22	2.40	0.52
1:CA:348:G:O2'	1:CA:349:A:H5'	2.08	0.52
2:CB:197:VAL:HB	2:CB:200:ILE:CG1	2.39	0.52
6:CF:21:LEU:HD13	6:CF:24:GLU:OE1	2.09	0.52
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.29	0.52
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.90	0.52
10:CJ:24:VAL:HG21	10:CJ:37:PRO:CG	2.39	0.52
13:CM:19:LEU:O	13:CM:22:ILE:HB	2.09	0.52
15:CO:80:ALA:O	15:CO:84:LYS:HG3	2.09	0.52
22:CV:19:G:N2	22:CV:57:G:H1'	2.24	0.52
27:D2:2:LYS:HA	27:D2:5:GLU:OE1	2.09	0.52
35:DA:1345:C:O2'	35:DA:1346:G:H5'	2.09	0.52
35:DA:2199:A:H5'	35:DA:2200:C:OP2	2.09	0.52
35:DA:2250:G:C8	35:DA:2496:C:H5''	2.44	0.52
35:DA:65:C:O2'	35:DA:66:C:H5'	2.09	0.52
28:D3:52:HIS:CG	36:DB:83:G:H4'	2.45	0.52
40:DF:33:LEU:CD2	40:DF:112:MET:HG2	2.39	0.52
41:DG:76:SER:HA	41:DG:84:LYS:H	1.74	0.52
43:DI:81:VAL:HG12	43:DI:82:ARG:N	2.23	0.52
47:DQ:134:ARG:HE	56:DZ:122:ARG:CZ	2.22	0.52
50:DT:92:GLY:HA2	50:DT:114:LEU:CB	2.38	0.52
51:DU:92:ARG:HD2	52:DV:11:GLN:NE2	2.23	0.52
51:DU:88:ILE:HG22	52:DV:47:VAL:HG23	1.92	0.52
52:DV:85:LYS:HB2	52:DV:85:LYS:HZ3	1.73	0.52
56:DZ:19:ARG:NH1	56:DZ:84:GLU:O	2.42	0.52
1:AA:176:C:H2'	1:AA:177:C:C6	2.43	0.52
1:AA:560:U:H5'	1:AA:566:G:N2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:618:C:H5'	1:AA:619:U:H5''	1.92	0.52
1:AA:940:C:H2'	1:AA:941:G:C8	2.44	0.52
2:AB:63:MET:HB3	2:AB:225:ALA:HB1	1.90	0.52
5:AE:110:LEU:HD12	5:AE:118:ILE:HG21	1.92	0.52
13:AM:108:ARG:NH1	13:AM:112:GLY:HA3	2.24	0.52
23:AW:21:A:H5'	23:AW:21:A:H8	1.73	0.52
25:B0:51:VAL:N	25:B0:62:LEU:HD12	2.24	0.52
35:BA:1146:C:O2'	35:BA:1147:C:H5'	2.09	0.52
35:BA:2846:G:H2'	35:BA:2847:U:O4'	2.09	0.52
28:B3:52:HIS:CG	36:BB:83:G:H4'	2.45	0.52
41:BG:41:GLN:HG2	41:BG:155:MET:HB3	1.90	0.52
42:BH:152:ARG:O	42:BH:153:LYS:O	2.27	0.52
42:BH:155:SER:O	42:BH:156:ALA:CB	2.56	0.52
45:BO:36:GLY:HA3	45:BO:109:LYS:HG3	1.91	0.52
46:BP:88:LEU:N	46:BP:88:LEU:HD12	2.24	0.52
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.40	0.52
7:CG:138:LYS:HE2	7:CG:142:GLU:OE2	2.10	0.52
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.39	0.52
12:CL:55:VAL:CG1	12:CL:56:ALA:H	2.21	0.52
17:CQ:9:VAL:HG21	17:CQ:84:LEU:HD13	1.90	0.52
1:CA:1318:A:H1'	19:CS:37:ARG:NH2	2.24	0.52
35:DA:489:G:N2	35:DA:1321:A:OP1	2.42	0.52
35:DA:1685:C:O2'	35:DA:1686:C:H5''	2.09	0.52
36:DB:57:A:H5'	41:DG:27:ASN:ND2	2.25	0.52
39:DE:116:VAL:HG22	39:DE:117:MET:N	2.25	0.52
40:DF:8:GLN:HB3	40:DF:126:VAL:HA	1.92	0.52
43:DI:78:THR:OG1	43:DI:141:LYS:HB2	2.10	0.52
44:DN:121:LYS:HD2	44:DN:121:LYS:N	2.24	0.52
46:DP:122:PRO:HG3	46:DP:141:ALA:HB3	1.90	0.52
35:DA:389:G:H22	46:DP:72:PRO:HD3	1.75	0.52
47:DQ:42:ILE:HD13	47:DQ:97:VAL:CG2	2.39	0.52
48:DR:63:ARG:O	48:DR:67:LEU:HB2	2.09	0.52
49:DS:98:VAL:HG12	49:DS:100:ALA:N	2.24	0.52
49:DS:89:ARG:NH1	49:DS:91:PRO:HG2	2.23	0.52
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.25	0.52
1:AA:1436:U:O2'	1:AA:1437:C:H5'	2.10	0.52
1:AA:333:G:O2'	1:AA:334:C:H5'	2.10	0.52
2:AB:118:LEU:CB	2:AB:142:LEU:HD13	2.32	0.52
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.75	0.52
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.73	0.52
1:AA:1342:C:H1'	9:AI:124:GLN:HE22	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.30	0.52
12:AL:21:LYS:HD2	12:AL:21:LYS:N	2.24	0.52
12:AL:55:VAL:CG1	12:AL:56:ALA:N	2.71	0.52
15:AO:63:ARG:CG	15:AO:67:LEU:HD12	2.38	0.52
22:AV:52:G:H1	22:AV:62:C:H42	1.57	0.52
26:B1:13:ILE:HD11	26:B1:42:GLN:OE1	2.10	0.52
29:B4:51:TYR:CG	41:BG:2:PRO:CD	2.92	0.52
35:BA:1363:C:H2'	35:BA:1364:G:C8	2.44	0.52
35:BA:528:A:C2	35:BA:2043:C:C5'	2.93	0.52
35:BA:2476:A:N1	35:BA:2477:C:C5	2.77	0.52
35:BA:322:A:H3'	40:BF:169:ASN:ND2	2.22	0.52
35:BA:816:C:O2'	35:BA:817:C:H5'	2.09	0.52
38:BD:125:ILE:O	38:BD:125:ILE:HG22	2.09	0.52
39:BE:109:LYS:HB2	48:BR:2:ARG:HH22	1.74	0.52
40:BF:114:VAL:HG21	40:BF:202:PHE:CZ	2.45	0.52
41:BG:46:ALA:C	41:BG:51:ARG:HG3	2.30	0.52
43:BI:101:LEU:HD23	43:BI:109:ILE:HG12	1.90	0.52
44:BN:46:VAL:O	44:BN:47:ALA:HB3	2.09	0.52
46:BP:97:PRO:O	46:BP:99:LEU:N	2.38	0.52
50:BT:60:THR:HG22	50:BT:77:PRO:HA	1.91	0.52
50:BT:27:THR:HA	50:BT:87:ASP:HB2	1.90	0.52
50:BT:89:VAL:HG11	50:BT:91:ARG:NE	2.24	0.52
51:BU:104:GLN:HB3	52:BV:44:LYS:HZ3	1.74	0.52
51:BU:55:ARG:HA	51:BU:58:ARG:CG	2.34	0.52
53:BW:80:PRO:O	53:BW:100:THR:HG21	2.09	0.52
1:CA:936:C:O2'	1:CA:937:A:H5'	2.09	0.52
2:CB:60:ASP:OD2	2:CB:64:ARG:CZ	2.57	0.52
3:CC:30:ARG:NH1	14:CN:35:ARG:HA	2.23	0.52
7:CG:5:ARG:C	7:CG:7:ALA:H	2.12	0.52
7:CG:79:ARG:NE	7:CG:84:ASN:OD1	2.43	0.52
8:CH:97:VAL:HA	8:CH:100:ILE:HD11	1.92	0.52
9:CI:4:TYR:CD1	9:CI:4:TYR:N	2.78	0.52
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.24	0.52
13:CM:48:LEU:HB2	13:CM:52:GLU:OE1	2.10	0.52
15:CO:82:ILE:HD11	15:CO:87:ILE:O	2.10	0.52
20:CT:53:LEU:HD13	20:CT:102:GLY:HA3	1.92	0.52
22:CV:68:C:H3'	22:CV:69:G:H5''	1.91	0.52
23:CW:9:A:H5'	23:CW:46:G:N3	2.25	0.52
26:D1:48:LYS:HD2	26:D1:61:ARG:CG	2.35	0.52
35:DA:1021:A:C3'	35:DA:1021:A:C8	2.91	0.52
35:DA:2305:A:C2	35:DA:2306:C:H1'	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:925:C:H2'	35:DA:926:A:C5'	2.19	0.52
38:DD:118:VAL:HG22	38:DD:119:ALA:N	2.22	0.52
35:DA:780:G:OP1	38:DD:218:ARG:NH2	2.42	0.52
39:DE:75:VAL:O	39:DE:77:ILE:N	2.30	0.52
39:DE:47:VAL:HG23	39:DE:84:PHE:O	2.09	0.52
41:DG:16:ARG:HG3	41:DG:16:ARG:HH11	1.75	0.52
42:DH:35:VAL:O	42:DH:37:VAL:HG23	2.09	0.52
46:DP:83:VAL:CG1	46:DP:112:LEU:HD21	2.38	0.52
47:DQ:21:THR:O	47:DQ:22:LYS:C	2.47	0.52
47:DQ:42:ILE:N	47:DQ:42:ILE:CD1	2.73	0.52
50:DT:86:ILE:HG12	50:DT:87:ASP:N	2.23	0.52
52:DV:76:LYS:HB2	52:DV:81:TYR:HB3	1.92	0.52
55:DY:8:LYS:HE2	55:DY:72:VAL:HG23	1.90	0.52
1:AA:1000:U:H2'	1:AA:1001:A:H8	1.74	0.52
1:AA:245:C:O2'	1:AA:246:A:H5'	2.10	0.52
1:AA:35:G:H2'	1:AA:36:C:C6	2.44	0.52
1:AA:633:G:H5'	1:AA:634:C:OP2	2.09	0.52
1:AA:93:G:N3	1:AA:93:G:H2'	2.24	0.52
2:AB:60:ASP:OD2	2:AB:64:ARG:CZ	2.57	0.52
4:AD:128:VAL:HG12	4:AD:129:ASN:ND2	2.25	0.52
4:AD:145:GLU:HG2	4:AD:184:LYS:HZ3	1.73	0.52
13:AM:19:LEU:O	13:AM:22:ILE:HB	2.09	0.52
13:AM:57:ARG:NH1	29:B4:60:GLU:HG3	2.24	0.52
13:AM:80:ARG:C	13:AM:82:MET:H	2.13	0.52
15:AO:80:ALA:O	15:AO:84:LYS:HG3	2.10	0.52
17:AQ:52:LYS:HD2	17:AQ:52:LYS:N	2.13	0.52
19:AS:79:THR:O	19:AS:80:TYR:CB	2.57	0.52
20:AT:40:ALA:HB2	20:AT:55:ILE:CG2	2.39	0.52
22:AV:72:C:H2'	22:AV:73:A:H5'	1.91	0.52
30:B5:33:CYS:O	30:B5:34:PRO:C	2.48	0.52
31:B6:52:VAL:CG1	31:B6:53:LYS:N	2.71	0.52
35:BA:118:A:H5'	35:BA:119:A:H8	1.74	0.52
35:BA:2462:U:H2'	35:BA:2463:C:H6	1.74	0.52
35:BA:2468:G:H5'	47:BQ:120:ILE:HD12	1.92	0.52
35:BA:1669:A:H5''	35:BA:2550:G:OP1	2.09	0.52
35:BA:2864:G:H5'	35:BA:2864:G:C8	2.44	0.52
38:BD:35:LYS:O	38:BD:36:PRO:C	2.47	0.52
39:BE:2:LYS:CE	39:BE:95:ILE:HG22	2.39	0.52
40:BF:126:VAL:HG13	40:BF:193:VAL:HG13	1.92	0.52
40:BF:1:MET:O	40:BF:3:GLU:HG2	2.10	0.52
40:BF:9:ILE:HG22	40:BF:9:ILE:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:11:TYR:OH	41:BG:32:PRO:O	2.26	0.52
43:BI:113:ARG:HB2	43:BI:130:TYR:HE1	1.74	0.52
46:BP:16:ARG:HD3	46:BP:16:ARG:C	2.30	0.52
49:BS:89:ARG:NH1	49:BS:91:PRO:HG2	2.25	0.52
44:BN:38:HIS:O	51:BU:67:ALA:HB1	2.09	0.52
55:BY:2:ARG:C	55:BY:4:LYS:N	2.62	0.52
56:BZ:82:ARG:HH11	56:BZ:82:ARG:HG2	1.74	0.52
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.09	0.52
1:CA:583:A:H2'	1:CA:584:G:O4'	2.09	0.52
2:CB:236:TYR:HA	2:CB:239:VAL:HG21	1.91	0.52
2:CB:41:ILE:N	2:CB:41:ILE:HD12	2.25	0.52
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.89	0.52
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.40	0.52
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.20	0.52
11:CK:95:ILE:CD1	11:CK:95:ILE:H	2.23	0.52
1:CA:750:G:H1'	15:CO:23:GLY:H	1.75	0.52
18:CR:87:ARG:HG2	18:CR:87:ARG:HH11	1.74	0.52
25:D0:26:TYR:CE2	35:DA:857:C:H1'	2.45	0.52
25:D0:51:VAL:N	25:D0:62:LEU:HD12	2.24	0.52
30:D5:41:PRO:O	30:D5:44:THR:OG1	2.28	0.52
35:DA:1187:G:H8	35:DA:1187:G:O5'	1.92	0.52
35:DA:1984:G:O2'	35:DA:1985:G:H5'	2.09	0.52
35:DA:2345:G:H5''	35:DA:2347:C:O4'	2.09	0.52
35:DA:2461:C:H2'	35:DA:2462:U:C6	2.45	0.52
35:DA:2495:G:H5''	47:DQ:82:ARG:HB3	1.91	0.52
35:DA:2752:C:H5'	35:DA:2753:A:OP2	2.09	0.52
35:DA:598:G:H5'	46:DP:15:ARG:HB2	1.92	0.52
40:DF:4:VAL:HA	40:DF:18:ARG:O	2.10	0.52
41:DG:33:ARG:HB2	41:DG:162:THR:CG2	2.39	0.52
41:DG:56:ALA:CB	41:DG:153:ARG:HE	2.23	0.52
43:DI:1:MET:O	43:DI:20:ASP:HA	2.09	0.52
35:DA:271(P):C:C5'	43:DI:46:ALA:HB2	2.38	0.52
47:DQ:48:GLU:HG3	47:DQ:48:GLU:O	2.10	0.52
47:DQ:63:LYS:HZ1	56:DZ:176:PRO:HD2	1.74	0.52
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.44	0.52
1:AA:1269:A:H5'	21:AU:18:TYR:O	2.10	0.52
1:AA:1363:C:H5'	1:AA:1363(A):A:O5'	2.10	0.52
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.45	0.52
1:AA:348:G:O2'	1:AA:349:A:H5'	2.10	0.52
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.40	0.52
1:AA:936:C:O2'	1:AA:937:A:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:116:GLU:HA	2:AB:119:GLU:CB	2.40	0.52
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.09	0.52
2:AB:144:ARG:O	2:AB:147:LYS:HB3	2.09	0.52
6:AF:68:PRO:HG3	6:AF:71:ARG:NH2	2.24	0.52
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.57	0.52
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.77	0.52
13:AM:25:ILE:HD12	13:AM:25:ILE:N	2.24	0.52
13:AM:57:ARG:HH12	29:B4:60:GLU:HG3	1.74	0.52
18:AR:87:ARG:HG2	18:AR:87:ARG:O	2.08	0.52
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.57	0.52
25:B0:32:ARG:HB2	25:B0:35:ASN:HD21	1.73	0.52
30:B5:20:ARG:CZ	53:BW:15:ARG:NH1	2.73	0.52
31:B6:12:GLU:CD	31:B6:12:GLU:H	2.13	0.52
35:BA:1231:G:H2'	35:BA:1232:G:C8	2.45	0.52
35:BA:2030:A:H4'	35:BA:2031:A:C8	2.45	0.52
35:BA:2141:G:H2'	35:BA:2142:C:C6	2.45	0.52
35:BA:2563:U:H2'	35:BA:2565:A:OP2	2.10	0.52
35:BA:2811:G:C2'	35:BA:2812:G:H5'	2.40	0.52
35:BA:460:A:H2'	35:BA:461:C:O4'	2.10	0.52
35:BA:887:A:H1'	35:BA:889:C:N4	2.24	0.52
35:BA:914:C:C2'	35:BA:915:C:H5'	2.38	0.52
37:BC:36:LYS:HA	37:BC:36:LYS:HZ2	1.74	0.52
38:BD:244:ARG:HG2	38:BD:245:PRO:HD3	1.91	0.52
38:BD:26:LYS:HD2	38:BD:27:THR:HG22	1.90	0.52
42:BH:149:ARG:NH2	42:BH:154:PRO:HG3	2.25	0.52
50:BT:91:ARG:C	50:BT:93:ARG:H	2.13	0.52
35:BA:1011:G:P	51:BU:77:SER:HG	2.32	0.52
55:BY:26:LYS:O	55:BY:27:VAL:C	2.47	0.52
1:CA:618:C:H5'	1:CA:619:U:H5''	1.91	0.52
1:CA:625:G:O2'	1:CA:626:U:H5'	2.10	0.52
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.29	0.52
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.25	0.52
9:CI:33:PHE:C	9:CI:35:GLU:H	2.13	0.52
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.30	0.52
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.24	0.52
13:CM:28:ALA:O	13:CM:30:ALA:N	2.43	0.52
13:CM:74:VAL:O	13:CM:78:ILE:HG13	2.09	0.52
18:CR:31:LEU:H	18:CR:31:LEU:CD2	2.22	0.52
22:CV:49:C:H2'	22:CV:50:U:C6	2.44	0.52
31:D6:15:GLU:HG2	31:D6:18:ARG:NE	2.24	0.52
35:DA:1652:A:H2'	35:DA:1653:G:H5'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1844:C:H2'	35:DA:1845:G:H8	1.73	0.52
35:DA:2291:U:O2'	35:DA:2292:C:H5'	2.10	0.52
35:DA:2462:U:H2'	35:DA:2463:C:H6	1.75	0.52
35:DA:2567:G:H2'	35:DA:2568:C:C6	2.44	0.52
35:DA:2787:C:O2	35:DA:2787:C:C2'	2.51	0.52
35:DA:2872:G:C2	35:DA:2873:A:N6	2.77	0.52
35:DA:814:C:O2'	35:DA:815:C:H5'	2.09	0.52
39:DE:77:ILE:CG2	39:DE:78:LEU:H	1.91	0.52
43:DI:101:LEU:HD23	43:DI:109:ILE:HG12	1.91	0.52
43:DI:109:ILE:HD12	43:DI:109:ILE:N	2.25	0.52
45:DO:113:LYS:O	45:DO:117:LEU:HB2	2.08	0.52
50:DT:50:ILE:CD1	50:DT:64:ARG:HB3	2.39	0.52
52:DV:28:GLU:CB	52:DV:29:PRO:HD2	2.37	0.52
35:DA:71:A:H2	54:DX:31:HIS:HE1	1.58	0.52
55:DY:96:ILE:HG22	55:DY:97:ARG:N	2.25	0.52
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.75	0.52
1:AA:22:G:H4'	1:AA:885:G:C8	2.45	0.52
1:AA:444:C:H2'	1:AA:445:G:H8	1.75	0.52
1:AA:473:G:H5''	16:AP:81:ARG:HE	1.75	0.52
1:AA:473:G:H2'	1:AA:474:G:C8	2.45	0.52
1:AA:509:A:H2'	1:AA:510:A:C8	2.45	0.52
1:AA:699:C:H2'	1:AA:700:G:H5'	1.92	0.52
1:AA:839:U:O2	1:AA:839:U:H2'	2.08	0.52
1:AA:924:C:H5'	1:AA:1399:C:OP2	2.10	0.52
1:AA:977:A:O2'	1:AA:978:A:H5'	2.10	0.52
3:AC:16:ARG:HG3	3:AC:17:ASP:N	2.25	0.52
3:AC:18:TRP:C	3:AC:20:SER:H	2.13	0.52
4:AD:23:GLY:O	4:AD:27:TYR:HD1	1.93	0.52
9:AI:33:PHE:C	9:AI:35:GLU:H	2.12	0.52
9:AI:9:ARG:HG3	9:AI:14:VAL:HG13	1.92	0.52
10:AJ:16:LEU:HD13	10:AJ:16:LEU:C	2.29	0.52
12:AL:28:LYS:CE	12:AL:33:ARG:HH22	2.23	0.52
12:AL:55:VAL:HG13	12:AL:68:ALA:O	2.10	0.52
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.50	0.52
13:AM:48:LEU:HB2	13:AM:52:GLU:OE1	2.08	0.52
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	1.91	0.52
19:AS:9:VAL:C	19:AS:11:VAL:H	2.13	0.52
19:AS:16:LEU:N	19:AS:16:LEU:HD12	2.25	0.52
35:BA:1464:C:HO2'	35:BA:1528:A:H8	1.51	0.52
35:BA:1485:G:H1'	35:BA:1505:C:H41	1.73	0.52
35:BA:179:G:O2'	35:BA:180:G:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:30:ARG:CZ	35:BA:2419:U:O4	2.56	0.52
35:BA:2580:U:OP1	39:BE:131:ALA:HB2	2.10	0.52
35:BA:449:A:C2'	35:BA:450:G:H5'	2.40	0.52
35:BA:814:C:C5	46:BP:27:HIS:CE1	2.98	0.52
35:BA:814:C:O2'	35:BA:815:C:H5'	2.10	0.52
37:BC:56:GLN:O	37:BC:57:ASN:HB2	2.08	0.52
39:BE:111:ARG:HB2	39:BE:160:TYR:O	2.10	0.52
41:BG:13:GLU:O	41:BG:14:GLU:CB	2.57	0.52
41:BG:34:LEU:HD21	41:BG:172:LEU:HD21	1.92	0.52
41:BG:96:ARG:O	41:BG:99:MET:HB3	2.10	0.52
42:BH:38:SER:OG	42:BH:40:GLU:HG2	2.10	0.52
45:BO:32:TYR:N	45:BO:32:TYR:CD1	2.77	0.52
47:BQ:141:GLN:HB2	56:BZ:99:TYR:CD2	2.44	0.52
47:BQ:34:LEU:HD12	47:BQ:130:LYS:O	2.09	0.52
48:BR:2:ARG:NH1	48:BR:5:LYS:CE	2.68	0.52
50:BT:61:PHE:CE2	50:BT:76:PHE:HB2	2.45	0.52
50:BT:92:GLY:HA2	50:BT:114:LEU:CB	2.40	0.52
55:BY:6:HIS:CE1	55:BY:30:VAL:HG11	2.45	0.52
56:BZ:44:PHE:CE2	56:BZ:86:VAL:HG11	2.44	0.52
47:BQ:141:GLN:HA	56:BZ:53:ILE:CG1	2.39	0.52
1:CA:1313:U:H2'	1:CA:1314:C:C6	2.44	0.52
1:CA:978:A:O2'	1:CA:1322:C:N3	2.41	0.52
1:CA:887:G:H21	1:CA:1489:G:H4'	1.75	0.52
1:CA:401:C:H2'	1:CA:402:G:H8	1.75	0.52
1:CA:840:C:H4'	1:CA:848:C:O2	2.10	0.52
2:CB:194:PRO:HA	2:CB:200:ILE:CD1	2.40	0.52
2:CB:63:MET:HB3	2:CB:225:ALA:HB1	1.91	0.52
3:CC:119:ARG:HH21	3:CC:140:ARG:CZ	2.22	0.52
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.09	0.52
8:CH:85:ARG:HH11	8:CH:85:ARG:CG	2.21	0.52
8:CH:97:VAL:O	8:CH:100:ILE:HG13	2.09	0.52
11:CK:41:THR:HG21	11:CK:71:LYS:CB	2.40	0.52
16:CP:8:ARG:HG2	16:CP:9:PHE:H	1.69	0.52
35:DA:1215:G:O2'	35:DA:1216:G:H5'	2.10	0.52
35:DA:135:G:O2'	35:DA:136:G:H5'	2.10	0.52
35:DA:1412:A:H2'	35:DA:1413:G:C8	2.44	0.52
35:DA:1678:G:N2	35:DA:1989:G:H22	2.08	0.52
35:DA:1722:A:N1	35:DA:1741:A:C2	2.78	0.52
35:DA:2111:C:H4'	35:DA:2112:G:OP1	2.09	0.52
35:DA:2377:A:H2'	35:DA:2378:A:C8	2.44	0.52
35:DA:313:C:O2'	35:DA:314:A:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:65:GLY:C	39:DE:67:PHE:H	2.13	0.52
42:DH:152:ARG:O	42:DH:153:LYS:O	2.27	0.52
47:DQ:111:GLU:O	47:DQ:115:MET:HG2	2.10	0.52
48:DR:21:TYR:OH	48:DR:43:GLU:HG2	2.08	0.52
48:DR:33:ARG:O	48:DR:34:ILE:HD13	2.10	0.52
50:DT:27:THR:OG1	50:DT:28:VAL:N	2.40	0.52
50:DT:89:VAL:HG12	50:DT:91:ARG:HG3	1.91	0.52
55:DY:20:TYR:N	55:DY:20:TYR:CD1	2.75	0.52
55:DY:13:VAL:HA	55:DY:75:ILE:HG22	1.92	0.52
55:DY:81:LYS:CB	55:DY:96:ILE:HG22	2.39	0.52
56:DZ:100:VAL:O	56:DZ:123:ASP:HB2	2.10	0.52
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.75	0.52
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.40	0.52
1:AA:184:G:O4'	1:AA:224:C:H4'	2.09	0.52
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.24	0.52
2:AB:212:GLN:NE2	2:AB:216:SER:HB2	2.25	0.52
3:AC:119:ARG:HH21	3:AC:140:ARG:CZ	2.23	0.52
3:AC:156:ARG:NH2	3:AC:161:GLU:HA	2.25	0.52
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.19	0.52
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.10	0.52
6:AF:60:PHE:CE2	18:AR:78:LEU:HD21	2.44	0.52
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.09	0.52
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.77	0.52
13:AM:19:LEU:HD22	13:AM:19:LEU:N	2.23	0.52
19:AS:15:LEU:HD12	19:AS:31:ILE:HD11	1.92	0.52
35:BA:1040:C:H6	35:BA:1040:C:OP2	1.93	0.52
35:BA:135:G:O2'	35:BA:136:G:H5'	2.09	0.52
35:BA:1532:C:C2'	35:BA:1532:C:O2	2.57	0.52
38:BD:126:GLN:HG3	38:BD:129:ASN:ND2	2.24	0.52
39:BE:17:ASP:O	39:BE:18:ASP:CB	2.56	0.52
39:BE:91:VAL:HG13	39:BE:95:ILE:HG12	1.91	0.52
40:BF:28:ILE:O	40:BF:28:ILE:HD12	2.10	0.52
44:BN:125:GLY:CA	44:BN:126:PRO:O	2.58	0.52
45:BO:24:VAL:HG23	45:BO:33:ALA:HB2	1.92	0.52
45:BO:1:MET:HE3	45:BO:67:LYS:HG2	1.91	0.52
47:BQ:59:ARG:HG3	47:BQ:59:ARG:NH1	2.24	0.52
48:BR:11:ASN:O	48:BR:12:ARG:HB2	2.10	0.52
51:BU:31:SER:O	51:BU:33:ARG:N	2.42	0.52
56:BZ:108:PRO:HD3	56:BZ:117:LEU:HD23	1.92	0.52
1:CA:105:G:H2'	1:CA:106:C:C6	2.45	0.52
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:186:C:H1'	20:CT:85:MET:CE	2.40	0.52
3:CC:18:TRP:C	3:CC:20:SER:H	2.13	0.52
5:CE:10:MET:CE	5:CE:13:ILE:HD11	2.40	0.52
9:CI:37:PHE:HB3	9:CI:43:ALA:CB	2.40	0.52
18:CR:24:ALA:C	18:CR:26:LEU:H	2.13	0.52
20:CT:23:ARG:HA	20:CT:26:ASN:HD21	1.74	0.52
22:CY:44:G:H3'	22:CY:45:U:C6	2.44	0.52
22:CY:62:C:H2'	22:CY:62:C:O2	2.10	0.52
30:D5:2:ALA:N	35:DA:747:U:N3	2.57	0.52
31:D6:15:GLU:CG	31:D6:18:ARG:HH21	2.21	0.52
32:D7:9:ARG:NH1	32:D7:9:ARG:HG3	2.22	0.52
33:D8:39:LYS:HA	33:D8:42:ARG:NH1	2.24	0.52
33:D8:52:LYS:N	33:D8:53:PRO:CD	2.73	0.52
35:DA:171:G:O2'	35:DA:172:C:H5'	2.09	0.52
35:DA:179:G:O2'	35:DA:180:G:H5'	2.09	0.52
35:DA:1791:A:N6	35:DA:1828:G:O2'	2.40	0.52
35:DA:1853:A:N1	35:DA:2087:G:H1'	2.25	0.52
35:DA:2118:U:H5	35:DA:2148:G:O2'	1.92	0.52
35:DA:2171:A:O2'	35:DA:2172:U:O5'	2.28	0.52
35:DA:2646:C:H2'	35:DA:2647:U:O4'	2.10	0.52
35:DA:407:G:H2'	35:DA:408:G:C8	2.44	0.52
35:DA:449:A:C2'	35:DA:450:G:H5'	2.39	0.52
35:DA:686:G:N2	35:DA:788:A:H61	2.07	0.52
36:DB:94:C:H2'	36:DB:95:C:H6	1.75	0.52
37:DC:36:LYS:NZ	37:DC:36:LYS:HA	2.23	0.52
38:DD:161:THR:O	38:DD:196:VAL:HG23	2.10	0.52
40:DF:10:PRO:HD2	40:DF:13:SER:HB2	1.91	0.52
35:DA:1257:C:H4'	40:DF:83:PHE:CE2	2.45	0.52
42:DH:155:SER:O	42:DH:156:ALA:CB	2.58	0.52
43:DI:79:ILE:CD1	43:DI:80:PRO:HD2	2.35	0.52
44:DN:133:GLN:O	44:DN:134:ARG:CB	2.58	0.52
46:DP:62:LEU:H	46:DP:62:LEU:HD23	1.74	0.52
49:DS:17:ARG:C	49:DS:19:LYS:N	2.62	0.52
49:DS:97:ARG:HH21	49:DS:98:VAL:CA	2.01	0.52
52:DV:25:LEU:C	52:DV:27:ALA:H	2.12	0.52
54:DX:64:LYS:HD3	54:DX:73:ARG:HD2	1.92	0.52
55:DY:47:LYS:HD2	55:DY:47:LYS:H	1.75	0.52
56:DZ:22:GLY:HA2	56:DZ:41:LEU:CD1	2.40	0.52
56:DZ:44:PHE:C	56:DZ:44:PHE:CD1	2.83	0.52
56:DZ:98:MET:CE	56:DZ:100:VAL:HG22	2.40	0.52
1:AA:1277:C:HO2'	1:AA:1278:U:H5'	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1445:C:C2'	1:AA:1446:U:H5'	2.40	0.52
1:AA:154:C:H2'	1:AA:155:C:H6	1.75	0.52
1:AA:577:G:H2'	1:AA:578:C:H6	1.75	0.52
1:AA:649:G:H2'	1:AA:650:G:H8	1.75	0.52
2:AB:21:ARG:HD2	2:AB:38:GLY:CA	2.40	0.52
9:AI:35:GLU:HA	9:AI:38:GLN:HB2	1.90	0.52
11:AK:95:ILE:H	11:AK:95:ILE:CD1	2.23	0.52
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.85	0.52
14:AN:29:ARG:HG3	14:AN:29:ARG:HH11	1.74	0.52
15:AO:69:TYR:CE1	15:AO:73:GLU:HG3	2.45	0.52
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.45	0.52
29:B4:52:SER:OG	29:B4:53:THR:N	2.40	0.52
30:B5:20:ARG:HA	30:B5:23:HIS:ND1	2.25	0.52
35:BA:1984:G:O2'	35:BA:1985:G:H5'	2.10	0.52
35:BA:2092:U:C4'	35:BA:2093:G:H5''	2.33	0.52
35:BA:2263:C:C6	35:BA:2263:C:H5'	2.29	0.52
26:B1:76:ARG:NH2	35:BA:271(R):G:OP1	2.43	0.52
35:BA:2808:U:C2'	35:BA:2809:A:H5'	2.40	0.52
35:BA:2839:G:H2'	35:BA:2840:C:H6	1.75	0.52
35:BA:285:C:H2'	35:BA:286:C:O4'	2.09	0.52
35:BA:902:C:O2'	35:BA:903:C:H5'	2.10	0.52
35:BA:977:G:C2'	35:BA:978:G:H5'	2.40	0.52
36:BB:79:C:H2'	36:BB:80:U:O4'	2.09	0.52
38:BD:3:VAL:CG1	38:BD:17:THR:HB	2.40	0.52
39:BE:24:THR:HG22	39:BE:186:GLY:N	2.23	0.52
41:BG:83:ARG:NH1	41:BG:84:LYS:HD2	2.25	0.52
42:BH:123:PHE:CD1	42:BH:123:PHE:N	2.78	0.52
44:BN:126:PRO:O	44:BN:127:ASP:CB	2.57	0.52
47:BQ:20:ALA:O	47:BQ:21:THR:OG1	2.26	0.52
50:BT:66:VAL:HA	50:BT:71:GLY:HA2	1.90	0.52
52:BV:34:GLU:O	52:BV:36:PRO:CD	2.58	0.52
53:BW:75:TYR:CE1	53:BW:104:THR:CB	2.93	0.52
53:BW:99:ARG:HG2	53:BW:99:ARG:NH1	2.24	0.52
1:CA:1228:C:OP1	13:CM:115:LYS:HE3	2.10	0.52
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.24	0.52
1:CA:1408:A:HO2'	35:DA:1916:A:H61	1.58	0.52
1:CA:553:A:H2'	1:CA:554:C:C6	2.45	0.52
1:CA:683:G:H2'	1:CA:684:A:H8	1.75	0.52
1:CA:1109:C:P	3:CC:176:HIS:HD1	2.33	0.52
17:CQ:6:LEU:O	17:CQ:58:GLU:HA	2.09	0.52
20:CT:30:LYS:HE2	20:CT:72:LEU:HD11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:18:PRO:HG2	27:D2:19:VAL:N	2.16	0.52
40:DF:9:ILE:HG22	40:DF:9:ILE:O	2.09	0.52
42:DH:123:PHE:CD1	42:DH:123:PHE:N	2.78	0.52
43:DI:69:LYS:HA	43:DI:136:VAL:HG21	1.90	0.52
44:DN:43:THR:O	44:DN:46:VAL:HG12	2.10	0.52
44:DN:3:THR:C	44:DN:5:VAL:N	2.63	0.52
49:DS:97:ARG:C	49:DS:97:ARG:NE	2.63	0.52
50:DT:61:PHE:CE2	50:DT:76:PHE:HB2	2.45	0.52
50:DT:27:THR:HA	50:DT:87:ASP:HB2	1.91	0.52
51:DU:54:LYS:O	51:DU:58:ARG:HG3	2.10	0.52
1:AA:1321:C:C5'	1:AA:1322:C:C5'	2.86	0.52
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.75	0.52
1:AA:424:G:H2'	1:AA:425:G:H8	1.75	0.52
1:AA:725:G:H2'	1:AA:726:C:C6	2.44	0.52
1:AA:801:U:H2'	1:AA:802:A:H8	1.75	0.52
1:AA:877:C:O2'	1:AA:878:G:H5'	2.10	0.52
5:AE:136:MET:C	5:AE:138:ALA:H	2.13	0.52
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.92	0.52
1:AA:1149:C:OP1	9:AI:9:ARG:HD3	2.10	0.52
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.92	0.52
19:AS:44:MET:HA	19:AS:44:MET:HE3	1.92	0.52
35:BA:999:U:O2'	35:BA:1000:A:H5''	2.10	0.52
35:BA:108:U:H2'	35:BA:109:G:H8	1.75	0.52
35:BA:2126:A:H8	35:BA:2126:A:OP2	1.93	0.52
35:BA:225:A:H2'	35:BA:226:G:H5'	1.91	0.52
35:BA:648:G:O4'	35:BA:2351:G:H5''	2.09	0.52
26:B1:25:LYS:NZ	35:BA:2396:G:OP1	2.35	0.52
31:B6:23:THR:HG21	35:BA:2419:U:H4'	1.91	0.52
35:BA:260:G:C2	35:BA:261:G:H1'	2.45	0.52
35:BA:2689:U:O2'	35:BA:2690:C:OP2	2.23	0.52
35:BA:2777:G:H5''	35:BA:2778:A:H5''	1.91	0.52
35:BA:498:G:O2'	35:BA:499:U:H5'	2.10	0.52
35:BA:855:G:H2'	35:BA:856:C:H6	1.71	0.52
38:BD:35:LYS:N	38:BD:36:PRO:CD	2.70	0.52
40:BF:111:ALA:HB2	40:BF:206:ILE:HD13	1.92	0.52
40:BF:23:ASP:O	40:BF:115:ALA:HA	2.10	0.52
44:BN:121:LYS:HG2	44:BN:130:HIS:NE2	2.25	0.52
45:BO:31:LYS:HB3	45:BO:32:TYR:CE1	2.45	0.52
46:BP:75:ILE:N	46:BP:75:ILE:CD1	2.73	0.52
49:BS:36:TYR:N	49:BS:36:TYR:CD1	2.78	0.52
51:BU:74:LEU:HD12	51:BU:74:LEU:C	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BU:69:CYS:SG	51:BU:79:PHE:HD1	2.34	0.52
52:BV:39:LEU:HD12	52:BV:51:VAL:HA	1.92	0.52
56:BZ:17:ALA:O	56:BZ:20:ARG:HB2	2.09	0.52
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.75	0.52
1:CA:918:A:O2'	1:CA:919:A:H5'	2.10	0.52
3:CC:23:TYR:O	3:CC:24:ALA:HB2	2.10	0.52
7:CG:69:VAL:HA	7:CG:138:LYS:HD2	1.92	0.52
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.91	0.52
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.09	0.52
1:CA:473:G:H5''	16:CP:81:ARG:HE	1.75	0.52
17:CQ:31:LEU:HG	17:CQ:32:TYR:CE2	2.45	0.52
22:CV:41:C:C2'	22:CV:41:C:O2	2.54	0.52
22:CY:44:G:H2'	22:CY:45:U:O4'	2.09	0.52
35:DA:2127:G:C5'	37:DC:36:LYS:HG2	2.40	0.52
35:DA:2199:A:H3'	35:DA:2200:C:C6	2.45	0.52
35:DA:2257:U:O2'	35:DA:2258:C:H5'	2.09	0.52
35:DA:2443:C:O2'	35:DA:2444:G:H5'	2.09	0.52
35:DA:336:C:O2'	35:DA:337:C:H5'	2.10	0.52
39:DE:59:VAL:HG11	39:DE:63:LEU:HG	1.91	0.52
35:DA:321:G:OP2	40:DF:136:THR:HG22	2.10	0.52
40:DF:66:PRO:O	40:DF:67:GLN:CB	2.56	0.52
42:DH:159:GLU:HG3	42:DH:160:LYS:H	1.75	0.52
43:DI:124:GLY:H	43:DI:142:VAL:HG23	1.75	0.52
45:DO:101:PRO:O	45:DO:102:VAL:HG13	2.10	0.52
35:DA:661:C:H4'	46:DP:16:ARG:NH1	2.25	0.52
51:DU:69:CYS:SG	51:DU:79:PHE:HD1	2.32	0.52
55:DY:15:VAL:O	55:DY:16:ALA:CB	2.58	0.52
55:DY:26:LYS:O	55:DY:27:VAL:C	2.48	0.52
56:DZ:13:GLU:O	56:DZ:15:PRO:HD3	2.10	0.52
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.45	0.51
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.10	0.51
1:AA:1318:A:H1'	19:AS:37:ARG:NH2	2.25	0.51
1:AA:975:A:C4'	1:AA:976:G:H5''	2.32	0.51
2:AB:50:GLU:HG3	2:AB:202:PRO:CG	2.40	0.51
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.31	0.51
5:AE:40:ARG:HH11	5:AE:40:ARG:CG	2.19	0.51
7:AG:69:VAL:HA	7:AG:138:LYS:HD2	1.91	0.51
17:AQ:22:LEU:HD12	17:AQ:23:VAL:N	2.24	0.51
23:AW:38:A:H2'	23:AW:39:U:O4'	2.10	0.51
31:B6:12:GLU:HA	31:B6:23:THR:HA	1.93	0.51
31:B6:37:ARG:O	31:B6:48:VAL:O	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:6:THR:HB	33:B8:63:PRO:HG3	1.92	0.51
34:B9:19:ARG:O	34:B9:20:HIS:HB2	2.09	0.51
35:BA:1141:U:OP1	44:BN:25:ARG:NH1	2.42	0.51
35:BA:1142(A):A:O2'	35:BA:1143:A:H3'	2.10	0.51
35:BA:1163:G:O2'	35:BA:1164:G:H5'	2.09	0.51
35:BA:1375:C:H2'	35:BA:1376:C:H6	1.75	0.51
35:BA:1582:C:O2'	35:BA:1586:A:C8	2.62	0.51
35:BA:1656:C:H2'	35:BA:1657:C:H6	1.74	0.51
35:BA:2133:G:H21	35:BA:2158:A:H62	1.58	0.51
35:BA:2399:G:H2'	35:BA:2399:G:N3	2.25	0.51
35:BA:2564:A:C2	35:BA:2647:U:H4'	2.45	0.51
35:BA:560:C:H4'	51:BU:52:ARG:CZ	2.39	0.51
35:BA:718:A:H2'	35:BA:719:C:O4'	2.10	0.51
38:BD:35:LYS:NZ	38:BD:61:LEU:HG	2.25	0.51
40:BF:123:LEU:HD12	40:BF:124:LEU:N	2.18	0.51
40:BF:8:GLN:HB3	40:BF:126:VAL:HA	1.91	0.51
40:BF:51:THR:HG21	40:BF:92:PRO:HD2	1.92	0.51
40:BF:53:THR:HG22	40:BF:56:GLU:CG	2.39	0.51
41:BG:115:ARG:HD3	41:BG:115:ARG:H	1.74	0.51
41:BG:171:ALA:O	41:BG:175:LEU:HD12	2.09	0.51
45:BO:88:ASN:OD1	45:BO:92:GLU:O	2.27	0.51
35:BA:598:G:H5'	46:BP:15:ARG:HB2	1.91	0.51
50:BT:86:ILE:HG12	50:BT:87:ASP:N	2.24	0.51
51:BU:98:LEU:HD13	51:BU:105:VAL:HG11	1.92	0.51
56:BZ:155:LEU:C	56:BZ:157:LEU:HD23	2.30	0.51
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.45	0.51
1:CA:577:G:H2'	1:CA:578:C:H6	1.74	0.51
1:CA:950:U:H4'	1:CA:971:G:C2	2.44	0.51
2:CB:115:LEU:HD12	2:CB:142:LEU:HD11	1.92	0.51
2:CB:212:GLN:NE2	2:CB:216:SER:HB2	2.25	0.51
5:CE:45:PHE:CE2	5:CE:47:LYS:HE3	2.45	0.51
6:CF:33:TYR:HB2	6:CF:75:LEU:HD12	1.92	0.51
7:CG:136:LYS:O	7:CG:140:ASP:HB2	2.10	0.51
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.30	0.51
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.25	0.51
9:CI:125:TYR:HD2	9:CI:126:SER:H	1.58	0.51
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.91	0.51
12:CL:21:LYS:N	12:CL:21:LYS:HD2	2.25	0.51
18:CR:35:ARG:O	18:CR:37:VAL:N	2.40	0.51
22:CV:68:C:H2'	22:CV:69:G:C5'	2.33	0.51
23:CW:38:A:H3'	23:CW:39:U:C5'	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1300:U:O2	35:DA:1300:U:O4'	2.27	0.51
35:DA:2468:G:H5'	47:DQ:120:ILE:HD12	1.91	0.51
35:DA:2672:G:C2'	35:DA:2673:G:H5''	2.39	0.51
35:DA:2808:U:C2'	35:DA:2809:A:H5'	2.40	0.51
35:DA:533:G:H5'	51:DU:24:TYR:CD2	2.45	0.51
35:DA:557:U:H2'	35:DA:558:G:C8	2.43	0.51
40:DF:116:ASP:OD2	46:DP:5:ASP:N	2.43	0.51
40:DF:53:THR:HG23	40:DF:55:GLY:H	1.74	0.51
41:DG:51:ARG:O	41:DG:53:LEU:N	2.36	0.51
42:DH:44:VAL:CG1	42:DH:45:VAL:H	2.09	0.51
39:DE:109:LYS:HB3	48:DR:2:ARG:HH12	1.73	0.51
49:DS:74:ALA:HB1	49:DS:103:GLU:HG3	1.92	0.51
52:DV:39:LEU:HD12	52:DV:51:VAL:HA	1.92	0.51
55:DY:8:LYS:H	55:DY:8:LYS:CD	2.15	0.51
1:AA:1158:C:H2'	1:AA:1158:C:O2	2.11	0.51
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.10	0.51
1:AA:52:G:H2'	1:AA:53:A:C8	2.45	0.51
2:AB:194:PRO:HA	2:AB:200:ILE:CD1	2.40	0.51
5:AE:110:LEU:CD1	5:AE:118:ILE:HG21	2.39	0.51
7:AG:79:ARG:NE	7:AG:84:ASN:OD1	2.43	0.51
8:AH:23:SER:HA	8:AH:63:LEU:CD2	2.41	0.51
10:AJ:17:ASP:OD1	10:AJ:70:ARG:NH1	2.42	0.51
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.24	0.51
25:B0:4:LYS:HD2	35:BA:2252:G:O6	2.10	0.51
30:B5:32:PRO:HD2	35:BA:2886:G:O2'	2.10	0.51
1:AA:1409:C:H4'	35:BA:1915:U:O4	2.10	0.51
35:BA:2308:G:H2'	35:BA:2309:A:C8	2.45	0.51
35:BA:2709:G:O2'	35:BA:2710:C:H5'	2.09	0.51
35:BA:271(T):C:O2'	35:BA:271(U):G:H5'	2.10	0.51
40:BF:112:MET:O	40:BF:115:ALA:HB3	2.10	0.51
41:BG:141:PHE:N	41:BG:141:PHE:CD2	2.78	0.51
41:BG:141:PHE:N	41:BG:141:PHE:HD2	2.08	0.51
42:BH:33:LEU:HD21	42:BH:136:ILE:CG2	2.40	0.51
40:BF:38:ARG:HH12	46:BP:16:ARG:HH22	1.58	0.51
48:BR:94:TYR:CD1	48:BR:94:TYR:N	2.78	0.51
55:BY:20:TYR:CD1	55:BY:20:TYR:N	2.77	0.51
56:BZ:116:VAL:H	56:BZ:174:VAL:HG13	1.75	0.51
56:BZ:4:ARG:HG2	56:BZ:58:VAL:HB	1.92	0.51
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.45	0.51
1:CA:1105:A:H2'	1:CA:1106:G:C8	2.43	0.51
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1298:C:H4'	1:CA:1299:A:O4'	2.11	0.51
1:CA:335:C:H2'	1:CA:336:C:C6	2.46	0.51
8:CH:44:PHE:HD1	8:CH:79:VAL:HG12	1.75	0.51
12:CL:55:VAL:CG1	12:CL:56:ALA:N	2.72	0.51
14:CN:3:ARG:CB	14:CN:3:ARG:HH11	2.21	0.51
15:CO:9:GLN:HA	15:CO:12:ILE:HD12	1.91	0.51
20:CT:26:ASN:N	20:CT:26:ASN:HD22	2.07	0.51
22:CV:48:C:H2'	22:CV:59:U:C1'	2.39	0.51
22:CY:11:C:H2'	22:CY:12:U:H6	1.74	0.51
25:D0:41:ARG:HD2	25:D0:41:ARG:N	2.22	0.51
33:D8:30:ARG:CZ	35:DA:2419:U:O4	2.58	0.51
35:DA:1169:G:H1	35:DA:1180:C:H42	1.59	0.51
35:DA:1355:G:O2'	35:DA:1356:G:H5'	2.10	0.51
35:DA:2065:C:H2'	35:DA:2066:C:C6	2.46	0.51
35:DA:2148:G:O2'	35:DA:2149:G:H5'	2.10	0.51
35:DA:2358:G:H22	46:DP:55:ARG:HH22	1.56	0.51
35:DA:2533:A:H2'	35:DA:2534:A:C5'	2.33	0.51
35:DA:2579:C:H2'	35:DA:2580:U:O4'	2.11	0.51
35:DA:2620:C:OP1	39:DE:152:LYS:O	2.28	0.51
35:DA:558:G:OP1	44:DN:111:PRO:HD2	2.10	0.51
38:DD:112:GLN:HB2	38:DD:115:GLN:HE21	1.74	0.51
38:DD:131:LEU:HB2	38:DD:136:ILE:HD11	1.90	0.51
38:DD:13:ARG:HA	38:DD:16:MET:HE3	1.92	0.51
40:DF:177:ALA:HB1	40:DF:178:PRO:HD2	1.91	0.51
40:DF:24:LEU:C	40:DF:26:ALA:H	2.13	0.51
41:DG:137:GLU:HA	41:DG:152:LEU:HD11	1.92	0.51
36:DB:41:U:H5	41:DG:69:ALA:HB1	1.73	0.51
43:DI:117:GLU:HG3	43:DI:118:LYS:H	1.75	0.51
50:DT:102:ILE:HG13	50:DT:103:ARG:N	2.25	0.51
35:DA:560:C:H4'	51:DU:52:ARG:CZ	2.40	0.51
56:DZ:8:TYR:HD2	56:DZ:62:PRO:HG3	1.75	0.51
1:AA:1028:C:H2'	1:AA:1033:G:H22	1.76	0.51
1:AA:132:C:O2'	1:AA:133:U:H5'	2.10	0.51
1:AA:59:A:C5'	1:AA:60:A:H5''	2.41	0.51
2:AB:178:ARG:CB	2:AB:178:ARG:HH11	2.22	0.51
3:AC:23:TYR:O	3:AC:24:ALA:HB2	2.09	0.51
3:AC:30:ARG:NH1	14:AN:35:ARG:HA	2.24	0.51
3:AC:73:PRO:C	3:AC:75:VAL:H	2.12	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.44	0.51
5:AE:11:ILE:HD11	5:AE:33:VAL:CG2	2.40	0.51
9:AI:37:PHE:HB3	9:AI:43:ALA:CB	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.10	0.51
1:AA:523:A:N1	12:AL:92:ASP:HB2	2.24	0.51
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.43	0.51
22:AY:28:G:H2'	22:AY:29:G:H8	1.75	0.51
31:B6:16:CYS:H	31:B6:47:THR:CG2	2.24	0.51
31:B6:19:ARG:N	31:B6:19:ARG:HD2	2.23	0.51
33:B8:19:SER:HB2	33:B8:21:LYS:HG3	1.92	0.51
35:BA:1188:U:H4'	52:BV:79:VAL:HG22	1.91	0.51
35:BA:1532:C:H2'	35:BA:1533:G:N2	2.26	0.51
35:BA:154(A):C:N4	35:BA:171:G:N1	2.59	0.51
35:BA:2159:G:N2	35:BA:2160:G:H1'	2.25	0.51
35:BA:2307:G:C2	35:BA:2308:G:H5''	2.45	0.51
35:BA:2547:U:H2'	35:BA:2548:G:H8	1.74	0.51
38:BD:210:GLY:C	38:BD:212:SER:N	2.61	0.51
41:BG:111:LEU:HB2	41:BG:112:PRO:HD3	1.92	0.51
42:BH:23:ARG:O	42:BH:24:VAL:HG13	2.10	0.51
43:BI:101:LEU:HG	43:BI:109:ILE:CD1	2.40	0.51
43:BI:109:ILE:N	43:BI:109:ILE:HD12	2.25	0.51
46:BP:13:ASN:O	46:BP:15:ARG:N	2.43	0.51
49:BS:17:ARG:O	49:BS:19:LYS:N	2.39	0.51
50:BT:23:ARG:HA	50:BT:52:ILE:HD11	1.92	0.51
51:BU:88:ILE:C	51:BU:90:VAL:H	2.13	0.51
55:BY:37:VAL:O	55:BY:38:ILE:HG12	2.10	0.51
56:BZ:52:SER:O	56:BZ:53:ILE:C	2.47	0.51
1:CA:1028:C:H2'	1:CA:1033:G:H22	1.75	0.51
1:CA:1444:C:O2'	1:CA:1445:C:H5'	2.11	0.51
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.45	0.51
1:CA:644:G:C2'	1:CA:645:C:H5'	2.40	0.51
1:CA:692:U:H2'	1:CA:694:A:OP2	2.11	0.51
1:CA:709:G:H2'	1:CA:710:G:H8	1.75	0.51
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.42	0.51
2:CB:209:ARG:HH12	2:CB:236:TYR:HE2	1.57	0.51
4:CD:128:VAL:HG12	4:CD:129:ASN:ND2	2.25	0.51
1:CA:1346:A:H5'	9:CI:120:ARG:HH12	1.73	0.51
1:CA:1372:U:OP1	9:CI:72:GLY:N	2.42	0.51
11:CK:125:PHE:N	11:CK:125:PHE:CD1	2.79	0.51
1:CA:523:A:N1	12:CL:92:ASP:HB2	2.25	0.51
15:CO:38:ARG:HG2	15:CO:38:ARG:HH11	1.75	0.51
16:CP:49:LEU:HG	16:CP:49:LEU:O	2.10	0.51
16:CP:81:ARG:HD3	16:CP:83:GLU:OE2	2.10	0.51
18:CR:31:LEU:HD23	18:CR:31:LEU:H	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:38:A:H2'	23:CW:39:U:H5''	1.92	0.51
26:D1:82:LEU:HD13	26:D1:82:LEU:N	2.26	0.51
27:D2:36:ARG:O	27:D2:39:ALA:HB3	2.11	0.51
30:D5:32:PRO:HD2	35:DA:2886:G:O2'	2.09	0.51
31:D6:51:GLU:O	31:D6:52:VAL:HB	2.10	0.51
35:DA:1884:A:H2'	35:DA:1885:A:C5'	2.18	0.51
35:DA:2141:G:H2'	35:DA:2142:C:C6	2.45	0.51
35:DA:228:A:H2'	35:DA:230:U:O4'	2.11	0.51
35:DA:2313:C:H2'	35:DA:2314:C:C6	2.39	0.51
35:DA:2590:A:OP2	38:DD:238:GLY:HA2	2.10	0.51
35:DA:2648:C:H2'	35:DA:2649:U:H6	1.76	0.51
35:DA:271(D):G:H1	35:DA:271(T):C:N4	2.08	0.51
35:DA:2825:C:H2'	35:DA:2826:A:O4'	2.10	0.51
38:DD:35:LYS:N	38:DD:36:PRO:CD	2.72	0.51
39:DE:30:PRO:HD3	39:DE:180:ASN:ND2	2.26	0.51
39:DE:69:LYS:C	39:DE:71:GLY:N	2.63	0.51
39:DE:2:LYS:HA	39:DE:84:PHE:CE2	2.45	0.51
40:DF:80:ALA:O	40:DF:83:PHE:HB2	2.09	0.51
41:DG:16:ARG:N	41:DG:17:PRO:HD2	2.25	0.51
46:DP:107:LYS:C	46:DP:109:GLY:N	2.63	0.51
46:DP:48:PRO:HG2	46:DP:49:ARG:N	2.16	0.51
47:DQ:104:PHE:O	47:DQ:105:GLU:HB3	2.11	0.51
48:DR:12:ARG:HH11	48:DR:12:ARG:CG	2.23	0.51
51:DU:74:LEU:HD12	51:DU:74:LEU:C	2.30	0.51
53:DW:37:ARG:HG3	53:DW:37:ARG:HH11	1.75	0.51
1:AA:1277:C:O2'	1:AA:1278:U:H5'	2.09	0.51
1:AA:1316:G:H4'	14:AN:18:VAL:CG1	2.40	0.51
1:AA:139:G:H2'	1:AA:140:A:H8	1.76	0.51
1:AA:1466:C:C2'	1:AA:1467:G:H5'	2.39	0.51
1:AA:192:U:O4'	20:AT:103:GLY:HA2	2.11	0.51
1:AA:525:C:H2'	1:AA:526:C:H6	1.75	0.51
1:AA:554:C:H2'	1:AA:555:C:C6	2.45	0.51
1:AA:79:G:O6	1:AA:90:U:H4'	2.09	0.51
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.25	0.51
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.75	0.51
5:AE:67:VAL:HG21	5:AE:140:ARG:HA	1.93	0.51
9:AI:13:ALA:HA	9:AI:67:GLY:O	2.10	0.51
20:AT:26:ASN:HD22	20:AT:26:ASN:N	2.08	0.51
22:AV:5:G:H1'	22:AV:69:G:N2	2.25	0.51
30:B5:54:GLY:O	30:B5:56:LYS:HD2	2.11	0.51
31:B6:14:THR:O	31:B6:49:HIS:HA	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:35:GLN:O	33:B8:36:LYS:HG3	2.11	0.51
35:BA:1040:C:O2'	35:BA:1041:C:P	2.69	0.51
35:BA:2051:A:OP2	35:BA:2051:A:H8	1.94	0.51
35:BA:2171:A:O2'	35:BA:2172:U:O5'	2.28	0.51
35:BA:271(D):G:O2'	35:BA:271(E):U:H5'	2.10	0.51
35:BA:2825:C:H2'	35:BA:2826:A:O4'	2.09	0.51
35:BA:847:U:C2'	35:BA:848:G:H5''	2.36	0.51
36:BB:111:G:H2'	36:BB:112:U:O4'	2.11	0.51
37:BC:74:VAL:HG12	37:BC:76:ALA:H	1.75	0.51
38:BD:146:GLU:HG2	38:BD:152:GLY:C	2.30	0.51
35:BA:2590:A:OP2	38:BD:238:GLY:HA2	2.10	0.51
40:BF:4:VAL:HA	40:BF:18:ARG:O	2.11	0.51
41:BG:126:ASP:HA	41:BG:166:ASP:OD1	2.11	0.51
41:BG:47:LYS:N	41:BG:51:ARG:HD2	2.25	0.51
44:BN:17:ASP:C	44:BN:19:GLU:H	2.13	0.51
46:BP:47:ASP:HB3	46:BP:48:PRO:O	2.10	0.51
50:BT:28:VAL:HG21	50:BT:88:ILE:CD1	2.40	0.51
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.11	0.51
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.44	0.51
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.10	0.51
2:CB:169:LYS:HD2	2:CB:170:GLU:OE2	2.10	0.51
3:CC:89:GLU:OE2	3:CC:93:LYS:HB2	2.10	0.51
4:CD:132:ARG:HD2	4:CD:132:ARG:O	2.10	0.51
9:CI:102:LEU:HD23	9:CI:103:THR:N	2.25	0.51
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.91	0.51
9:CI:80:GLY:O	9:CI:83:ARG:HB3	2.10	0.51
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.92	0.51
12:CL:126:LYS:HD2	12:CL:127:GLU:H	1.75	0.51
12:CL:32:PHE:HB3	12:CL:84:LEU:HD21	1.92	0.51
22:CY:16:U:H3'	22:CY:17:C:C5'	2.37	0.51
35:DA:1847:A:H3'	35:DA:1848:A:C5'	2.40	0.51
35:DA:1956:U:H2'	35:DA:1957:C:H5'	1.93	0.51
35:DA:2266:A:H5'	35:DA:2267:A:N7	2.25	0.51
35:DA:2399:G:N3	35:DA:2399:G:H2'	2.25	0.51
35:DA:2580:U:OP1	39:DE:131:ALA:HB2	2.11	0.51
35:DA:271(M):G:C2'	35:DA:271(N):U:H5''	2.38	0.51
35:DA:2777:G:C4'	35:DA:2778:A:H5'	2.40	0.51
35:DA:911:A:C5	47:DQ:9:TYR:CD1	2.98	0.51
41:DG:125:PHE:CD1	41:DG:125:PHE:N	2.77	0.51
41:DG:47:LYS:H	41:DG:51:ARG:HD2	1.76	0.51
43:DI:123:LEU:HD11	43:DI:144:VAL:HG13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:81:VAL:CG2	43:DI:142:VAL:HB	2.41	0.51
44:DN:7:LYS:O	44:DN:8:GLN:C	2.49	0.51
45:DO:111:PHE:O	45:DO:115:VAL:HG23	2.11	0.51
46:DP:21:ARG:HD3	46:DP:29:LYS:HE3	1.93	0.51
48:DR:113:LEU:C	48:DR:113:LEU:HD12	2.30	0.51
49:DS:89:ARG:O	49:DS:90:GLY:O	2.28	0.51
52:DV:21:ARG:N	52:DV:21:ARG:HD3	2.24	0.51
1:AA:107:G:C2'	1:AA:108:G:H5'	2.40	0.51
1:AA:1237:C:O4'	1:AA:1334:G:N2	2.43	0.51
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.10	0.51
1:AA:364:A:H2'	1:AA:365:U:O2	2.10	0.51
1:AA:386:C:C2'	1:AA:387:U:H5'	2.40	0.51
1:AA:688:G:H2'	1:AA:689:C:H6	1.74	0.51
1:AA:826:C:H2'	1:AA:827:U:C6	2.46	0.51
1:AA:952:U:O2'	1:AA:953:G:H5'	2.11	0.51
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.24	0.51
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.00	0.51
5:AE:76:ILE:HD12	5:AE:118:ILE:CD1	2.41	0.51
8:AH:44:PHE:HD1	8:AH:79:VAL:HG12	1.75	0.51
9:AI:125:TYR:HD2	9:AI:126:SER:H	1.59	0.51
10:AJ:30:SER:O	10:AJ:80:LYS:HB3	2.10	0.51
10:AJ:45:ARG:NH1	14:AN:36:PHE:CE2	2.78	0.51
10:AJ:99:LYS:O	10:AJ:100:THR:HG23	2.11	0.51
13:AM:14:ARG:HA	13:AM:43:THR:O	2.11	0.51
19:AS:31:ILE:CG2	19:AS:49:ILE:HG13	2.41	0.51
22:AV:15:G:O2'	22:AV:16:U:H5'	2.11	0.51
23:AW:14:A:H1'	23:AW:22:G:N2	2.26	0.51
23:AW:25:C:O2'	23:AW:26:A:H5'	2.10	0.51
22:AY:26:A:H2'	22:AY:27:G:H5'	1.92	0.51
22:AY:55:U:H3'	22:AY:55:U:O2	2.11	0.51
31:B6:19:ARG:O	31:B6:20:ASN:O	2.27	0.51
33:B8:39:LYS:HA	33:B8:42:ARG:NH1	2.25	0.51
35:BA:1140:C:H5''	44:BN:66:LYS:HZ3	1.76	0.51
35:BA:1987:G:H8	35:BA:1987:G:C5'	2.22	0.51
35:BA:2118:U:H5	35:BA:2148:G:O2'	1.92	0.51
35:BA:270:A:O2'	35:BA:271:A:H5'	2.11	0.51
35:BA:542:C:H2'	35:BA:543:C:OP1	2.11	0.51
35:BA:70:G:H2'	35:BA:113:G:O2'	2.11	0.51
36:BB:109:C:H5'	36:BB:110:G:O5'	2.11	0.51
36:BB:74:U:H2'	36:BB:75:G:O4'	2.10	0.51
37:BC:95:GLY:CA	37:BC:99:ILE:HD12	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:166:GLN:N	38:BD:166:GLN:HE21	2.09	0.51
39:BE:175:VAL:O	39:BE:175:VAL:HG13	2.10	0.51
39:BE:81:ILE:O	39:BE:82:ARG:CB	2.57	0.51
41:BG:43:LEU:HB2	41:BG:88:ILE:CG2	2.40	0.51
42:BH:33:LEU:HD12	42:BH:75:ALA:HA	1.93	0.51
42:BH:47:GLU:C	42:BH:49:VAL:H	2.14	0.51
43:BI:79:ILE:HD11	43:BI:100:ALA:HB1	1.91	0.51
52:BV:2:PHE:HB3	52:BV:41:GLY:C	2.30	0.51
51:BU:95:LEU:CD1	52:BV:4:ILE:HG23	2.39	0.51
54:BX:12:VAL:HG11	54:BX:27:THR:CG2	2.40	0.51
56:BZ:120:ILE:HG21	56:BZ:170:THR:HG22	1.93	0.51
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.45	0.51
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.45	0.51
1:CA:1406:U:C2'	1:CA:1407:C:H5'	2.41	0.51
1:CA:370:C:O2'	1:CA:371:G:H5'	2.10	0.51
1:CA:542:G:H5'	4:CD:41:GLY:CA	2.40	0.51
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.25	0.51
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.76	0.51
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.44	0.51
9:CI:18:PHE:HB2	9:CI:62:TYR:O	2.11	0.51
10:CJ:4:ILE:HA	10:CJ:100:THR:CG2	2.32	0.51
15:CO:69:TYR:CE1	15:CO:73:GLU:HG3	2.45	0.51
19:CS:14:HIS:C	19:CS:15:LEU:HD22	2.31	0.51
35:DA:1410:G:O2'	35:DA:1411:C:H5'	2.11	0.51
35:DA:1532:C:H2'	35:DA:1533:G:N2	2.26	0.51
35:DA:1825:A:OP1	38:DD:249:PRO:HD3	2.10	0.51
35:DA:1926:U:H2'	35:DA:1928:A:OP2	2.11	0.51
35:DA:2469:A:H3'	35:DA:2470:G:O4'	2.10	0.51
35:DA:2732:G:C3'	35:DA:2733:A:H5'	2.41	0.51
38:DD:10:THR:HG23	38:DD:13:ARG:HB2	1.92	0.51
41:DG:61:ALA:CA	41:DG:64:THR:HG22	2.35	0.51
36:DB:42:C:C4'	41:DG:67:LYS:O	2.58	0.51
45:DO:24:VAL:HG23	45:DO:33:ALA:HB2	1.91	0.51
51:DU:98:LEU:CD2	52:DV:2:PHE:HZ	2.22	0.51
56:DZ:102:LEU:HD12	56:DZ:102:LEU:N	2.25	0.51
56:DZ:67:LEU:HD23	56:DZ:90:VAL:HG11	1.93	0.51
1:AA:731:G:O2'	1:AA:732:C:H5'	2.10	0.51
3:AC:138:VAL:C	3:AC:140:ARG:H	2.14	0.51
7:AG:76:ARG:HG2	7:AG:76:ARG:HH11	1.74	0.51
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	1.92	0.51
9:AI:102:LEU:HD23	9:AI:103:THR:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:51:GLU:O	31:B6:52:VAL:HG23	2.11	0.51
35:BA:1443:G:H2'	35:BA:1444:G:H5'	1.93	0.51
35:BA:1722:A:N1	35:BA:1741:A:C2	2.78	0.51
35:BA:1794:U:O2'	35:BA:1795:C:H5'	2.10	0.51
35:BA:1934:C:O2'	35:BA:1935:G:H5'	2.11	0.51
35:BA:228:A:H2'	35:BA:230:U:O4'	2.10	0.51
35:BA:2345:G:H5''	35:BA:2347:C:O4'	2.11	0.51
35:BA:2562:U:H2'	35:BA:2563:U:H5'	1.93	0.51
35:BA:2646:C:H2'	35:BA:2647:U:O4'	2.11	0.51
35:BA:2863:C:C3'	35:BA:2864:G:H5''	2.41	0.51
35:BA:27:G:N2	35:BA:512:G:C2'	2.74	0.51
35:BA:807:U:H2'	35:BA:808:G:C8	2.42	0.51
35:BA:839:U:H2'	35:BA:840:C:C6	2.45	0.51
37:BC:78:ALA:HB3	37:BC:83:ILE:HD11	1.93	0.51
41:BG:125:PHE:HA	41:BG:128:ARG:HG2	1.92	0.51
45:BO:89:ASN:C	45:BO:91:LEU:H	2.12	0.51
35:BA:661:C:H4'	46:BP:16:ARG:HH12	1.76	0.51
47:BQ:111:GLU:CD	47:BQ:133:ARG:HH21	2.13	0.51
49:BS:22:GLY:O	49:BS:23:ARG:O	2.29	0.51
50:BT:28:VAL:O	50:BT:29:ARG:CB	2.59	0.51
50:BT:96:ARG:HG2	50:BT:96:ARG:NH1	2.25	0.51
52:BV:68:LYS:NZ	52:BV:68:LYS:HB2	2.26	0.51
1:CA:333:G:O2'	1:CA:334:C:H5'	2.11	0.51
8:CH:25:ASP:OD2	8:CH:60:ARG:HG2	2.10	0.51
13:CM:29:ARG:HD3	13:CM:64:TRP:CE2	2.46	0.51
19:CS:40:ILE:HD13	19:CS:62:ILE:CD1	2.39	0.51
23:CW:18:G:N2	23:CW:55:U:H6	2.09	0.51
26:D1:78:LYS:C	26:D1:80:LEU:H	2.14	0.51
31:D6:37:ARG:O	31:D6:48:VAL:O	2.29	0.51
35:DA:2190:G:H8	35:DA:2190:G:H5'	1.76	0.51
35:DA:2481:G:O2'	35:DA:2482:G:P	2.69	0.51
36:DB:40:U:H1'	36:DB:45:A:H61	1.74	0.51
38:DD:66:ASP:OD2	38:DD:69:ARG:HA	2.10	0.51
39:DE:201:THR:OG1	39:DE:202:LYS:N	2.42	0.51
40:DF:24:LEU:CB	40:DF:25:PRO:CD	2.88	0.51
41:DG:25:TYR:HA	41:DG:30:GLU:OE2	2.11	0.51
41:DG:51:ARG:C	41:DG:53:LEU:N	2.64	0.51
46:DP:112:LEU:HD22	46:DP:113:LYS:N	2.26	0.51
47:DQ:109:VAL:HG12	47:DQ:113:GLN:HB2	1.92	0.51
45:DO:119:PRO:HB2	50:DT:68:TYR:CE1	2.45	0.51
51:DU:83:LEU:CG	51:DU:88:ILE:HD11	2.32	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DV:34:GLU:O	52:DV:36:PRO:CD	2.58	0.51
53:DW:88:ARG:HB2	53:DW:92:ARG:CB	2.31	0.51
55:DY:6:HIS:NE2	55:DY:32:PRO:HB3	2.26	0.51
55:DY:46:LYS:HD3	55:DY:47:LYS:NZ	2.25	0.51
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.11	0.51
1:AA:651:C:H2'	1:AA:652:U:C6	2.46	0.51
1:AA:980:C:H3'	1:AA:981:U:C6	2.46	0.51
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.30	0.51
5:AE:35:GLY:HA2	5:AE:40:ARG:O	2.10	0.51
5:AE:76:ILE:CG2	5:AE:77:PRO:HD2	2.39	0.51
1:AA:933:G:OP2	7:AG:3:ARG:HB3	2.11	0.51
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.41	0.51
13:AM:91:ARG:HB2	13:AM:98:VAL:HG22	1.93	0.51
18:AR:24:ALA:C	18:AR:26:LEU:H	2.14	0.51
1:AA:186:C:H4'	20:AT:82:SER:HB3	1.93	0.51
25:B0:35:ASN:HD22	25:B0:35:ASN:H	1.59	0.51
25:B0:60:PHE:CZ	35:BA:2365:G:H4'	2.45	0.51
26:B1:29:GLY:O	26:B1:30:VAL:HG22	2.11	0.51
35:BA:1484:G:H22	35:BA:1505:C:H5	1.59	0.51
35:BA:1762:A:C8	35:BA:1762:A:O5'	2.64	0.51
35:BA:661:C:H2'	35:BA:662:G:C8	2.45	0.51
38:BD:133:LEU:HD23	38:BD:189:CYS:O	2.11	0.51
39:BE:134:ILE:O	39:BE:134:ILE:HG12	2.10	0.51
40:BF:63:LYS:HA	40:BF:76:GLY:O	2.09	0.51
35:BA:1257:C:H4'	40:BF:83:PHE:CE2	2.46	0.51
41:BG:16:ARG:HE	41:BG:31:VAL:HG11	1.75	0.51
42:BH:140:LYS:O	42:BH:144:VAL:HG23	2.10	0.51
43:BI:4:ILE:HD11	43:BI:44:LEU:HD13	1.93	0.51
43:BI:89:TYR:HB3	1:CA:368:U:C4	2.45	0.51
46:BP:49:ARG:HH21	46:BP:50:ARG:HH22	1.58	0.51
47:BQ:109:VAL:HG12	47:BQ:113:GLN:HB2	1.92	0.51
48:BR:7:GLY:O	48:BR:8:ARG:CB	2.59	0.51
50:BT:54:ARG:HG2	50:BT:54:ARG:NH1	2.26	0.51
52:BV:19:LYS:CG	52:BV:20:LEU:N	2.69	0.51
1:CA:1299:A:C8	1:CA:1301:U:H1'	2.45	0.51
1:CA:681:C:O2'	1:CA:682:G:H5'	2.11	0.51
6:CF:5:GLU:HG2	6:CF:62:TRP:CZ2	2.46	0.51
7:CG:53:LYS:O	7:CG:54:THR:CB	2.58	0.51
8:CH:83:ILE:O	8:CH:83:ILE:HG23	2.10	0.51
9:CI:41:VAL:HG12	9:CI:41:VAL:O	2.10	0.51
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:32:PHE:HB3	12:CL:84:LEU:CD2	2.41	0.51
1:CA:186:C:H4'	20:CT:82:SER:HB3	1.92	0.51
30:D5:42:PRO:HB2	30:D5:43:HIS:HD2	1.75	0.51
31:D6:12:GLU:HA	31:D6:23:THR:HA	1.93	0.51
34:D9:16:VAL:HG11	35:DA:1032:A:O3'	2.10	0.51
35:DA:1042:G:H1'	35:DA:1114:G:H22	1.76	0.51
35:DA:1224:C:H4'	52:DV:86:GLY:O	2.11	0.51
35:DA:2196:C:O2'	35:DA:2197:U:H5'	2.10	0.51
37:DC:36:LYS:HG3	37:DC:37:PHE:N	2.18	0.51
37:DC:95:GLY:CA	37:DC:99:ILE:HD12	2.40	0.51
35:DA:1566:A:C4	38:DD:214:TRP:CE3	2.99	0.51
38:DD:28:GLU:H	38:DD:29:PRO:CD	2.20	0.51
38:DD:35:LYS:NZ	38:DD:61:LEU:HG	2.26	0.51
40:DF:164:ARG:HG2	40:DF:164:ARG:HH11	1.75	0.51
41:DG:131:TYR:HE2	41:DG:133:LEU:HD23	1.76	0.51
41:DG:77:ILE:N	41:DG:83:ARG:HB3	2.25	0.51
41:DG:86:MET:O	41:DG:87:PRO:C	2.47	0.51
42:DH:141:VAL:CG1	42:DH:142:GLY:N	2.73	0.51
43:DI:94:ALA:C	43:DI:96:ASP:H	2.13	0.51
46:DP:63:PRO:C	46:DP:65:ARG:N	2.63	0.51
47:DQ:133:ARG:O	47:DQ:134:ARG:CG	2.58	0.51
53:DW:28:SER:HA	53:DW:70:TYR:HB2	1.92	0.51
54:DX:36:LYS:O	54:DX:39:ILE:HB	2.11	0.51
55:DY:81:LYS:NZ	55:DY:97:ARG:O	2.39	0.51
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.74	0.51
1:AA:413:G:H1'	1:AA:428:G:H21	1.76	0.51
1:AA:865:A:H2	1:AA:918:A:H4'	1.75	0.51
3:AC:139:GLN:O	3:AC:143:GLU:HB2	2.11	0.51
3:AC:66:VAL:O	3:AC:66:VAL:HG12	2.11	0.51
6:AF:40:VAL:O	6:AF:40:VAL:HG13	2.10	0.51
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB2	1.93	0.51
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.93	0.51
12:AL:60:LEU:HD22	12:AL:60:LEU:N	2.25	0.51
17:AQ:76:LEU:HG	17:AQ:77:VAL:H	1.75	0.51
25:B0:41:ARG:N	25:B0:41:ARG:HD2	2.20	0.51
28:B3:48:GLU:O	28:B3:51:ALA:HB2	2.11	0.51
30:B5:30:LEU:HD23	30:B5:41:PRO:CA	2.40	0.51
35:BA:1345:C:O2'	35:BA:1346:G:H5'	2.10	0.51
35:BA:1853:A:N1	35:BA:2087:G:H1'	2.26	0.51
39:BE:8:LYS:HE3	39:BE:188:VAL:CG1	2.40	0.51
40:BF:24:LEU:CB	40:BF:25:PRO:CD	2.89	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:57:VAL:HG12	40:BF:59:TYR:CD1	2.46	0.51
42:BH:85:LYS:HD3	42:BH:133:VAL:HB	1.93	0.51
42:BH:27:LYS:HE3	42:BH:32:GLU:OE1	2.11	0.51
43:BI:29:TYR:HE1	43:BI:33:ARG:HE	1.59	0.51
45:BO:68:GLU:HB3	45:BO:78:ARG:HB2	1.93	0.51
45:BO:66:LYS:NZ	45:BO:78:ARG:HD2	2.26	0.51
35:BA:1243:G:O2'	46:BP:9:ASN:HA	2.10	0.51
48:BR:92:GLY:HA2	48:BR:94:TYR:CE1	2.46	0.51
49:BS:96:GLY:C	49:BS:98:VAL:H	2.14	0.51
50:BT:129:ARG:NH1	50:BT:130:ALA:O	2.43	0.51
51:BU:21:ALA:O	51:BU:22:LYS:C	2.49	0.51
55:BY:96:ILE:HG22	55:BY:97:ARG:N	2.26	0.51
56:BZ:11:GLU:OE2	56:BZ:11:GLU:N	2.43	0.51
56:BZ:153:SER:HB2	56:BZ:167:PRO:CG	2.36	0.51
56:BZ:156:LYS:O	56:BZ:157:LEU:HG	2.09	0.51
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.46	0.51
1:CA:26:A:H61	1:CA:558:G:H1'	1.73	0.51
3:CC:36:ASP:O	3:CC:39:ILE:HB	2.11	0.51
7:CG:145:ALA:O	7:CG:147:ALA:N	2.44	0.51
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.93	0.51
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.25	0.51
19:CS:31:ILE:CG2	19:CS:49:ILE:HG13	2.41	0.51
1:CA:323:U:H4'	20:CT:22:ARG:HB2	1.93	0.51
22:CV:20:U:C3'	22:CV:21:A:H5''	2.39	0.51
26:D1:75:GLU:C	26:D1:77:ALA:H	2.14	0.51
28:D3:31:LEU:C	28:D3:33:GLN:H	2.13	0.51
33:D8:56:GLU:O	33:D8:59:LYS:HE3	2.10	0.51
35:DA:1762:A:C8	35:DA:1762:A:O5'	2.63	0.51
35:DA:1797:C:O2'	38:DD:259:THR:CG2	2.58	0.51
30:D5:6:VAL:HG23	35:DA:2015:A:C2	2.45	0.51
35:DA:2801(A):A:C4'	35:DA:2802:G:H5'	2.23	0.51
35:DA:322:A:H3'	40:DF:169:ASN:ND2	2.24	0.51
38:DD:18:VAL:CG1	38:DD:19:ALA:N	2.73	0.51
38:DD:28:GLU:CD	38:DD:28:GLU:H	2.14	0.51
45:DO:36:GLY:HA3	45:DO:109:LYS:HG3	1.93	0.51
40:DF:187:VAL:HG13	46:DP:5:ASP:O	2.11	0.51
47:DQ:34:LEU:HD12	47:DQ:130:LYS:O	2.10	0.51
52:DV:1:MET:HE1	52:DV:43:GLU:OE2	2.11	0.51
55:DY:76:CYS:HG	55:DY:77:PRO:HD2	1.69	0.51
55:DY:97:ARG:HG2	55:DY:97:ARG:HH11	1.76	0.51
56:DZ:68:PRO:O	56:DZ:69:THR:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:521:G:H4'	12:AL:73:GLU:OE1	2.11	0.51
5:AE:75:THR:HB	5:AE:117:ASP:HB2	1.92	0.51
13:AM:102:ARG:C	13:AM:104:ARG:H	2.14	0.51
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.93	0.51
15:AO:39:LEU:HD12	15:AO:59:MET:HE2	1.93	0.51
16:AP:82:GLN:HE21	16:AP:82:GLN:N	2.09	0.51
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.76	0.51
22:AV:41:C:C2'	22:AV:42:C:H5''	2.40	0.51
23:AW:20:U:H2'	23:AW:21:A:C4'	2.36	0.51
26:B1:86:SER:CB	26:B1:89:GLU:HB2	2.40	0.51
30:B5:39:MET:HG3	53:BW:34:ASN:OD1	2.10	0.51
35:BA:1411:C:H2'	35:BA:1412:A:H8	1.76	0.51
35:BA:1889:A:H2'	35:BA:1890:A:C8	2.45	0.51
35:BA:2236:C:C2'	35:BA:2237:G:H5'	2.40	0.51
35:BA:2468:G:N2	35:BA:2481:G:C2'	2.74	0.51
35:BA:2481:G:HO2'	35:BA:2482:G:P	2.34	0.51
35:BA:2528:U:H2'	35:BA:2530:A:O5'	2.11	0.51
35:BA:271(P):C:C5'	43:BI:46:ALA:HB2	2.40	0.51
35:BA:2749:A:H2'	35:BA:2750:A:C8	2.45	0.51
35:BA:780:G:H21	35:BA:783:A:H62	1.59	0.51
36:BB:52:A:C8	49:BS:33:LYS:NZ	2.76	0.51
39:BE:116:VAL:HG22	39:BE:117:MET:N	2.25	0.51
39:BE:5:LEU:N	39:BE:5:LEU:HD23	2.24	0.51
40:BF:187:VAL:HG13	46:BP:5:ASP:O	2.11	0.51
42:BH:87:LEU:HD23	42:BH:164:TYR:HA	1.93	0.51
44:BN:18:ALA:O	44:BN:21:LYS:N	2.44	0.51
46:BP:27:HIS:C	46:BP:27:HIS:CD2	2.85	0.51
49:BS:101:LEU:HD13	49:BS:101:LEU:H	1.75	0.51
49:BS:97:ARG:C	49:BS:97:ARG:NE	2.64	0.51
55:BY:22:GLY:O	55:BY:23:ARG:HB2	2.10	0.51
1:CA:107:G:C2'	1:CA:108:G:H5'	2.40	0.51
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.46	0.51
1:CA:168:G:H2'	1:CA:169:C:O4'	2.10	0.51
1:CA:444:C:H2'	1:CA:445:G:H8	1.76	0.51
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.44	0.51
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.26	0.51
2:CB:21:ARG:HD2	2:CB:38:GLY:CA	2.41	0.51
3:CC:9:GLY:HA2	3:CC:12:LEU:HB2	1.91	0.51
13:CM:14:ARG:HA	13:CM:43:THR:O	2.10	0.51
30:D5:20:ARG:HA	30:D5:23:HIS:ND1	2.26	0.51
31:D6:12:GLU:H	31:D6:12:GLU:CD	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:15:GLU:CA	31:D6:47:THR:HG21	2.40	0.51
35:DA:1020:A:N1	35:DA:1141:U:H1'	2.25	0.51
35:DA:1162:G:H2'	35:DA:1163:G:H8	1.75	0.51
35:DA:1443:G:H2'	35:DA:1444:G:H5'	1.93	0.51
35:DA:1853:A:H2'	35:DA:1854:A:C8	2.46	0.51
35:DA:2642:G:O2'	35:DA:2643:G:H5'	2.11	0.51
35:DA:2673:G:O2'	35:DA:2674:G:H5'	2.11	0.51
35:DA:271(S):G:O2'	35:DA:271(T):C:H5''	2.09	0.51
35:DA:27:G:N2	35:DA:512:G:C2'	2.74	0.51
38:DD:147:LEU:CD1	38:DD:155:LEU:HD11	2.37	0.51
38:DD:109:ASP:HB2	38:DD:197:GLY:HA2	1.93	0.51
40:DF:53:THR:HG22	40:DF:56:GLU:CG	2.40	0.51
42:DH:33:LEU:HD21	42:DH:136:ILE:HG22	1.92	0.51
42:DH:38:SER:OG	42:DH:40:GLU:HG2	2.11	0.51
43:DI:118:LYS:CD	43:DI:119:PRO:HD2	2.27	0.51
43:DI:58:LEU:C	43:DI:60:GLU:N	2.59	0.51
44:DN:133:GLN:CG	44:DN:134:ARG:H	2.17	0.51
44:DN:17:ASP:C	44:DN:19:GLU:H	2.14	0.51
46:DP:50:ARG:HH21	46:DP:50:ARG:HG2	1.76	0.51
47:DQ:42:ILE:HD13	47:DQ:97:VAL:HG23	1.92	0.51
48:DR:2:ARG:NH1	48:DR:5:LYS:CE	2.70	0.51
35:DA:1615:C:C2	53:DW:87:PRO:HG3	2.46	0.51
56:DZ:107:THR:CG2	56:DZ:111:VAL:HG11	2.41	0.51
1:AA:1313:U:OP1	19:AS:6:LYS:HB2	2.10	0.51
1:AA:168:G:H2'	1:AA:169:C:O4'	2.10	0.51
1:AA:287:U:O2'	1:AA:288:A:H5'	2.11	0.51
1:AA:34:C:H2'	1:AA:35:G:C8	2.46	0.51
1:AA:438:G:H4'	4:AD:123:HIS:HD1	1.76	0.51
1:AA:990:C:H2'	1:AA:991:U:C6	2.45	0.51
2:AB:114:ARG:O	2:AB:118:LEU:HG	2.11	0.51
4:AD:173:TRP:O	4:AD:186:LEU:HB2	2.10	0.51
8:AH:88:LYS:HB2	8:AH:88:LYS:NZ	2.26	0.51
10:AJ:29:ARG:HH22	10:AJ:84:GLN:CD	2.14	0.51
13:AM:108:ARG:HH12	13:AM:112:GLY:HA3	1.76	0.51
13:AM:116:THR:O	13:AM:117:VAL:HB	2.10	0.51
17:AQ:5:VAL:O	17:AQ:6:LEU:HD23	2.11	0.51
27:B2:63:VAL:O	27:B2:66:GLU:HG2	2.11	0.51
35:BA:1108:U:H2'	35:BA:1109:C:C5'	2.39	0.51
35:BA:1150:C:O2'	35:BA:1151:G:H5'	2.11	0.51
35:BA:1722:A:O2'	35:BA:1739:U:H5''	2.11	0.51
35:BA:2317:C:H2'	35:BA:2318:G:C5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2543:G:H2'	35:BA:2544:G:H8	1.74	0.51
35:BA:2811:G:O2'	35:BA:2812:G:H5'	2.10	0.51
38:BD:218:ARG:HB3	38:BD:219:PRO:HD2	1.93	0.51
39:BE:119:ARG:HD2	39:BE:120:TRP:CE2	2.46	0.51
39:BE:201:THR:OG1	39:BE:202:LYS:N	2.42	0.51
40:BF:53:THR:HG23	40:BF:55:GLY:H	1.75	0.51
41:BG:133:LEU:HD11	41:BG:157:ILE:CG2	2.40	0.51
41:BG:16:ARG:NE	41:BG:31:VAL:HG11	2.26	0.51
41:BG:67:LYS:N	41:BG:67:LYS:HD2	2.26	0.51
41:BG:91:ARG:CG	41:BG:92:VAL:N	2.73	0.51
49:BS:14:VAL:HG13	49:BS:90:GLY:CA	2.40	0.51
50:BT:102:ILE:HG13	50:BT:103:ARG:N	2.25	0.51
55:BY:95:LYS:HG2	55:BY:100:ALA:C	2.31	0.51
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.47	0.51
1:CA:1168:A:H2'	1:CA:1169:A:C8	2.46	0.51
1:CA:130:A:H1'	1:CA:263:A:O2'	2.10	0.51
1:CA:256:U:H2'	1:CA:257:G:C8	2.46	0.51
1:CA:312:C:H2'	1:CA:313:A:H8	1.76	0.51
1:CA:364:A:H2'	1:CA:365:U:O2	2.11	0.51
1:CA:491:G:H2'	1:CA:492:G:H8	1.75	0.51
1:CA:568:G:N7	12:CL:5:PRO:HD3	2.26	0.51
1:CA:22:G:H4'	1:CA:885:G:C8	2.46	0.51
1:CA:990:C:H2'	1:CA:991:U:C6	2.46	0.51
2:CB:218:ALA:O	2:CB:222:ILE:HG13	2.12	0.51
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.11	0.51
7:CG:69:VAL:O	7:CG:69:VAL:HG12	2.11	0.51
9:CI:104:ARG:C	9:CI:105:ASP:N	2.65	0.51
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.10	0.51
13:CM:11:ARG:O	13:CM:13:LYS:N	2.43	0.51
13:CM:45:VAL:C	13:CM:47:ASP:H	2.14	0.51
17:CQ:5:VAL:O	17:CQ:6:LEU:HD23	2.11	0.51
20:CT:57:ARG:HD3	20:CT:103:GLY:N	2.26	0.51
25:D0:36:ILE:HD13	25:D0:58:THR:CG2	2.39	0.51
27:D2:50:ILE:O	27:D2:52:ASP:N	2.44	0.51
35:DA:2786:U:H2'	35:DA:2787:C:H6	1.75	0.51
35:DA:2864:G:C8	35:DA:2864:G:H5'	2.46	0.51
35:DA:407:G:H2'	35:DA:408:G:H8	1.76	0.51
35:DA:852:G:C2'	35:DA:853:G:H5'	2.42	0.51
36:DB:57:A:OP2	36:DB:58:A:OP2	2.29	0.51
37:DC:56:GLN:O	37:DC:57:ASN:HB2	2.10	0.51
38:DD:165:ILE:HD13	38:DD:175:LEU:CD2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:166:GLN:HE21	38:DD:166:GLN:N	2.08	0.51
38:DD:33:LEU:HD22	38:DD:34:VAL:N	2.18	0.51
40:DF:28:ILE:O	40:DF:28:ILE:HD12	2.10	0.51
40:DF:52:LYS:HD3	40:DF:56:GLU:O	2.10	0.51
42:DH:68:THR:C	42:DH:70:THR:N	2.61	0.51
44:DN:121:LYS:HG2	44:DN:130:HIS:NE2	2.25	0.51
45:DO:105:GLU:O	45:DO:109:LYS:HG2	2.11	0.51
49:DS:88:ASP:CG	49:DS:89:ARG:H	2.14	0.51
54:DX:12:VAL:HG11	54:DX:27:THR:OG1	2.10	0.51
1:AA:1323:G:H4'	1:AA:1363:C:N3	2.26	0.50
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.46	0.50
1:AA:583:A:H2'	1:AA:584:G:O4'	2.12	0.50
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	2.11	0.50
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.64	0.50
5:AE:71:LEU:CD2	5:AE:115:VAL:HG22	2.41	0.50
9:AI:104:ARG:C	9:AI:105:ASP:N	2.65	0.50
12:AL:57:LYS:HG2	12:AL:67:THR:HG22	1.93	0.50
13:AM:97:PRO:O	13:AM:98:VAL:HA	2.11	0.50
17:AQ:52:LYS:CD	17:AQ:52:LYS:H	2.15	0.50
20:AT:14:LYS:HA	20:AT:17:ARG:HE	1.75	0.50
23:AW:65:G:H2'	23:AW:66:U:C6	2.46	0.50
23:AW:75:C:C5'	26:B1:30:VAL:HG21	2.41	0.50
35:BA:203:C:C3'	35:BA:204:A:H5''	2.40	0.50
35:BA:2065:C:H2'	35:BA:2066:C:C6	2.45	0.50
35:BA:389:G:H22	46:BP:72:PRO:HD3	1.76	0.50
35:BA:489:G:N2	35:BA:1321:A:OP1	2.44	0.50
35:BA:817:C:O2'	35:BA:839:U:H5''	2.11	0.50
36:BB:56:G:H5''	41:BG:27:ASN:ND2	2.21	0.50
37:BC:38:ASP:HB2	37:BC:181:PRO:CB	2.42	0.50
38:BD:27:THR:O	38:BD:27:THR:CG2	2.58	0.50
39:BE:200:GLU:OE2	39:BE:200:GLU:N	2.41	0.50
41:BG:11:TYR:HD2	41:BG:12:TYR:CD1	2.30	0.50
41:BG:64:THR:HG23	41:BG:65:GLY:H	1.76	0.50
43:BI:115:ALA:HB3	43:BI:129:THR:HG23	1.91	0.50
45:BO:77:ILE:HD11	50:BT:72:VAL:CG1	2.41	0.50
46:BP:101:VAL:C	46:BP:103:ALA:N	2.64	0.50
46:BP:17:LYS:O	46:BP:19:VAL:N	2.44	0.50
46:BP:8:PRO:C	46:BP:10:PRO:HD2	2.31	0.50
49:BS:58:LEU:HD11	49:BS:68:GLN:NE2	2.26	0.50
49:BS:88:ASP:CG	49:BS:89:ARG:H	2.15	0.50
45:BO:104:ARG:HH21	50:BT:33:LYS:CD	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:12:VAL:HG11	54:BX:27:THR:HG23	1.93	0.50
55:BY:3:VAL:HG12	55:BY:3:VAL:O	2.11	0.50
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.24	0.50
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.44	0.50
1:CA:154:C:H2'	1:CA:155:C:H6	1.76	0.50
1:CA:255:G:H1'	17:CQ:16:GLN:HE21	1.75	0.50
1:CA:591:U:H2'	1:CA:592:G:H8	1.76	0.50
1:CA:797:C:O2'	1:CA:798:G:H5'	2.11	0.50
1:CA:977:A:O2'	1:CA:978:A:H5'	2.12	0.50
2:CB:48:MET:CG	2:CB:49:GLU:N	2.64	0.50
2:CB:61:LEU:CD1	2:CB:66:GLY:HA3	2.41	0.50
6:CF:4:TYR:HA	6:CF:91:VAL:O	2.11	0.50
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.25	0.50
10:CJ:8:LEU:HG	10:CJ:96:ILE:HG22	1.93	0.50
12:CL:57:LYS:HG2	12:CL:67:THR:HG22	1.93	0.50
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.51	0.50
23:CW:56:C:C3'	23:CW:57:G:H5''	2.41	0.50
22:CY:66:U:H2'	22:CY:67:C:C6	2.46	0.50
35:DA:1141:U:OP2	44:DN:63:THR:OG1	2.23	0.50
35:DA:1288:U:C2	35:DA:1327:C:O2	2.64	0.50
35:DA:1718:G:H1	35:DA:1744:C:N4	2.08	0.50
35:DA:1827:C:O2'	35:DA:1828:G:H5'	2.11	0.50
35:DA:1930:G:N2	35:DA:1968:G:H2'	2.26	0.50
35:DA:648:G:O4'	35:DA:2351:G:H5''	2.11	0.50
35:DA:732:C:C2'	35:DA:733:G:H5'	2.41	0.50
36:DB:24:G:H21	36:DB:27:C:H42	1.59	0.50
39:DE:9:VAL:O	39:DE:9:VAL:CG2	2.59	0.50
43:DI:79:ILE:HD11	43:DI:100:ALA:HB1	1.94	0.50
47:DQ:111:GLU:CD	47:DQ:133:ARG:HH21	2.14	0.50
51:DU:8:VAL:HG11	51:DU:12:ARG:NH2	2.27	0.50
55:DY:2:ARG:C	55:DY:4:LYS:N	2.62	0.50
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.11	0.50
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.47	0.50
1:AA:255:G:O6	1:AA:266:G:O6	2.29	0.50
1:AA:681:C:O2'	1:AA:682:G:H5'	2.10	0.50
1:AA:92:C:H2'	1:AA:93:G:C8	2.40	0.50
2:AB:236:TYR:HA	2:AB:239:VAL:HG21	1.92	0.50
4:AD:132:ARG:HD2	4:AD:132:ARG:O	2.12	0.50
6:AF:17:SER:O	6:AF:20:ALA:N	2.44	0.50
6:AF:1:MET:HE1	6:AF:68:PRO:HB3	1.93	0.50
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:25:ARG:O	17:AQ:25:ARG:HG2	2.11	0.50
18:AR:43:PHE:CE2	18:AR:58:LEU:HD11	2.45	0.50
6:AF:97:PHE:CD2	18:AR:65:ILE:HD12	2.46	0.50
19:AS:6:LYS:CG	19:AS:7:LYS:HE2	2.42	0.50
20:AT:57:ARG:HD3	20:AT:103:GLY:N	2.26	0.50
35:BA:154(A):C:N4	35:BA:171:G:H1	2.09	0.50
35:BA:16:G:O2'	35:BA:17:G:H5'	2.11	0.50
35:BA:2124:G:H2'	35:BA:2125:G:O4'	2.12	0.50
35:BA:2127:G:H2'	35:BA:2128:C:H6	1.76	0.50
35:BA:2723:C:H5''	48:BR:2:ARG:CD	2.42	0.50
35:BA:661:C:H2'	35:BA:662:G:H8	1.77	0.50
35:BA:790:C:O2'	35:BA:791:C:OP1	2.26	0.50
35:BA:979:G:H3'	35:BA:980:A:C5'	2.40	0.50
38:BD:10:THR:HG23	38:BD:13:ARG:HB3	1.92	0.50
38:BD:39:LYS:HZ1	38:BD:87:ASN:HB3	1.76	0.50
41:BG:11:TYR:CE2	41:BG:16:ARG:HG2	2.46	0.50
42:BH:80:SER:O	42:BH:81:GLU:CB	2.59	0.50
43:BI:71:ILE:O	43:BI:75:LEU:HD13	2.11	0.50
43:BI:79:ILE:HD11	43:BI:100:ALA:CB	2.40	0.50
44:BN:7:LYS:O	44:BN:8:GLN:C	2.48	0.50
45:BO:93:PRO:HB3	45:BO:114:ILE:HD11	1.93	0.50
46:BP:112:LEU:HD22	46:BP:113:LYS:N	2.25	0.50
46:BP:47:ASP:HB3	46:BP:48:PRO:C	2.31	0.50
46:BP:48:PRO:CG	46:BP:49:ARG:H	2.16	0.50
47:BQ:104:PHE:O	47:BQ:105:GLU:HB3	2.10	0.50
48:BR:49:ASP:O	48:BR:50:HIS:C	2.49	0.50
50:BT:38:ASN:ND2	50:BT:40:THR:N	2.59	0.50
51:BU:54:LYS:O	51:BU:58:ARG:HG3	2.11	0.50
52:BV:21:ARG:HD3	52:BV:21:ARG:N	2.27	0.50
55:BY:55:TYR:O	55:BY:56:PRO:C	2.50	0.50
55:BY:95:LYS:HG2	55:BY:100:ALA:CA	2.40	0.50
1:CA:1183:A:H5''	1:CA:1184:G:OP2	2.12	0.50
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.11	0.50
1:CA:1277:C:O2'	1:CA:1278:U:H5'	2.09	0.50
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.75	0.50
1:CA:511:C:HO2'	1:CA:512:U:H6	1.59	0.50
7:CG:78:ARG:HG3	7:CG:79:ARG:N	2.27	0.50
13:CM:93:ARG:HE	13:CM:93:ARG:HA	1.77	0.50
19:CS:9:VAL:HG12	19:CS:9:VAL:O	2.11	0.50
20:CT:49:ALA:O	20:CT:52:ALA:HB3	2.11	0.50
21:CU:4:GLY:C	21:CU:6:ARG:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:14:A:N1	22:CV:22:G:H1'	2.25	0.50
22:CY:19:G:H1'	22:CY:57:G:H22	1.72	0.50
30:D5:40:LYS:NZ	30:D5:49:CYS:SG	2.69	0.50
35:DA:108:U:H2'	35:DA:109:G:C8	2.47	0.50
35:DA:1171:G:H3'	35:DA:1173:G:C4'	2.25	0.50
35:DA:2199:A:H5''	35:DA:2200:C:H5	1.75	0.50
35:DA:2892:A:H2'	35:DA:2893:G:H4'	1.93	0.50
38:DD:44:ASN:HB3	38:DD:49:ILE:CA	2.24	0.50
39:DE:57:LYS:C	39:DE:59:VAL:N	2.63	0.50
39:DE:70:ALA:O	39:DE:72:VAL:N	2.44	0.50
44:DN:55:VAL:O	44:DN:56:ASN:C	2.49	0.50
44:DN:78:TYR:CD1	44:DN:78:TYR:N	2.77	0.50
46:DP:16:ARG:HD3	46:DP:16:ARG:C	2.31	0.50
49:DS:20:ARG:HH11	49:DS:20:ARG:HG2	1.76	0.50
52:DV:19:LYS:C	52:DV:20:LEU:HD12	2.32	0.50
52:DV:39:LEU:CD1	52:DV:47:VAL:HG11	2.32	0.50
55:DY:55:TYR:O	55:DY:56:PRO:C	2.49	0.50
56:DZ:79:ARG:CG	56:DZ:79:ARG:HH11	2.24	0.50
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.12	0.50
1:AA:1464:G:OP1	50:BT:108:ARG:HD2	2.11	0.50
1:AA:166:G:H2'	1:AA:167:G:H8	1.77	0.50
1:AA:491:G:H2'	1:AA:492:G:H8	1.76	0.50
1:AA:596:C:H2'	1:AA:597:G:H8	1.77	0.50
1:AA:836:G:C6	1:AA:851:G:C6	2.99	0.50
2:AB:115:LEU:HD12	2:AB:142:LEU:HD11	1.93	0.50
3:AC:19:GLU:O	3:AC:20:SER:HB2	2.10	0.50
5:AE:10:MET:CE	5:AE:13:ILE:HD11	2.42	0.50
13:AM:93:ARG:HA	13:AM:93:ARG:HE	1.77	0.50
15:AO:8:LYS:HG2	15:AO:12:ILE:HD11	1.93	0.50
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.92	0.50
28:B3:8:LEU:HD12	28:B3:31:LEU:CA	2.32	0.50
30:B5:51:TYR:CB	30:B5:54:GLY:HA3	2.41	0.50
31:B6:15:GLU:HG2	31:B6:18:ARG:CZ	2.41	0.50
31:B6:42:TRP:HA	31:B6:42:TRP:HE3	1.77	0.50
35:BA:1142(A):A:C5	35:BA:1144:G:C5	2.98	0.50
35:BA:1270:C:H5''	35:BA:1271:G:O5'	2.11	0.50
35:BA:1550:C:H2'	35:BA:1551:C:C6	2.47	0.50
35:BA:30:G:O2'	35:BA:31:C:H5'	2.11	0.50
35:BA:481:G:O2'	35:BA:482:A:OP2	2.30	0.50
35:BA:719:C:O2'	35:BA:720:C:H5'	2.11	0.50
35:BA:1568:G:P	38:BD:63:ARG:HH22	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2620:C:OP1	39:BE:152:LYS:O	2.28	0.50
39:BE:51:PHE:CD1	39:BE:52:LEU:HB2	2.45	0.50
41:BG:39:ILE:HG23	41:BG:92:VAL:HG13	1.92	0.50
43:BI:94:ALA:C	43:BI:96:ASP:N	2.65	0.50
35:BA:943:U:OP2	46:BP:38:GLN:OE1	2.29	0.50
46:BP:38:GLN:CG	46:BP:41:ARG:HG3	2.40	0.50
49:BS:104:GLY:C	49:BS:106:ARG:H	2.12	0.50
49:BS:20:ARG:HG2	49:BS:20:ARG:NH1	2.25	0.50
49:BS:52:SER:O	49:BS:56:LEU:HB3	2.11	0.50
50:BT:88:ILE:CG2	50:BT:89:VAL:HG23	2.40	0.50
54:BX:12:VAL:CG1	54:BX:27:THR:OG1	2.58	0.50
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.11	0.50
1:CA:1431:C:C2'	1:CA:1432:G:H5'	2.41	0.50
1:CA:491:G:O2'	1:CA:492:G:H5'	2.12	0.50
1:CA:865:A:C2	1:CA:918:A:H4'	2.46	0.50
1:CA:933:G:OP2	7:CG:3:ARG:HB3	2.11	0.50
1:CA:958:A:C8	19:CS:55:LYS:HD2	2.46	0.50
8:CH:137:VAL:HG12	8:CH:138:TRP:N	2.26	0.50
1:CA:1128:C:H5''	9:CI:16:ARG:HH12	1.74	0.50
10:CJ:30:SER:O	10:CJ:80:LYS:HB3	2.10	0.50
10:CJ:40:LEU:HD21	10:CJ:69:ASN:HB3	1.93	0.50
13:CM:116:THR:O	13:CM:117:VAL:HB	2.11	0.50
10:CJ:45:ARG:NH1	14:CN:36:PHE:CE2	2.79	0.50
15:CO:76:GLU:C	15:CO:78:TYR:N	2.64	0.50
18:CR:47:THR:HA	18:CR:83:GLU:HG3	1.93	0.50
25:D0:36:ILE:HD12	25:D0:38:VAL:N	2.26	0.50
29:D4:46:ASN:HD22	29:D4:47:VAL:N	2.09	0.50
29:D4:51:TYR:CG	41:DG:2:PRO:HD3	2.45	0.50
33:D8:4:MET:HB2	33:D8:61:LEU:HD22	1.93	0.50
35:DA:1817:G:C2'	35:DA:1818:U:H5'	2.42	0.50
35:DA:2308:G:H2'	35:DA:2309:A:C8	2.46	0.50
31:D6:23:THR:HG21	35:DA:2419:U:H4'	1.94	0.50
38:DD:146:GLU:HG2	38:DD:152:GLY:C	2.31	0.50
40:DF:160:ASN:HD22	40:DF:161:GLU:N	2.09	0.50
40:DF:5:ALA:N	40:DF:18:ARG:O	2.37	0.50
41:DG:137:GLU:HA	41:DG:152:LEU:CD1	2.41	0.50
41:DG:17:PRO:O	41:DG:19:LEU:N	2.44	0.50
41:DG:56:ALA:HB2	41:DG:153:ARG:NH2	2.27	0.50
46:DP:59:LEU:C	46:DP:61:ARG:HD2	2.31	0.50
47:DQ:19:GLY:O	47:DQ:20:ALA:HB3	2.11	0.50
48:DR:44:LEU:O	48:DR:48:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:2:ARG:HD3	48:DR:5:LYS:CE	2.40	0.50
49:DS:87:PHE:CG	49:DS:88:ASP:N	2.78	0.50
49:DS:98:VAL:HG12	49:DS:100:ALA:HB2	1.93	0.50
50:DT:28:VAL:HG22	50:DT:46:GLU:CA	2.41	0.50
52:DV:19:LYS:CG	52:DV:20:LEU:N	2.73	0.50
53:DW:3:ALA:HB2	53:DW:58:ALA:HA	1.91	0.50
53:DW:75:TYR:CD1	53:DW:104:THR:HB	2.47	0.50
55:DY:31:LEU:CB	55:DY:32:PRO:CA	2.89	0.50
55:DY:96:ILE:HG13	55:DY:100:ALA:O	2.11	0.50
56:DZ:33:LEU:HD12	56:DZ:34:ASN:H	1.75	0.50
56:DZ:10:ARG:HD2	56:DZ:36:LYS:HB2	1.93	0.50
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.75	0.50
1:AA:1109:C:P	3:AC:176:HIS:HD1	2.33	0.50
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.12	0.50
1:AA:1413:A:C2	1:AA:1488:G:C2	2.99	0.50
2:AB:209:ARG:HH12	2:AB:236:TYR:HE2	1.59	0.50
3:AC:106:VAL:HG12	3:AC:108:ASN:H	1.76	0.50
3:AC:137:ALA:O	3:AC:141:VAL:HG23	2.12	0.50
9:AI:124:GLN:O	9:AI:125:TYR:CB	2.58	0.50
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.92	0.50
12:AL:102:ARG:O	12:AL:104:VAL:HG23	2.12	0.50
13:AM:54:VAL:O	13:AM:58:GLU:N	2.33	0.50
14:AN:37:PHE:C	14:AN:39:LEU:N	2.64	0.50
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.93	0.50
19:AS:40:ILE:HD13	19:AS:62:ILE:CD1	2.39	0.50
22:AV:41:C:H3'	22:AV:42:C:C5'	2.38	0.50
35:BA:1173:G:C3'	35:BA:1174:A:H5'	2.41	0.50
35:BA:1741:A:H8	35:BA:1742:G:C8	2.29	0.50
35:BA:2786:U:H2'	35:BA:2787:C:H6	1.76	0.50
35:BA:581:C:O2'	35:BA:582:G:H5'	2.11	0.50
35:BA:2127:G:H4'	37:BC:36:LYS:HG2	1.92	0.50
35:BA:1815:A:OP2	38:BD:54:ARG:NH2	2.44	0.50
40:BF:70:THR:O	40:BF:72:ARG:N	2.44	0.50
45:BO:105:GLU:O	45:BO:109:LYS:HG2	2.11	0.50
45:BO:10:VAL:HG21	45:BO:16:ALA:O	2.12	0.50
46:BP:23:PRO:HB2	46:BP:33:ARG:CG	2.41	0.50
47:BQ:32:TYR:CE2	47:BQ:133:ARG:HG2	2.47	0.50
48:BR:63:ARG:O	48:BR:67:LEU:HB2	2.11	0.50
55:BY:20:TYR:CZ	55:BY:42:VAL:HA	2.46	0.50
55:BY:47:LYS:HD2	55:BY:47:LYS:H	1.74	0.50
56:BZ:128:VAL:HG22	56:BZ:129:SER:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:141:GLN:HB3	56:BZ:98:MET:HA	1.92	0.50
1:CA:1316:G:H4'	14:CN:18:VAL:CG1	2.41	0.50
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.47	0.50
1:CA:836:G:C6	1:CA:851:G:C6	3.00	0.50
1:CA:952:U:O2'	1:CA:953:G:H5'	2.11	0.50
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.11	0.50
6:CF:17:SER:C	6:CF:21:LEU:HD23	2.31	0.50
9:CI:27:THR:HG23	9:CI:31:GLN:N	2.27	0.50
11:CK:44:SER:H	11:CK:47:VAL:HG23	1.76	0.50
15:CO:3:ILE:H	15:CO:3:ILE:HD13	1.77	0.50
31:D6:42:TRP:HA	31:D6:42:TRP:HE3	1.76	0.50
31:D6:51:GLU:O	31:D6:52:VAL:CB	2.58	0.50
35:DA:1142(A):A:O2'	35:DA:1143:A:H3'	2.11	0.50
35:DA:1193:G:H2'	35:DA:1194:A:O4'	2.12	0.50
35:DA:1270:C:H5''	35:DA:1271:G:O5'	2.11	0.50
35:DA:1718:G:H2'	35:DA:1719:G:H8	1.77	0.50
22:CV:13:C:O2'	35:DA:1924:C:H4'	2.12	0.50
35:DA:2223:G:C2'	35:DA:2224:G:H5'	2.39	0.50
35:DA:2870:C:O2'	35:DA:2871:C:H5'	2.10	0.50
35:DA:848:G:H2'	35:DA:849:A:C8	2.47	0.50
35:DA:979:G:H3'	35:DA:980:A:C5'	2.40	0.50
35:DA:999:U:H5''	35:DA:1154:G:O6	2.10	0.50
39:DE:30:PRO:HG3	39:DE:180:ASN:HD21	1.77	0.50
46:DP:83:VAL:HG13	46:DP:83:VAL:O	2.12	0.50
47:DQ:116:GLU:O	47:DQ:120:ILE:HG12	2.12	0.50
48:DR:4:LEU:O	48:DR:4:LEU:HD13	2.12	0.50
49:DS:52:SER:O	49:DS:56:LEU:HB3	2.12	0.50
50:DT:124:ASP:C	50:DT:126:ALA:H	2.13	0.50
51:DU:98:LEU:HD13	51:DU:105:VAL:HG11	1.92	0.50
52:DV:19:LYS:HG2	52:DV:94:LEU:CB	2.33	0.50
27:D2:30:ARG:HE	54:DX:5:TYR:HE2	1.60	0.50
55:DY:95:LYS:CD	55:DY:100:ALA:HA	2.41	0.50
47:DQ:137:TYR:OH	56:DZ:81:ARG:NH1	2.44	0.50
1:AA:1027:C:H1'	1:AA:1035:A:C2	2.47	0.50
1:AA:1092:A:O2'	1:AA:1093:A:H5'	2.12	0.50
1:AA:1298:C:P	7:AG:114:ARG:HH22	2.34	0.50
6:AF:12:PRO:HD3	6:AF:58:GLY:HA2	1.92	0.50
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.23	0.50
1:AA:877:C:H1'	8:AH:3:THR:OG1	2.12	0.50
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.11	0.50
9:AI:53:VAL:HG11	9:AI:85:LEU:HD22	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:45:VAL:C	13:AM:47:ASP:H	2.14	0.50
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.72	0.50
35:BA:1349:A:N6	35:BA:1598:C:N4	2.60	0.50
35:BA:2781:A:H5''	35:BA:2782:G:H5'	1.93	0.50
35:BA:315:G:H2'	35:BA:316:C:C6	2.47	0.50
36:BB:29:A:OP2	49:BS:31:SER:HB2	2.11	0.50
38:BD:245:PRO:O	38:BD:246:PRO:C	2.49	0.50
38:BD:249:PRO:HG2	38:BD:250:TRP:CZ3	2.47	0.50
39:BE:116:VAL:HG21	39:BE:122:PHE:CD2	2.46	0.50
39:BE:36:ARG:HD3	39:BE:47:VAL:HG22	1.93	0.50
40:BF:24:LEU:C	40:BF:26:ALA:H	2.13	0.50
41:BG:91:ARG:NH1	41:BG:91:ARG:HG3	2.25	0.50
42:BH:20:ALA:HB2	42:BH:25:LYS:HZ2	1.72	0.50
43:BI:117:GLU:HG3	43:BI:118:LYS:H	1.75	0.50
43:BI:12:LEU:HD23	43:BI:12:LEU:N	2.26	0.50
47:BQ:104:PHE:N	47:BQ:104:PHE:CD2	2.79	0.50
47:BQ:133:ARG:O	47:BQ:134:ARG:CG	2.58	0.50
49:BS:20:ARG:HG2	49:BS:20:ARG:HH11	1.76	0.50
55:BY:38:ILE:HG22	55:BY:39:VAL:N	2.26	0.50
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.47	0.50
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.12	0.50
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.76	0.50
1:CA:1269:A:H5'	21:CU:18:TYR:O	2.10	0.50
1:CA:1367:C:OP1	9:CI:115:GLY:N	2.38	0.50
1:CA:1436:U:H2'	1:CA:1437:C:O4'	2.12	0.50
1:CA:184:G:O4'	1:CA:224:C:H4'	2.12	0.50
1:CA:521:G:H4'	12:CL:73:GLU:OE1	2.10	0.50
1:CA:606:G:H2'	1:CA:631:G:N2	2.27	0.50
2:CB:101:MET:C	2:CB:102:LEU:HD12	2.32	0.50
2:CB:185:ILE:HG12	2:CB:199:TYR:HB2	1.94	0.50
3:CC:16:ARG:HG3	3:CC:17:ASP:N	2.26	0.50
5:CE:75:THR:HB	5:CE:117:ASP:HB2	1.92	0.50
5:CE:16:THR:OG1	5:CE:17:ALA:N	2.45	0.50
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.76	0.50
9:CI:49:PRO:HA	9:CI:101:PHE:CE1	2.46	0.50
20:CT:33:ILE:CD1	20:CT:62:LEU:HB3	2.41	0.50
31:D6:10:LEU:CD1	33:D8:34:TRP:CD1	2.94	0.50
33:D8:19:SER:HB2	33:D8:21:LYS:HG3	1.93	0.50
35:DA:1141:U:H5''	35:DA:1142(A):A:O4'	2.11	0.50
35:DA:143:G:H1'	54:DX:37:THR:CG2	2.37	0.50
35:DA:1665:A:H1'	45:DO:1:MET:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D7:33:ARG:NH1	35:DA:467:G:OP1	2.44	0.50
35:DA:692:C:H2'	35:DA:693:C:H6	1.77	0.50
40:DF:70:THR:O	40:DF:72:ARG:N	2.44	0.50
42:DH:83:TYR:HD1	42:DH:83:TYR:H	1.59	0.50
46:DP:38:GLN:CG	46:DP:41:ARG:HG3	2.41	0.50
47:DQ:60:ARG:HB2	47:DQ:60:ARG:HH11	1.76	0.50
49:DS:101:LEU:HD13	49:DS:101:LEU:H	1.77	0.50
51:DU:21:ALA:HA	51:DU:24:TYR:CE1	2.46	0.50
51:DU:88:ILE:C	51:DU:90:VAL:H	2.13	0.50
55:DY:3:VAL:O	55:DY:3:VAL:HG12	2.10	0.50
1:AA:127:G:HO2'	17:AQ:2:PRO:N	2.08	0.50
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.11	0.50
1:AA:709:G:H2'	1:AA:710:G:H8	1.75	0.50
1:AA:741:G:H4'	15:AO:55:GLY:HA3	1.93	0.50
1:AA:840:C:H4'	1:AA:848:C:O2	2.11	0.50
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.68	0.50
4:AD:156:GLU:O	4:AD:159:ARG:HB2	2.12	0.50
5:AE:90:VAL:C	5:AE:91:LEU:HD22	2.31	0.50
6:AF:5:GLU:HG2	6:AF:62:TRP:CZ2	2.47	0.50
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.27	0.50
1:AA:1128:C:H5''	9:AI:16:ARG:HH12	1.76	0.50
11:AK:125:PHE:N	11:AK:125:PHE:HD1	2.10	0.50
13:AM:28:ALA:C	13:AM:30:ALA:H	2.15	0.50
10:AJ:50:ILE:HG12	14:AN:41:ARG:HE	1.76	0.50
20:AT:89:ARG:HH21	20:AT:89:ARG:HG3	1.76	0.50
20:AT:98:PRO:C	20:AT:100:ILE:H	2.15	0.50
22:AV:40:C:H2'	22:AV:41:C:H6	1.76	0.50
23:AW:6:G:H2'	23:AW:7:A:H5'	1.93	0.50
25:B0:53:MET:HA	25:B0:58:THR:O	2.11	0.50
35:BA:1827:C:H2'	35:BA:1828:G:O4'	2.12	0.50
35:BA:2052:G:O4'	39:BE:142:GLY:HA3	2.12	0.50
35:BA:2111:C:H4'	35:BA:2112:G:OP1	2.11	0.50
35:BA:688:U:H2'	35:BA:689:A:H8	1.77	0.50
35:BA:70:G:H21	35:BA:71:A:N6	2.08	0.50
35:BA:995:C:OP2	51:BU:54:LYS:HD3	2.11	0.50
36:BB:20:C:C3'	36:BB:21:G:H5''	2.42	0.50
41:BG:13:GLU:O	41:BG:14:GLU:HB2	2.11	0.50
41:BG:46:ALA:O	41:BG:51:ARG:HG3	2.12	0.50
48:BR:2:ARG:HH11	48:BR:2:ARG:HG2	1.77	0.50
49:BS:17:ARG:C	49:BS:19:LYS:N	2.64	0.50
49:BS:74:ALA:HB1	49:BS:103:GLU:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BU:8:VAL:HG11	51:BU:12:ARG:NE	2.27	0.50
55:BY:96:ILE:HG22	55:BY:97:ARG:H	1.77	0.50
56:BZ:131:ARG:CG	56:BZ:132:ASN:H	2.24	0.50
1:CA:1042:G:O2'	1:CA:1043:C:H5'	2.12	0.50
1:CA:107:G:N2	1:CA:108:G:H1'	2.27	0.50
1:CA:386:C:O2'	1:CA:387:U:H5'	2.10	0.50
1:CA:390:C:H2'	1:CA:391:G:C8	2.46	0.50
1:CA:554:C:H2'	1:CA:555:C:C6	2.46	0.50
1:CA:586:C:O2'	1:CA:587:G:H5'	2.12	0.50
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.44	0.50
4:CD:3:ARG:HG2	4:CD:3:ARG:HH21	1.76	0.50
5:CE:67:VAL:HG21	5:CE:140:ARG:HA	1.92	0.50
8:CH:40:ALA:C	8:CH:42:GLU:H	2.13	0.50
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB2	1.94	0.50
11:CK:91:ARG:O	11:CK:95:ILE:HD11	2.12	0.50
12:CL:17:LYS:HD3	12:CL:18:VAL:H	1.77	0.50
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.47	0.50
23:CW:18:G:N1	23:CW:55:U:H1'	2.27	0.50
26:D1:56:GLN:HE21	26:D1:56:GLN:HA	1.76	0.50
26:D1:73:LEU:HB3	26:D1:94:LEU:HD21	1.93	0.50
30:D5:35:GLU:O	30:D5:49:CYS:CB	2.59	0.50
33:D8:33:ASN:HA	33:D8:36:LYS:HD2	1.93	0.50
35:DA:1411:C:H2'	35:DA:1412:A:H8	1.75	0.50
35:DA:1832:C:N4	35:DA:1833:U:C4	2.80	0.50
35:DA:2693:A:H2'	35:DA:2694:G:C8	2.47	0.50
35:DA:363(F):A:O2'	35:DA:364:C:H5	1.95	0.50
35:DA:847:U:C2'	35:DA:848:G:H5''	2.39	0.50
35:DA:863:A:O2'	35:DA:864:G:H5'	2.12	0.50
36:DB:74:U:H2'	36:DB:75:G:O4'	2.12	0.50
35:DA:2591:C:OP1	38:DD:239:ARG:HG2	2.12	0.50
38:DD:33:LEU:C	38:DD:36:PRO:HD2	2.32	0.50
35:DA:1658:C:OP1	39:DE:132:HIS:ND1	2.43	0.50
40:DF:53:THR:O	40:DF:57:VAL:HG23	2.11	0.50
41:DG:128:ARG:NE	41:DG:128:ARG:N	2.60	0.50
36:DB:57:A:H5'	41:DG:27:ASN:HD22	1.76	0.50
42:DH:149:ARG:HD3	42:DH:164:TYR:CE1	2.47	0.50
43:DI:115:ALA:HB3	43:DI:129:THR:HG23	1.94	0.50
43:DI:62:LYS:HE2	43:DI:134:PRO:CG	2.41	0.50
44:DN:112:LEU:O	44:DN:116:LEU:HG	2.11	0.50
33:D8:27:THR:HG22	46:DP:61:ARG:HA	1.92	0.50
50:DT:128:GLU:O	50:DT:130:ALA:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:64:ARG:HH11	50:DT:64:ARG:HG2	1.77	0.50
50:DT:64:ARG:CD	50:DT:73:GLU:HG2	2.35	0.50
51:DU:6:THR:O	51:DU:9:VAL:HG23	2.12	0.50
52:DV:15:GLU:O	52:DV:16:PRO:C	2.48	0.50
55:DY:46:LYS:HB3	55:DY:47:LYS:HD2	1.94	0.50
55:DY:17:SER:HB2	55:DY:71:LYS:NZ	2.27	0.50
1:AA:107:G:N2	1:AA:108:G:H1'	2.27	0.50
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.11	0.50
1:AA:1326:C:O2'	1:AA:1327:C:H5'	2.12	0.50
1:AA:389:A:C2'	1:AA:390:C:H5'	2.38	0.50
1:AA:859:A:H2'	1:AA:860:A:O4'	2.11	0.50
3:AC:195:VAL:CG1	3:AC:196:LEU:N	2.75	0.50
3:AC:51:GLY:O	3:AC:115:LEU:HD21	2.12	0.50
6:AF:87:ARG:NH1	6:AF:87:ARG:HG2	2.25	0.50
10:AJ:23:ILE:HG12	10:AJ:85:LEU:HD22	1.94	0.50
12:AL:46:LYS:HB2	12:AL:92:ASP:O	2.12	0.50
15:AO:76:GLU:C	15:AO:78:TYR:N	2.64	0.50
16:AP:51:VAL:O	16:AP:51:VAL:HG12	2.12	0.50
6:AF:97:PHE:CD2	18:AR:31:LEU:HD21	2.47	0.50
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.12	0.50
20:AT:30:LYS:HE2	20:AT:72:LEU:CD2	2.32	0.50
27:B2:38:GLN:O	27:B2:41:ILE:HG12	2.12	0.50
29:B4:46:ASN:HD22	29:B4:47:VAL:N	2.09	0.50
35:BA:1193:G:H2'	35:BA:1194:A:O4'	2.10	0.50
35:BA:176:G:C2'	35:BA:177:G:H5'	2.42	0.50
35:BA:1926:U:H2'	35:BA:1928:A:OP2	2.11	0.50
35:BA:2098:U:H2'	35:BA:2099:U:O4'	2.11	0.50
35:BA:2469:A:H3'	35:BA:2470:G:O4'	2.12	0.50
35:BA:407:G:H2'	35:BA:408:G:C8	2.47	0.50
35:BA:558:G:OP1	44:BN:111:PRO:HD2	2.10	0.50
35:BA:2127:G:C5'	37:BC:36:LYS:HG2	2.41	0.50
37:BC:51:PRO:O	37:BC:52:ARG:HB2	2.11	0.50
38:BD:11:PRO:O	38:BD:13:ARG:N	2.39	0.50
38:BD:168:ARG:HG3	38:BD:168:ARG:HH11	1.77	0.50
39:BE:117:MET:HA	39:BE:122:PHE:N	2.19	0.50
48:BR:78:LYS:O	48:BR:83:ILE:HG12	2.11	0.50
49:BS:19:LYS:C	49:BS:20:ARG:NH1	2.65	0.50
1:CA:1276:G:H2'	1:CA:1277:C:H5'	1.93	0.50
1:CA:1313:U:OP1	19:CS:6:LYS:HB2	2.11	0.50
1:CA:34:C:H2'	1:CA:35:G:C8	2.47	0.50
1:CA:848:C:O2'	1:CA:849:C:H5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:68:ILE:H	2:CB:90:MET:HE2	1.77	0.50
8:CH:87:SER:HA	8:CH:93:VAL:CG2	2.40	0.50
10:CJ:16:LEU:HD13	10:CJ:17:ASP:N	2.26	0.50
10:CJ:99:LYS:O	10:CJ:100:THR:HG23	2.11	0.50
10:CJ:50:ILE:HG12	14:CN:41:ARG:HE	1.76	0.50
16:CP:25:ARG:HG3	16:CP:25:ARG:HH11	1.77	0.50
17:CQ:25:ARG:O	17:CQ:25:ARG:HG2	2.11	0.50
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.76	0.50
22:CV:34:G:H2'	22:CV:35:A:C8	2.47	0.50
27:D2:53:LEU:O	27:D2:57:ILE:HG12	2.11	0.50
33:D8:7:HIS:CD2	46:DP:50:ARG:HD3	2.47	0.50
35:DA:1722:A:O2'	35:DA:1739:U:H5''	2.12	0.50
35:DA:2100:G:H1	35:DA:2189:U:H3	1.60	0.50
35:DA:2127:G:H2'	35:DA:2128:C:H6	1.77	0.50
35:DA:2159:G:N2	35:DA:2160:G:H1'	2.26	0.50
35:DA:285:C:H2'	35:DA:286:C:O4'	2.12	0.50
35:DA:408:G:O2'	35:DA:409:C:H5'	2.11	0.50
35:DA:542:C:H2'	35:DA:543:C:OP1	2.11	0.50
35:DA:719:C:O2'	35:DA:720:C:H5'	2.12	0.50
39:DE:14:ILE:O	39:DE:20:ALA:HA	2.12	0.50
41:DG:135:LEU:HD13	41:DG:155:MET:CE	2.42	0.50
43:DI:79:ILE:HD11	43:DI:100:ALA:CB	2.42	0.50
45:DO:31:LYS:HB3	45:DO:32:TYR:CE1	2.47	0.50
46:DP:57:THR:OG1	46:DP:59:LEU:HB3	2.12	0.50
49:DS:53:SER:OG	49:DS:54:LEU:N	2.45	0.50
53:DW:10:VAL:O	53:DW:11:ARG:HB2	2.11	0.50
1:AA:375:U:H2'	1:AA:376:G:H8	1.77	0.50
2:AB:136:VAL:O	2:AB:140:HIS:HB2	2.11	0.50
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.34	0.50
3:AC:42:LEU:O	3:AC:45:LYS:HB2	2.11	0.50
5:AE:71:LEU:HD13	5:AE:114:GLY:O	2.11	0.50
9:AI:27:THR:HG23	9:AI:31:GLN:N	2.27	0.50
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.73	0.50
16:AP:81:ARG:HD3	16:AP:83:GLU:OE2	2.11	0.50
1:AA:958:A:C8	19:AS:55:LYS:HD2	2.47	0.50
22:AY:16:U:H2'	22:AY:17:C:H5'	1.94	0.50
35:BA:1528(A):A:N7	35:BA:1529:G:H8	2.09	0.50
35:BA:1528:A:H2'	35:BA:1528:A:N3	2.26	0.50
35:BA:2494:G:H2'	35:BA:2495:G:H8	1.76	0.50
36:BB:87:G:H1	36:BB:91:C:N4	2.09	0.50
40:BF:125:LEU:N	40:BF:125:LEU:HD22	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:164:ARG:O	40:BF:166:ALA:N	2.45	0.50
41:BG:69:ALA:O	41:BG:90:LEU:HG	2.12	0.50
42:BH:68:THR:HG22	42:BH:72:ILE:HD11	1.93	0.50
45:BO:19:ILE:HG22	45:BO:43:VAL:HA	1.93	0.50
51:BU:92:ARG:CG	51:BU:92:ARG:HH11	2.25	0.50
32:B7:47:ARG:NH1	54:BX:60:ARG:HH22	2.09	0.50
55:BY:15:VAL:O	55:BY:16:ALA:CB	2.59	0.50
55:BY:88:LYS:O	55:BY:89:PHE:HB2	2.12	0.50
56:BZ:144:LEU:HD21	56:BZ:149:SER:CB	2.42	0.50
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.75	0.50
1:CA:232:G:H2'	1:CA:233:C:H6	1.77	0.50
1:CA:647:C:H2'	1:CA:648:A:H8	1.77	0.50
8:CH:48:TYR:HB2	8:CH:60:ARG:O	2.11	0.50
12:CL:102:ARG:O	12:CL:104:VAL:HG23	2.12	0.50
12:CL:83:VAL:CG1	12:CL:84:LEU:N	2.74	0.50
3:CC:30:ARG:HH22	14:CN:35:ARG:HA	1.76	0.50
18:CR:36:ASN:ND2	18:CR:39:VAL:CG2	2.65	0.50
22:CV:28:G:C2'	22:CV:29:G:H5'	2.42	0.50
23:CW:38:A:C2'	23:CW:39:U:H5''	2.42	0.50
24:CX:13:A:H2'	24:CX:13:A:N3	2.26	0.50
26:D1:86:SER:O	26:D1:89:GLU:N	2.45	0.50
30:D5:33:CYS:HG	30:D5:36:CYS:HB2	1.75	0.50
35:DA:1528:A:H2'	35:DA:1528:A:N3	2.27	0.50
35:DA:1658:C:H2'	35:DA:1659:U:C6	2.47	0.50
35:DA:1854:A:H3'	35:DA:1855:G:C8	2.44	0.50
35:DA:528:A:C2	35:DA:2043:C:C5'	2.94	0.50
35:DA:2172:U:C3'	35:DA:2173:A:H8	2.25	0.50
35:DA:957:A:N6	35:DA:2459:A:C8	2.80	0.50
37:DC:169:GLY:O	37:DC:171:ILE:N	2.44	0.50
38:DD:166:GLN:HA	38:DD:166:GLN:NE2	2.26	0.50
38:DD:249:PRO:HG2	38:DD:250:TRP:CE3	2.47	0.50
43:DI:12:LEU:N	43:DI:12:LEU:HD23	2.27	0.50
43:DI:4:ILE:HD11	43:DI:44:LEU:HD13	1.94	0.50
44:DN:89:LYS:O	44:DN:93:THR:HG23	2.12	0.50
47:DQ:134:ARG:HA	47:DQ:137:TYR:CD1	2.46	0.50
48:DR:50:HIS:O	48:DR:54:LEU:HD12	2.12	0.50
50:DT:55:ASN:N	50:DT:59:THR:HB	2.26	0.50
50:DT:85:LYS:HG2	50:DT:85:LYS:O	2.11	0.50
51:DU:90:VAL:CG2	52:DV:47:VAL:HG21	2.41	0.50
55:DY:96:ILE:HG22	55:DY:97:ARG:H	1.76	0.50
1:AA:1411:C:C2'	1:AA:1412:C:H5'	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:26:A:H61	1:AA:558:G:H1'	1.74	0.50
1:AA:591:U:H2'	1:AA:592:G:H8	1.77	0.50
1:AA:820:U:H4'	1:AA:821:G:OP2	2.11	0.50
11:AK:21:ILE:CD1	11:AK:82:VAL:HG13	2.42	0.50
12:AL:82:VAL:O	12:AL:106:ASP:HB2	2.12	0.50
16:AP:25:ARG:HH11	16:AP:25:ARG:HG3	1.76	0.50
16:AP:50:LYS:NZ	16:AP:52:ASP:HA	2.27	0.50
26:B1:23:LYS:HE2	26:B1:28:GLY:HA3	1.92	0.50
33:B8:6:THR:CA	33:B8:61:LEU:HD11	2.42	0.50
34:B9:17:ILE:HG12	34:B9:26:ILE:HD11	1.94	0.50
35:BA:1336:A:H2'	35:BA:1337:G:C8	2.47	0.50
35:BA:408:G:O2'	35:BA:409:C:H5'	2.12	0.50
43:BI:78:THR:OG1	43:BI:141:LYS:HD2	2.11	0.50
52:BV:2:PHE:O	52:BV:3:ALA:CB	2.60	0.50
52:BV:46:VAL:HG22	52:BV:47:VAL:N	2.23	0.50
52:BV:85:LYS:HZ3	52:BV:85:LYS:HB2	1.77	0.50
35:BA:329:G:H1	55:BY:19:LYS:NZ	2.09	0.50
55:BY:46:LYS:HD3	55:BY:47:LYS:HZ2	1.74	0.50
56:BZ:120:ILE:HB	56:BZ:171:ILE:C	2.31	0.50
1:CA:375:U:H2'	1:CA:376:G:H8	1.76	0.50
1:CA:811:C:H4'	1:CA:900:A:N6	2.26	0.50
1:CA:859:A:H2'	1:CA:860:A:O4'	2.12	0.50
1:CA:975:A:C4'	1:CA:976:G:H5''	2.30	0.50
3:CC:51:GLY:O	3:CC:115:LEU:HD21	2.12	0.50
4:CD:60:GLU:O	4:CD:63:LYS:HB3	2.12	0.50
5:CE:136:MET:C	5:CE:138:ALA:H	2.15	0.50
12:CL:82:VAL:O	12:CL:106:ASP:HB2	2.12	0.50
19:CS:16:LEU:H	19:CS:16:LEU:CD1	2.25	0.50
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.32	0.50
22:CY:21:A:N6	22:CY:46:G:C2	2.80	0.50
25:D0:53:MET:HA	25:D0:58:THR:O	2.12	0.50
31:D6:15:GLU:HG3	31:D6:47:THR:OG1	2.11	0.50
31:D6:47:THR:CG2	31:D6:48:VAL:H	2.20	0.50
33:D8:23:VAL:HG12	33:D8:46:ARG:HB3	1.94	0.50
35:DA:579:G:H2'	35:DA:580:C:C6	2.47	0.50
35:DA:623:G:H2'	35:DA:624:C:C6	2.47	0.50
37:DC:51:PRO:O	37:DC:52:ARG:HB2	2.12	0.50
38:DD:206:LEU:HD23	38:DD:211:ARG:NH1	2.27	0.50
35:DA:1568:G:P	38:DD:63:ARG:HH22	2.35	0.50
40:DF:7:TYR:HB2	40:DF:17:ARG:N	2.27	0.50
41:DG:135:LEU:N	41:DG:135:LEU:HD12	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:101:LEU:HG	43:DI:109:ILE:CD1	2.41	0.50
46:DP:101:VAL:HG23	46:DP:102:ARG:N	2.26	0.50
46:DP:8:PRO:C	46:DP:10:PRO:HD2	2.32	0.50
47:DQ:18:LYS:O	47:DQ:98:LYS:HD3	2.11	0.50
48:DR:48:VAL:O	48:DR:49:ASP:C	2.49	0.50
50:DT:62:THR:HG22	50:DT:75:ILE:HA	1.92	0.50
51:DU:104:GLN:OE1	51:DU:104:GLN:N	2.45	0.50
52:DV:39:LEU:HD12	52:DV:50:PRO:O	2.12	0.50
32:D7:47:ARG:NH1	54:DX:60:ARG:HH22	2.09	0.50
1:AA:1276:G:H2'	1:AA:1277:C:H5'	1.94	0.49
1:AA:294:U:H2'	1:AA:295:C:C6	2.47	0.49
1:AA:627:G:O2'	1:AA:628:G:H5'	2.11	0.49
1:AA:690:G:H2'	1:AA:691:G:C8	2.47	0.49
1:AA:829:G:O2'	1:AA:830:G:H5'	2.12	0.49
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.48	0.49
4:AD:19:LEU:HD13	4:AD:21:LEU:HG	1.94	0.49
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.32	0.49
10:AJ:30:SER:HB2	10:AJ:80:LYS:O	2.11	0.49
12:AL:17:LYS:HD3	12:AL:18:VAL:H	1.77	0.49
16:AP:34:GLU:HG2	16:AP:35:LYS:N	2.27	0.49
19:AS:41:VAL:O	19:AS:44:MET:SD	2.69	0.49
33:B8:46:ARG:O	33:B8:47:LYS:HB3	2.12	0.49
35:BA:1157:G:O2'	35:BA:1158:C:H5'	2.12	0.49
35:BA:2150:U:H2'	35:BA:2151:G:H8	1.71	0.49
35:BA:2402:C:C2'	35:BA:2403:C:H5'	2.42	0.49
35:BA:2739:U:O2'	35:BA:2740:A:H5'	2.12	0.49
35:BA:729:G:H2'	35:BA:1775:U:O2	2.11	0.49
36:BB:40:U:H1'	36:BB:45:A:N6	2.25	0.49
36:BB:40:U:HO2'	36:BB:43:C:H5	1.60	0.49
36:BB:51:G:H5'	36:BB:52:A:OP2	2.12	0.49
39:BE:87:GLU:HG3	39:BE:87:GLU:O	2.12	0.49
43:BI:62:LYS:HE2	43:BI:134:PRO:CG	2.42	0.49
46:BP:23:PRO:HB2	46:BP:33:ARG:NE	2.26	0.49
46:BP:8:PRO:O	46:BP:9:ASN:HB3	2.11	0.49
47:BQ:111:GLU:O	47:BQ:115:MET:HG2	2.12	0.49
47:BQ:18:LYS:O	47:BQ:98:LYS:HD3	2.11	0.49
55:BY:49:VAL:O	55:BY:50:ARG:HB2	2.12	0.49
56:BZ:31:ARG:HB3	56:BZ:31:ARG:CZ	2.39	0.49
1:CA:1095:U:C5'	1:CA:1109:C:O2	2.60	0.49
1:CA:1191:A:H5''	3:CC:4:LYS:HZ2	1.77	0.49
1:CA:1298:C:P	7:CG:114:ARG:HH22	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:95:GLN:HE21	2:CB:147:LYS:HE3	1.75	0.49
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.25	0.49
4:CD:102:ASP:HA	4:CD:121:VAL:HG21	1.93	0.49
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.12	0.49
12:CL:46:LYS:HB2	12:CL:92:ASP:O	2.12	0.49
18:CR:63:GLN:OE1	18:CR:63:GLN:HA	2.11	0.49
22:CV:63:G:H2'	22:CV:64:A:H8	1.76	0.49
31:D6:47:THR:CG2	31:D6:48:VAL:N	2.75	0.49
33:D8:33:ASN:HA	33:D8:36:LYS:HD3	1.92	0.49
35:DA:1234:U:H2'	35:DA:1235:G:H5'	1.92	0.49
35:DA:1339:G:N2	35:DA:1603:A:H1'	2.27	0.49
35:DA:1582:C:O2'	35:DA:1586:A:C8	2.65	0.49
35:DA:1987:G:C5'	35:DA:1987:G:H8	2.23	0.49
35:DA:2502:G:H5''	35:DA:2503:A:H5''	1.94	0.49
35:DA:2811:G:O2'	35:DA:2812:G:H5'	2.12	0.49
35:DA:740:U:H2'	35:DA:741:G:C8	2.47	0.49
35:DA:807:U:O2'	35:DA:808:G:H5'	2.12	0.49
35:DA:90:U:H2'	35:DA:90:U:O2	2.11	0.49
38:DD:37:LEU:HD12	38:DD:64:ILE:CG2	2.42	0.49
35:DA:1815:A:OP2	38:DD:54:ARG:NH2	2.45	0.49
39:DE:104:VAL:HG11	39:DE:188:VAL:CG2	2.26	0.49
39:DE:110:GLY:HA2	39:DE:162:ALA:N	2.27	0.49
39:DE:174:ASP:HB3	39:DE:183:LEU:HD22	1.93	0.49
42:DH:76:VAL:O	42:DH:79:VAL:HG22	2.12	0.49
43:DI:41:GLU:HA	43:DI:44:LEU:HB3	1.94	0.49
46:DP:102:ARG:O	46:DP:103:ALA:HB2	2.12	0.49
46:DP:139:LYS:C	46:DP:141:ALA:H	2.16	0.49
47:DQ:58:PHE:HD1	47:DQ:58:PHE:O	1.95	0.49
48:DR:53:HIS:HA	48:DR:56:LYS:HD3	1.93	0.49
1:CA:1442(A):G:H22	50:DT:119:LYS:HB2	1.77	0.49
52:DV:82:ARG:HD2	52:DV:82:ARG:N	2.27	0.49
55:DY:20:TYR:CZ	55:DY:42:VAL:HA	2.47	0.49
55:DY:47:LYS:CD	55:DY:47:LYS:N	2.73	0.49
1:AA:1291:G:O2'	1:AA:1292:U:H5'	2.12	0.49
1:AA:17:U:H2'	1:AA:18:C:H6	1.72	0.49
1:AA:232:G:H2'	1:AA:233:C:C6	2.48	0.49
1:AA:335:C:H2'	1:AA:336:C:C6	2.47	0.49
1:AA:769:G:O2'	1:AA:770:C:H5'	2.12	0.49
2:AB:95:GLN:HE21	2:AB:147:LYS:HE3	1.76	0.49
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.70	0.49
4:AD:162:LEU:CD1	4:AD:181:MET:HG2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:45:ILE:C	8:AH:47:GLY:H	2.15	0.49
12:AL:85:ILE:CG2	12:AL:98:TYR:HB3	2.42	0.49
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.12	0.49
20:AT:45:GLN:C	20:AT:47:GLY:N	2.65	0.49
28:B3:31:LEU:C	28:B3:33:GLN:H	2.14	0.49
31:B6:15:GLU:CA	31:B6:47:THR:HG21	2.40	0.49
35:BA:137:C:O2	35:BA:137:C:H2'	2.12	0.49
35:BA:2208:A:H1'	35:BA:2219:G:C4	2.47	0.49
35:BA:2377:A:H2'	35:BA:2378:A:C8	2.46	0.49
35:BA:2693:A:H2'	35:BA:2694:G:C8	2.47	0.49
35:BA:2736:G:H2'	35:BA:2737:G:H8	1.77	0.49
35:BA:30:G:H2'	35:BA:31:C:C6	2.47	0.49
35:BA:706:A:H2'	35:BA:707:G:O4'	2.11	0.49
36:BB:94:C:H2'	36:BB:95:C:H6	1.76	0.49
38:BD:33:LEU:C	38:BD:36:PRO:HD2	2.31	0.49
38:BD:44:ASN:ND2	38:BD:47:GLY:O	2.44	0.49
39:BE:114:ALA:HB3	39:BE:160:TYR:HB3	1.94	0.49
41:BG:36:LYS:HE2	41:BG:160:VAL:HG21	1.93	0.49
41:BG:91:ARG:HG2	41:BG:92:VAL:N	2.27	0.49
43:BI:118:LYS:HZ1	43:BI:119:PRO:HG2	1.76	0.49
44:BN:101:HIS:O	44:BN:102:ALA:C	2.50	0.49
44:BN:55:VAL:O	44:BN:56:ASN:C	2.50	0.49
44:BN:62:VAL:HG13	44:BN:62:VAL:O	2.11	0.49
44:BN:91:LEU:HA	44:BN:95:PRO:HB3	1.93	0.49
48:BR:2:ARG:N	48:BR:2:ARG:HD2	2.27	0.49
51:BU:90:VAL:CG2	52:BV:47:VAL:HG21	2.38	0.49
52:BV:76:LYS:HB2	52:BV:81:TYR:HB3	1.92	0.49
1:CA:1004:A:C3'	1:CA:1005:A:H5'	2.42	0.49
1:CA:116:A:H2'	1:CA:117:G:O4'	2.12	0.49
1:CA:1291:G:O2'	1:CA:1292:U:H5'	2.12	0.49
1:CA:708:C:H2'	1:CA:709:G:C8	2.47	0.49
2:CB:136:VAL:O	2:CB:140:HIS:HB2	2.11	0.49
3:CC:106:VAL:HG12	3:CC:108:ASN:H	1.76	0.49
1:CA:438:G:H4'	4:CD:123:HIS:HD1	1.76	0.49
4:CD:13:ARG:O	4:CD:15:GLU:N	2.43	0.49
4:CD:19:LEU:HD13	4:CD:21:LEU:HG	1.94	0.49
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.12	0.49
7:CG:143:ARG:NH1	23:CW:42:C:H5''	2.26	0.49
9:CI:114:TYR:HD2	9:CI:114:TYR:N	2.05	0.49
13:CM:28:ALA:C	13:CM:30:ALA:H	2.16	0.49
14:CN:37:PHE:O	14:CN:39:LEU:HG	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.33	0.49
35:DA:1137:G:H2'	35:DA:1138:G:H8	1.76	0.49
35:DA:1484:G:H22	35:DA:1505:C:H5	1.60	0.49
30:D5:2:ALA:CA	35:DA:2015:A:H1'	2.35	0.49
35:DA:2239:G:H5'	38:DD:251:GLY:HA3	1.92	0.49
35:DA:2739:U:O2'	35:DA:2740:A:H5'	2.12	0.49
35:DA:699:A:H2'	35:DA:700:G:O4'	2.12	0.49
37:DC:187:ASP:C	37:DC:189:ILE:H	2.15	0.49
35:DA:2511:U:O3'	39:DE:123:ALA:HB3	2.12	0.49
40:DF:25:PRO:HG3	40:DF:119:ARG:HD3	1.94	0.49
41:DG:120:LEU:N	41:DG:179:PRO:O	2.46	0.49
41:DG:167:GLU:CD	41:DG:167:GLU:H	2.14	0.49
42:DH:68:THR:O	42:DH:70:THR:O	2.30	0.49
44:DN:35:ARG:O	44:DN:37:LYS:N	2.45	0.49
46:DP:101:VAL:CG2	46:DP:102:ARG:N	2.74	0.49
35:DA:637:A:H2'	46:DP:117:GLU:OE2	2.11	0.49
46:DP:146:VAL:HG13	46:DP:147:LEU:H	1.75	0.49
46:DP:32:THR:O	46:DP:33:ARG:CB	2.60	0.49
46:DP:88:LEU:N	46:DP:88:LEU:HD12	2.26	0.49
56:DZ:130:PRO:O	56:DZ:133:ILE:HG13	2.11	0.49
56:DZ:28:MET:HE2	56:DZ:33:LEU:HD21	1.95	0.49
56:DZ:5:LEU:CD1	56:DZ:43:GLU:HB3	2.43	0.49
1:AA:1183:A:H5''	1:AA:1184:G:OP2	2.12	0.49
1:AA:627:G:H2'	1:AA:628:G:C8	2.47	0.49
1:AA:644:G:C2'	1:AA:645:C:H5'	2.42	0.49
1:AA:783:C:O2'	1:AA:784:C:H5'	2.12	0.49
4:AD:52:SER:O	4:AD:55:ALA:HB3	2.11	0.49
8:AH:54:ASP:O	8:AH:56:LYS:HG3	2.12	0.49
1:AA:1151:A:N3	10:AJ:39:PRO:HG3	2.27	0.49
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.94	0.49
11:AK:73:MET:SD	11:AK:103:LEU:HD21	2.52	0.49
1:AA:750:G:H1'	15:AO:23:GLY:H	1.77	0.49
20:AT:53:LEU:HD13	20:AT:102:GLY:HA3	1.93	0.49
25:B0:29:GLN:HG2	35:BA:923:C:C4'	2.41	0.49
25:B0:34:GLY:HA3	35:BA:2353:G:H1'	1.94	0.49
27:B2:24:LEU:O	27:B2:28:LYS:HG2	2.12	0.49
30:B5:36:CYS:HB3	30:B5:38:ALA:HB3	1.94	0.49
31:B6:28:ARG:CZ	31:B6:28:ARG:HA	2.43	0.49
35:BA:1817:G:H2'	35:BA:1818:U:H5'	1.94	0.49
35:BA:2030:A:H4'	35:BA:2031:A:H8	1.78	0.49
35:BA:263:C:O2'	35:BA:264:C:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:549:G:H2'	35:BA:551:G:C5'	2.40	0.49
37:BC:187:ASP:C	37:BC:189:ILE:H	2.15	0.49
37:BC:72:VAL:HG11	37:BC:160:ARG:O	2.12	0.49
41:BG:39:ILE:HG23	41:BG:92:VAL:CG1	2.42	0.49
43:BI:129:THR:HA	43:BI:137:PRO:HA	1.93	0.49
46:BP:101:VAL:O	46:BP:103:ALA:N	2.40	0.49
46:BP:46:LYS:HG2	46:BP:52:GLU:CG	2.43	0.49
47:BQ:60:ARG:HH11	47:BQ:60:ARG:HB2	1.76	0.49
48:BR:50:HIS:O	48:BR:54:LEU:HD12	2.12	0.49
48:BR:79:LEU:HA	48:BR:83:ILE:CG1	2.43	0.49
49:BS:106:ARG:NH2	49:BS:109:GLY:N	2.61	0.49
51:BU:104:GLN:CD	51:BU:104:GLN:H	2.15	0.49
56:BZ:5:LEU:HD23	56:BZ:6:LYS:N	2.27	0.49
1:CA:1000:U:H2'	1:CA:1001:A:H8	1.77	0.49
1:CA:1425:U:H2'	1:CA:1426:C:C6	2.47	0.49
1:CA:386:C:C2'	1:CA:387:U:H5'	2.41	0.49
1:CA:674:G:H2'	1:CA:675:A:C8	2.45	0.49
1:CA:801:U:H2'	1:CA:802:A:H8	1.75	0.49
1:CA:826:C:H5'	8:CH:12:ARG:NH2	2.27	0.49
2:CB:114:ARG:O	2:CB:118:LEU:HG	2.12	0.49
5:CE:71:LEU:HD13	5:CE:114:GLY:O	2.12	0.49
6:CF:17:SER:O	6:CF:20:ALA:N	2.45	0.49
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.94	0.49
7:CG:81:GLY:C	7:CG:83:ALA:H	2.16	0.49
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.94	0.49
8:CH:97:VAL:HA	8:CH:100:ILE:CD1	2.42	0.49
12:CL:28:LYS:CE	12:CL:33:ARG:HH22	2.25	0.49
14:CN:37:PHE:C	14:CN:39:LEU:N	2.65	0.49
16:CP:82:GLN:N	16:CP:82:GLN:HE21	2.09	0.49
17:CQ:67:LYS:O	17:CQ:68:ARG:C	2.50	0.49
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.12	0.49
22:CV:56:C:H2'	22:CV:57:G:H8	1.77	0.49
27:D2:31:GLU:HB3	27:D2:53:LEU:HD11	1.94	0.49
31:D6:16:CYS:O	31:D6:17:LYS:CB	2.58	0.49
35:DA:100:G:OP2	35:DA:100:G:H4'	2.12	0.49
35:DA:1268:A:H2'	35:DA:1269:A:O4'	2.13	0.49
35:DA:1497:U:C5'	35:DA:1498:C:C5	2.95	0.49
35:DA:1506:C:H2'	35:DA:1506:C:O2	2.11	0.49
35:DA:1663:C:HO2'	35:DA:1664:A:H8	1.61	0.49
35:DA:2029:G:H2'	35:DA:2031:A:OP1	2.11	0.49
35:DA:225:A:H2'	35:DA:226:G:H5'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2307:G:C2	35:DA:2308:G:H5''	2.47	0.49
35:DA:2837:G:H2'	35:DA:2838:G:H8	1.77	0.49
38:DD:240:ALA:HB1	38:DD:241:PRO:HD2	1.94	0.49
38:DD:27:THR:CG2	38:DD:27:THR:O	2.59	0.49
38:DD:31:LYS:O	38:DD:35:LYS:HD3	2.13	0.49
40:DF:10:PRO:HG2	40:DF:11:VAL:H	1.77	0.49
40:DF:205:ARG:O	40:DF:205:ARG:HG2	2.11	0.49
35:DA:2657:A:O2'	42:DH:160:LYS:HE2	2.11	0.49
42:DH:27:LYS:HE3	42:DH:32:GLU:OE1	2.11	0.49
42:DH:47:GLU:CG	42:DH:48:GLY:N	2.63	0.49
44:DN:57:ALA:O	44:DN:58:ASP:O	2.31	0.49
50:DT:89:VAL:HB	50:DT:91:ARG:NE	2.27	0.49
50:DT:91:ARG:C	50:DT:93:ARG:H	2.15	0.49
51:DU:92:ARG:NH2	52:DV:11:GLN:HB2	2.25	0.49
52:DV:2:PHE:O	52:DV:3:ALA:CB	2.60	0.49
52:DV:38:LEU:O	52:DV:51:VAL:HG13	2.12	0.49
52:DV:74:LYS:HB2	52:DV:83:ARG:HB2	1.94	0.49
35:DA:2012:G:H4'	53:DW:96:ILE:HD11	1.94	0.49
55:DY:51:VAL:O	55:DY:51:VAL:HG12	2.12	0.49
1:AA:1054:C:H2'	1:AA:1054:C:O2	2.12	0.49
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.47	0.49
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.76	0.49
1:AA:848:C:O2'	1:AA:849:C:H5'	2.12	0.49
1:AA:882:C:O2'	1:AA:883:C:H5'	2.12	0.49
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.45	0.49
2:AB:223:ILE:HG22	2:AB:226:ARG:NH2	2.23	0.49
3:AC:3:ASN:O	3:AC:4:LYS:C	2.51	0.49
4:AD:3:ARG:HG2	4:AD:3:ARG:HH21	1.77	0.49
7:AG:115:ARG:O	7:AG:119:ARG:HG3	2.12	0.49
7:AG:28:ASN:O	7:AG:31:MET:HB3	2.12	0.49
8:AH:112:LEU:HA	8:AH:134:ILE:CG1	2.38	0.49
9:AI:18:PHE:HB2	9:AI:62:TYR:O	2.13	0.49
9:AI:80:GLY:O	9:AI:83:ARG:HB3	2.13	0.49
10:AJ:40:LEU:HD21	10:AJ:69:ASN:HB3	1.92	0.49
12:AL:102:ARG:CG	12:AL:102:ARG:HH11	2.22	0.49
14:AN:31:ARG:HH11	14:AN:31:ARG:HG3	1.77	0.49
3:AC:30:ARG:HH22	14:AN:35:ARG:HA	1.77	0.49
22:AY:74:C:H2'	22:AY:75:C:C5'	2.43	0.49
25:B0:32:ARG:O	25:B0:35:ASN:ND2	2.44	0.49
26:B1:69:LYS:O	26:B1:73:LEU:HD12	2.12	0.49
28:B3:1:MET:O	28:B3:3:ARG:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1678:G:N2	35:BA:1989:G:H22	2.10	0.49
35:BA:1707:G:H2'	35:BA:1708:C:C6	2.47	0.49
35:BA:1798:U:H5'	38:BD:259:THR:HG23	1.89	0.49
35:BA:2154:G:O2'	35:BA:2155:G:H5'	2.12	0.49
35:BA:2172:U:C3'	35:BA:2173:A:H8	2.25	0.49
35:BA:2313:C:H5'	35:BA:2313:C:H6	1.78	0.49
35:BA:2443:C:O2'	35:BA:2444:G:H5'	2.12	0.49
35:BA:752:A:O2'	35:BA:753:C:OP2	2.26	0.49
35:BA:2591:C:OP1	38:BD:239:ARG:HG2	2.12	0.49
41:BG:33:ARG:N	41:BG:162:THR:OG1	2.44	0.49
44:BN:28:THR:HA	44:BN:106:MET:CE	2.42	0.49
45:BO:25:LEU:O	45:BO:26:LYS:HG3	2.13	0.49
46:BP:140:ALA:O	46:BP:141:ALA:HB3	2.13	0.49
46:BP:95:VAL:HG23	46:BP:95:VAL:O	2.13	0.49
49:BS:61:ASN:O	49:BS:65:VAL:HG23	2.12	0.49
36:BB:50:G:OP1	49:BS:63:THR:HG23	2.11	0.49
51:BU:12:ARG:O	51:BU:15:LYS:HD3	2.12	0.49
51:BU:98:LEU:CD2	52:BV:2:PHE:HZ	2.23	0.49
52:BV:82:ARG:HG2	52:BV:82:ARG:HH11	1.75	0.49
53:BW:37:ARG:HG3	53:BW:37:ARG:HH11	1.77	0.49
55:BY:13:VAL:HA	55:BY:75:ILE:HG22	1.95	0.49
56:BZ:151:HIS:CD2	56:BZ:170:THR:HA	2.46	0.49
56:BZ:24:LEU:O	56:BZ:24:LEU:HD23	2.12	0.49
56:BZ:5:LEU:HD23	56:BZ:6:LYS:H	1.78	0.49
1:CA:1027:C:H1'	1:CA:1035:A:C2	2.47	0.49
1:CA:1188:A:H2'	1:CA:1189:C:H5'	1.95	0.49
1:CA:1321:C:C5'	1:CA:1322:C:C5'	2.86	0.49
1:CA:1342:C:H4'	9:CI:124:GLN:O	2.13	0.49
1:CA:376:G:H5''	16:CP:5:ARG:HD2	1.95	0.49
1:CA:443:C:H2'	1:CA:444:C:C6	2.48	0.49
1:CA:596:C:H2'	1:CA:597:G:H8	1.77	0.49
1:CA:633:G:H5'	1:CA:634:C:OP2	2.12	0.49
2:CB:50:GLU:HG3	2:CB:202:PRO:CG	2.42	0.49
7:CG:28:ASN:O	7:CG:31:MET:HB3	2.12	0.49
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	2.12	0.49
10:CJ:29:ARG:HH22	10:CJ:84:GLN:CD	2.15	0.49
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.93	0.49
11:CK:44:SER:H	11:CK:47:VAL:HG21	1.77	0.49
12:CL:102:ARG:CG	12:CL:102:ARG:HH11	2.24	0.49
13:CM:13:LYS:O	13:CM:45:VAL:HG23	2.12	0.49
16:CP:34:GLU:HG2	16:CP:35:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:62:SER:OG	17:CQ:72:ARG:NE	2.46	0.49
23:CW:18:G:H1	23:CW:55:U:H1'	1.77	0.49
27:D2:38:GLN:O	27:D2:41:ILE:HG12	2.12	0.49
29:D4:45:GLY:O	29:D4:46:ASN:O	2.29	0.49
35:DA:1528(A):A:N7	35:DA:1529:G:H8	2.10	0.49
35:DA:152:G:H2'	35:DA:153:C:O4'	2.12	0.49
35:DA:1591:G:C8	35:DA:1591:G:H5'	2.41	0.49
35:DA:1785:A:OP2	35:DA:1982:C:H5'	2.12	0.49
35:DA:1799:G:H5'	35:DA:1819:A:H61	1.76	0.49
35:DA:2133:G:H21	35:DA:2158:A:H62	1.59	0.49
35:DA:2419:U:O2'	35:DA:2420:C:H5'	2.12	0.49
35:DA:271(T):C:O2'	35:DA:271(U):G:H5'	2.12	0.49
35:DA:2723:C:H5''	48:DR:2:ARG:CD	2.42	0.49
35:DA:2863:C:C3'	35:DA:2864:G:H5''	2.42	0.49
38:DD:249:PRO:HG2	38:DD:250:TRP:CZ3	2.47	0.49
39:DE:109:LYS:HB2	48:DR:2:ARG:HH22	1.77	0.49
47:DQ:21:THR:CG2	47:DQ:101:ARG:HH11	2.25	0.49
49:DS:13:ARG:O	49:DS:15:ARG:HG2	2.13	0.49
49:DS:20:ARG:NH1	49:DS:20:ARG:HG2	2.27	0.49
49:DS:22:GLY:O	49:DS:23:ARG:O	2.29	0.49
49:DS:58:LEU:HD11	49:DS:68:GLN:NE2	2.26	0.49
52:DV:47:VAL:O	52:DV:47:VAL:HG23	2.13	0.49
1:AA:116:A:H2'	1:AA:117:G:O4'	2.12	0.49
1:AA:908:A:H2'	1:AA:909:A:C8	2.48	0.49
2:AB:82:ARG:HB2	2:AB:94:ASN:HD21	1.74	0.49
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.27	0.49
7:AG:81:GLY:C	7:AG:83:ALA:H	2.16	0.49
10:AJ:16:LEU:HD13	10:AJ:17:ASP:N	2.27	0.49
15:AO:87:ILE:O	15:AO:88:ARG:HB2	2.13	0.49
33:B8:14:VAL:HG21	33:B8:22:VAL:HG13	1.95	0.49
33:B8:33:ASN:HA	33:B8:36:LYS:HD3	1.93	0.49
33:B8:33:ASN:HA	33:B8:36:LYS:HD2	1.93	0.49
35:BA:1162:G:H2'	35:BA:1163:G:H8	1.78	0.49
35:BA:1710:C:O2'	35:BA:1711:C:H5'	2.12	0.49
35:BA:1799:G:H5'	35:BA:1819:A:H61	1.77	0.49
35:BA:2197:U:HO2'	35:BA:2198:A:H5''	1.76	0.49
35:BA:2861:G:H2'	35:BA:2862:G:H8	1.77	0.49
35:BA:2870:C:O2'	35:BA:2871:C:H5'	2.13	0.49
35:BA:661:C:O3'	46:BP:18:ARG:HD2	2.13	0.49
37:BC:82:LYS:HG2	37:BC:151:GLU:HA	1.95	0.49
35:BA:2313:C:H4'	41:BG:40:ASN:ND2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:85:GLY:O	41:BG:87:PRO:HD2	2.13	0.49
43:BI:99:GLU:O	43:BI:103:ARG:HD3	2.13	0.49
44:BN:134:ARG:H	44:BN:135:PRO:HD3	1.77	0.49
47:BQ:21:THR:CG2	47:BQ:101:ARG:HH11	2.24	0.49
50:BT:128:GLU:OE1	50:BT:129:ARG:N	2.46	0.49
50:BT:55:ASN:HD22	50:BT:58:ASN:ND2	1.96	0.49
55:BY:46:LYS:HB3	55:BY:47:LYS:HD2	1.93	0.49
55:BY:50:ARG:HG3	55:BY:58:GLY:HA2	1.94	0.49
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.13	0.49
1:CA:477:A:O2'	1:CA:479:C:H5'	2.12	0.49
1:CA:627:G:H2'	1:CA:628:G:C8	2.47	0.49
1:CA:860:A:H2'	1:CA:861:G:O4'	2.12	0.49
3:CC:64:VAL:HG12	3:CC:66:VAL:HG23	1.94	0.49
6:CF:1:MET:HE1	6:CF:68:PRO:HB3	1.94	0.49
10:CJ:30:SER:HB2	10:CJ:80:LYS:O	2.11	0.49
29:D4:51:TYR:O	29:D4:52:SER:HB3	2.12	0.49
35:DA:1203:G:H3'	35:DA:1204:A:H5''	1.95	0.49
35:DA:1231:G:H2'	35:DA:1232:G:C8	2.47	0.49
35:DA:1529:G:H21	35:DA:1530:C:H5''	1.76	0.49
35:DA:1707:G:H2'	35:DA:1708:C:C6	2.46	0.49
35:DA:1827:C:H2'	35:DA:1828:G:O4'	2.12	0.49
35:DA:563:G:H5'	35:DA:572:A:H4'	1.94	0.49
36:DB:15:A:H1'	36:DB:110:G:N7	2.28	0.49
39:DE:111:ARG:HD2	39:DE:160:TYR:HE1	1.78	0.49
35:DA:2579:C:O3'	39:DE:131:ALA:CB	2.61	0.49
41:DG:15:VAL:HG21	41:DG:176:LEU:CD2	2.42	0.49
46:DP:101:VAL:HG12	46:DP:106:LEU:HB3	1.94	0.49
46:DP:8:PRO:O	46:DP:9:ASN:HB3	2.12	0.49
25:D0:7:LEU:HD21	47:DQ:81:VAL:HB	1.94	0.49
50:DT:28:VAL:HB	50:DT:88:ILE:HG13	1.95	0.49
45:DO:77:ILE:HD11	50:DT:72:VAL:CG1	2.42	0.49
53:DW:12:ILE:HG13	53:DW:42:ARG:NH1	2.27	0.49
55:DY:28:LYS:C	55:DY:38:ILE:HB	2.33	0.49
55:DY:96:ILE:HD12	55:DY:99:CYS:HB2	1.93	0.49
1:AA:1105:A:H2'	1:AA:1106:G:C8	2.46	0.49
1:AA:266:G:O2'	1:AA:267:C:OP2	2.31	0.49
1:AA:606:G:H2'	1:AA:631:G:N2	2.27	0.49
3:AC:113:ALA:HB2	3:AC:202:ILE:CG1	2.40	0.49
4:AD:12:CYS:HA	4:AD:19:LEU:CD1	2.43	0.49
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.12	0.49
8:AH:48:TYR:HB2	8:AH:60:ARG:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.27	0.49
14:AN:23:ARG:HD3	14:AN:29:ARG:O	2.13	0.49
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.47	0.49
22:AV:20:U:H2'	22:AV:21:A:H5'	1.93	0.49
27:B2:39:ALA:HA	27:B2:45:SER:HB3	1.95	0.49
30:B5:2:ALA:N	35:BA:747:U:N3	2.61	0.49
35:BA:128:C:H2'	35:BA:129:C:H6	1.77	0.49
35:BA:1641:A:H2'	35:BA:1642:G:O4'	2.13	0.49
35:BA:1656:C:H2'	35:BA:1657:C:C6	2.48	0.49
35:BA:1797:C:O2'	38:BD:259:THR:CG2	2.61	0.49
35:BA:637:A:H2'	46:BP:117:GLU:OE2	2.11	0.49
38:BD:166:GLN:HA	38:BD:166:GLN:NE2	2.26	0.49
38:BD:53:PHE:CE1	38:BD:220:HIS:HA	2.48	0.49
39:BE:182:LEU:O	39:BE:183:LEU:HD12	2.12	0.49
43:BI:60:GLU:OE2	43:BI:60:GLU:HA	2.13	0.49
44:BN:57:ALA:O	44:BN:58:ASP:C	2.51	0.49
47:BQ:132:VAL:HG11	56:BZ:81:ARG:HD3	1.94	0.49
35:BA:956:G:H5''	47:BQ:77:LYS:HD2	1.94	0.49
51:BU:58:ARG:O	51:BU:62:ILE:HG12	2.12	0.49
56:BZ:8:TYR:HB2	56:BZ:38:TYR:CE2	2.48	0.49
56:BZ:99:TYR:HD2	56:BZ:99:TYR:N	2.11	0.49
1:CA:1251:A:H4'	9:CI:12:GLU:OE1	2.13	0.49
1:CA:797:C:H2'	1:CA:798:G:H8	1.77	0.49
1:CA:820:U:H4'	1:CA:821:G:OP2	2.12	0.49
2:CB:194:PRO:HA	2:CB:200:ILE:HD11	1.94	0.49
2:CB:88:ALA:O	2:CB:90:MET:HG3	2.12	0.49
4:CD:8:VAL:C	4:CD:10:ARG:N	2.65	0.49
6:CF:77:ARG:HB3	6:CF:77:ARG:CZ	2.42	0.49
12:CL:62:SER:C	12:CL:64:TYR:H	2.16	0.49
12:CL:91:LYS:HG3	12:CL:91:LYS:O	2.13	0.49
13:CM:111:LYS:HG2	13:CM:112:GLY:N	2.28	0.49
20:CT:98:PRO:C	20:CT:100:ILE:H	2.16	0.49
31:D6:30:THR:HB	31:D6:31:PRO:HD2	1.94	0.49
35:DA:1137:G:H2'	35:DA:1138:G:C8	2.47	0.49
35:DA:1529:G:N2	35:DA:1530:C:H2'	2.28	0.49
35:DA:1747:G:H2'	35:DA:1747(A):G:H8	1.78	0.49
35:DA:2208:A:H1'	35:DA:2219:G:C4	2.47	0.49
35:DA:2802:G:H3'	35:DA:2803:C:C5'	2.43	0.49
35:DA:2811:G:C2'	35:DA:2812:G:H5'	2.42	0.49
35:DA:977:G:C2'	35:DA:978:G:H5'	2.43	0.49
38:DD:257:LEU:C	38:DD:257:LEU:CD2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:267:SER:C	38:DD:269:PHE:N	2.66	0.49
38:DD:37:LEU:HD12	38:DD:64:ILE:HG22	1.93	0.49
39:DE:116:VAL:HG21	39:DE:122:PHE:CD2	2.47	0.49
39:DE:117:MET:HG2	39:DE:117:MET:O	2.13	0.49
40:DF:7:TYR:HB3	40:DF:16:GLY:N	2.28	0.49
41:DG:76:SER:O	41:DG:77:ILE:HD13	2.12	0.49
41:DG:83:ARG:NH1	41:DG:84:LYS:HD2	2.27	0.49
42:DH:80:SER:O	42:DH:81:GLU:CB	2.60	0.49
43:DI:99:GLU:O	43:DI:103:ARG:HD3	2.13	0.49
43:DI:77:LEU:HD11	43:DI:101:LEU:CD1	2.33	0.49
45:DO:19:ILE:HG22	45:DO:43:VAL:HA	1.93	0.49
46:DP:97:PRO:C	46:DP:99:LEU:N	2.66	0.49
48:DR:106:GLY:O	48:DR:107:ASP:HB3	2.12	0.49
55:DY:88:LYS:O	55:DY:89:PHE:HB2	2.12	0.49
56:DZ:152:ALA:C	56:DZ:154:ASP:H	2.15	0.49
56:DZ:40:ASP:OD1	56:DZ:42:VAL:HG12	2.13	0.49
1:AA:445:G:H2'	1:AA:446:G:C8	2.48	0.49
2:AB:162:ILE:O	2:AB:162:ILE:HG13	2.12	0.49
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.77	0.49
5:AE:131:ILE:HD13	5:AE:131:ILE:O	2.13	0.49
7:AG:136:LYS:O	7:AG:140:ASP:HB2	2.12	0.49
10:AJ:26:ALA:HB1	10:AJ:84:GLN:HG3	1.95	0.49
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.16	0.49
13:AM:111:LYS:HG2	13:AM:112:GLY:N	2.27	0.49
17:AQ:48:GLU:O	17:AQ:49:GLU:C	2.51	0.49
1:AA:186:C:H1'	20:AT:85:MET:CE	2.43	0.49
7:AG:84:ASN:ND2	23:AW:33:U:H4'	2.28	0.49
34:B9:16:VAL:HG11	35:BA:1032:A:O3'	2.12	0.49
35:BA:1339:G:N2	35:BA:1603:A:H1'	2.28	0.49
35:BA:1443:G:C2'	35:BA:1444:G:H5'	2.43	0.49
35:BA:2732:G:C3'	35:BA:2733:A:H5'	2.42	0.49
35:BA:2879:C:H4'	35:BA:2880:C:OP1	2.12	0.49
35:BA:363(B):G:N3	35:BA:363(B):G:H2'	2.27	0.49
35:BA:524:U:H4'	35:BA:555:U:H4'	1.95	0.49
35:BA:542:C:N4	35:BA:543:C:N4	2.61	0.49
35:BA:633:A:H2'	35:BA:634:C:H5'	1.93	0.49
27:B2:14:ARG:NH2	35:BA:77:C:O3'	2.46	0.49
38:BD:133:LEU:HD13	38:BD:165:ILE:CD1	2.43	0.49
38:BD:142:VAL:HG23	38:BD:192:THR:C	2.32	0.49
38:BD:240:ALA:HB1	38:BD:241:PRO:HD2	1.92	0.49
38:BD:31:LYS:NZ	38:BD:94:LEU:HD11	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:30:PRO:HG3	39:BE:180:ASN:HD21	1.77	0.49
40:BF:25:PRO:HG3	40:BF:119:ARG:HD3	1.95	0.49
40:BF:9:ILE:HA	40:BF:14:PRO:O	2.13	0.49
48:BR:44:LEU:HD12	48:BR:114:VAL:HG11	1.95	0.49
48:BR:48:VAL:HA	48:BR:51:LEU:HD12	1.95	0.49
50:BT:89:VAL:CG1	50:BT:91:ARG:NE	2.76	0.49
51:BU:91:ASP:OD2	51:BU:96:ALA:CB	2.52	0.49
56:BZ:27:VAL:O	56:BZ:87:ASP:HA	2.13	0.49
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.48	0.49
1:CA:139:G:H2'	1:CA:140:A:H8	1.77	0.49
1:CA:660:G:H1	1:CA:745:C:H42	1.61	0.49
3:CC:19:GLU:O	3:CC:20:SER:HB2	2.11	0.49
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	2.27	0.49
5:CE:47:LYS:O	5:CE:48:ALA:HB2	2.11	0.49
6:CF:45:LEU:HD11	6:CF:57:GLN:OE1	2.13	0.49
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.12	0.49
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.93	0.49
8:CH:54:ASP:O	8:CH:56:LYS:HG3	2.12	0.49
13:CM:108:ARG:NH1	13:CM:112:GLY:HA3	2.28	0.49
16:CP:20:VAL:HB	16:CP:32:TYR:HD1	1.77	0.49
1:CA:636:U:H5''	17:CQ:2:PRO:HG3	1.95	0.49
17:CQ:48:GLU:O	17:CQ:49:GLU:C	2.51	0.49
20:CT:43:LEU:HB3	20:CT:48:LYS:HG3	1.94	0.49
25:D0:32:ARG:HB2	25:D0:35:ASN:HD21	1.76	0.49
30:D5:2:ALA:HB3	35:DA:747:U:N1	2.28	0.49
35:DA:2030:A:H4'	35:DA:2031:A:C8	2.48	0.49
35:DA:2098:U:H2'	35:DA:2099:U:O4'	2.12	0.49
35:DA:2305:A:H5'	41:DG:156:ASP:OD1	2.13	0.49
35:DA:260:G:C2	35:DA:261:G:H1'	2.48	0.49
35:DA:587:C:O2'	35:DA:588:U:OP2	2.29	0.49
35:DA:644:A:H4'	35:DA:645:C:C5	2.48	0.49
36:DB:51:G:H5'	36:DB:52:A:OP2	2.12	0.49
37:DC:65:PRO:HG2	37:DC:189:ILE:CB	2.42	0.49
38:DD:133:LEU:HD23	38:DD:189:CYS:O	2.12	0.49
44:DN:125:GLY:CA	44:DN:126:PRO:O	2.60	0.49
46:DP:50:ARG:NH2	46:DP:50:ARG:HG2	2.28	0.49
46:DP:95:VAL:HG23	46:DP:95:VAL:O	2.13	0.49
51:DU:92:ARG:HH11	51:DU:92:ARG:CG	2.25	0.49
55:DY:49:VAL:O	55:DY:50:ARG:HB2	2.13	0.49
55:DY:88:LYS:HZ3	55:DY:93:GLY:CA	2.26	0.49
56:DZ:178:GLU:HA	56:DZ:178:GLU:OE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:140:ALA:HA	56:DZ:99:TYR:CD2	2.47	0.49
1:AA:1004:A:C3'	1:AA:1005:A:H5'	2.43	0.49
1:AA:1477:C:O5'	1:AA:1477:C:H6	1.95	0.49
1:AA:797:C:O2'	1:AA:798:G:H5'	2.13	0.49
1:AA:922:G:H2'	1:AA:923:A:C8	2.48	0.49
1:AA:939:G:H2'	1:AA:940:C:H6	1.78	0.49
7:AG:118:VAL:HG23	7:AG:119:ARG:N	2.27	0.49
7:AG:137:LYS:O	7:AG:141:VAL:HG23	2.12	0.49
7:AG:143:ARG:NH1	23:AW:42:C:C5'	2.76	0.49
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.28	0.49
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.05	0.49
9:AI:66:ARG:CB	9:AI:66:ARG:HH11	2.26	0.49
1:AA:36:C:H4'	12:AL:122:THR:O	2.12	0.49
12:AL:62:SER:C	12:AL:64:TYR:H	2.16	0.49
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.76	0.49
17:AQ:67:LYS:O	17:AQ:68:ARG:C	2.51	0.49
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.95	0.49
22:AY:52:G:H4'	47:BQ:56:ARG:NH1	2.28	0.49
26:B1:84:GLY:O	26:B1:86:SER:N	2.46	0.49
27:B2:37:PHE:O	27:B2:41:ILE:HG23	2.12	0.49
31:B6:16:CYS:O	31:B6:17:LYS:CB	2.57	0.49
35:BA:1140:C:H5''	44:BN:66:LYS:NZ	2.27	0.49
35:BA:1506:C:O2	35:BA:1506:C:H2'	2.12	0.49
35:BA:1529:G:H21	35:BA:1530:C:H5''	1.77	0.49
35:BA:1497:U:H3	35:BA:1578:U:P	2.36	0.49
35:BA:2262:U:C2'	35:BA:2263:C:C5'	2.84	0.49
35:BA:2282:G:O2'	35:BA:2283:C:OP2	2.26	0.49
35:BA:2393:A:C5'	46:BP:62:LEU:HB3	2.43	0.49
35:BA:579:G:H2'	35:BA:580:C:C6	2.47	0.49
35:BA:769:G:O2'	35:BA:770:G:H5'	2.13	0.49
35:BA:1825:A:OP1	38:BD:249:PRO:HD3	2.12	0.49
38:BD:24:ILE:O	38:BD:26:LYS:NZ	2.40	0.49
40:BF:65:TRP:O	40:BF:67:GLN:N	2.46	0.49
41:BG:113:ARG:CD	41:BG:114:ILE:H	2.26	0.49
41:BG:128:ARG:HE	41:BG:128:ARG:H	1.57	0.49
45:BO:26:LYS:O	45:BO:27:GLY:O	2.30	0.49
46:BP:41:ARG:CA	46:BP:41:ARG:NE	2.73	0.49
48:BR:12:ARG:CG	48:BR:12:ARG:HH11	2.25	0.49
49:BS:13:ARG:O	49:BS:15:ARG:HG2	2.13	0.49
50:BT:55:ASN:N	50:BT:59:THR:HB	2.28	0.49
50:BT:95:ARG:NH1	50:BT:95:ARG:HB3	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:10:VAL:O	53:BW:11:ARG:HB2	2.12	0.49
35:BA:26:G:OP1	53:BW:80:PRO:HB3	2.12	0.49
55:BY:95:LYS:HE2	55:BY:100:ALA:HB1	1.95	0.49
55:BY:17:SER:HB2	55:BY:71:LYS:NZ	2.28	0.49
1:CA:945:G:N1	1:CA:1337:G:C2	2.81	0.49
1:CA:1442(A):G:C3'	1:CA:1442(B):A:C5'	2.81	0.49
1:CA:232:G:H2'	1:CA:233:C:C6	2.48	0.49
1:CA:413:G:H1'	1:CA:428:G:H21	1.78	0.49
1:CA:414:A:O2'	1:CA:415:A:H5'	2.12	0.49
1:CA:424:G:H2'	1:CA:425:G:H8	1.78	0.49
2:CB:216:SER:C	2:CB:218:ALA:H	2.16	0.49
7:CG:118:VAL:HG23	7:CG:119:ARG:N	2.27	0.49
12:CL:85:ILE:CG2	12:CL:98:TYR:HB3	2.43	0.49
13:CM:8:GLU:OE2	13:CM:22:ILE:HA	2.12	0.49
1:CA:636:U:C5'	17:CQ:2:PRO:HG3	2.43	0.49
17:CQ:76:LEU:HG	17:CQ:77:VAL:H	1.78	0.49
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.13	0.49
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	2.40	0.49
22:CV:37:A:H2'	22:CV:38:A:O4'	2.13	0.49
26:D1:80:LEU:HD13	26:D1:82:LEU:HD11	1.95	0.49
35:DA:272(D):G:O2'	35:DA:272(E):G:H5'	2.12	0.49
35:DA:285:C:C3'	35:DA:286:C:H5''	2.43	0.49
36:DB:40:U:H1'	36:DB:45:A:N6	2.27	0.49
36:DB:78:A:H2'	36:DB:79:C:O4'	2.13	0.49
40:DF:51:THR:HG21	40:DF:92:PRO:HD2	1.93	0.49
44:DN:134:ARG:H	44:DN:135:PRO:HD3	1.78	0.49
45:DO:89:ASN:C	45:DO:91:LEU:H	2.15	0.49
45:DO:98:VAL:HG13	45:DO:118:ALA:HA	1.93	0.49
35:DA:1246:A:OP2	46:DP:18:ARG:HG3	2.13	0.49
46:DP:62:LEU:N	46:DP:62:LEU:HD23	2.27	0.49
51:DU:112:ARG:CG	51:DU:112:ARG:NH1	2.74	0.49
51:DU:66:ASN:CB	51:DU:76:TYR:HB2	2.42	0.49
53:DW:12:ILE:HD13	53:DW:17:VAL:HG12	1.95	0.49
56:DZ:10:ARG:HH22	56:DZ:25:PRO:CA	2.25	0.49
56:DZ:74:VAL:HA	56:DZ:86:VAL:HG12	1.94	0.49
56:DZ:85:HIS:ND1	56:DZ:86:VAL:N	2.61	0.49
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.48	0.49
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.48	0.49
1:AA:1294:G:O2'	1:AA:1295:G:H5'	2.13	0.49
1:AA:1324:A:H2'	1:AA:1325:C:C6	2.47	0.49
1:AA:35:G:C6	1:AA:36:C:N4	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:545:C:OP1	4:AD:61:LYS:NZ	2.46	0.49
1:AA:678:U:H2'	1:AA:679:C:H6	1.77	0.49
1:AA:992:U:H1'	1:AA:993:G:C2	2.48	0.49
3:AC:134:ILE:HG21	3:AC:168:ALA:HB3	1.94	0.49
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	1.93	0.49
4:AD:60:GLU:O	4:AD:63:LYS:HB3	2.12	0.49
6:AF:4:TYR:HA	6:AF:91:VAL:O	2.13	0.49
7:AG:78:ARG:HG3	7:AG:79:ARG:N	2.28	0.49
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.95	0.49
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.94	0.49
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	2.12	0.49
10:AJ:95:GLU:HA	10:AJ:95:GLU:OE2	2.13	0.49
13:AM:76:ALA:N	13:AM:79:LYS:HZ2	2.10	0.49
15:AO:87:ILE:CG2	15:AO:88:ARG:H	2.18	0.49
20:AT:33:ILE:CD1	20:AT:62:LEU:HB3	2.41	0.49
22:AY:53:G:H2'	22:AY:53:G:N3	2.27	0.49
27:B2:29:LYS:HG2	27:B2:57:ILE:HD12	1.94	0.49
29:B4:40:ILE:N	29:B4:40:ILE:HD12	2.28	0.49
32:B7:9:ARG:NH1	32:B7:9:ARG:HG3	2.28	0.49
35:BA:1141:U:H5''	35:BA:1142(A):A:O4'	2.13	0.49
35:BA:1141:U:OP2	44:BN:63:THR:OG1	2.28	0.49
31:B6:27:LYS:HE3	35:BA:2285:C:C5	2.48	0.49
35:BA:2303:G:O2'	41:BG:132:ASN:HB2	2.12	0.49
35:BA:2648:C:H2'	35:BA:2649:U:H6	1.77	0.49
35:BA:2892:A:H2'	35:BA:2893:G:H4'	1.94	0.49
37:BC:169:GLY:O	37:BC:171:ILE:N	2.45	0.49
39:BE:27:LEU:HD23	50:BT:1:MET:CE	2.36	0.49
42:BH:33:LEU:HD21	42:BH:136:ILE:HG22	1.95	0.49
43:BI:81:VAL:HG11	43:BI:88:ILE:CD1	2.43	0.49
45:BO:35:VAL:HG21	45:BO:69:ILE:HD11	1.94	0.49
51:BU:112:ARG:NH1	51:BU:112:ARG:CG	2.72	0.49
1:CA:486:U:H2'	1:CA:487:A:H8	1.78	0.49
1:CA:525:C:H2'	1:CA:526:C:H6	1.77	0.49
1:CA:579:G:C5'	1:CA:728:A:H1'	2.37	0.49
1:CA:90:U:P	1:CA:91:C:H4'	2.53	0.49
1:CA:93:G:H2'	1:CA:96:U:H5'	1.95	0.49
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.47	0.49
3:CC:164:ARG:HB2	3:CC:164:ARG:NH1	2.27	0.49
3:CC:3:ASN:O	3:CC:4:LYS:C	2.51	0.49
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.26	0.49
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:741:G:H4'	15:CO:55:GLY:HA3	1.95	0.49
17:CQ:22:LEU:HD13	17:CQ:41:LYS:CG	2.43	0.49
20:CT:41:ILE:HG13	20:CT:42:GLN:N	2.27	0.49
23:CW:9:A:C8	23:CW:46:G:N2	2.81	0.49
25:D0:73:GLY:HA3	36:DB:12:C:H2'	1.94	0.49
27:D2:64:LEU:HD22	27:D2:68:ARG:HD3	1.93	0.49
28:D3:1:MET:O	28:D3:3:ARG:N	2.46	0.49
30:D5:40:LYS:HD3	30:D5:45:VAL:C	2.33	0.49
33:D8:6:THR:HB	33:D8:63:PRO:HG3	1.94	0.49
35:DA:1301:A:O2'	35:DA:1302:A:C2'	2.57	0.49
35:DA:1396:U:C2'	35:DA:1396:U:O2	2.59	0.49
35:DA:1877:A:H5'	35:DA:1878:G:OP2	2.12	0.49
35:DA:2464:C:O2'	35:DA:2465:C:P	2.70	0.49
35:DA:2555:U:C2'	35:DA:2556:C:H5'	2.41	0.49
35:DA:2558:C:H2'	35:DA:2559:C:O4'	2.13	0.49
35:DA:547:A:N3	35:DA:547:A:H2'	2.28	0.49
35:DA:645:C:O2	35:DA:645:C:H2'	2.13	0.49
35:DA:747:U:O2	35:DA:2014:A:H1'	2.12	0.49
39:DE:36:ARG:HD3	39:DE:47:VAL:HG22	1.95	0.49
40:DF:41:LEU:HA	40:DF:44:ARG:HG2	1.95	0.49
41:DG:112:PRO:O	41:DG:114:ILE:N	2.45	0.49
41:DG:51:ARG:NE	41:DG:51:ARG:HA	2.27	0.49
42:DH:105:LEU:HD13	42:DH:105:LEU:H	1.77	0.49
42:DH:163:TYR:N	42:DH:163:TYR:CD1	2.81	0.49
43:DI:10:GLU:O	43:DI:12:LEU:HD23	2.12	0.49
44:DN:28:THR:HA	44:DN:106:MET:HE3	1.95	0.49
44:DN:57:ALA:O	44:DN:58:ASP:C	2.50	0.49
44:DN:62:VAL:HG11	44:DN:67:LEU:HD21	1.94	0.49
35:DA:252:G:OP2	46:DP:50:ARG:NH1	2.46	0.49
49:DS:17:ARG:O	49:DS:19:LYS:N	2.37	0.49
51:DU:83:LEU:CD1	51:DU:113:ALA:HB2	2.43	0.49
51:DU:8:VAL:HG12	51:DU:12:ARG:NE	2.28	0.49
52:DV:40:LEU:N	52:DV:40:LEU:CD2	2.76	0.49
53:DW:12:ILE:HG21	53:DW:17:VAL:HG11	1.94	0.49
1:AA:1029:C:O2'	1:AA:1030:C:H5	1.96	0.49
1:AA:945:G:N1	1:AA:1337:G:C2	2.81	0.49
1:AA:1444:C:H2'	1:AA:1445:C:C6	2.48	0.49
1:AA:420:U:H2'	1:AA:422:C:C5	2.47	0.49
1:AA:606:G:N2	1:AA:631:G:H2'	2.28	0.49
2:AB:138:LEU:O	2:AB:141:GLU:HB3	2.13	0.49
2:AB:191:ASP:OD2	2:AB:191:ASP:C	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.13	0.49
5:AE:20:GLN:O	5:AE:21:ALA:C	2.51	0.49
7:AG:145:ALA:O	7:AG:147:ALA:N	2.44	0.49
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.94	0.49
10:AJ:38:ILE:CG1	10:AJ:71:LEU:HB3	2.43	0.49
11:AK:99:GLN:HA	11:AK:105:VAL:CG1	2.43	0.49
15:AO:46:HIS:N	15:AO:46:HIS:ND1	2.61	0.49
18:AR:56:THR:OG1	18:AR:58:LEU:HD12	2.13	0.49
23:AW:38:A:C3'	23:AW:39:U:C5'	2.83	0.49
25:B0:73:GLY:O	25:B0:75:LEU:N	2.42	0.49
35:BA:1469:A:O2'	35:BA:1470:G:H5'	2.13	0.49
35:BA:1817:G:C2'	35:BA:1818:U:H5'	2.42	0.49
35:BA:1853:A:H2'	35:BA:1854:A:C8	2.48	0.49
35:BA:856:C:C6	35:BA:856:C:H5''	2.48	0.49
36:BB:32:C:C2	36:BB:51:G:C2	3.01	0.49
38:BD:10:THR:HG23	38:BD:13:ARG:HB2	1.95	0.49
38:BD:146:GLU:HG2	38:BD:152:GLY:O	2.13	0.49
38:BD:226:MET:HB3	38:BD:230:ASP:CB	2.43	0.49
39:BE:110:GLY:HA2	39:BE:162:ALA:N	2.28	0.49
39:BE:33:VAL:HG13	39:BE:69:LYS:HZ1	1.78	0.49
40:BF:7:TYR:HB3	40:BF:16:GLY:N	2.28	0.49
47:BQ:48:GLU:O	47:BQ:48:GLU:HG3	2.13	0.49
47:BQ:58:PHE:O	47:BQ:58:PHE:HD1	1.96	0.49
48:BR:28:LEU:HD11	48:BR:116:LEU:CD2	2.42	0.49
50:BT:62:THR:HG22	50:BT:75:ILE:HA	1.95	0.49
35:BA:1615:C:C2	53:BW:87:PRO:HG3	2.48	0.49
56:BZ:166:SER:HB2	56:BZ:168:GLU:N	2.27	0.49
1:CA:908:A:H2'	1:CA:909:A:C8	2.48	0.49
4:CD:162:LEU:CD1	4:CD:181:MET:HG2	2.42	0.49
7:CG:140:ASP:HA	7:CG:143:ARG:HH21	1.78	0.49
10:CJ:4:ILE:HB	10:CJ:74:ILE:CG1	2.43	0.49
14:CN:21:TYR:HD2	14:CN:22:THR:O	1.95	0.49
15:CO:87:ILE:O	15:CO:88:ARG:HB2	2.13	0.49
17:CQ:68:ARG:HG3	17:CQ:68:ARG:O	2.13	0.49
1:CA:1314:C:H41	19:CS:4:SER:N	2.11	0.49
23:CW:18:G:C2	23:CW:55:U:H1'	2.48	0.49
25:D0:23:VAL:HA	25:D0:38:VAL:HG22	1.94	0.49
33:D8:35:GLN:O	33:D8:36:LYS:HG3	2.12	0.49
35:DA:142:A:H5''	35:DA:142(A):C:C5	2.46	0.49
35:DA:2124:G:H2'	35:DA:2125:G:O4'	2.11	0.49
35:DA:221:A:O2'	35:DA:222:A:OP2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2317:C:H2'	35:DA:2318:G:C5'	2.41	0.49
35:DA:2839:G:H2'	35:DA:2840:C:H6	1.78	0.49
35:DA:2876:G:O2'	50:DT:3:ARG:NE	2.46	0.49
35:DA:34:C:H42	35:DA:455:C:H5'	1.78	0.49
35:DA:564:C:O2'	35:DA:565:C:H5'	2.13	0.49
37:DC:49:ILE:O	37:DC:51:PRO:CD	2.60	0.49
38:DD:77:ALA:HB1	38:DD:96:HIS:O	2.12	0.49
40:DF:128:ALA:O	40:DF:130:ALA:N	2.46	0.49
41:DG:91:ARG:C	41:DG:91:ARG:HD2	2.32	0.49
45:DO:104:ARG:CZ	50:DT:33:LYS:HD2	2.43	0.49
50:DT:54:ARG:HG2	50:DT:54:ARG:NH1	2.26	0.49
51:DU:8:VAL:HG11	51:DU:12:ARG:NE	2.28	0.49
54:DX:12:VAL:HG23	54:DX:13:LEU:H	1.76	0.49
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.28	0.48
1:AA:275:G:H5'	17:AQ:14:LYS:HZ3	1.77	0.48
1:AA:401:C:H2'	1:AA:402:G:H8	1.77	0.48
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.95	0.48
1:AA:865:A:C2	1:AA:918:A:H4'	2.47	0.48
5:AE:136:MET:O	5:AE:138:ALA:N	2.45	0.48
6:AF:3:ARG:HG2	6:AF:93:SER:HB2	1.94	0.48
9:AI:113:LYS:N	9:AI:113:LYS:HD2	2.28	0.48
12:AL:117:ARG:O	12:AL:118:SER:C	2.51	0.48
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.76	0.48
18:AR:85:LEU:HG	18:AR:86:VAL:N	2.28	0.48
20:AT:14:LYS:HB2	20:AT:17:ARG:HH21	1.78	0.48
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.13	0.48
21:AU:4:GLY:C	21:AU:6:ARG:H	2.16	0.48
23:AW:70:G:H2'	23:AW:71:G:O4'	2.12	0.48
22:AY:16:U:C2'	22:AY:17:C:H5'	2.43	0.48
31:B6:30:THR:HB	31:B6:31:PRO:HD2	1.94	0.48
35:BA:2199:A:H5''	35:BA:2200:C:H5	1.78	0.48
35:BA:2202:C:H2'	35:BA:2203:U:O4'	2.13	0.48
26:B1:26:ARG:HH12	35:BA:389:G:H5''	1.78	0.48
35:BA:699:A:H2'	35:BA:700:G:O4'	2.13	0.48
37:BC:58:VAL:HG13	37:BC:166:ASP:O	2.12	0.48
38:BD:183:ARG:HG2	38:BD:183:ARG:HH11	1.77	0.48
38:BD:260:ARG:HD3	38:BD:261:LYS:O	2.12	0.48
39:BE:176:ILE:N	39:BE:176:ILE:CD1	2.73	0.48
41:BG:116:ASP:O	41:BG:117:PHE:CB	2.61	0.48
41:BG:134:GLY:O	41:BG:135:LEU:HD12	2.12	0.48
42:BH:115:VAL:HG11	42:BH:148:ILE:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:81:VAL:HG21	43:BI:142:VAL:HB	1.94	0.48
45:BO:104:ARG:CZ	50:BT:33:LYS:HD2	2.43	0.48
46:BP:139:LYS:O	46:BP:141:ALA:N	2.37	0.48
49:BS:106:ARG:NH1	49:BS:108:GLY:CA	2.73	0.48
51:BU:87:GLY:O	52:BV:50:PRO:HG3	2.13	0.48
55:BY:6:HIS:NE2	55:BY:32:PRO:HB3	2.28	0.48
56:BZ:29:TYR:HA	56:BZ:33:LEU:O	2.13	0.48
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.48	0.48
1:CA:1499:A:H2'	1:CA:1500:A:H8	1.78	0.48
1:CA:829:G:O2'	1:CA:830:G:H5'	2.13	0.48
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.28	0.48
2:CB:27:LYS:HD3	2:CB:195:ASP:OD2	2.13	0.48
4:CD:10:ARG:NH1	4:CD:40:PRO:HG3	2.28	0.48
12:CL:100:ILE:HG22	12:CL:101:VAL:N	2.28	0.48
13:CM:102:ARG:C	13:CM:104:ARG:H	2.16	0.48
13:CM:36:LYS:HG3	13:CM:59:TYR:OH	2.13	0.48
13:CM:49:THR:HB	13:CM:52:GLU:H	1.78	0.48
15:CO:46:HIS:ND1	15:CO:46:HIS:N	2.61	0.48
16:CP:51:VAL:HG12	16:CP:51:VAL:O	2.12	0.48
25:D0:68:GLU:HG2	25:D0:80:HIS:HB2	1.95	0.48
27:D2:64:LEU:O	27:D2:67:LYS:HB2	2.13	0.48
35:DA:1188:U:H4'	52:DV:79:VAL:HG22	1.94	0.48
35:DA:1490:A:H5'	35:DA:1491:G:OP2	2.13	0.48
35:DA:154(A):C:N4	35:DA:171:G:N1	2.61	0.48
35:DA:2709:G:O2'	35:DA:2710:C:H5'	2.13	0.48
35:DA:510:C:C2'	35:DA:511:U:H5'	2.43	0.48
35:DA:638:G:H2'	35:DA:639:U:C6	2.48	0.48
35:DA:807:U:H2'	35:DA:808:G:C8	2.43	0.48
35:DA:817:C:O2'	35:DA:839:U:H5''	2.13	0.48
37:DC:82:LYS:HG2	37:DC:151:GLU:HA	1.95	0.48
38:DD:181:GLU:CA	38:DD:272:ALA:HB3	2.29	0.48
38:DD:52:ARG:HB2	38:DD:53:PHE:CD2	2.48	0.48
35:DA:606:U:OP2	40:DF:104:LYS:HE3	2.13	0.48
41:DG:111:LEU:HD23	41:DG:114:ILE:CD1	2.42	0.48
42:DH:86:GLU:HA	42:DH:132:ARG:HA	1.95	0.48
46:DP:110:TYR:O	46:DP:111:ARG:O	2.31	0.48
47:DQ:16:ARG:CG	47:DQ:17:LEU:N	2.76	0.48
48:DR:79:LEU:CD2	48:DR:79:LEU:C	2.82	0.48
51:DU:110:VAL:HG12	51:DU:114:LYS:HE3	1.93	0.48
52:DV:14:VAL:HB	52:DV:96:ILE:HG13	1.94	0.48
55:DY:41:GLY:O	55:DY:42:VAL:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:77:PRO:O	55:DY:78:ALA:HB2	2.13	0.48
1:AA:1146:A:C3'	1:AA:1147:C:H5''	2.43	0.48
1:AA:1251:A:H2'	1:AA:1252:A:H8	1.72	0.48
1:AA:443:C:H2'	1:AA:444:C:C6	2.48	0.48
1:AA:585:G:N3	1:AA:879:C:H4'	2.27	0.48
1:AA:62:U:H5''	1:AA:385:C:O2	2.13	0.48
1:AA:706:A:N7	1:AA:707:C:H5	2.12	0.48
1:AA:818:G:H3'	1:AA:819:A:C5'	2.43	0.48
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.94	0.48
2:AB:59:GLU:HB2	2:AB:221:LEU:HD12	1.96	0.48
3:AC:124:ILE:C	3:AC:126:ARG:H	2.16	0.48
3:AC:164:ARG:HB2	3:AC:164:ARG:NH1	2.28	0.48
5:AE:81:GLU:HG2	5:AE:90:VAL:CG1	2.31	0.48
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.13	0.48
1:AA:1342:C:H4'	9:AI:124:GLN:O	2.13	0.48
9:AI:53:VAL:HG12	9:AI:92:TYR:HD2	1.79	0.48
10:AJ:22:LYS:O	10:AJ:22:LYS:HD2	2.13	0.48
16:AP:20:VAL:HB	16:AP:32:TYR:HD1	1.77	0.48
17:AQ:31:LEU:O	17:AQ:31:LEU:HD12	2.13	0.48
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.14	0.48
33:B8:33:ASN:O	33:B8:34:TRP:HB3	2.13	0.48
35:BA:1169:G:H1	35:BA:1180:C:H42	1.61	0.48
35:BA:1528(A):A:H3'	35:BA:1529:G:C5'	2.38	0.48
35:BA:747:U:O2	35:BA:2014:A:H1'	2.13	0.48
35:BA:2553:G:H2'	35:BA:2554:U:H4'	1.96	0.48
35:BA:39:C:H2'	35:BA:40:C:C6	2.49	0.48
35:BA:606:U:OP2	40:BF:104:LYS:HE3	2.13	0.48
35:BA:675:A:C8	35:BA:804:A:C6	3.01	0.48
35:BA:858:U:O2	35:BA:2268:A:H2'	2.12	0.48
38:BD:181:GLU:CA	38:BD:272:ALA:HB3	2.28	0.48
38:BD:37:LEU:HD12	38:BD:64:ILE:HG22	1.94	0.48
39:BE:154:LYS:HG2	39:BE:156:MET:HE3	1.95	0.48
39:BE:61:ARG:HB3	39:BE:62:PRO:HD3	1.95	0.48
42:BH:83:TYR:HD1	42:BH:83:TYR:H	1.60	0.48
35:BA:2875:C:C4'	50:BT:5:ALA:HB2	2.42	0.48
51:BU:88:ILE:HG22	52:BV:47:VAL:HG23	1.95	0.48
52:BV:28:GLU:CB	52:BV:29:PRO:HD2	2.37	0.48
52:BV:45:THR:O	52:BV:46:VAL:HG12	2.13	0.48
54:BX:28:PHE:N	54:BX:28:PHE:CD1	2.81	0.48
55:BY:96:ILE:HG13	55:BY:100:ALA:O	2.13	0.48
55:BY:28:LYS:C	55:BY:38:ILE:HB	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.31	0.48
1:CA:1348:U:H4'	9:CI:120:ARG:CD	2.21	0.48
1:CA:17:U:H2'	1:CA:18:C:H6	1.76	0.48
1:CA:606:G:N2	1:CA:631:G:H2'	2.28	0.48
2:CB:178:ARG:HD2	8:CH:71:GLY:C	2.33	0.48
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.78	0.48
7:CG:60:LYS:HZ1	7:CG:64:GLN:HB2	1.78	0.48
1:CA:1348:U:C4'	9:CI:120:ARG:HD2	2.21	0.48
10:CJ:25:GLU:C	10:CJ:27:ALA:H	2.16	0.48
10:CJ:26:ALA:HB1	10:CJ:84:GLN:HG3	1.95	0.48
13:CM:91:ARG:HH22	13:CM:103:THR:HG21	1.77	0.48
14:CN:29:ARG:HG3	14:CN:29:ARG:HH11	1.78	0.48
18:CR:85:LEU:HG	18:CR:86:VAL:N	2.28	0.48
19:CS:23:ASN:C	19:CS:26:GLY:H	2.17	0.48
19:CS:43:GLU:OE1	19:CS:45:VAL:HG22	2.13	0.48
22:CY:33:U:H3'	22:CY:34:G:H5''	1.93	0.48
26:D1:51:VAL:O	26:D1:57:GLU:O	2.31	0.48
26:D1:80:LEU:HB3	26:D1:82:LEU:HD11	1.94	0.48
35:DA:1240:U:O2'	35:DA:1241:A:C5'	2.60	0.48
35:DA:2023:G:H5'	35:DA:2617:C:H4'	1.95	0.48
35:DA:2154:G:O2'	35:DA:2155:G:H5'	2.12	0.48
35:DA:1027:A:C2	35:DA:2488:A:H5'	2.48	0.48
35:DA:2861:G:H2'	35:DA:2862:G:H8	1.78	0.48
35:DA:718:A:H2'	35:DA:719:C:O4'	2.13	0.48
37:DC:41:VAL:HG23	37:DC:178:ALA:CB	2.41	0.48
37:DC:58:VAL:HG13	37:DC:166:ASP:O	2.12	0.48
38:DD:142:VAL:HG23	38:DD:192:THR:C	2.34	0.48
38:DD:270:ILE:O	38:DD:271:ILE:HG12	2.13	0.48
39:DE:61:ARG:HB3	39:DE:62:PRO:HD3	1.95	0.48
39:DE:67:PHE:CD2	39:DE:68:ALA:N	2.81	0.48
39:DE:55:ASN:ND2	39:DE:75:VAL:HG22	2.27	0.48
35:DA:322:A:OP2	40:DF:169:ASN:HB2	2.12	0.48
40:DF:20:LEU:HG	40:DF:21:ALA:H	1.77	0.48
40:DF:65:TRP:O	40:DF:67:GLN:N	2.47	0.48
47:DQ:104:PHE:N	47:DQ:104:PHE:CD2	2.80	0.48
48:DR:115:GLU:HG2	48:DR:116:LEU:N	2.27	0.48
48:DR:49:ASP:O	48:DR:50:HIS:C	2.49	0.48
48:DR:79:LEU:HA	48:DR:83:ILE:CG1	2.43	0.48
49:DS:90:GLY:C	49:DS:92:TYR:H	2.16	0.48
51:DU:26:GLY:O	51:DU:30:LYS:HG2	2.12	0.48
51:DU:44:ASN:HD21	52:DV:75:PHE:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:48:ALA:C	55:DY:50:ARG:H	2.16	0.48
56:DZ:102:LEU:HA	56:DZ:137:ILE:HG22	1.95	0.48
1:AA:197:A:N7	1:AA:221:C:H4'	2.28	0.48
1:AA:355:C:C4	1:AA:356:A:N7	2.80	0.48
1:AA:457:C:H6	1:AA:457:C:O5'	1.96	0.48
1:AA:617:G:H4'	16:AP:44:THR:HB	1.96	0.48
1:AA:647:C:H2'	1:AA:648:A:H8	1.77	0.48
1:AA:90:U:P	1:AA:91:C:H4'	2.54	0.48
2:AB:61:LEU:CD1	2:AB:66:GLY:HA3	2.43	0.48
7:AG:131:LYS:HG3	7:AG:131:LYS:O	2.13	0.48
9:AI:66:ARG:HH11	9:AI:66:ARG:HB2	1.78	0.48
18:AR:58:LEU:CD2	18:AR:62:GLU:HB3	2.43	0.48
1:AA:323:U:H4'	20:AT:22:ARG:HB2	1.94	0.48
22:AV:5:G:H2'	22:AV:6:G:O4'	2.12	0.48
23:AW:63:G:H2'	23:AW:64:A:C8	2.49	0.48
25:B0:23:VAL:HA	25:B0:38:VAL:HG22	1.95	0.48
33:B8:4:MET:O	33:B8:62:LEU:CD1	2.61	0.48
35:BA:1142(A):A:N7	35:BA:1144:G:C6	2.81	0.48
35:BA:143(A):C:H2'	35:BA:143(A):C:O2	2.13	0.48
35:BA:154(A):C:O4'	35:BA:154(A):C:O2	2.30	0.48
35:BA:1751:C:O2'	35:BA:1752:C:H5'	2.13	0.48
35:BA:2012:G:H4'	53:BW:96:ILE:HD11	1.94	0.48
35:BA:201:C:O2'	35:BA:202:U:H5'	2.13	0.48
35:BA:2291:U:O2'	35:BA:2292:C:H5'	2.14	0.48
35:BA:2461:C:H2'	35:BA:2462:U:C6	2.48	0.48
35:BA:221:A:H61	35:BA:265:A:H8	1.61	0.48
35:BA:271(D):G:H1	35:BA:271(T):C:N4	2.10	0.48
35:BA:2735:G:C2'	35:BA:2736:G:C5'	2.89	0.48
35:BA:2790:A:H2'	35:BA:2791:C:H5'	1.95	0.48
35:BA:285:C:C2'	35:BA:286:C:H5''	2.43	0.48
26:B1:42:GLN:HB3	35:BA:396:G:H1'	1.94	0.48
38:BD:52:ARG:HB2	38:BD:53:PHE:CD2	2.48	0.48
38:BD:58:HIS:CD2	38:BD:59:LYS:O	2.63	0.48
43:BI:82:ARG:HG3	43:BI:82:ARG:NH1	2.27	0.48
45:BO:98:VAL:HG13	45:BO:118:ALA:HA	1.96	0.48
35:BA:2561:A:H2	45:BO:23:ARG:HH12	1.59	0.48
45:BO:35:VAL:HG21	45:BO:69:ILE:HD13	1.95	0.48
46:BP:126:VAL:HG12	46:BP:127:ALA:N	2.28	0.48
50:BT:89:VAL:HB	50:BT:91:ARG:CZ	2.43	0.48
51:BU:27:LEU:HD22	51:BU:31:SER:CB	2.42	0.48
52:BV:13:ARG:HH11	52:BV:13:ARG:CG	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:2:ARG:HG2	55:BY:2:ARG:HH11	1.78	0.48
35:BA:896:A:N1	56:BZ:113:ALA:HB3	2.28	0.48
56:BZ:96:VAL:HG22	56:BZ:97:GLU:H	1.76	0.48
1:CA:1054:C:O2	1:CA:1054:C:H2'	2.13	0.48
1:CA:1158:C:H2'	1:CA:1158:C:O2	2.12	0.48
1:CA:301:G:H2'	1:CA:302:G:H8	1.79	0.48
1:CA:342:C:O2'	1:CA:343:U:H5'	2.13	0.48
1:CA:34:C:H2'	1:CA:35:G:H8	1.78	0.48
1:CA:420:U:H2'	1:CA:422:C:C5	2.48	0.48
1:CA:547:A:H4'	1:CA:548:G:O5'	2.12	0.48
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.95	0.48
1:CA:688:G:H2'	1:CA:689:C:H6	1.78	0.48
1:CA:882:C:O2'	1:CA:883:C:H5'	2.13	0.48
1:CA:90:U:OP1	1:CA:91:C:H4'	2.13	0.48
2:CB:197:VAL:HG11	2:CB:200:ILE:HG12	1.95	0.48
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	1.94	0.48
2:CB:41:ILE:H	2:CB:41:ILE:HD12	1.78	0.48
3:CC:55:VAL:HG12	3:CC:55:VAL:O	2.12	0.48
3:CC:70:VAL:CG1	3:CC:72:LYS:H	2.23	0.48
5:CE:79:GLU:HB3	5:CE:92:LYS:HG3	1.96	0.48
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.45	0.48
13:CM:19:LEU:H	13:CM:19:LEU:CD2	2.24	0.48
14:CN:23:ARG:HD3	14:CN:29:ARG:O	2.13	0.48
15:CO:8:LYS:HG2	15:CO:12:ILE:HD11	1.96	0.48
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.78	0.48
25:D0:49:LYS:HB2	25:D0:80:HIS:HB3	1.95	0.48
30:D5:44:THR:HG21	48:DR:101:ALA:HA	1.95	0.48
31:D6:51:GLU:O	31:D6:52:VAL:HG23	2.13	0.48
35:DA:1142(A):A:C5	35:DA:1144:G:C5	3.01	0.48
35:DA:1257:C:H4'	40:DF:83:PHE:CD2	2.48	0.48
35:DA:1842:G:H2'	35:DA:1843:C:C6	2.48	0.48
35:DA:1956:U:C2'	35:DA:1957:C:H5'	2.43	0.48
35:DA:2033:A:H2'	35:DA:2035:G:OP2	2.12	0.48
35:DA:2266:A:H5'	35:DA:2267:A:C8	2.48	0.48
35:DA:2402:C:C2'	35:DA:2403:C:H5'	2.42	0.48
35:DA:2781:A:H5''	35:DA:2782:G:H5'	1.95	0.48
35:DA:329:G:H1	55:DY:19:LYS:NZ	2.10	0.48
35:DA:644:A:H4'	35:DA:645:C:H5	1.79	0.48
36:DB:32:C:C2	36:DB:51:G:C2	3.02	0.48
39:DE:119:ARG:HD2	39:DE:120:TRP:CE2	2.48	0.48
41:DG:60:LEU:HD12	41:DG:68:PRO:CG	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:94:ALA:C	43:DI:96:ASP:N	2.67	0.48
48:DR:2:ARG:HH11	48:DR:2:ARG:HG2	1.77	0.48
48:DR:99:LYS:HD3	48:DR:99:LYS:H	1.77	0.48
50:DT:38:ASN:ND2	50:DT:40:THR:N	2.60	0.48
53:DW:18:ARG:HG2	53:DW:76:VAL:CG1	2.43	0.48
56:DZ:51:ALA:HB1	56:DZ:57:ILE:CD1	2.42	0.48
56:DZ:71:VAL:HG12	56:DZ:88:PHE:HE2	1.78	0.48
56:DZ:33:LEU:CD2	56:DZ:90:VAL:HG21	2.43	0.48
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.49	0.48
1:AA:1439:C:C2'	1:AA:1439:C:O2	2.61	0.48
1:AA:256:U:H2'	1:AA:257:G:C8	2.48	0.48
1:AA:487:A:H2'	1:AA:488:C:O4'	2.13	0.48
1:AA:860:A:H2'	1:AA:861:G:O4'	2.14	0.48
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.12	0.48
2:AB:91:PRO:HG2	2:AB:155:LEU:CB	2.24	0.48
3:AC:167:TRP:O	3:AC:168:ALA:HB2	2.14	0.48
4:AD:10:ARG:NH1	4:AD:40:PRO:HG3	2.28	0.48
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.95	0.48
13:AM:19:LEU:H	13:AM:19:LEU:CD2	2.23	0.48
1:AA:376:G:H5''	16:AP:5:ARG:HD2	1.94	0.48
12:AL:10:LEU:HB3	17:AQ:32:TYR:CE1	2.49	0.48
17:AQ:92:ARG:HA	17:AQ:95:TYR:CD2	2.48	0.48
23:AW:21:A:H5'	23:AW:21:A:C8	2.49	0.48
29:B4:51:TYR:N	29:B4:51:TYR:CD1	2.81	0.48
34:B9:17:ILE:HG13	34:B9:26:ILE:HD11	1.94	0.48
35:BA:1529:G:N2	35:BA:1530:C:H2'	2.27	0.48
35:BA:152:G:H2'	35:BA:153:C:O4'	2.12	0.48
35:BA:1591:G:H5'	35:BA:1591:G:C8	2.41	0.48
35:BA:1027:A:C2	35:BA:2488:A:H5'	2.48	0.48
35:BA:2819:G:O2'	35:BA:2820:A:H5'	2.12	0.48
35:BA:626:U:H3	46:BP:105:LEU:HA	1.79	0.48
35:BA:690:G:O2'	35:BA:691:C:H5'	2.13	0.48
35:BA:78:A:H2'	35:BA:79:G:C8	2.48	0.48
37:BC:65:PRO:HG2	37:BC:189:ILE:CB	2.42	0.48
38:BD:3:VAL:HG12	38:BD:17:THR:HB	1.95	0.48
38:BD:22:SER:HA	38:BD:25:THR:OG1	2.14	0.48
38:BD:9:TYR:C	38:BD:10:THR:HG22	2.34	0.48
41:BG:172:LEU:HD23	41:BG:172:LEU:C	2.33	0.48
42:BH:96:ALA:HB2	42:BH:105:LEU:HB3	1.94	0.48
43:BI:41:GLU:HA	43:BI:44:LEU:HB3	1.96	0.48
46:BP:46:LYS:HG2	46:BP:52:GLU:HG2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:44:THR:HG21	48:BR:101:ALA:HA	1.94	0.48
1:AA:1442(A):G:H2'	50:BT:118:ARG:HH11	1.78	0.48
50:BT:46:GLU:CG	50:BT:88:ILE:HD11	2.44	0.48
50:BT:64:ARG:HG2	50:BT:64:ARG:HH11	1.79	0.48
51:BU:115:ALA:C	51:BU:117:GLN:H	2.16	0.48
51:BU:24:TYR:HB2	51:BU:29:SER:HB3	1.95	0.48
54:BX:12:VAL:HG23	54:BX:13:LEU:H	1.78	0.48
56:BZ:20:ARG:HA	56:BZ:20:ARG:NH1	2.29	0.48
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.78	0.48
1:CA:1420:C:O2'	1:CA:1421:G:H5'	2.12	0.48
1:CA:145:G:H5'	1:CA:146:G:OP2	2.12	0.48
1:CA:541:G:H2'	1:CA:542:G:H8	1.78	0.48
1:CA:690:G:H2'	1:CA:691:G:C8	2.48	0.48
1:CA:939:G:H2'	1:CA:940:C:H6	1.76	0.48
2:CB:17:PHE:CD2	2:CB:17:PHE:O	2.67	0.48
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.48	0.48
3:CC:134:ILE:HG21	3:CC:168:ALA:HB3	1.95	0.48
6:CF:72:VAL:CG1	6:CF:73:ASN:N	2.76	0.48
8:CH:42:GLU:HG3	8:CH:109:ILE:CD1	2.42	0.48
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.13	0.48
10:CJ:22:LYS:O	10:CJ:22:LYS:HD2	2.14	0.48
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.70	0.48
17:CQ:68:ARG:HH11	17:CQ:68:ARG:CG	2.26	0.48
20:CT:56:MET:O	20:CT:59:ALA:HB3	2.14	0.48
20:CT:75:ASN:O	20:CT:78:ALA:N	2.46	0.48
22:CV:50:U:C2'	22:CV:51:U:H5'	2.42	0.48
23:CW:14:A:H3'	23:CW:15:G:H8	1.78	0.48
23:CW:19:G:C5'	23:CW:20:U:H5	2.26	0.48
23:CW:59:U:C2'	23:CW:60:U:H5'	2.43	0.48
30:D5:30:LEU:HD23	30:D5:41:PRO:CA	2.42	0.48
34:D9:22:ARG:HB2	34:D9:24:TYR:HE1	1.77	0.48
34:D9:17:ILE:HG13	34:D9:26:ILE:HD11	1.94	0.48
35:DA:1341:U:O4	54:DX:16:LYS:HE2	2.13	0.48
35:DA:2181:G:O2'	35:DA:2182:G:H5'	2.14	0.48
35:DA:2562:U:C2'	35:DA:2563:U:H5'	2.44	0.48
35:DA:2840:C:H5''	48:DR:53:HIS:CD2	2.49	0.48
35:DA:995:C:OP2	51:DU:54:LYS:HD3	2.13	0.48
38:DD:271:ILE:O	38:DD:272:ALA:CB	2.62	0.48
39:DE:8:LYS:HE3	39:DE:188:VAL:CG1	2.42	0.48
40:DF:182:ASN:O	40:DF:186:ILE:HG12	2.12	0.48
41:DG:17:PRO:C	41:DG:19:LEU:N	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:20:ILE:O	41:DG:24:GLY:HA2	2.13	0.48
42:DH:158:HIS:NE2	42:DH:170:ARG:CA	2.69	0.48
45:DO:60:ALA:HA	45:DO:87:ILE:HG12	1.96	0.48
46:DP:7:ARG:C	46:DP:7:ARG:NH1	2.67	0.48
49:DS:80:LEU:HD12	49:DS:80:LEU:N	2.28	0.48
35:DA:1266:G:O4'	53:DW:15:ARG:NH2	2.46	0.48
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.78	0.48
1:AA:1190:G:H3'	3:AC:3:ASN:HD22	1.76	0.48
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.14	0.48
1:AA:1300:G:O2'	1:AA:1301:U:P	2.71	0.48
2:AB:17:PHE:CD2	2:AB:17:PHE:O	2.66	0.48
2:AB:44:LEU:HD12	2:AB:44:LEU:N	2.17	0.48
2:AB:58:ILE:O	2:AB:61:LEU:HB3	2.14	0.48
2:AB:84:GLU:HB3	2:AB:219:VAL:CG2	2.41	0.48
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	1.94	0.48
8:AH:25:ASP:OD2	8:AH:60:ARG:HG2	2.14	0.48
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.13	0.48
20:AT:30:LYS:HE2	20:AT:72:LEU:HD11	1.95	0.48
22:AV:50:U:H2'	22:AV:51:U:O4'	2.12	0.48
22:AV:74:C:C2'	22:AV:75:C:H5'	2.44	0.48
25:B0:68:GLU:HG2	25:B0:80:HIS:HB2	1.94	0.48
28:B3:7:LYS:HD2	28:B3:34:GLU:OE1	2.14	0.48
29:B4:62:CYS:SG	29:B4:63:SER:N	2.87	0.48
33:B8:23:VAL:HG12	33:B8:46:ARG:HB3	1.94	0.48
35:BA:1902:C:C2'	35:BA:1903:G:O5'	2.61	0.48
35:BA:2313:C:H2'	35:BA:2314:C:C6	2.40	0.48
35:BA:244:A:C2	35:BA:255:A:C4	3.01	0.48
35:BA:2562:U:C2'	35:BA:2563:U:H5'	2.42	0.48
35:BA:2579:C:O3'	39:BE:131:ALA:HB3	2.13	0.48
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.95	0.48
35:BA:2673:G:O2'	35:BA:2674:G:H5'	2.13	0.48
35:BA:2777:G:C4'	35:BA:2778:A:H5'	2.43	0.48
35:BA:2889:C:H2'	35:BA:2891:G:O4'	2.14	0.48
32:B7:33:ARG:NH1	35:BA:467:G:OP1	2.46	0.48
35:BA:79:G:O2'	35:BA:80:G:H5'	2.14	0.48
37:BC:49:ILE:O	37:BC:51:PRO:CD	2.61	0.48
38:BD:249:PRO:HG2	38:BD:250:TRP:CE3	2.49	0.48
39:BE:17:ASP:O	39:BE:18:ASP:HB2	2.13	0.48
40:BF:10:PRO:HG2	40:BF:11:VAL:H	1.78	0.48
40:BF:33:LEU:CD2	40:BF:112:MET:HG2	2.43	0.48
41:BG:47:LYS:HD2	41:BG:81:LYS:HD3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:71:THR:N	41:BG:89:GLY:O	2.47	0.48
43:BI:124:GLY:H	43:BI:142:VAL:HG23	1.77	0.48
45:BO:113:LYS:O	45:BO:117:LEU:HB2	2.13	0.48
50:BT:89:VAL:HG11	50:BT:91:ARG:HE	1.78	0.48
50:BT:89:VAL:HB	50:BT:91:ARG:NE	2.28	0.48
51:BU:66:ASN:CB	51:BU:76:TYR:HB2	2.43	0.48
51:BU:91:ASP:O	51:BU:92:ARG:O	2.31	0.48
52:BV:28:GLU:HB3	52:BV:29:PRO:CD	2.40	0.48
52:BV:51:VAL:CG1	52:BV:52:VAL:N	2.76	0.48
52:BV:72:VAL:CG2	52:BV:85:LYS:HB3	2.34	0.48
52:BV:14:VAL:HB	52:BV:96:ILE:HG13	1.96	0.48
56:BZ:111:VAL:O	56:BZ:111:VAL:CG2	2.61	0.48
1:CA:1092:A:O2'	1:CA:1093:A:H5'	2.13	0.48
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.13	0.48
1:CA:1314:C:N4	19:CS:4:SER:N	2.61	0.48
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.79	0.48
1:CA:766:A:H2'	1:CA:767:A:O4'	2.13	0.48
1:CA:862:C:O2'	1:CA:863:U:H5'	2.14	0.48
2:CB:116:GLU:HA	2:CB:119:GLU:HB3	1.96	0.48
3:CC:124:ILE:C	3:CC:126:ARG:H	2.16	0.48
3:CC:137:ALA:O	3:CC:141:VAL:HG23	2.13	0.48
3:CC:151:VAL:HA	3:CC:199:LYS:O	2.14	0.48
4:CD:145:GLU:HG2	4:CD:184:LYS:NZ	2.29	0.48
9:CI:66:ARG:HH11	9:CI:66:ARG:CB	2.26	0.48
10:CJ:38:ILE:HG13	10:CJ:38:ILE:O	2.12	0.48
1:CA:963:G:H21	10:CJ:55:LYS:HD3	1.79	0.48
15:CO:39:LEU:HD12	15:CO:59:MET:HE1	1.94	0.48
22:CV:25:C:O2'	22:CV:26:A:H5'	2.13	0.48
31:D6:12:GLU:N	31:D6:12:GLU:CD	2.67	0.48
34:D9:22:ARG:HH12	35:DA:2741:A:H5''	1.78	0.48
35:DA:1133:U:O2	35:DA:1137:G:H5''	2.13	0.48
35:DA:1817:G:H2'	35:DA:1818:U:H5'	1.95	0.48
25:D0:34:GLY:HA3	35:DA:2353:G:H1'	1.95	0.48
35:DA:2468:G:N2	35:DA:2481:G:C2'	2.77	0.48
35:DA:2582:G:N2	35:DA:2583:G:H1'	2.28	0.48
39:DE:9:VAL:HG13	39:DE:25:VAL:O	2.13	0.48
41:DG:15:VAL:O	41:DG:19:LEU:HG	2.13	0.48
43:DI:125:GLU:OE1	43:DI:125:GLU:HA	2.11	0.48
43:DI:78:THR:OG1	43:DI:141:LYS:HD2	2.13	0.48
45:DO:10:VAL:HG21	45:DO:16:ALA:O	2.13	0.48
45:DO:5:GLN:HE21	45:DO:20:MET:CE	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:23:PRO:HB2	46:DP:33:ARG:CG	2.43	0.48
49:DS:96:GLY:C	49:DS:98:VAL:H	2.16	0.48
55:DY:26:LYS:O	55:DY:39:VAL:HA	2.14	0.48
1:AA:133:U:OP1	20:AT:74:LYS:HE2	2.13	0.48
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.13	0.48
1:AA:1407:C:O2'	1:AA:1408:A:H5'	2.13	0.48
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.49	0.48
1:AA:22:G:H2'	1:AA:23:C:C6	2.48	0.48
1:AA:269:C:H2'	1:AA:270:A:C8	2.49	0.48
1:AA:301:G:H2'	1:AA:302:G:H8	1.78	0.48
1:AA:486:U:H2'	1:AA:487:A:H8	1.79	0.48
1:AA:848:C:H2'	1:AA:849:C:H6	1.79	0.48
2:AB:72:GLY:HA2	2:AB:165:VAL:HG22	1.95	0.48
2:AB:91:PRO:HA	2:AB:151:GLY:O	2.13	0.48
3:AC:28:GLN:HA	3:AC:28:GLN:NE2	2.29	0.48
3:AC:78:GLY:HA3	3:AC:83:ARG:CB	2.44	0.48
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.28	0.48
5:AE:40:ARG:CZ	5:AE:40:ARG:HB3	2.43	0.48
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.95	0.48
9:AI:40:LEU:C	9:AI:42:ARG:H	2.16	0.48
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	1.95	0.48
10:AJ:31:GLY:HA3	10:AJ:78:ASN:OD1	2.14	0.48
12:AL:23:LYS:O	12:AL:24:VAL:HG23	2.14	0.48
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.28	0.48
13:AM:123:ALA:HB2	22:AY:39:U:H4'	1.95	0.48
35:BA:1819:A:H5''	38:BD:161:THR:HG21	1.95	0.48
35:BA:1827:C:C2'	35:BA:1828:G:H5'	2.44	0.48
35:BA:807:U:O2'	35:BA:808:G:H5'	2.13	0.48
35:BA:863:A:O2'	35:BA:864:G:H5'	2.14	0.48
37:BC:100:ILE:HG23	37:BC:131:LEU:O	2.14	0.48
37:BC:42:GLU:HA	37:BC:178:ALA:HB2	1.95	0.48
38:BD:137:PRO:HB2	38:BD:140:THR:HG23	1.95	0.48
38:BD:33:LEU:O	38:BD:34:VAL:CB	2.56	0.48
39:BE:59:VAL:HG11	39:BE:63:LEU:HG	1.95	0.48
43:BI:68:LEU:O	43:BI:72:LEU:HB2	2.14	0.48
50:BT:85:LYS:HB3	50:BT:85:LYS:HZ2	1.79	0.48
52:BV:21:ARG:HG2	52:BV:91:TYR:CE2	2.49	0.48
54:BX:36:LYS:O	54:BX:39:ILE:HB	2.14	0.48
55:BY:27:VAL:C	55:BY:28:LYS:HZ2	2.17	0.48
56:BZ:116:VAL:N	56:BZ:174:VAL:HG13	2.29	0.48
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1399:C:C2	1:CA:1502:A:N6	2.82	0.48
1:CA:424:G:O2'	1:CA:425:G:H5'	2.13	0.48
1:CA:783:C:O2'	1:CA:784:C:H5'	2.14	0.48
5:CE:40:ARG:HG2	5:CE:40:ARG:NH1	2.27	0.48
9:CI:66:ARG:HB2	9:CI:66:ARG:HH11	1.78	0.48
19:CS:44:MET:N	19:CS:44:MET:SD	2.86	0.48
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	2.44	0.48
30:D5:43:HIS:CD2	35:DA:2815:C:O2'	2.67	0.48
33:D8:33:ASN:O	33:D8:34:TRP:HB3	2.13	0.48
34:D9:30:PRO:HB2	35:DA:2527:C:H5'	1.95	0.48
35:DA:154(A):C:N4	35:DA:171:G:H1	2.12	0.48
35:DA:1665:A:O2'	35:DA:1666:G:H5'	2.13	0.48
35:DA:2305:A:H1'	41:DG:135:LEU:O	2.14	0.48
35:DA:2724:C:OP1	39:DE:111:ARG:HD3	2.14	0.48
35:DA:363(B):G:N3	35:DA:363(B):G:H2'	2.28	0.48
35:DA:39:C:H2'	35:DA:40:C:C6	2.49	0.48
35:DA:626:U:C5'	35:DA:627:A:H5'	2.44	0.48
35:DA:943:U:OP2	46:DP:38:GLN:OE1	2.32	0.48
37:DC:25:ALA:C	37:DC:27:ARG:H	2.16	0.48
39:DE:40:GLU:OE1	39:DE:40:GLU:N	2.46	0.48
40:DF:191:ARG:HG2	40:DF:191:ARG:HH11	1.77	0.48
43:DI:129:THR:HA	43:DI:137:PRO:HA	1.94	0.48
43:DI:51:ILE:HG22	43:DI:52:ARG:N	2.28	0.48
43:DI:82:ARG:HG3	43:DI:82:ARG:NH1	2.28	0.48
35:DA:2561:A:H2	45:DO:23:ARG:HH12	1.62	0.48
45:DO:24:VAL:CG2	45:DO:33:ALA:HB2	2.43	0.48
46:DP:123:LEU:HD12	46:DP:123:LEU:O	2.13	0.48
46:DP:33:ARG:O	46:DP:35:HIS:O	2.32	0.48
48:DR:2:ARG:HG2	48:DR:5:LYS:NZ	2.20	0.48
49:DS:61:ASN:O	49:DS:65:VAL:HG23	2.14	0.48
50:DT:50:ILE:HA	50:DT:99:LEU:HD11	1.95	0.48
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.49	0.48
1:AA:383:A:H2'	1:AA:384:G:H5'	1.96	0.48
1:AA:59:A:H5''	1:AA:60:A:H5''	1.95	0.48
1:AA:625:G:H4'	16:AP:16:HIS:HD2	1.78	0.48
3:AC:150:LYS:CG	3:AC:169:ALA:HB2	2.42	0.48
3:AC:54:ARG:HH12	3:AC:56:ASP:CB	2.27	0.48
7:AG:148:ASN:O	7:AG:150:ALA:N	2.47	0.48
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.13	0.48
8:AH:42:GLU:HG3	8:AH:109:ILE:CD1	2.41	0.48
12:AL:126:LYS:HD2	12:AL:127:GLU:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:6:THR:HG23	12:AL:9:GLN:H	1.79	0.48
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.13	0.48
13:AM:68:GLY:O	13:AM:71:ARG:N	2.46	0.48
13:AM:80:ARG:NH2	19:AS:69:HIS:NE2	2.61	0.48
14:AN:19:ARG:O	14:AN:20:ALA:C	2.52	0.48
23:AW:76:A:OP2	23:AW:76:A:H3'	2.14	0.48
26:B1:68:PRO:O	26:B1:70:VAL:N	2.47	0.48
31:B6:42:TRP:CH2	35:BA:643:A:N7	2.82	0.48
35:BA:1318:C:C3'	35:BA:1319:G:H5''	2.39	0.48
35:BA:1665:A:H1'	45:BO:1:MET:HG2	1.95	0.48
35:BA:2123:G:H2'	35:BA:2124:G:C8	2.48	0.48
35:BA:2181:G:O2'	35:BA:2182:G:H5'	2.13	0.48
35:BA:2188:C:H2'	35:BA:2189:U:O4'	2.14	0.48
35:BA:2313:C:H5'	35:BA:2313:C:C6	2.48	0.48
35:BA:2567:G:H2'	35:BA:2568:C:C6	2.47	0.48
35:BA:732:C:C2'	35:BA:733:G:H5'	2.43	0.48
35:BA:786:C:O2'	35:BA:787:U:H5'	2.14	0.48
35:BA:977:G:O2'	35:BA:978:G:H5'	2.13	0.48
37:BC:62:VAL:O	37:BC:64:LEU:N	2.47	0.48
38:BD:45:ASN:OD1	38:BD:46:GLN:N	2.46	0.48
39:BE:65:GLY:C	39:BE:67:PHE:H	2.16	0.48
40:BF:177:ALA:HB1	40:BF:178:PRO:HD2	1.94	0.48
40:BF:192:LEU:HD23	40:BF:192:LEU:C	2.34	0.48
40:BF:20:LEU:HG	40:BF:21:ALA:H	1.78	0.48
41:BG:101:ILE:HD11	41:BG:105:LYS:NZ	2.27	0.48
42:BH:68:THR:C	42:BH:70:THR:H	2.15	0.48
46:BP:35:HIS:O	46:BP:36:LYS:CB	2.61	0.48
47:BQ:81:VAL:HG23	47:BQ:82:ARG:O	2.14	0.48
48:BR:116:LEU:O	48:BR:117:VAL:C	2.52	0.48
48:BR:53:HIS:HA	48:BR:56:LYS:HD3	1.96	0.48
45:BO:119:PRO:HB2	50:BT:68:TYR:CE1	2.48	0.48
55:BY:77:PRO:O	55:BY:78:ALA:HB2	2.12	0.48
1:CA:725:G:H2'	1:CA:726:C:C6	2.49	0.48
1:CA:837:G:O2'	1:CA:838:G:H5'	2.13	0.48
1:CA:92:C:H2'	1:CA:93:G:C8	2.42	0.48
2:CB:97:TRP:HZ2	2:CB:102:LEU:CD1	2.26	0.48
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.13	0.48
3:CC:138:VAL:C	3:CC:140:ARG:H	2.17	0.48
1:CA:1194:U:H4'	5:CE:22:GLY:CA	2.42	0.48
5:CE:40:ARG:HB3	5:CE:40:ARG:CZ	2.44	0.48
1:CA:939:G:C5'	7:CG:102:ARG:HH22	2.17	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.28	0.48
10:CJ:4:ILE:HB	10:CJ:74:ILE:HG13	1.96	0.48
11:CK:21:ILE:CD1	11:CK:82:VAL:HG13	2.43	0.48
13:CM:27:LYS:HE3	13:CM:31:LYS:NZ	2.29	0.48
16:CP:20:VAL:HG23	16:CP:21:VAL:N	2.29	0.48
19:CS:11:VAL:HG22	19:CS:16:LEU:HD11	1.96	0.48
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.79	0.48
11:CK:54:ARG:NH1	23:CW:40:C:H5'	2.26	0.48
29:D4:48:ILE:HG22	29:D4:50:THR:HG23	1.95	0.48
30:D5:54:GLY:O	30:D5:56:LYS:HD2	2.14	0.48
34:D9:17:ILE:HG12	34:D9:26:ILE:HD11	1.95	0.48
35:DA:1373:A:H2'	35:DA:1374:G:O4'	2.14	0.48
35:DA:1443:G:C2'	35:DA:1444:G:H5'	2.44	0.48
35:DA:1528(A):A:H3'	35:DA:1529:G:C5'	2.38	0.48
35:DA:1747:G:H2'	35:DA:1747(A):G:C8	2.48	0.48
35:DA:174:C:O2	35:DA:174:C:H2'	2.13	0.48
35:DA:2082:A:H2'	35:DA:2083:G:O4'	2.13	0.48
35:DA:2313:C:H5'	35:DA:2313:C:H6	1.78	0.48
35:DA:2547:U:H2'	35:DA:2548:G:H8	1.76	0.48
35:DA:286:C:C2'	35:DA:287:C:C5'	2.89	0.48
35:DA:365:C:H2'	35:DA:366:C:O4'	2.14	0.48
35:DA:860:U:O2'	35:DA:861:A:H5'	2.13	0.48
35:DA:977:G:O2'	35:DA:978:G:H5'	2.14	0.48
38:DD:201:HIS:O	38:DD:204:ILE:HG12	2.13	0.48
35:DA:1654:A:C2	39:DE:113:PHE:CD1	3.02	0.48
39:DE:7:VAL:HA	39:DE:194:GLY:O	2.14	0.48
40:DF:31:HIS:O	40:DF:35:GLU:HG3	2.14	0.48
41:DG:125:PHE:CD2	41:DG:131:TYR:HB2	2.49	0.48
41:DG:86:MET:N	41:DG:87:PRO:HD2	2.27	0.48
42:DH:85:LYS:HD3	42:DH:133:VAL:HB	1.95	0.48
43:DI:3:VAL:HG21	43:DI:21:VAL:HG22	1.96	0.48
46:DP:78:PRO:HB2	46:DP:111:ARG:HD2	1.96	0.48
46:DP:24:GLY:O	46:DP:25:SER:HB3	2.13	0.48
35:DA:814:C:C5	46:DP:27:HIS:CE1	3.01	0.48
49:DS:96:GLY:C	49:DS:97:ARG:HG3	2.33	0.48
52:DV:68:LYS:NZ	52:DV:68:LYS:HB2	2.28	0.48
54:DX:12:VAL:CG1	54:DX:27:THR:OG1	2.62	0.48
55:DY:28:LYS:HB3	55:DY:37:VAL:HB	1.94	0.48
55:DY:96:ILE:CG2	55:DY:97:ARG:H	2.26	0.48
1:AA:324:G:OP1	20:AT:70:SER:HB2	2.14	0.48
1:AA:491:G:O2'	1:AA:492:G:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:93:G:H2'	1:AA:96:U:H5'	1.96	0.48
2:AB:194:PRO:HA	2:AB:200:ILE:HD11	1.96	0.48
1:AA:1191:A:H5''	3:AC:4:LYS:HZ2	1.79	0.48
4:AD:106:TYR:HE1	4:AD:112:VAL:O	1.97	0.48
6:AF:21:LEU:HD13	6:AF:24:GLU:OE1	2.14	0.48
6:AF:77:ARG:CZ	6:AF:77:ARG:HB3	2.44	0.48
7:AG:140:ASP:HA	7:AG:143:ARG:HH21	1.79	0.48
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.95	0.48
8:AH:97:VAL:HA	8:AH:100:ILE:HD11	1.95	0.48
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	1.95	0.48
12:AL:28:LYS:HE2	12:AL:33:ARG:NH1	2.29	0.48
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.33	0.48
16:AP:82:GLN:O	16:AP:84:ALA:N	2.47	0.48
18:AR:47:THR:HA	18:AR:83:GLU:HG3	1.95	0.48
23:AW:53:G:O2'	23:AW:54:U:H5'	2.13	0.48
1:AA:530:G:H1'	22:AY:35:A:O2'	2.14	0.48
29:B4:48:ILE:HG22	29:B4:50:THR:HG23	1.95	0.48
33:B8:4:MET:HB2	33:B8:61:LEU:HD22	1.96	0.48
35:BA:1035:U:H2'	35:BA:1036:G:C8	2.49	0.48
35:BA:999:U:H5''	35:BA:1154:G:O6	2.14	0.48
35:BA:1203:G:H3'	35:BA:1204:A:H5''	1.95	0.48
35:BA:1300:U:O2'	35:BA:1301:A:P	2.72	0.48
35:BA:1603:A:H5'	35:BA:1603:A:H8	1.78	0.48
35:BA:1747(A):G:C3'	35:BA:1748:G:H5''	2.44	0.48
35:BA:2579:C:O3'	39:BE:131:ALA:CB	2.61	0.48
35:BA:1999:C:H4'	35:BA:2723:C:O2	2.14	0.48
35:BA:2876:G:O2'	50:BT:3:ARG:NE	2.46	0.48
35:BA:443:A:N7	40:BF:45:ARG:HD2	2.29	0.48
35:BA:1257:C:H4'	40:BF:83:PHE:CD2	2.49	0.48
42:BH:85:LYS:CD	42:BH:141:VAL:HG22	2.44	0.48
42:BH:89:ILE:O	42:BH:161:GLY:O	2.32	0.48
42:BH:163:TYR:CD1	42:BH:163:TYR:N	2.82	0.48
45:BO:18:LYS:HB2	45:BO:45:GLU:HG2	1.96	0.48
46:BP:7:ARG:HH11	46:BP:7:ARG:C	2.17	0.48
51:BU:79:PHE:C	51:BU:79:PHE:CD2	2.86	0.48
52:BV:69:LYS:CA	52:BV:88:ARG:HG2	2.42	0.48
55:BY:2:ARG:CD	55:BY:3:VAL:HG23	2.40	0.48
55:BY:51:VAL:O	55:BY:51:VAL:HG12	2.14	0.48
55:BY:97:ARG:HH11	55:BY:97:ARG:HG2	1.77	0.48
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.78	0.48
1:CA:457:C:H6	1:CA:457:C:O5'	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:59:A:H5''	1:CA:60:A:H5''	1.95	0.48
2:CB:54:THR:O	2:CB:58:ILE:HG12	2.14	0.48
4:CD:43:HIS:O	4:CD:45:GLN:N	2.47	0.48
5:CE:71:LEU:CD2	5:CE:115:VAL:HG22	2.44	0.48
11:CK:48:ILE:HD11	11:CK:64:ALA:CA	2.39	0.48
24:CX:20:U:N3	22:CY:36:A:C2	2.82	0.48
30:D5:33:CYS:HB3	30:D5:38:ALA:HB3	1.96	0.48
33:D8:62:LEU:N	33:D8:63:PRO:CD	2.76	0.48
35:DA:1142(A):A:N7	35:DA:1144:G:C6	2.82	0.48
35:DA:1188:U:C2'	35:DA:1189:A:H5'	2.43	0.48
35:DA:15:G:H2'	35:DA:16:G:H8	1.78	0.48
35:DA:1798:U:H5'	38:DD:259:THR:HG23	1.89	0.48
35:DA:2202:C:H2'	35:DA:2203:U:O4'	2.13	0.48
35:DA:2313:C:H5'	35:DA:2313:C:C6	2.49	0.48
35:DA:2051:A:H5'	35:DA:2578:G:O4'	2.14	0.48
35:DA:2696:U:H2'	35:DA:2697:G:C8	2.49	0.48
35:DA:271(H):G:O2'	35:DA:271(I):G:H5''	2.13	0.48
35:DA:2773:C:O2'	35:DA:2774:C:H5'	2.14	0.48
35:DA:435:C:C2'	35:DA:436:C:H5'	2.44	0.48
36:DB:28:C:H2'	36:DB:29:A:O4'	2.13	0.48
37:DC:62:VAL:O	37:DC:64:LEU:N	2.47	0.48
38:DD:134:ARG:HG3	38:DD:135:PHE:CD2	2.49	0.48
39:DE:47:VAL:CG2	39:DE:84:PHE:O	2.62	0.48
41:DG:117:PHE:HZ	41:DG:179:PRO:HB2	1.79	0.48
42:DH:70:THR:O	42:DH:72:ILE:N	2.38	0.48
43:DI:56:LYS:HG3	43:DI:57:ARG:N	2.29	0.48
43:DI:56:LYS:C	43:DI:58:LEU:H	2.16	0.48
43:DI:98:ALA:CB	43:DI:109:ILE:HB	2.44	0.48
45:DO:77:ILE:HD11	50:DT:72:VAL:HG12	1.96	0.48
46:DP:16:ARG:CZ	46:DP:18:ARG:CG	2.92	0.48
47:DQ:17:LEU:HD23	47:DQ:17:LEU:N	2.29	0.48
47:DQ:27:VAL:HB	47:DQ:137:TYR:CD1	2.48	0.48
48:DR:92:GLY:HA2	48:DR:94:TYR:CE1	2.48	0.48
50:DT:89:VAL:HG11	50:DT:91:ARG:NE	2.29	0.48
50:DT:88:ILE:CG2	50:DT:89:VAL:HG23	2.42	0.48
50:DT:95:ARG:NH1	50:DT:95:ARG:HB3	2.27	0.48
52:DV:46:VAL:CG1	52:DV:47:VAL:N	2.72	0.48
54:DX:47:PHE:O	54:DX:49:VAL:HG13	2.13	0.48
55:DY:95:LYS:HG2	55:DY:100:ALA:C	2.33	0.48
1:AA:1228:C:OP1	13:AM:115:LYS:HE3	2.14	0.48
1:AA:1503:A:O2'	24:AX:13:A:N6	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:436:C:O2'	1:AA:437:U:P	2.72	0.48
1:AA:624:C:H4'	16:AP:10:GLY:HA2	1.96	0.48
1:AA:774:G:O2'	1:AA:775:G:H5'	2.14	0.48
1:AA:837:G:O2'	1:AA:838:G:H5'	2.14	0.48
1:AA:965:A:C2	1:AA:969:A:C2	3.01	0.48
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.96	0.48
3:AC:92:ALA:HB2	3:AC:99:VAL:CG1	2.44	0.48
4:AD:13:ARG:O	4:AD:15:GLU:N	2.45	0.48
4:AD:170:VAL:CG2	4:AD:171:GLY:N	2.77	0.48
5:AE:63:ARG:HG2	5:AE:63:ARG:HH11	1.78	0.48
16:AP:8:ARG:CG	16:AP:9:PHE:H	2.26	0.48
35:BA:1528(A):A:C2'	35:BA:1529:G:H5''	2.44	0.48
35:BA:174:C:O2	35:BA:174:C:H2'	2.13	0.48
35:BA:1877:A:H5'	35:BA:1878:G:OP2	2.14	0.48
35:BA:2307:G:H5''	35:BA:2307:G:N3	2.29	0.48
35:BA:229:A:H5''	35:BA:230:U:H5'	1.96	0.48
35:BA:466:A:H2'	35:BA:467:G:H5'	1.96	0.48
35:BA:645:C:H2'	35:BA:645:C:O2	2.14	0.48
32:B7:12:ARG:HG3	35:BA:686:G:O6	2.13	0.48
38:BD:257:LEU:C	38:BD:257:LEU:CD2	2.82	0.48
40:BF:164:ARG:HH11	40:BF:164:ARG:HG2	1.79	0.48
40:BF:70:THR:C	40:BF:72:ARG:N	2.67	0.48
43:BI:125:GLU:OE1	43:BI:125:GLU:HA	2.14	0.48
45:BO:104:ARG:NH1	45:BO:104:ARG:CB	2.77	0.48
46:BP:122:PRO:HG3	46:BP:141:ALA:HB3	1.95	0.48
46:BP:16:ARG:CZ	46:BP:18:ARG:CG	2.92	0.48
46:BP:7:ARG:NH1	46:BP:7:ARG:C	2.66	0.48
47:BQ:141:GLN:CB	56:BZ:99:TYR:H	2.27	0.48
47:BQ:16:ARG:CG	47:BQ:17:LEU:N	2.76	0.48
48:BR:113:LEU:HD12	48:BR:114:VAL:N	2.29	0.48
48:BR:48:VAL:O	48:BR:49:ASP:C	2.50	0.48
49:BS:98:VAL:HG12	49:BS:100:ALA:N	2.29	0.48
54:BX:44:GLU:OE2	54:BX:50:LYS:HA	2.14	0.48
56:BZ:14:LYS:O	56:BZ:15:PRO:C	2.51	0.48
1:CA:269:C:H2'	1:CA:270:A:C8	2.49	0.48
1:CA:287:U:O2'	1:CA:288:A:H5'	2.14	0.48
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.14	0.48
3:CC:92:ALA:HB2	3:CC:99:VAL:CG1	2.44	0.48
4:CD:52:SER:O	4:CD:55:ALA:HB3	2.14	0.48
6:CF:68:PRO:HG3	6:CF:71:ARG:NH2	2.28	0.48
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:86:VAL:HG21	9:CI:93:ARG:HH11	1.79	0.48
13:CM:19:LEU:HD22	13:CM:19:LEU:N	2.23	0.48
14:CN:9:LYS:HA	14:CN:12:ARG:HH11	1.79	0.48
22:CV:42:C:H2'	22:CV:43:C:O4'	2.13	0.48
23:CW:61:C:H2'	23:CW:62:C:C5	2.49	0.48
26:D1:7:ILE:HD12	26:D1:7:ILE:N	2.29	0.48
28:D3:4:LEU:O	28:D3:36:VAL:HA	2.14	0.48
29:D4:40:ILE:N	29:D4:40:ILE:HD12	2.28	0.48
35:DA:1550:C:H2'	35:DA:1551:C:C6	2.49	0.48
35:DA:2126:A:C6	35:DA:2163:C:H4'	2.49	0.48
35:DA:2516:G:C6	35:DA:2517:C:N4	2.82	0.48
35:DA:2562:U:H2'	35:DA:2563:U:H5'	1.95	0.48
32:D7:12:ARG:HG3	35:DA:686:G:O6	2.13	0.48
35:DA:848:G:C8	35:DA:848:G:H5'	2.48	0.48
36:DB:111:G:H2'	36:DB:112:U:O4'	2.12	0.48
38:DD:112:GLN:H	38:DD:115:GLN:NE2	2.12	0.48
39:DE:117:MET:HA	39:DE:122:PHE:N	2.23	0.48
40:DF:112:MET:O	40:DF:115:ALA:HB3	2.14	0.48
41:DG:161:THR:HB	41:DG:163:ALA:H	1.79	0.48
42:DH:33:LEU:HD12	42:DH:75:ALA:HA	1.96	0.48
44:DN:118:LYS:C	44:DN:120:LEU:H	2.16	0.48
44:DN:91:LEU:HA	44:DN:95:PRO:HB3	1.95	0.48
48:DR:7:GLY:O	48:DR:8:ARG:CB	2.61	0.48
51:DU:115:ALA:C	51:DU:117:GLN:H	2.17	0.48
52:DV:19:LYS:NZ	52:DV:20:LEU:HB2	2.29	0.48
2:AB:114:ARG:HH12	2:AB:118:LEU:HD11	1.77	0.48
3:AC:89:GLU:OE2	3:AC:93:LYS:HB2	2.14	0.48
7:AG:113:GLU:O	7:AG:119:ARG:HD3	2.14	0.48
13:AM:79:LYS:O	13:AM:82:MET:HB3	2.13	0.48
17:AQ:76:LEU:CG	17:AQ:77:VAL:H	2.27	0.48
21:AU:5:ASP:O	21:AU:7:ARG:N	2.47	0.48
22:AY:11:C:H2'	22:AY:12:U:C6	2.49	0.48
26:B1:92:LYS:HG3	26:B1:93:GLU:N	2.28	0.48
31:B6:9:LEU:CD2	31:B6:10:LEU:N	2.76	0.48
31:B6:32:ASN:O	31:B6:33:LYS:CB	2.62	0.48
35:BA:1615:C:C5	35:BA:1617:C:C4	3.02	0.48
35:BA:1767:C:C2'	35:BA:1768:U:H5'	2.44	0.48
35:BA:2100:G:H1	35:BA:2189:U:H3	1.60	0.48
35:BA:2348:U:C2'	35:BA:2349:G:C5'	2.91	0.48
35:BA:2558:C:H2'	35:BA:2559:C:O4'	2.13	0.48
35:BA:2766:G:N3	35:BA:2766:G:H2'	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2841:C:H2'	35:BA:2842:G:H8	1.78	0.48
35:BA:626:U:C5'	35:BA:627:A:H5'	2.44	0.48
35:BA:712:G:O2'	35:BA:713:G:H5'	2.14	0.48
38:BD:37:LEU:HD12	38:BD:64:ILE:CG2	2.43	0.48
43:BI:82:ARG:HG3	43:BI:82:ARG:HH11	1.79	0.48
47:BQ:12:GLN:HG2	47:BQ:73:PRO:HD2	1.96	0.48
50:BT:28:VAL:HB	50:BT:88:ILE:HG13	1.95	0.48
52:BV:74:LYS:HB2	52:BV:83:ARG:HB2	1.96	0.48
56:BZ:155:LEU:N	56:BZ:155:LEU:HD12	2.29	0.48
56:BZ:99:TYR:CD2	56:BZ:99:TYR:N	2.81	0.48
1:CA:1029:C:O2'	1:CA:1030:C:H5	1.97	0.48
1:CA:1064:G:OP2	1:CA:1386:G:H4'	2.14	0.48
1:CA:243:A:H4'	1:CA:244:U:H5''	1.95	0.48
1:CA:255:G:O6	1:CA:266:G:O6	2.30	0.48
1:CA:35:G:C6	1:CA:36:C:N4	2.82	0.48
3:CC:73:PRO:HA	3:CC:76:VAL:CG1	2.42	0.48
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.34	0.48
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.95	0.48
12:CL:8:ASN:HD22	17:CQ:34:LYS:CE	2.22	0.48
17:CQ:31:LEU:HG	17:CQ:32:TYR:CD2	2.49	0.48
22:CY:25:C:H2'	22:CY:26:A:C8	2.41	0.48
22:CY:63:G:H2'	22:CY:64:A:C8	2.49	0.48
22:CY:63:G:H2'	22:CY:64:A:H8	1.79	0.48
28:D3:48:GLU:O	28:D3:51:ALA:HB2	2.14	0.48
30:D5:33:CYS:O	30:D5:34:PRO:C	2.51	0.48
35:DA:139:G:H2'	35:DA:140:G:N7	2.28	0.48
35:DA:2087:G:O2'	35:DA:2088:G:H5'	2.14	0.48
35:DA:2339:G:O2'	35:DA:2340:G:H5'	2.14	0.48
35:DA:244:A:C2	35:DA:255:A:C4	3.02	0.48
35:DA:449:A:O2'	35:DA:450:G:H5'	2.13	0.48
37:DC:86:ALA:HB2	37:DC:152:ILE:CB	2.43	0.48
37:DC:42:GLU:HA	37:DC:178:ALA:HB2	1.96	0.48
37:DC:95:GLY:HA2	37:DC:99:ILE:HD12	1.96	0.48
39:DE:34:VAL:CG2	39:DE:48:GLN:HE21	2.26	0.48
39:DE:51:PHE:HE1	39:DE:52:LEU:HD13	1.78	0.48
39:DE:49:LEU:O	39:DE:78:LEU:HB3	2.13	0.48
35:DA:2635:C:H5''	39:DE:78:LEU:O	2.13	0.48
39:DE:87:GLU:HG3	39:DE:87:GLU:O	2.13	0.48
41:DG:121:ASN:ND2	41:DG:123:ASN:H	2.12	0.48
42:DH:118:PRO:HG3	42:DH:144:VAL:HG21	1.96	0.48
42:DH:89:ILE:CD1	42:DH:90:LYS:N	2.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:120:ILE:O	47:DQ:123:HIS:HB2	2.14	0.48
49:DS:106:ARG:NH1	49:DS:108:GLY:CA	2.75	0.48
51:DU:17:ILE:O	51:DU:20:LEU:HB2	2.14	0.48
52:DV:45:THR:O	52:DV:46:VAL:HG12	2.14	0.48
55:DY:22:GLY:O	55:DY:23:ARG:HB2	2.14	0.48
56:DZ:33:LEU:HG	56:DZ:34:ASN:N	2.28	0.48
1:AA:782:A:H2'	1:AA:783:C:H5'	1.95	0.47
1:AA:950:U:H4'	1:AA:971:G:C2	2.49	0.47
1:AA:99:U:H2'	1:AA:100:C:C5	2.49	0.47
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.96	0.47
2:AB:88:ALA:O	2:AB:90:MET:HG3	2.13	0.47
3:AC:151:VAL:HA	3:AC:199:LYS:O	2.14	0.47
5:AE:139:LEU:C	5:AE:141:GLN:H	2.17	0.47
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.13	0.47
11:AK:44:SER:H	11:AK:47:VAL:HG23	1.75	0.47
12:AL:32:PHE:HB3	12:AL:84:LEU:CD2	2.44	0.47
13:AM:49:THR:HB	13:AM:52:GLU:H	1.78	0.47
15:AO:64:ARG:HG3	15:AO:64:ARG:NH1	2.28	0.47
16:AP:21:VAL:HG12	16:AP:34:GLU:O	2.14	0.47
1:AA:1314:C:H41	19:AS:4:SER:N	2.12	0.47
25:B0:43:THR:CG2	25:B0:43:THR:O	2.60	0.47
35:BA:1215:G:O2'	35:BA:1216:G:H5'	2.13	0.47
35:BA:1455:G:C8	48:BR:60:LEU:HD11	2.48	0.47
35:BA:2036:C:H5'	35:BA:2036:C:C6	2.37	0.47
35:BA:2266:A:H5'	35:BA:2267:A:N7	2.29	0.47
35:BA:2313:C:C6	35:BA:2314:C:H5	2.33	0.47
35:BA:2555:U:C2'	35:BA:2556:C:H5'	2.36	0.47
35:BA:2615:U:H2'	35:BA:2616:C:H6	1.78	0.47
35:BA:271(J):C:C2'	35:BA:271(K):U:H5''	2.44	0.47
35:BA:271(J):C:H2'	35:BA:271(K):U:H5''	1.96	0.47
35:BA:365:C:H2'	35:BA:366:C:O4'	2.14	0.47
35:BA:860:U:O2'	35:BA:861:A:H5'	2.13	0.47
38:BD:125:ILE:HG13	38:BD:137:PRO:CD	2.44	0.47
38:BD:153:ALA:O	38:BD:154:LYS:HG2	2.14	0.47
38:BD:267:SER:C	38:BD:269:PHE:N	2.68	0.47
39:BE:14:ILE:O	39:BE:20:ALA:HA	2.13	0.47
39:BE:6:GLY:O	39:BE:195:LEU:HD12	2.14	0.47
39:BE:44:TYR:O	39:BE:45:THR:CB	2.57	0.47
39:BE:47:VAL:CG2	39:BE:84:PHE:O	2.62	0.47
42:BH:13:LYS:HA	42:BH:13:LYS:CE	2.33	0.47
42:BH:70:THR:O	42:BH:72:ILE:N	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:71:LEU:CA	42:BH:74:ASN:HD22	2.27	0.47
43:BI:98:ALA:CB	43:BI:109:ILE:HB	2.42	0.47
43:BI:34:GLY:O	43:BI:35:LEU:HD23	2.13	0.47
45:BO:107:ARG:O	45:BO:112:MET:HE1	2.14	0.47
47:BQ:141:GLN:CD	56:BZ:72:ARG:HD3	2.34	0.47
47:BQ:17:LEU:HD23	47:BQ:17:LEU:N	2.29	0.47
50:BT:128:GLU:O	50:BT:130:ALA:N	2.47	0.47
51:BU:83:LEU:CD1	51:BU:113:ALA:HB2	2.43	0.47
52:BV:19:LYS:NZ	52:BV:20:LEU:HB2	2.29	0.47
56:BZ:117:LEU:HD13	56:BZ:174:VAL:HG23	1.96	0.47
56:BZ:42:VAL:HG13	56:BZ:43:GLU:N	2.28	0.47
1:CA:1286:A:H2	21:CU:22:ARG:NH2	2.12	0.47
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.13	0.47
1:CA:24:U:O2'	1:CA:25:C:H5'	2.14	0.47
1:CA:355:C:C4	1:CA:356:A:N7	2.82	0.47
1:CA:445:G:H2'	1:CA:446:G:C8	2.48	0.47
2:CB:28:PHE:HD2	2:CB:194:PRO:HD3	1.79	0.47
1:CA:1058:G:OP1	3:CC:199:LYS:HE3	2.14	0.47
4:CD:108:LEU:HB3	4:CD:110:PHE:HE1	1.79	0.47
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.17	0.47
5:CE:131:ILE:HD13	5:CE:131:ILE:O	2.14	0.47
10:CJ:16:LEU:HD23	10:CJ:94:VAL:CG1	2.44	0.47
11:CK:99:GLN:HA	11:CK:105:VAL:CG1	2.44	0.47
12:CL:6:THR:HG23	12:CL:9:GLN:HB2	1.96	0.47
13:CM:108:ARG:HH12	13:CM:112:GLY:HA3	1.79	0.47
13:CM:54:VAL:O	13:CM:58:GLU:N	2.33	0.47
21:CU:5:ASP:O	21:CU:7:ARG:N	2.47	0.47
22:CV:27:G:H2'	22:CV:28:G:C8	2.43	0.47
28:D3:36:VAL:HG23	28:D3:36:VAL:O	2.14	0.47
33:D8:6:THR:CA	33:D8:61:LEU:HD11	2.41	0.47
33:D8:61:LEU:HD13	33:D8:62:LEU:H	1.79	0.47
35:DA:2092:U:H4'	35:DA:2093:G:C5'	2.29	0.47
35:DA:2443:C:H2'	35:DA:2444:G:C8	2.49	0.47
35:DA:690:G:O2'	35:DA:691:C:H5'	2.15	0.47
35:DA:967:C:O2'	35:DA:968:G:H5'	2.14	0.47
36:DB:20:C:C3'	36:DB:21:G:H5''	2.42	0.47
38:DD:176:ARG:CG	38:DD:176:ARG:HH11	2.24	0.47
38:DD:3:VAL:HG12	38:DD:17:THR:HB	1.95	0.47
38:DD:58:HIS:CD2	38:DD:59:LYS:O	2.65	0.47
35:DA:2579:C:O3'	39:DE:131:ALA:HB3	2.13	0.47
41:DG:22:ARG:NH1	41:DG:22:ARG:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:81:VAL:HG11	43:DI:88:ILE:CD1	2.44	0.47
45:DO:32:TYR:CD1	45:DO:32:TYR:N	2.81	0.47
46:DP:41:ARG:NE	46:DP:41:ARG:CA	2.74	0.47
54:DX:3:THR:HA	54:DX:6:ASP:OD2	2.13	0.47
56:DZ:98:MET:HE2	56:DZ:100:VAL:HG22	1.96	0.47
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.49	0.47
1:AA:1058:G:OP1	3:AC:199:LYS:HE3	2.14	0.47
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.14	0.47
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.14	0.47
1:AA:34:C:H2'	1:AA:35:G:H8	1.77	0.47
1:AA:511:C:O2'	1:AA:512:U:H5''	2.13	0.47
8:AH:85:ARG:CG	8:AH:85:ARG:HH11	2.22	0.47
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.14	0.47
18:AR:60:ALA:O	18:AR:64:ARG:HG3	2.14	0.47
26:B1:86:SER:HB2	26:B1:89:GLU:CG	2.44	0.47
29:B4:51:TYR:O	29:B4:52:SER:HB3	2.13	0.47
30:B5:2:ALA:HB3	35:BA:747:U:N1	2.29	0.47
35:BA:1747:G:H2'	35:BA:1747(A):G:C8	2.49	0.47
35:BA:2164:C:H3'	35:BA:2165:G:H8	1.79	0.47
35:BA:2190:G:H5'	35:BA:2190:G:H8	1.77	0.47
35:BA:221:A:O2'	35:BA:222:A:OP2	2.28	0.47
35:BA:272(D):G:O2'	35:BA:272(E):G:H5'	2.14	0.47
35:BA:481:G:O2'	35:BA:482:A:P	2.71	0.47
35:BA:728:G:C6	35:BA:730:C:C4	3.02	0.47
36:BB:21:G:N3	36:BB:21:G:H2'	2.29	0.47
38:BD:210:GLY:O	38:BD:211:ARG:CB	2.61	0.47
35:BA:1800:C:P	38:BD:264:LYS:HZ3	2.37	0.47
39:BE:67:PHE:CD2	39:BE:68:ALA:N	2.81	0.47
41:BG:7:LEU:O	41:BG:8:LYS:C	2.52	0.47
42:BH:125:VAL:HG12	42:BH:125:VAL:O	2.14	0.47
43:BI:3:VAL:HG21	43:BI:21:VAL:HG22	1.95	0.47
43:BI:94:ALA:HB1	43:BI:111:PRO:HA	1.96	0.47
47:BQ:134:ARG:HA	47:BQ:137:TYR:CD1	2.49	0.47
49:BS:96:GLY:C	49:BS:97:ARG:HG3	2.33	0.47
50:BT:43:GLN:HG2	50:BT:44:ASP:N	2.29	0.47
35:BA:533:G:H5'	51:BU:24:TYR:CD2	2.49	0.47
52:BV:47:VAL:O	52:BV:47:VAL:HG23	2.13	0.47
52:BV:82:ARG:HD2	52:BV:82:ARG:N	2.29	0.47
55:BY:51:VAL:O	55:BY:52:SER:CB	2.62	0.47
55:BY:96:ILE:CG2	55:BY:97:ARG:H	2.27	0.47
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1043:C:H2'	1:CA:1044:A:C8	2.49	0.47
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.15	0.47
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.14	0.47
1:CA:532:A:C2	1:CA:1207:G:O4'	2.68	0.47
1:CA:706:A:N7	1:CA:707:C:H5	2.11	0.47
1:CA:745:C:H5''	1:CA:851:G:H1'	1.95	0.47
1:CA:885:G:H8	1:CA:885:G:O5'	1.97	0.47
3:CC:26:LYS:HG3	3:CC:27:LYS:N	2.23	0.47
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.49	0.47
7:CG:133:GLY:O	7:CG:136:LYS:HB3	2.15	0.47
7:CG:137:LYS:O	7:CG:141:VAL:HG23	2.14	0.47
10:CJ:63:PHE:CA	14:CN:59:ALA:HB2	2.45	0.47
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB2	1.79	0.47
12:CL:43:VAL:HG23	12:CL:44:THR:N	2.28	0.47
13:CM:68:GLY:O	13:CM:71:ARG:N	2.47	0.47
1:CA:1358:U:OP1	14:CN:35:ARG:HG2	2.13	0.47
18:CR:56:THR:OG1	18:CR:58:LEU:HD12	2.13	0.47
1:CA:1242:C:C5'	21:CU:10:ARG:HH12	2.26	0.47
27:D2:24:LEU:O	27:D2:24:LEU:HD12	2.14	0.47
31:D6:28:ARG:HA	31:D6:28:ARG:CZ	2.44	0.47
33:D8:7:HIS:HD2	46:DP:50:ARG:HD3	1.80	0.47
35:DA:1168:G:H1	35:DA:1181:C:H42	1.62	0.47
35:DA:1221(A):C:O2'	35:DA:1222:C:H5'	2.14	0.47
35:DA:1666:G:H1'	45:DO:3:GLN:HE21	1.78	0.47
35:DA:1815:A:P	38:DD:54:ARG:HH22	2.36	0.47
35:DA:2136:C:H2'	35:DA:2137:C:C6	2.40	0.47
35:DA:858:U:O2	35:DA:2268:A:H2'	2.14	0.47
35:DA:271(D):G:O2'	35:DA:271(E):U:H5'	2.13	0.47
35:DA:2889:C:H2'	35:DA:2891:G:O4'	2.14	0.47
35:DA:2892:A:H3'	35:DA:2893:G:H4'	1.96	0.47
27:D2:47:ASN:ND2	35:DA:94(A):G:N3	2.62	0.47
37:DC:78:ALA:HB3	37:DC:83:ILE:HD11	1.96	0.47
38:DD:11:PRO:C	38:DD:13:ARG:N	2.67	0.47
38:DD:94:LEU:HB2	38:DD:104:TYR:HE2	1.79	0.47
40:DF:70:THR:C	40:DF:72:ARG:N	2.67	0.47
40:DF:89:VAL:HG12	40:DF:90:PHE:N	2.29	0.47
41:DG:43:LEU:HD11	41:DG:153:ARG:HD2	1.96	0.47
41:DG:64:THR:HG23	41:DG:65:GLY:N	2.29	0.47
41:DG:68:PRO:CB	41:DG:90:LEU:HD21	2.44	0.47
42:DH:123:PHE:HA	42:DH:133:VAL:HG22	1.95	0.47
43:DI:133:HIS:HB2	43:DI:134:PRO:HD2	1.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:71:ILE:O	43:DI:75:LEU:HD13	2.14	0.47
43:DI:9:LEU:HB2	43:DI:12:LEU:O	2.14	0.47
46:DP:101:VAL:C	46:DP:103:ALA:N	2.67	0.47
46:DP:46:LYS:HG2	46:DP:52:GLU:CG	2.44	0.47
48:DR:18:LEU:HD13	48:DR:18:LEU:C	2.34	0.47
51:DU:21:ALA:O	51:DU:22:LYS:C	2.52	0.47
35:DA:560:C:H4'	51:DU:52:ARG:NH2	2.29	0.47
51:DU:76:TYR:CZ	51:DU:80:ILE:HG13	2.49	0.47
54:DX:46:ALA:C	54:DX:47:PHE:CD1	2.88	0.47
54:DX:52:VAL:HG21	54:DX:84:ALA:HA	1.97	0.47
55:DY:2:ARG:HG2	55:DY:2:ARG:HH11	1.78	0.47
55:DY:89:PHE:O	55:DY:90:LEU:HB3	2.14	0.47
47:DQ:141:GLN:HA	56:DZ:53:ILE:CG2	2.44	0.47
1:AA:1242:C:C5'	21:AU:10:ARG:HH12	2.28	0.47
1:AA:524:G:H2'	1:AA:525:C:C6	2.50	0.47
1:AA:708:C:H2'	1:AA:709:G:C8	2.48	0.47
1:AA:811:C:H4'	1:AA:900:A:N6	2.29	0.47
2:AB:27:LYS:HD3	2:AB:195:ASP:OD2	2.13	0.47
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.97	0.47
1:AA:939:G:C5'	7:AG:102:ARG:HH22	2.15	0.47
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.96	0.47
9:AI:41:VAL:O	9:AI:41:VAL:HG12	2.13	0.47
11:AK:126:ARG:HB3	11:AK:126:ARG:CZ	2.44	0.47
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.97	0.47
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.96	0.47
17:AQ:7:THR:O	17:AQ:23:VAL:HG13	2.13	0.47
18:AR:36:ASN:ND2	18:AR:39:VAL:CG2	2.68	0.47
19:AS:5:LEU:H	19:AS:6:LYS:HZ1	1.61	0.47
23:AW:31:A:N1	23:AW:39:U:O4	2.48	0.47
22:AY:15:G:O2'	22:AY:16:U:OP1	2.25	0.47
25:B0:70:GLN:HB3	25:B0:70:GLN:HE21	1.50	0.47
26:B1:90:ILE:HG22	26:B1:94:LEU:CD1	2.40	0.47
31:B6:12:GLU:N	31:B6:12:GLU:CD	2.67	0.47
33:B8:35:GLN:C	33:B8:36:LYS:HG3	2.34	0.47
35:BA:1240:U:O2'	35:BA:1241:A:C5'	2.60	0.47
35:BA:1842:G:H2'	35:BA:1843:C:C6	2.49	0.47
35:BA:2646:C:OP2	35:BA:2732:G:O2'	2.22	0.47
30:B5:43:HIS:CD2	35:BA:2815:C:O2'	2.68	0.47
35:BA:407:G:H2'	35:BA:408:G:H8	1.79	0.47
35:BA:667:U:H2'	35:BA:668:G:O4'	2.14	0.47
35:BA:884:C:H42	35:BA:892:G:H1	1.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:951:C:O2'	35:BA:952:G:H5'	2.14	0.47
36:BB:37:C:O2'	36:BB:38:C:H5'	2.13	0.47
38:BD:155:LEU:HD23	38:BD:177:LEU:CD2	2.40	0.47
39:BE:7:VAL:HA	39:BE:194:GLY:O	2.14	0.47
40:BF:132:VAL:O	40:BF:134:GLY:N	2.47	0.47
35:BA:320:A:H3'	40:BF:136:THR:HG22	1.96	0.47
40:BF:160:ASN:HD22	40:BF:161:GLU:N	2.12	0.47
40:BF:83:PHE:O	40:BF:84:VAL:HB	2.14	0.47
43:BI:59:ALA:O	43:BI:63:ALA:HB3	2.14	0.47
44:BN:91:LEU:CD2	44:BN:98:VAL:HG21	2.44	0.47
46:BP:25:SER:O	46:BP:30:THR:HG23	2.14	0.47
46:BP:97:PRO:C	46:BP:99:LEU:N	2.67	0.47
47:BQ:118:LEU:O	47:BQ:121:ALA:N	2.47	0.47
47:BQ:20:ALA:O	47:BQ:21:THR:CB	2.62	0.47
47:BQ:27:VAL:HB	47:BQ:137:TYR:CD1	2.48	0.47
25:B0:7:LEU:HD21	47:BQ:81:VAL:HB	1.95	0.47
49:BS:30:ARG:NH2	49:BS:62:LYS:HB3	2.25	0.47
35:BA:560:C:H4'	51:BU:52:ARG:NH2	2.29	0.47
55:BY:28:LYS:HB3	55:BY:37:VAL:HB	1.97	0.47
1:CA:1054:C:N4	22:CY:34:G:C4	2.82	0.47
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.14	0.47
1:CA:1472:U:O2'	1:CA:1473:A:H5'	2.14	0.47
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.96	0.47
1:CA:166:G:H2'	1:CA:167:G:H8	1.78	0.47
1:CA:487:A:H2'	1:CA:488:C:O4'	2.15	0.47
1:CA:678:U:H2'	1:CA:679:C:H6	1.79	0.47
1:CA:693:G:O2'	1:CA:694:A:H5'	2.14	0.47
3:CC:167:TRP:O	3:CC:168:ALA:HB2	2.14	0.47
3:CC:16:ARG:CA	3:CC:16:ARG:HH11	2.27	0.47
1:CA:737:A:O2'	6:CF:72:VAL:HG11	2.13	0.47
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.14	0.47
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.29	0.47
10:CJ:23:ILE:HG12	10:CJ:85:LEU:HD22	1.95	0.47
13:CM:54:VAL:HG12	13:CM:58:GLU:HG2	1.96	0.47
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.94	0.47
26:D1:73:LEU:HD13	26:D1:94:LEU:CD2	2.44	0.47
35:DA:1037:G:H1	35:DA:1118:C:N4	2.12	0.47
35:DA:1140:C:H5''	44:DN:66:LYS:NZ	2.28	0.47
35:DA:1301:A:HO2'	35:DA:1302:A:P	2.36	0.47
35:DA:2097:C:O2'	35:DA:2098:U:H5'	2.14	0.47
35:DA:2164:C:H3'	35:DA:2165:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:13:ARG:NH2	35:DA:250:G:OP2	2.45	0.47
35:DA:498:G:O2'	35:DA:499:U:H5'	2.14	0.47
35:DA:712:G:O2'	35:DA:713:G:H5'	2.14	0.47
36:DB:87:G:H1	36:DB:91:C:N4	2.11	0.47
37:DC:72:VAL:HG11	37:DC:160:ARG:O	2.14	0.47
38:DD:137:PRO:HB2	38:DD:140:THR:HG23	1.97	0.47
38:DD:72:LYS:HE2	38:DD:101:GLU:CD	2.34	0.47
40:DF:9:ILE:HA	40:DF:14:PRO:O	2.14	0.47
35:DA:661:C:H4'	46:DP:16:ARG:HH12	1.80	0.47
46:DP:59:LEU:CA	46:DP:61:ARG:NH1	2.73	0.47
47:DQ:65:PHE:HB2	47:DQ:105:GLU:HG2	1.96	0.47
56:DZ:111:VAL:O	56:DZ:111:VAL:HG13	2.14	0.47
1:AA:107:G:C2	1:AA:108:G:H1'	2.50	0.47
1:AA:255:G:H1'	17:AQ:16:GLN:HE21	1.73	0.47
1:AA:630:G:H2'	1:AA:631:G:C5'	2.44	0.47
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.15	0.47
2:AB:23:ARG:HB3	2:AB:23:ARG:CZ	2.45	0.47
2:AB:34:ALA:HB1	2:AB:36:ARG:HD2	1.96	0.47
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.79	0.47
1:AA:1348:U:C4'	9:AI:120:ARG:HD2	2.19	0.47
10:AJ:44:VAL:HG12	10:AJ:46:ARG:HG3	1.97	0.47
13:AM:91:ARG:HH22	13:AM:103:THR:HG21	1.79	0.47
18:AR:37:VAL:CG2	18:AR:38:GLU:H	2.10	0.47
23:AW:52:G:H2'	23:AW:53:G:C8	2.49	0.47
26:B1:48:LYS:HA	26:B1:60:PHE:O	2.13	0.47
29:B4:45:GLY:O	29:B4:46:ASN:O	2.31	0.47
30:B5:37:LYS:O	30:B5:38:ALA:O	2.32	0.47
31:B6:46:HIS:HB3	31:B6:47:THR:N	2.29	0.47
35:BA:108:U:H2'	35:BA:109:G:C8	2.49	0.47
35:BA:1181:C:O2'	35:BA:1182:A:H5'	2.15	0.47
35:BA:1786:A:H3'	35:BA:1787:A:H8	1.77	0.47
35:BA:2552:U:C2	35:BA:2554:U:H5'	2.50	0.47
35:BA:2712:U:OP1	35:BA:2714:G:H4'	2.14	0.47
35:BA:2837:G:H2'	35:BA:2838:G:H8	1.80	0.47
35:BA:405:U:H3'	35:BA:406:G:C5'	2.44	0.47
35:BA:644:A:H4'	35:BA:645:C:C5	2.49	0.47
36:BB:78:A:H2'	36:BB:79:C:O4'	2.13	0.47
37:BC:25:ALA:C	37:BC:27:ARG:H	2.18	0.47
38:BD:112:GLN:N	38:BD:115:GLN:NE2	2.63	0.47
38:BD:267:SER:HA	38:BD:270:ILE:HG13	1.96	0.47
39:BE:16:ARG:C	39:BE:18:ASP:N	2.66	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:133:LEU:HD12	41:BG:133:LEU:C	2.35	0.47
42:BH:85:LYS:HZ3	42:BH:133:VAL:HB	1.79	0.47
44:BN:90:MET:O	44:BN:93:THR:O	2.33	0.47
47:BQ:78:PRO:HB2	47:BQ:81:VAL:CG1	2.44	0.47
48:BR:115:GLU:HG2	48:BR:116:LEU:N	2.29	0.47
49:BS:106:ARG:HH22	49:BS:109:GLY:N	2.12	0.47
50:BT:50:ILE:HA	50:BT:99:LEU:HD11	1.96	0.47
51:BU:64:ARG:CG	51:BU:64:ARG:HH21	2.27	0.47
53:BW:34:ASN:O	53:BW:37:ARG:HB3	2.14	0.47
55:BY:48:ALA:C	55:BY:50:ARG:H	2.17	0.47
55:BY:90:LEU:HD12	55:BY:90:LEU:C	2.35	0.47
1:CA:1249:C:H6	1:CA:1249:C:H5'	1.79	0.47
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.45	0.47
1:CA:1512:U:O2'	1:CA:1513:A:H5'	2.14	0.47
1:CA:197:A:N7	1:CA:221:C:H4'	2.28	0.47
4:CD:119:GLN:NE2	4:CD:123:HIS:NE2	2.62	0.47
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.72	0.47
5:CE:136:MET:O	5:CE:138:ALA:N	2.47	0.47
5:CE:139:LEU:C	5:CE:141:GLN:H	2.17	0.47
8:CH:45:ILE:C	8:CH:47:GLY:H	2.17	0.47
9:CI:128:ARG:HD3	9:CI:128:ARG:H	1.80	0.47
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.83	0.47
1:CA:1228:C:H4'	13:CM:116:THR:CA	2.45	0.47
14:CN:19:ARG:O	14:CN:20:ALA:C	2.52	0.47
10:CJ:50:ILE:CD1	14:CN:41:ARG:HD2	2.44	0.47
15:CO:45:VAL:HB	15:CO:46:HIS:ND1	2.29	0.47
16:CP:39:TYR:CD1	16:CP:73:LEU:HD13	2.49	0.47
20:CT:67:ALA:O	20:CT:73:HIS:NE2	2.47	0.47
26:D1:3:LYS:O	26:D1:12:PRO:HD3	2.14	0.47
35:DA:1708:C:O2'	35:DA:1709:U:H5'	2.14	0.47
35:DA:1794:U:H2'	35:DA:1795:C:C6	2.48	0.47
35:DA:528:A:N1	35:DA:2042:A:H2'	2.30	0.47
35:DA:2307:G:N3	35:DA:2307:G:H5''	2.29	0.47
35:DA:330:A:O2'	35:DA:331:A:C8	2.61	0.47
35:DA:449:A:H2'	35:DA:450:G:H5'	1.97	0.47
35:DA:774:A:H2	35:DA:787:U:O2'	1.97	0.47
35:DA:884:C:H42	35:DA:892:G:H1	1.62	0.47
38:DD:148:GLU:HB3	38:DD:151:LYS:HD2	1.95	0.47
38:DD:16:MET:HE2	38:DD:208:LYS:HD2	1.94	0.47
38:DD:226:MET:HB3	38:DD:230:ASP:CB	2.44	0.47
39:DE:33:VAL:HG13	39:DE:69:LYS:NZ	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:107:LEU:HD11	41:DG:178:PHE:CE1	2.50	0.47
45:DO:49:ARG:CG	45:DO:49:ARG:HH11	2.24	0.47
48:DR:116:LEU:O	48:DR:117:VAL:C	2.52	0.47
35:DA:2710:C:OP1	48:DR:15:SER:HB2	2.14	0.47
50:DT:129:ARG:NH1	50:DT:130:ALA:O	2.47	0.47
50:DT:50:ILE:N	50:DT:50:ILE:HD12	2.29	0.47
50:DT:46:GLU:CG	50:DT:88:ILE:HD11	2.45	0.47
52:DV:82:ARG:HH11	52:DV:82:ARG:HG2	1.80	0.47
55:DY:67:LEU:HD11	55:DY:71:LYS:HB2	1.96	0.47
55:DY:90:LEU:HD12	55:DY:90:LEU:C	2.35	0.47
56:DZ:8:TYR:HD2	56:DZ:62:PRO:CG	2.28	0.47
1:AA:1115:C:O2'	1:AA:1116:C:H5'	2.14	0.47
1:AA:477:A:O2'	1:AA:479:C:H5'	2.14	0.47
1:AA:617:G:H1	1:AA:623:C:N4	2.07	0.47
1:AA:665:A:N3	1:AA:732:C:H2'	2.30	0.47
2:AB:80:ILE:HD11	2:AB:212:GLN:HA	1.96	0.47
4:AD:8:VAL:C	4:AD:10:ARG:N	2.66	0.47
4:AD:68:TYR:CD2	4:AD:97:LEU:HD22	2.49	0.47
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.45	0.47
5:AE:67:VAL:HG13	5:AE:69:VAL:CG2	2.43	0.47
6:AF:3:ARG:HD3	6:AF:64:GLN:OE1	2.13	0.47
8:AH:11:THR:O	8:AH:15:ASN:ND2	2.48	0.47
9:AI:43:ALA:C	9:AI:45:ALA:H	2.18	0.47
10:AJ:4:ILE:HB	10:AJ:74:ILE:CG1	2.44	0.47
10:AJ:78:ASN:ND2	10:AJ:80:LYS:HB2	2.29	0.47
12:AL:32:PHE:HB3	12:AL:84:LEU:HD21	1.97	0.47
12:AL:6:THR:HG23	12:AL:9:GLN:HB2	1.95	0.47
13:AM:116:THR:HG22	13:AM:117:VAL:H	1.78	0.47
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.44	0.47
13:AM:28:ALA:C	13:AM:30:ALA:N	2.66	0.47
17:AQ:31:LEU:HG	17:AQ:32:TYR:CD2	2.49	0.47
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	2.45	0.47
26:B1:3:LYS:HD2	35:BA:1364:G:OP2	2.14	0.47
35:BA:1428:C:O2'	35:BA:1429:G:H5'	2.15	0.47
35:BA:1785:A:O2'	35:BA:1786:A:H2'	2.14	0.47
35:BA:1860:G:H2'	35:BA:1861:G:H8	1.80	0.47
35:BA:2126:A:C6	35:BA:2163:C:H4'	2.49	0.47
35:BA:2394:C:O2'	35:BA:2395:C:H5'	2.15	0.47
35:BA:270:A:C2'	35:BA:271:A:H5'	2.45	0.47
35:BA:2864:G:C5'	35:BA:2864:G:H8	2.27	0.47
35:BA:581:C:OP1	51:BU:33:ARG:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:85:GLU:C	37:BC:87:GLU:H	2.18	0.47
38:BD:26:LYS:CD	38:BD:82:ILE:H	2.28	0.47
40:BF:10:PRO:HD2	40:BF:13:SER:HB2	1.94	0.47
40:BF:31:HIS:O	40:BF:35:GLU:HG3	2.15	0.47
40:BF:38:ARG:HH11	40:BF:38:ARG:HG3	1.79	0.47
41:BG:128:ARG:N	41:BG:128:ARG:NE	2.62	0.47
41:BG:45:GLU:O	41:BG:88:ILE:HD11	2.15	0.47
42:BH:158:HIS:NE2	42:BH:169:VAL:O	2.48	0.47
46:BP:81:GLN:CG	46:BP:106:LEU:HD12	2.43	0.47
46:BP:32:THR:O	46:BP:33:ARG:CB	2.63	0.47
36:BB:30:C:H5	49:BS:32:LEU:CD1	2.27	0.47
49:BS:97:ARG:HH21	49:BS:98:VAL:CA	2.02	0.47
51:BU:90:VAL:HG12	51:BU:91:ASP:N	2.30	0.47
56:BZ:103:ARG:O	56:BZ:105:VAL:N	2.43	0.47
1:CA:1324:A:H2'	1:CA:1325:C:C6	2.49	0.47
1:CA:1452:C:H4'	1:CA:1456:G:C5'	2.44	0.47
1:CA:511:C:O2'	1:CA:512:U:H5''	2.14	0.47
1:CA:649:G:H2'	1:CA:650:G:H8	1.78	0.47
1:CA:767:A:H2'	1:CA:768:A:O4'	2.15	0.47
3:CC:28:GLN:NE2	3:CC:28:GLN:HA	2.29	0.47
5:CE:67:VAL:HG13	5:CE:69:VAL:CG2	2.45	0.47
9:CI:43:ALA:C	9:CI:45:ALA:H	2.18	0.47
10:CJ:31:GLY:HA3	10:CJ:78:ASN:OD1	2.14	0.47
1:AA:1163:C:H5'	10:CJ:80:LYS:HD2	1.96	0.47
1:AA:1163:C:H5'	10:CJ:80:LYS:HZ3	1.80	0.47
11:CK:108:ILE:HB	18:CR:87:ARG:HA	1.97	0.47
13:CM:76:ALA:HA	13:CM:79:LYS:HD2	1.94	0.47
23:CW:55:U:H5	23:CW:58:A:OP2	1.96	0.47
26:D1:19:GLN:HB3	26:D1:35:THR:CG2	2.44	0.47
35:DA:1469:A:O2'	35:DA:1470:G:H5'	2.13	0.47
35:DA:1722:A:C6	35:DA:1741:A:N1	2.82	0.47
35:DA:1741:A:H8	35:DA:1742:G:C8	2.33	0.47
35:DA:1747(A):G:C3'	35:DA:1748:G:H5''	2.44	0.47
35:DA:1786:A:H3'	35:DA:1787:A:H8	1.80	0.47
35:DA:210:C:H2'	35:DA:211:A:C8	2.49	0.47
35:DA:2208:A:H1'	35:DA:2219:G:C5	2.49	0.47
31:D6:27:LYS:HE3	35:DA:2285:C:C5	2.50	0.47
35:DA:2892:A:C5	35:DA:2893:G:H1'	2.49	0.47
35:DA:832:G:H21	46:DP:53:GLY:HA3	1.79	0.47
37:DC:124:GLY:O	37:DC:125:SER:CB	2.62	0.47
37:DC:100:ILE:HG23	37:DC:131:LEU:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:182:PRO:O	37:DC:183:GLU:CB	2.62	0.47
37:DC:47:LEU:N	37:DC:47:LEU:HD23	2.29	0.47
42:DH:65:HIS:HE1	42:DH:69:ARG:CD	2.28	0.47
43:DI:60:GLU:HA	43:DI:60:GLU:OE2	2.14	0.47
44:DN:94:HIS:N	44:DN:95:PRO:CD	2.77	0.47
46:DP:71:VAL:HG12	46:DP:72:PRO:HD3	1.96	0.47
48:DR:48:VAL:HA	48:DR:51:LEU:HD12	1.95	0.47
50:DT:92:GLY:HA2	50:DT:114:LEU:CA	2.44	0.47
50:DT:89:VAL:HB	50:DT:91:ARG:CZ	2.43	0.47
54:DX:44:GLU:OE2	54:DX:50:LYS:HA	2.14	0.47
55:DY:67:LEU:HD11	55:DY:71:LYS:CB	2.45	0.47
56:DZ:102:LEU:HG	56:DZ:137:ILE:CG2	2.45	0.47
56:DZ:77:ASP:C	56:DZ:79:ARG:H	2.18	0.47
1:AA:1494:G:C2	1:AA:1495:U:C6	3.03	0.47
3:AC:85:ARG:HA	3:AC:88:ARG:HD2	1.96	0.47
5:AE:136:MET:C	5:AE:138:ALA:N	2.67	0.47
1:AA:1080:A:H5''	5:AE:16:THR:HG21	1.95	0.47
8:AH:97:VAL:HA	8:AH:100:ILE:CD1	2.45	0.47
10:AJ:50:ILE:O	10:AJ:51:ARG:O	2.33	0.47
14:AN:3:ARG:HH11	14:AN:3:ARG:CG	2.28	0.47
15:AO:45:VAL:HB	15:AO:46:HIS:ND1	2.28	0.47
18:AR:65:ILE:H	18:AR:65:ILE:HG12	1.51	0.47
22:AV:28:G:O2'	22:AV:29:G:H5'	2.14	0.47
22:AY:51:U:H3'	22:AY:52:G:H8	1.79	0.47
26:B1:43:TYR:HA	26:B1:44:PRO:HD3	1.76	0.47
26:B1:73:LEU:HA	26:B1:76:ARG:HG2	1.97	0.47
31:B6:19:ARG:CG	31:B6:20:ASN:N	2.51	0.47
33:B8:61:LEU:HD13	33:B8:62:LEU:H	1.80	0.47
35:BA:139:G:H2'	35:BA:140:G:N7	2.29	0.47
35:BA:1464:C:O2'	35:BA:1528:A:C8	2.65	0.47
35:BA:1747:G:H2'	35:BA:1747(A):G:H8	1.80	0.47
35:BA:1854:A:H3'	35:BA:1855:G:C8	2.41	0.47
35:BA:2250:G:C8	35:BA:2496:C:H5''	2.50	0.47
35:BA:2586:C:C5	35:BA:2608:G:N2	2.82	0.47
35:BA:449:A:O2'	35:BA:450:G:H5'	2.13	0.47
37:BC:73:ARG:O	37:BC:119:VAL:N	2.48	0.47
38:BD:263:ARG:CZ	38:BD:263:ARG:HB2	2.45	0.47
38:BD:31:LYS:O	38:BD:33:LEU:O	2.32	0.47
39:BE:119:ARG:CG	39:BE:160:TYR:HB2	2.38	0.47
40:BF:99:TYR:O	40:BF:99:TYR:CD2	2.67	0.47
41:BG:32:PRO:HB2	41:BG:172:LEU:HD12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:86:GLU:HA	42:BH:132:ARG:HA	1.95	0.47
43:BI:33:ARG:HG2	43:BI:33:ARG:HH11	1.80	0.47
44:BN:35:ARG:O	44:BN:37:LYS:N	2.43	0.47
45:BO:104:ARG:HB2	45:BO:104:ARG:NH1	2.30	0.47
46:BP:32:THR:HG21	46:BP:37:GLY:CA	2.44	0.47
48:BR:18:LEU:HD13	48:BR:18:LEU:C	2.35	0.47
49:BS:87:PHE:CG	49:BS:88:ASP:N	2.78	0.47
53:BW:12:ILE:HG13	53:BW:42:ARG:NH1	2.29	0.47
55:BY:96:ILE:HD12	55:BY:99:CYS:HB2	1.94	0.47
56:BZ:118:GLN:CG	56:BZ:119:GLU:H	2.27	0.47
1:CA:1054:C:H5	1:CA:1196:U:C5	2.32	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.14	0.47
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.96	0.47
2:CB:34:ALA:HB1	2:CB:36:ARG:HD2	1.96	0.47
1:CA:877:C:H1'	8:CH:3:THR:OG1	2.14	0.47
8:CH:85:ARG:NH1	8:CH:85:ARG:CG	2.77	0.47
10:CJ:50:ILE:O	10:CJ:51:ARG:O	2.33	0.47
10:CJ:62:HIS:N	10:CJ:62:HIS:CD2	2.82	0.47
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.11	0.47
11:CK:126:ARG:HH11	11:CK:126:ARG:HB3	1.78	0.47
12:CL:28:LYS:HE2	12:CL:33:ARG:NH1	2.29	0.47
15:CO:87:ILE:CG2	15:CO:88:ARG:H	2.19	0.47
19:CS:9:VAL:C	19:CS:11:VAL:H	2.13	0.47
19:CS:6:LYS:N	19:CS:6:LYS:CD	2.76	0.47
22:CV:50:U:H2'	22:CV:51:U:O4'	2.15	0.47
33:D8:35:GLN:C	33:D8:36:LYS:HG3	2.35	0.47
34:D9:17:ILE:HG21	34:D9:19:ARG:HH21	1.79	0.47
35:DA:1264:G:H2'	35:DA:2014:A:N6	2.29	0.47
35:DA:154(A):C:O2	35:DA:154(A):C:O4'	2.30	0.47
35:DA:1349:A:N6	35:DA:1598:C:N4	2.61	0.47
35:DA:271(J):C:H2'	35:DA:271(K):U:H5''	1.96	0.47
35:DA:2686:G:C2	35:DA:2724:C:O2	2.67	0.47
35:DA:282:A:HO2'	35:DA:283:A:H8	1.60	0.47
35:DA:922:U:H2'	35:DA:923:C:H6	1.79	0.47
35:DA:946:G:O2'	35:DA:947:G:H5'	2.14	0.47
37:DC:86:ALA:CB	37:DC:94:VAL:HG11	2.45	0.47
39:DE:39:PRO:O	39:DE:43:GLY:N	2.48	0.47
40:DF:10:PRO:O	40:DF:128:ALA:HB2	2.15	0.47
40:DF:196:LEU:HA	40:DF:196:LEU:HD23	1.73	0.47
40:DF:63:LYS:HA	40:DF:76:GLY:O	2.14	0.47
42:DH:70:THR:C	42:DH:72:ILE:N	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:10:LEU:HD22	48:DR:17:ARG:CD	2.25	0.47
50:DT:13:ARG:HA	50:DT:13:ARG:NH1	2.24	0.47
35:DA:2875:C:C4'	50:DT:5:ALA:HB2	2.42	0.47
56:DZ:94:GLU:O	56:DZ:96:VAL:N	2.46	0.47
1:AA:145:G:H5'	1:AA:146:G:OP2	2.15	0.47
1:AA:18:C:H4'	1:AA:1078:U:O2	2.15	0.47
1:AA:130:A:H1'	1:AA:263:A:O2'	2.15	0.47
1:AA:862:C:O2'	1:AA:863:U:H5'	2.13	0.47
1:AA:858:G:O6	1:AA:869:G:H3'	2.15	0.47
1:AA:914:A:H2'	1:AA:915:A:H8	1.79	0.47
1:AA:90:U:OP1	1:AA:91:C:H4'	2.14	0.47
7:AG:133:GLY:O	7:AG:136:LYS:HB3	2.14	0.47
7:AG:138:LYS:HE2	7:AG:142:GLU:OE2	2.13	0.47
11:AK:59:TYR:CE1	11:AK:63:LEU:HD21	2.50	0.47
12:AL:91:LYS:HG3	12:AL:91:LYS:O	2.14	0.47
17:AQ:29:HIS:HB3	17:AQ:33:GLY:O	2.15	0.47
19:AS:23:ASN:C	19:AS:26:GLY:H	2.17	0.47
23:AW:59:U:H2'	23:AW:60:U:H5'	1.96	0.47
26:B1:46:LEU:HA	26:B1:63:ALA:HA	1.96	0.47
26:B1:7:ILE:N	26:B1:7:ILE:HD12	2.29	0.47
29:B4:46:ASN:HD22	29:B4:46:ASN:C	2.18	0.47
35:BA:100:G:H4'	35:BA:100:G:OP2	2.15	0.47
35:BA:1221(A):C:H2'	35:BA:1222:C:H6	1.80	0.47
35:BA:1497:U:C5'	35:BA:1498:C:C5	2.96	0.47
35:BA:1594:G:C5'	35:BA:1594:G:C8	2.87	0.47
35:BA:660:G:C6	35:BA:661:C:C4	3.03	0.47
36:BB:107:G:O2'	36:BB:108:U:H5'	2.14	0.47
37:BC:41:VAL:HG23	37:BC:178:ALA:CB	2.43	0.47
37:BC:95:GLY:HA2	37:BC:99:ILE:HD12	1.97	0.47
39:BE:30:PRO:HD3	39:BE:180:ASN:ND2	2.30	0.47
41:BG:32:PRO:HA	41:BG:162:THR:OG1	2.15	0.47
41:BG:46:ALA:HA	41:BG:51:ARG:HD3	1.96	0.47
41:BG:91:ARG:HD2	41:BG:92:VAL:N	2.29	0.47
42:BH:43:VAL:O	42:BH:43:VAL:CG2	2.63	0.47
43:BI:8:PRO:HB3	43:BI:14:ASP:CA	2.44	0.47
43:BI:51:ILE:HG22	43:BI:52:ARG:N	2.28	0.47
47:BQ:68:ILE:HD13	47:BQ:103:MET:HG2	1.96	0.47
50:BT:64:ARG:HD2	50:BT:73:GLU:CD	2.35	0.47
51:BU:81:HIS:O	51:BU:84:LYS:HB3	2.14	0.47
52:BV:15:GLU:CB	52:BV:16:PRO:CD	2.89	0.47
52:BV:19:LYS:HG2	52:BV:94:LEU:CB	2.37	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:48:ALA:HB3	55:BY:59:GLY:O	2.14	0.47
56:BZ:105:VAL:HG13	56:BZ:105:VAL:O	2.14	0.47
56:BZ:93:ASP:HA	56:BZ:130:PRO:CG	2.38	0.47
1:CA:1115:C:O2'	1:CA:1116:C:H5'	2.15	0.47
1:CA:1427:U:O2'	1:CA:1428:A:H5'	2.14	0.47
1:CA:874:G:H2'	1:CA:875:C:C6	2.49	0.47
2:CB:91:PRO:HA	2:CB:151:GLY:O	2.14	0.47
2:CB:197:VAL:CG1	2:CB:200:ILE:HG12	2.45	0.47
3:CC:44:GLU:HG2	3:CC:52:LEU:HD11	1.96	0.47
4:CD:170:VAL:CG2	4:CD:171:GLY:H	2.22	0.47
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.97	0.47
6:CF:19:LEU:HD23	6:CF:19:LEU:C	2.35	0.47
7:CG:15:ASP:HB3	7:CG:19:GLY:CA	2.45	0.47
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.45	0.47
13:CM:91:ARG:HB2	13:CM:98:VAL:HG22	1.96	0.47
16:CP:80:PHE:N	16:CP:80:PHE:CD1	2.83	0.47
18:CR:58:LEU:CD2	18:CR:62:GLU:HB3	2.45	0.47
23:CW:16:U:O4	23:CW:18:G:H2'	2.14	0.47
26:D1:86:SER:HB2	26:D1:89:GLU:HG3	1.97	0.47
28:D3:8:LEU:HB2	28:D3:28:LEU:HD13	1.97	0.47
28:D3:7:LYS:HD2	28:D3:34:GLU:OE1	2.14	0.47
29:D4:51:TYR:CD1	29:D4:51:TYR:N	2.82	0.47
33:D8:51:ALA:N	33:D8:53:PRO:HD2	2.29	0.47
35:DA:1035:U:H2'	35:DA:1036:G:C8	2.49	0.47
35:DA:1040:C:O2'	35:DA:1041:C:P	2.73	0.47
35:DA:129:C:O2'	35:DA:130:C:H5'	2.15	0.47
35:DA:1486:A:N6	35:DA:1504:C:H42	2.13	0.47
35:DA:1920:C:O2'	35:DA:1921:G:H5'	2.14	0.47
35:DA:2171:A:O2'	35:DA:2172:U:C6	2.66	0.47
35:DA:2533:A:H3'	35:DA:2534:A:H5''	1.97	0.47
35:DA:2787:C:O2'	39:DE:61:ARG:HA	2.15	0.47
35:DA:542:C:N4	35:DA:543:C:N4	2.62	0.47
35:DA:675:A:C8	35:DA:804:A:C6	3.02	0.47
39:DE:17:ASP:O	39:DE:18:ASP:HB2	2.13	0.47
45:DO:104:ARG:NH1	45:DO:104:ARG:CB	2.78	0.47
46:DP:99:LEU:C	46:DP:99:LEU:HD23	2.35	0.47
35:DA:863:A:P	47:DQ:22:LYS:HG2	2.55	0.47
52:DV:13:ARG:CG	52:DV:13:ARG:HH11	2.27	0.47
56:DZ:77:ASP:OD2	56:DZ:79:ARG:O	2.33	0.47
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.14	0.47
1:AA:1445:C:H2'	1:AA:1446:U:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:197:VAL:HG11	2:AB:200:ILE:HG12	1.97	0.47
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.24	0.47
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.14	0.47
3:AC:18:TRP:HD1	14:AN:54:PRO:HA	1.79	0.47
1:AA:1191:A:H5''	3:AC:4:LYS:NZ	2.29	0.47
9:AI:59:PHE:CD1	9:AI:59:PHE:N	2.82	0.47
10:AJ:47:PHE:HD1	10:AJ:47:PHE:O	1.98	0.47
12:AL:100:ILE:HG22	12:AL:101:VAL:N	2.28	0.47
13:AM:34:LEU:HD13	13:AM:41:PRO:HG3	1.96	0.47
15:AO:37:ASN:HD22	15:AO:37:ASN:N	2.13	0.47
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.30	0.47
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.77	0.47
34:B9:10:ILE:O	34:B9:10:ILE:HG22	2.15	0.47
35:BA:1137:G:H2'	35:BA:1138:G:C8	2.50	0.47
35:BA:1373:A:H2'	35:BA:1374:G:O4'	2.14	0.47
35:BA:2682:U:C6	39:BE:11:MET:HE2	2.50	0.47
35:BA:2752:C:H5'	35:BA:2753:A:OP2	2.14	0.47
35:BA:2810:A:N6	35:BA:2891:G:O2'	2.46	0.47
35:BA:28:A:C4	35:BA:513:A:C8	3.02	0.47
35:BA:952:G:C6	35:BA:953:A:N7	2.83	0.47
36:BB:57:A:OP2	36:BB:58:A:OP2	2.32	0.47
38:BD:271:ILE:O	38:BD:272:ALA:CB	2.62	0.47
38:BD:31:LYS:HZ2	38:BD:94:LEU:HD11	1.78	0.47
41:BG:5:VAL:O	41:BG:6:ALA:C	2.52	0.47
45:BO:86:ILE:CD1	45:BO:86:ILE:H	2.27	0.47
46:BP:48:PRO:CG	46:BP:49:ARG:N	2.76	0.47
56:BZ:99:TYR:CD2	56:BZ:125:LEU:HD13	2.50	0.47
56:BZ:141:VAL:HG22	56:BZ:142:SER:N	2.30	0.47
1:CA:266:G:O2'	1:CA:267:C:OP2	2.32	0.47
1:CA:409:G:H2'	1:CA:410:G:O4'	2.15	0.47
1:CA:541:G:O2'	1:CA:542:G:H5'	2.15	0.47
1:CA:560:U:O2'	1:CA:561:U:OP2	2.21	0.47
1:CA:617:G:H4'	16:CP:44:THR:CB	2.37	0.47
1:CA:630:G:H2'	1:CA:631:G:C5'	2.44	0.47
1:CA:965:A:C2	1:CA:969:A:C2	3.03	0.47
2:CB:137:ARG:HD3	2:CB:138:LEU:N	2.30	0.47
2:CB:138:LEU:O	2:CB:141:GLU:HB3	2.15	0.47
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.97	0.47
2:CB:23:ARG:HH11	2:CB:23:ARG:HG2	1.80	0.47
4:CD:9:CYS:CB	4:CD:22:LYS:HD2	2.42	0.47
9:CI:113:LYS:HD2	9:CI:113:LYS:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:125:TYR:CD2	9:CI:126:SER:N	2.82	0.47
7:CG:37:ASN:ND2	9:CI:40:LEU:HD23	2.29	0.47
10:CJ:95:GLU:OE2	10:CJ:95:GLU:HA	2.15	0.47
13:CM:3:ARG:HB3	13:CM:9:ILE:HD11	1.96	0.47
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.95	0.47
1:CA:735:C:H1'	18:CR:75:ILE:HD11	1.96	0.47
19:CS:48:THR:C	19:CS:49:ILE:HD12	2.35	0.47
31:D6:32:ASN:O	31:D6:33:LYS:CB	2.63	0.47
31:D6:35:GLU:HB3	31:D6:51:GLU:CG	2.45	0.47
34:D9:10:ILE:HG22	34:D9:10:ILE:O	2.14	0.47
34:D9:10:ILE:O	34:D9:11:CYS:HB2	2.15	0.47
35:DA:1171:G:C3'	35:DA:1173:G:H4'	2.27	0.47
35:DA:1810:A:H2'	35:DA:1811:G:O4'	2.14	0.47
35:DA:2392:A:H2	35:DA:2424:C:N4	2.03	0.47
35:DA:2564:A:C2	35:DA:2647:U:H4'	2.50	0.47
35:DA:2790:A:H2'	35:DA:2791:C:H5'	1.95	0.47
35:DA:923:C:H2'	35:DA:924:C:C6	2.50	0.47
35:DA:952:G:C6	35:DA:953:A:N7	2.83	0.47
39:DE:51:PHE:CD1	39:DE:52:LEU:HB2	2.49	0.47
41:DG:138:GLN:OE1	41:DG:151:ALA:O	2.32	0.47
42:DH:13:LYS:O	42:DH:15:VAL:N	2.33	0.47
44:DN:54:VAL:HB	44:DN:122:VAL:HG22	1.97	0.47
45:DO:104:ARG:HH21	50:DT:33:LYS:CD	2.27	0.47
49:DS:29:PHE:O	49:DS:35:ILE:HA	2.14	0.47
51:DU:87:GLY:O	52:DV:50:PRO:HG3	2.14	0.47
53:DW:99:ARG:HG2	53:DW:99:ARG:NH1	2.28	0.47
56:DZ:131:ARG:HG2	56:DZ:131:ARG:NH1	2.26	0.47
1:AA:1175:G:H2'	1:AA:1176:A:C8	2.50	0.47
1:AA:1181:G:O2'	1:AA:1182:G:H5'	2.15	0.47
1:AA:1188:A:H2'	1:AA:1189:C:H5'	1.96	0.47
1:AA:1188:A:O2'	1:AA:1189:C:H5'	2.14	0.47
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.15	0.47
1:AA:24:U:O2'	1:AA:25:C:H5'	2.14	0.47
1:AA:444:C:H2'	1:AA:445:G:C8	2.50	0.47
4:AD:154:ASN:O	4:AD:155:LEU:C	2.53	0.47
9:AI:3:GLN:CD	9:AI:20:ARG:HH12	2.18	0.47
10:AJ:25:GLU:C	10:AJ:27:ALA:H	2.17	0.47
11:AK:126:ARG:HH11	11:AK:126:ARG:HB3	1.77	0.47
16:AP:20:VAL:HG23	16:AP:21:VAL:N	2.30	0.47
20:AT:67:ALA:O	20:AT:73:HIS:NE2	2.48	0.47
23:AW:58:A:H1'	23:AW:60:U:H5	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:38:A:H2'	22:AY:39:U:O4'	2.14	0.47
32:B7:8:ASN:C	32:B7:8:ASN:ND2	2.66	0.47
35:BA:1504:C:O2'	35:BA:1505:C:H5'	2.14	0.47
35:BA:1810:A:H2'	35:BA:1811:G:O4'	2.15	0.47
26:B1:45:ASN:CB	35:BA:2230:G:H1'	2.45	0.47
35:BA:271(H):G:O2'	35:BA:271(I):G:H5''	2.13	0.47
35:BA:547:A:H2'	35:BA:547:A:N3	2.29	0.47
35:BA:780:G:OP1	38:BD:218:ARG:NH2	2.48	0.47
37:BC:83:ILE:HG23	37:BC:94:VAL:CG2	2.37	0.47
38:BD:270:ILE:O	38:BD:271:ILE:HG12	2.15	0.47
35:BA:1815:A:P	38:BD:54:ARG:HH22	2.38	0.47
43:BI:93:THR:O	43:BI:97:ILE:HG13	2.15	0.47
46:BP:6:LEU:CG	46:BP:8:PRO:O	2.59	0.47
47:BQ:2:LEU:O	47:BQ:3:MET:HB3	2.15	0.47
50:BT:124:ASP:C	50:BT:126:ALA:N	2.69	0.47
54:BX:70:LEU:HD23	54:BX:71:GLY:N	2.29	0.47
55:BY:47:LYS:N	55:BY:47:LYS:CD	2.73	0.47
55:BY:47:LYS:O	55:BY:49:VAL:N	2.48	0.47
55:BY:97:ARG:O	55:BY:97:ARG:HG3	2.14	0.47
56:BZ:11:GLU:N	56:BZ:11:GLU:CD	2.68	0.47
56:BZ:155:LEU:O	56:BZ:157:LEU:HD23	2.15	0.47
1:CA:107:G:C2	1:CA:108:G:H1'	2.49	0.47
1:CA:370:C:H2'	1:CA:371:G:C8	2.50	0.47
1:CA:439:A:H2'	1:CA:441:A:O4'	2.15	0.47
1:CA:625:G:H4'	16:CP:16:HIS:HD2	1.74	0.47
1:CA:62:U:H5''	1:CA:385:C:O2	2.15	0.47
1:CA:818:G:H3'	1:CA:819:A:C5'	2.44	0.47
2:CB:100:GLY:HA3	2:CB:104:ASN:HB3	1.97	0.47
7:CG:72:ARG:O	7:CG:73:MET:HG3	2.15	0.47
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	1.95	0.47
10:CJ:38:ILE:CG1	10:CJ:71:LEU:HB3	2.45	0.47
12:CL:89:ARG:HH21	12:CL:91:LYS:NZ	2.13	0.47
16:CP:58:TYR:HD1	16:CP:59:TRP:N	2.13	0.47
30:D5:16:ARG:HG2	30:D5:16:ARG:NH1	2.28	0.47
30:D5:36:CYS:HB3	30:D5:38:ALA:HB2	1.96	0.47
31:D6:15:GLU:CG	31:D6:41:PRO:HG3	2.44	0.47
34:D9:7:VAL:HG13	34:D9:34:GLN:HB2	1.96	0.47
35:DA:1039:G:H1	35:DA:1116:C:H42	1.63	0.47
35:DA:201:C:O2'	35:DA:202:U:H5'	2.15	0.47
35:DA:2123:G:H2'	35:DA:2124:G:C8	2.49	0.47
35:DA:2879:C:H4'	35:DA:2880:C:OP1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:437:G:O2'	35:DA:438:G:H5'	2.15	0.47
35:DA:581:C:O2'	35:DA:582:G:H5'	2.15	0.47
35:DA:942:G:O2'	35:DA:943:U:H5'	2.14	0.47
36:DB:56:G:H4'	36:DB:57:A:O5'	2.15	0.47
37:DC:97:GLU:HA	37:DC:100:ILE:HG12	1.97	0.47
38:DD:8:PRO:C	38:DD:10:THR:H	2.18	0.47
38:DD:165:ILE:HA	38:DD:175:LEU:HD23	1.97	0.47
38:DD:168:ARG:HG3	38:DD:168:ARG:HH11	1.80	0.47
39:DE:3:GLY:HA3	39:DE:81:ILE:CG2	2.44	0.47
40:DF:180:GLY:O	40:DF:181:LEU:C	2.52	0.47
42:DH:149:ARG:HH11	42:DH:164:TYR:HD1	1.63	0.47
45:DO:18:LYS:HB2	45:DO:45:GLU:HG2	1.96	0.47
47:DQ:131:ILE:HG22	47:DQ:132:VAL:N	2.30	0.47
47:DQ:20:ALA:O	47:DQ:21:THR:CB	2.63	0.47
49:DS:13:ARG:O	49:DS:14:VAL:CB	2.60	0.47
50:DT:43:GLN:HG2	50:DT:44:ASP:N	2.30	0.47
51:DU:90:VAL:HG12	51:DU:91:ASP:N	2.29	0.47
52:DV:91:TYR:C	52:DV:91:TYR:CD1	2.88	0.47
54:DX:28:PHE:CD1	54:DX:28:PHE:N	2.82	0.47
1:AA:1274:G:H2'	1:AA:1275:A:C8	2.50	0.47
1:AA:1328:C:H2'	1:AA:1329:A:H8	1.80	0.47
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.77	0.47
1:AA:1494:G:H5'	35:BA:1913:A:C6	2.49	0.47
1:AA:342:C:O2'	1:AA:343:U:H5'	2.14	0.47
1:AA:622:A:C8	1:AA:623:C:C6	3.03	0.47
1:AA:797:C:H2'	1:AA:798:G:H8	1.78	0.47
1:AA:818:G:H3'	1:AA:819:A:H5''	1.96	0.47
1:AA:874:G:H2'	1:AA:875:C:C6	2.50	0.47
2:AB:216:SER:C	2:AB:218:ALA:H	2.17	0.47
2:AB:28:PHE:HD2	2:AB:194:PRO:HD3	1.79	0.47
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.15	0.47
19:AS:48:THR:C	19:AS:49:ILE:HD12	2.35	0.47
20:AT:49:ALA:O	20:AT:52:ALA:HB3	2.14	0.47
25:B0:25:ARG:HA	25:B0:29:GLN:NE2	2.26	0.47
26:B1:78:LYS:C	26:B1:80:LEU:H	2.18	0.47
30:B5:40:LYS:HZ2	30:B5:46:CYS:CA	2.27	0.47
32:B7:30:VAL:HG12	32:B7:31:LEU:N	2.29	0.47
35:BA:2057:A:H2'	35:BA:2058:A:O4'	2.15	0.47
35:BA:2339:G:O2'	35:BA:2340:G:H5'	2.15	0.47
35:BA:2558:C:H2'	35:BA:2559:C:H6	1.79	0.47
35:BA:2787:C:O2'	39:BE:61:ARG:HA	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2809:A:C2	35:BA:2892:A:N3	2.83	0.47
35:BA:623:G:H2'	35:BA:624:C:C6	2.50	0.47
35:BA:711:G:O2'	35:BA:712:G:H5'	2.14	0.47
35:BA:744:G:H2'	35:BA:745:G:O4'	2.15	0.47
39:BE:4:ILE:O	39:BE:4:ILE:HG23	2.15	0.47
43:BI:107:VAL:O	43:BI:109:ILE:HD12	2.15	0.47
44:BN:62:VAL:HG11	44:BN:67:LEU:HD21	1.97	0.47
45:BO:111:PHE:O	45:BO:115:VAL:HG23	2.14	0.47
46:BP:108:LYS:C	46:BP:110:TYR:N	2.68	0.47
47:BQ:134:ARG:HE	56:BZ:122:ARG:CZ	2.28	0.47
50:BT:92:GLY:HA2	50:BT:114:LEU:CA	2.45	0.47
51:BU:92:ARG:NH2	52:BV:11:GLN:HB2	2.24	0.47
52:BV:18:LEU:HD22	52:BV:19:LYS:CA	2.45	0.47
1:CA:1004:A:C2'	1:CA:1005:A:H5'	2.44	0.47
1:CA:1054:C:C2'	1:CA:1055:A:H5''	2.45	0.47
1:CA:1181:G:O2'	1:CA:1182:G:H5'	2.15	0.47
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.15	0.47
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.49	0.47
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.80	0.47
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.15	0.47
1:CA:34:C:O2'	1:CA:35:G:H5'	2.14	0.47
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.96	0.47
4:CD:68:TYR:CD2	4:CD:97:LEU:HD22	2.49	0.47
8:CH:82:HIS:CD2	8:CH:138:TRP:NE1	2.81	0.47
9:CI:99:LEU:O	9:CI:100:GLY:C	2.53	0.47
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.45	0.47
14:CN:31:ARG:HG3	14:CN:31:ARG:HH11	1.79	0.47
18:CR:50:ILE:O	18:CR:51:LEU:C	2.52	0.47
22:CV:33:U:H2'	22:CV:34:G:H3'	1.97	0.47
22:CV:67:C:O2'	22:CV:68:C:H5'	2.15	0.47
23:CW:16:U:H3'	23:CW:17:C:C5'	2.43	0.47
31:D6:25:LYS:HD2	33:D8:34:TRP:CZ2	2.49	0.47
35:DA:1131:G:OP2	35:DA:2515:C:H4'	2.14	0.47
35:DA:1657:C:H2'	35:DA:1658:C:H6	1.79	0.47
35:DA:1675:C:C2	39:DE:129:HIS:CD2	3.03	0.47
35:DA:1691:C:O2'	35:DA:1692:U:H5'	2.15	0.47
35:DA:412:A:N7	35:DA:2411:A:H2	2.13	0.47
35:DA:481:G:O2'	35:DA:482:A:OP2	2.32	0.47
35:DA:742:G:O2'	35:DA:743:G:H5'	2.15	0.47
35:DA:893:C:H2'	35:DA:894:C:H6	1.80	0.47
36:DB:21:G:N3	36:DB:21:G:H2'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:49:ILE:O	37:DC:51:PRO:N	2.48	0.47
37:DC:85:GLU:C	37:DC:87:GLU:H	2.19	0.47
35:DA:2203:U:O2'	38:DD:151:LYS:HG3	2.15	0.47
39:DE:61:ARG:CB	39:DE:62:PRO:CD	2.93	0.47
40:DF:192:LEU:C	40:DF:192:LEU:HD23	2.35	0.47
35:DA:615:G:O2'	40:DF:205:ARG:NH2	2.48	0.47
41:DG:46:ALA:CA	41:DG:51:ARG:HD2	2.45	0.47
42:DH:156:ALA:O	42:DH:157:TYR:C	2.53	0.47
43:DI:114:LEU:N	43:DI:114:LEU:HD23	2.30	0.47
43:DI:51:ILE:O	43:DI:55:ALA:HB2	2.15	0.47
44:DN:101:HIS:O	44:DN:102:ALA:C	2.54	0.47
44:DN:18:ALA:O	44:DN:21:LYS:N	2.47	0.47
47:DQ:81:VAL:HG23	47:DQ:82:ARG:O	2.14	0.47
49:DS:93:LYS:O	49:DS:94:TYR:C	2.53	0.47
52:DV:49:THR:HB	52:DV:50:PRO:CD	2.44	0.47
52:DV:51:VAL:CG1	52:DV:52:VAL:N	2.78	0.47
52:DV:5:VAL:HG22	52:DV:6:LYS:N	2.30	0.47
35:DA:26:G:OP1	53:DW:80:PRO:HB3	2.14	0.47
1:AA:1033:G:C2'	1:AA:1034:G:H5'	2.45	0.47
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.30	0.47
1:AA:254:G:O2'	1:AA:255:G:H5'	2.15	0.47
1:AA:674:G:H2'	1:AA:675:A:C8	2.46	0.47
1:AA:763:G:H2'	1:AA:764:C:H6	1.80	0.47
1:AA:865:A:H5'	1:AA:1078:U:C4	2.50	0.47
2:AB:45:GLN:O	2:AB:48:MET:HB3	2.15	0.47
2:AB:8:LYS:HD3	2:AB:217:ARG:HH22	1.79	0.47
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.30	0.47
3:AC:70:VAL:CG1	3:AC:72:LYS:H	2.22	0.47
5:AE:47:LYS:O	5:AE:48:ALA:HB2	2.14	0.47
7:AG:43:PHE:O	7:AG:46:ALA:HB3	2.15	0.47
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.79	0.47
10:AJ:38:ILE:O	10:AJ:38:ILE:HG13	2.14	0.47
10:AJ:4:ILE:HB	10:AJ:74:ILE:HG13	1.97	0.47
11:AK:94:ALA:HB3	11:AK:95:ILE:HD13	1.97	0.47
13:AM:76:ALA:HA	13:AM:79:LYS:HD2	1.96	0.47
1:AA:1358:U:OP1	14:AN:35:ARG:HG2	2.15	0.47
17:AQ:62:SER:OG	17:AQ:72:ARG:NE	2.48	0.47
18:AR:50:ILE:O	18:AR:51:LEU:C	2.53	0.47
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.43	0.47
22:AY:42:C:C3'	22:AY:43:C:H5''	2.45	0.47
26:B1:61:ARG:NH1	26:B1:61:ARG:CG	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:130:C:O3'	35:BA:1349:A:H1'	2.15	0.47
35:BA:154:G:C6	35:BA:154(A):C:N4	2.83	0.47
35:BA:15:G:H2'	35:BA:16:G:H8	1.80	0.47
35:BA:2128:C:H2'	35:BA:2129:C:C6	2.49	0.47
35:BA:2162:G:O2'	35:BA:2163:C:H5'	2.15	0.47
35:BA:2439:A:H5'	35:BA:2439:A:C8	2.50	0.47
35:BA:2802:G:H3'	35:BA:2803:C:C5'	2.44	0.47
35:BA:2892:A:C5	35:BA:2893:G:H1'	2.50	0.47
35:BA:542:C:C4	35:BA:543:C:N4	2.83	0.47
35:BA:612:C:C3'	35:BA:613:G:H5''	2.42	0.47
36:BB:24:G:H21	36:BB:27:C:H42	1.63	0.47
35:BA:2787:C:H1'	39:BE:61:ARG:CG	2.45	0.47
41:BG:138:GLN:C	41:BG:140:ILE:H	2.18	0.47
42:BH:118:PRO:HG3	42:BH:144:VAL:HG21	1.97	0.47
43:BI:114:LEU:O	43:BI:129:THR:O	2.33	0.47
43:BI:9:LEU:HB2	43:BI:12:LEU:O	2.15	0.47
43:BI:145:VAL:CG1	43:BI:146:ALA:N	2.78	0.47
46:BP:139:LYS:C	46:BP:141:ALA:H	2.17	0.47
47:BQ:54:MET:CG	47:BQ:64:ILE:HD13	2.45	0.47
54:BX:49:VAL:HB	54:BX:83:VAL:HG13	1.97	0.47
1:CA:36:C:H4'	12:CL:122:THR:O	2.15	0.47
1:CA:473:G:H2'	1:CA:474:G:C8	2.47	0.47
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.15	0.47
1:CA:963:G:H21	10:CJ:55:LYS:HZ2	1.63	0.47
3:CC:195:VAL:O	3:CC:196:LEU:HD22	2.15	0.47
7:CG:18:TYR:HD2	7:CG:59:LEU:HB2	1.80	0.47
12:CL:10:LEU:HB3	17:CQ:32:TYR:CE1	2.50	0.47
13:CM:28:ALA:C	13:CM:30:ALA:N	2.68	0.47
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.79	0.47
16:CP:6:LEU:HD12	16:CP:6:LEU:N	2.30	0.47
19:CS:16:LEU:N	19:CS:16:LEU:HD12	2.28	0.47
20:CT:14:LYS:CA	20:CT:17:ARG:HH21	2.28	0.47
20:CT:30:LYS:HE2	20:CT:72:LEU:CD2	2.35	0.47
25:D0:46:LYS:HD2	25:D0:78:TYR:CE1	2.50	0.47
35:DA:1173:G:C3'	35:DA:1174:A:H5'	2.41	0.47
35:DA:1221(A):C:H2'	35:DA:1222:C:H6	1.79	0.47
35:DA:1794:U:O2'	35:DA:1795:C:H5'	2.15	0.47
35:DA:21:A:O2'	35:DA:22:C:H5'	2.15	0.47
35:DA:2323:G:H2'	35:DA:2324:C:O4'	2.15	0.47
35:DA:270:A:C2'	35:DA:271:A:H5'	2.44	0.47
35:DA:280:C:H42	35:DA:360:G:H1	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:70:G:H21	35:DA:71:A:N6	2.09	0.47
35:DA:753:C:O5'	35:DA:753:C:H6	1.98	0.47
38:DD:245:PRO:O	38:DD:246:PRO:C	2.53	0.47
35:DA:2228:G:OP1	38:DD:261:LYS:HE3	2.15	0.47
38:DD:263:ARG:HB2	38:DD:263:ARG:CZ	2.45	0.47
40:DF:57:VAL:HG12	40:DF:59:TYR:CD1	2.49	0.47
40:DF:63:LYS:HE3	40:DF:67:GLN:HB2	1.97	0.47
41:DG:17:PRO:C	41:DG:19:LEU:H	2.17	0.47
41:DG:17:PRO:HG2	41:DG:18:GLU:H	1.79	0.47
41:DG:35:GLU:HB2	41:DG:160:VAL:HB	1.97	0.47
42:DH:71:LEU:CA	42:DH:74:ASN:HD22	2.28	0.47
42:DH:89:ILE:O	42:DH:161:GLY:O	2.32	0.47
43:DI:113:ARG:HB2	43:DI:130:TYR:HE1	1.77	0.47
44:DN:28:THR:HA	44:DN:106:MET:CE	2.45	0.47
46:DP:17:LYS:O	46:DP:19:VAL:N	2.48	0.47
46:DP:45:LEU:CD2	46:DP:46:LYS:N	2.70	0.47
35:DA:1455:G:C8	48:DR:60:LEU:HD11	2.50	0.47
48:DR:81:ASP:N	48:DR:81:ASP:OD2	2.35	0.47
52:DV:69:LYS:CA	52:DV:88:ARG:HG2	2.42	0.47
53:DW:92:ARG:NH1	53:DW:92:ARG:HG2	2.30	0.47
54:DX:35:THR:CG2	54:DX:36:LYS:N	2.78	0.47
54:DX:53:LYS:HB3	54:DX:82:GLN:HB3	1.96	0.47
55:DY:51:VAL:O	55:DY:52:SER:CB	2.62	0.47
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.50	0.46
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.13	0.46
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.80	0.46
1:AA:1375:A:H2'	1:AA:1376:U:C6	2.50	0.46
1:AA:141:A:H1'	1:AA:182:U:C2	2.50	0.46
1:AA:833:U:H2'	1:AA:834:C:C6	2.51	0.46
1:AA:828:A:H5''	1:AA:859:A:C2	2.50	0.46
1:AA:964:A:OP1	1:AA:1199:U:OP1	2.34	0.46
2:AB:126:GLU:O	2:AB:130:ARG:HG3	2.15	0.46
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.15	0.46
9:AI:125:TYR:CD2	9:AI:126:SER:N	2.83	0.46
7:AG:37:ASN:ND2	9:AI:40:LEU:HD23	2.29	0.46
10:AJ:80:LYS:O	10:AJ:84:GLN:HB2	2.15	0.46
13:AM:36:LYS:HG3	13:AM:59:TYR:OH	2.15	0.46
19:AS:62:ILE:HD12	19:AS:66:MET:SD	2.55	0.46
28:B3:8:LEU:HB2	28:B3:28:LEU:HD13	1.96	0.46
30:B5:36:CYS:HB3	30:B5:38:ALA:HB2	1.95	0.46
35:BA:1341:U:O4	54:BX:16:LYS:HE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:198:C:H5'	35:BA:2244:U:OP1	2.15	0.46
22:AY:77:PHA:CD2	35:BA:2451:A:C2	2.94	0.46
35:BA:271(Q):G:O2'	35:BA:271(R):G:H8	1.98	0.46
35:BA:479:A:H4'	35:BA:480:A:OP1	2.15	0.46
35:BA:740:U:H2'	35:BA:741:G:C8	2.50	0.46
35:BA:986:C:C2'	35:BA:987:G:H5'	2.44	0.46
37:BC:124:GLY:O	37:BC:125:SER:CB	2.62	0.46
38:BD:32:SER:O	38:BD:36:PRO:CG	2.59	0.46
39:BE:36:ARG:HH22	39:BE:88:GLY:HA3	1.80	0.46
42:BH:85:LYS:CD	42:BH:141:VAL:HG13	2.37	0.46
44:BN:62:VAL:HG22	44:BN:66:LYS:CD	2.42	0.46
48:BR:79:LEU:C	48:BR:79:LEU:CD2	2.83	0.46
50:BT:64:ARG:CD	50:BT:73:GLU:HG2	2.36	0.46
51:BU:27:LEU:HD22	51:BU:31:SER:HB3	1.96	0.46
55:BY:27:VAL:O	55:BY:29:GLU:OE2	2.33	0.46
56:BZ:112:ARG:HH11	56:BZ:112:ARG:CG	2.25	0.46
56:BZ:44:PHE:C	56:BZ:44:PHE:CD1	2.89	0.46
1:CA:1146:A:C3'	1:CA:1147:C:H5''	2.44	0.46
1:CA:1175:G:H2'	1:CA:1176:A:C8	2.50	0.46
1:CA:1300:G:O2'	1:CA:1301:U:P	2.73	0.46
1:CA:774:G:O2'	1:CA:775:G:H5'	2.15	0.46
1:CA:833:U:H2'	1:CA:834:C:C6	2.50	0.46
1:CA:992:U:H1'	1:CA:993:G:C2	2.50	0.46
3:CC:151:VAL:HG12	3:CC:152:ILE:N	2.30	0.46
4:CD:128:VAL:O	4:CD:129:ASN:C	2.54	0.46
5:CE:11:ILE:HG21	5:CE:105:VAL:HA	1.97	0.46
5:CE:78:HIS:CD2	8:CH:104:ARG:HG3	2.51	0.46
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.14	0.46
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.80	0.46
9:CI:19:LEU:C	9:CI:20:ARG:HD2	2.36	0.46
9:CI:3:GLN:CD	9:CI:20:ARG:HH12	2.18	0.46
9:CI:40:LEU:C	9:CI:42:ARG:H	2.16	0.46
11:CK:59:TYR:CE1	11:CK:63:LEU:HD21	2.50	0.46
15:CO:12:ILE:C	15:CO:14:GLU:H	2.18	0.46
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.30	0.46
17:CQ:22:LEU:HD12	17:CQ:23:VAL:N	2.30	0.46
27:D2:28:LYS:HG3	27:D2:60:LEU:HD11	1.97	0.46
32:D7:17:GLY:O	32:D7:21:ARG:HG2	2.15	0.46
35:DA:118:A:H5'	35:DA:119:A:H8	1.80	0.46
35:DA:1190:G:H2'	35:DA:1191:G:H8	1.80	0.46
35:DA:1711:C:H2'	35:DA:1712:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2057:A:H2'	35:DA:2058:A:O4'	2.14	0.46
35:DA:2128:C:H2'	35:DA:2129:C:C6	2.49	0.46
35:DA:2552:U:C2	35:DA:2554:U:H5'	2.49	0.46
35:DA:271(M):G:C5'	43:DI:57:ARG:HH12	2.28	0.46
35:DA:2736:G:H2'	35:DA:2737:G:H8	1.80	0.46
35:DA:2821:A:O5'	35:DA:2821:A:H8	1.98	0.46
35:DA:2850:A:C2	35:DA:2851:A:C4	3.03	0.46
35:DA:878:A:N3	35:DA:878:A:H5'	2.31	0.46
37:DC:68:LEU:HD22	37:DC:180:PHE:N	2.26	0.46
38:DD:183:ARG:HG2	38:DD:183:ARG:HH11	1.79	0.46
39:DE:200:GLU:N	39:DE:200:GLU:OE2	2.42	0.46
39:DE:64:LYS:C	39:DE:66:HIS:H	2.18	0.46
41:DG:135:LEU:HD13	41:DG:155:MET:HE1	1.97	0.46
45:DO:66:LYS:NZ	45:DO:78:ARG:HD2	2.30	0.46
46:DP:108:LYS:C	46:DP:110:TYR:N	2.68	0.46
48:DR:84:ALA:N	48:DR:85:PRO:CD	2.78	0.46
50:DT:31:SER:C	50:DT:32:TYR:CD2	2.88	0.46
50:DT:65:LYS:HG3	50:DT:66:VAL:H	1.80	0.46
51:DU:104:GLN:CD	51:DU:104:GLN:H	2.18	0.46
56:DZ:85:HIS:HD1	56:DZ:86:VAL:N	2.13	0.46
1:AA:1095:U:C5'	1:AA:1109:C:O2	2.63	0.46
1:AA:1260:C:OP1	1:AA:1284:C:H4'	2.14	0.46
1:AA:1442(B):A:O2'	1:AA:1443:G:H8	1.97	0.46
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.81	0.46
1:AA:723:U:C2'	1:AA:723:U:O2	2.62	0.46
2:AB:107:THR:HG23	2:AB:110:GLN:NE2	2.30	0.46
2:AB:16:HIS:HB3	2:AB:210:SER:OG	2.15	0.46
2:AB:25:ASN:OD1	2:AB:27:LYS:HB2	2.15	0.46
3:AC:70:VAL:O	3:AC:106:VAL:N	2.48	0.46
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.35	0.46
8:AH:85:ARG:NH1	8:AH:85:ARG:CG	2.78	0.46
9:AI:99:LEU:O	9:AI:100:GLY:C	2.53	0.46
9:AI:15:ALA:CB	9:AI:65:VAL:HB	2.45	0.46
10:AJ:50:ILE:CD1	14:AN:41:ARG:HD2	2.43	0.46
11:AK:44:SER:H	11:AK:47:VAL:HG21	1.77	0.46
11:AK:91:ARG:O	11:AK:95:ILE:HD11	2.15	0.46
1:AA:1491:G:H5''	12:AL:46:LYS:HG3	1.98	0.46
14:AN:21:TYR:HD2	14:AN:22:THR:O	1.97	0.46
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.64	0.46
19:AS:11:VAL:HG22	19:AS:16:LEU:HD11	1.97	0.46
22:AV:16:U:H4'	22:AV:17:C:C5	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:39:U:C5'	23:AW:39:U:O2	2.63	0.46
34:B9:22:ARG:HB2	34:B9:24:TYR:HE1	1.79	0.46
35:BA:2206:G:N3	35:BA:2206:G:H3'	2.30	0.46
35:BA:2266:A:H5'	35:BA:2267:A:C8	2.50	0.46
35:BA:2771:C:H2'	35:BA:2772:C:H6	1.78	0.46
35:BA:510:C:C2'	35:BA:511:U:H5'	2.45	0.46
35:BA:626:U:H5''	35:BA:627:A:H5'	1.97	0.46
27:B2:2:LYS:CB	35:BA:97:C:H5''	2.39	0.46
37:BC:182:PRO:O	37:BC:183:GLU:CB	2.63	0.46
38:BD:109:ASP:HB2	38:BD:197:GLY:HA2	1.96	0.46
38:BD:238:GLY:O	38:BD:239:ARG:O	2.33	0.46
38:BD:31:LYS:O	38:BD:35:LYS:HD3	2.15	0.46
39:BE:144:ARG:HB3	39:BE:145:LYS:H	1.51	0.46
40:BF:205:ARG:O	40:BF:205:ARG:HG2	2.15	0.46
41:BG:110:ALA:O	41:BG:111:LEU:C	2.54	0.46
42:BH:123:PHE:HA	42:BH:133:VAL:HG22	1.96	0.46
48:BR:81:ASP:N	48:BR:81:ASP:OD2	2.37	0.46
49:BS:53:SER:OG	49:BS:54:LEU:N	2.48	0.46
49:BS:69:VAL:CG1	49:BS:99:LYS:HE3	2.42	0.46
53:BW:6:ILE:HG12	53:BW:104:THR:HG23	1.95	0.46
55:BY:28:LYS:CB	55:BY:37:VAL:HB	2.46	0.46
1:CA:1431:C:H2'	1:CA:1432:G:O4'	2.15	0.46
1:CA:436:C:O2'	1:CA:437:U:P	2.72	0.46
1:CA:585:G:N3	1:CA:879:C:H4'	2.30	0.46
1:CA:725:G:H2'	1:CA:726:C:H6	1.80	0.46
1:CA:828:A:H5''	1:CA:859:A:C2	2.51	0.46
1:CA:88:A:OP1	1:CA:90:U:H1'	2.15	0.46
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.96	0.46
7:CG:18:TYR:CD2	7:CG:59:LEU:HB2	2.50	0.46
8:CH:119:LEU:N	8:CH:119:LEU:CD2	2.76	0.46
9:CI:63:ILE:HG22	9:CI:64:THR:N	2.30	0.46
19:CS:6:LYS:CG	19:CS:7:LYS:HE2	2.44	0.46
22:CV:14:A:H2'	22:CV:15:G:H5'	1.98	0.46
23:CW:56:C:H3'	23:CW:57:G:H5''	1.97	0.46
29:D4:46:ASN:C	29:D4:46:ASN:ND2	2.69	0.46
33:D8:47:LYS:HD3	33:D8:48:PHE:O	2.15	0.46
34:D9:17:ILE:CG2	34:D9:19:ARG:HE	2.28	0.46
34:D9:26:ILE:N	34:D9:26:ILE:HD12	2.29	0.46
35:DA:1301:A:HO2'	35:DA:1302:A:H2'	1.78	0.46
35:DA:1528(A):A:C2'	35:DA:1529:G:H5''	2.44	0.46
35:DA:154:G:C6	35:DA:154(A):C:N4	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:176:G:C2'	35:DA:177:G:H5'	2.45	0.46
35:DA:1902:C:C2'	35:DA:1903:G:O5'	2.64	0.46
35:DA:271(F):C:H2'	35:DA:271(G):C:H6	1.80	0.46
35:DA:271(J):C:C2'	35:DA:271(K):U:H5''	2.45	0.46
35:DA:548:A:O2'	35:DA:549:G:OP1	2.27	0.46
35:DA:674:G:P	40:DF:54:ARG:HH22	2.38	0.46
36:DB:37:C:O2'	36:DB:38:C:H5'	2.15	0.46
38:DD:218:ARG:HB3	38:DD:219:PRO:HD2	1.96	0.46
39:DE:134:ILE:HG12	39:DE:134:ILE:O	2.15	0.46
40:DF:162:LEU:N	40:DF:162:LEU:HD12	2.29	0.46
41:DG:46:ALA:HA	41:DG:51:ARG:HD2	1.95	0.46
41:DG:63:ILE:CG1	41:DG:64:THR:N	2.77	0.46
42:DH:68:THR:C	42:DH:70:THR:H	2.18	0.46
43:DI:71:ILE:CG1	43:DI:72:LEU:N	2.76	0.46
44:DN:128:HIS:HA	44:DN:129:PRO:HD2	1.77	0.46
44:DN:55:VAL:HG22	44:DN:56:ASN:H	1.81	0.46
51:DU:24:TYR:HB2	51:DU:29:SER:HB3	1.96	0.46
52:DV:21:ARG:N	52:DV:21:ARG:CD	2.78	0.46
55:DY:27:VAL:N	55:DY:28:LYS:HZ1	2.13	0.46
55:DY:27:VAL:CG1	55:DY:29:GLU:OE1	2.62	0.46
55:DY:46:LYS:HD3	55:DY:47:LYS:HZ2	1.80	0.46
55:DY:48:ALA:O	55:DY:58:GLY:HA3	2.16	0.46
1:AA:439:A:H2'	1:AA:441:A:O4'	2.15	0.46
1:AA:547:A:H4'	1:AA:548:G:O5'	2.15	0.46
1:AA:745:C:H5''	1:AA:851:G:H1'	1.97	0.46
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.29	0.46
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.97	0.46
2:AB:41:ILE:HD12	2:AB:41:ILE:H	1.79	0.46
4:AD:128:VAL:O	4:AD:129:ASN:C	2.54	0.46
4:AD:96:LEU:CD1	4:AD:96:LEU:N	2.78	0.46
8:AH:63:LEU:HD22	8:AH:63:LEU:N	2.30	0.46
9:AI:20:ARG:O	9:AI:60:ASP:N	2.47	0.46
9:AI:86:VAL:HG21	9:AI:93:ARG:HH11	1.80	0.46
13:AM:23:TYR:CE1	13:AM:70:LEU:HD22	2.42	0.46
22:AV:66:U:O2'	22:AV:67:C:H5'	2.16	0.46
22:AY:56:C:H5'	35:BA:897:C:H4'	1.97	0.46
22:AY:76:8AN:H2	35:BA:2583:G:N3	2.31	0.46
26:B1:46:LEU:HD22	26:B1:46:LEU:H	1.79	0.46
29:B4:51:TYR:CG	41:BG:2:PRO:HD2	2.50	0.46
31:B6:20:ASN:CG	31:B6:21:TYR:N	2.68	0.46
35:BA:1658:C:H2'	35:BA:1659:U:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1718:G:H2'	35:BA:1719:G:H8	1.80	0.46
35:BA:1832:C:N4	35:BA:1833:U:C4	2.83	0.46
35:BA:2859:G:C6	35:BA:2860:A:N6	2.83	0.46
36:BB:56:G:H4'	36:BB:57:A:O5'	2.15	0.46
38:BD:165:ILE:HD13	38:BD:175:LEU:CD2	2.41	0.46
39:BE:12:THR:HG23	50:BT:8:LYS:HZ1	1.78	0.46
40:BF:10:PRO:O	40:BF:128:ALA:HB2	2.15	0.46
40:BF:147:GLY:O	40:BF:148:LEU:HD23	2.15	0.46
40:BF:162:LEU:HD12	40:BF:162:LEU:N	2.31	0.46
41:BG:171:ALA:O	41:BG:174:GLU:N	2.48	0.46
43:BI:123:LEU:HD11	43:BI:144:VAL:HG11	1.97	0.46
44:BN:28:THR:HA	44:BN:106:MET:HE3	1.97	0.46
45:BO:104:ARG:NH2	50:BT:33:LYS:HD2	2.29	0.46
49:BS:99:LYS:HB3	49:BS:101:LEU:HD12	1.97	0.46
49:BS:20:ARG:HA	49:BS:20:ARG:HD3	1.58	0.46
49:BS:99:LYS:O	49:BS:101:LEU:N	2.44	0.46
50:BT:13:ARG:HH12	50:BT:15:VAL:CG2	2.25	0.46
50:BT:3:ARG:HB2	50:BT:6:LEU:HB3	1.96	0.46
50:BT:7:ILE:O	50:BT:11:GLU:OE2	2.33	0.46
51:BU:17:ILE:O	51:BU:20:LEU:HB2	2.16	0.46
52:BV:43:GLU:HA	52:BV:43:GLU:OE1	2.15	0.46
54:BX:35:THR:CG2	54:BX:36:LYS:N	2.77	0.46
54:BX:47:PHE:HD2	54:BX:89:ILE:CG2	2.26	0.46
55:BY:2:ARG:C	55:BY:2:ARG:HD3	2.36	0.46
55:BY:28:LYS:HA	55:BY:39:VAL:H	1.80	0.46
56:BZ:112:ARG:NH1	56:BZ:112:ARG:HG2	2.27	0.46
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.29	0.46
1:CA:356:A:H1'	1:CA:368:U:O2'	2.16	0.46
2:CB:16:HIS:HB3	2:CB:210:SER:OG	2.15	0.46
2:CB:58:ILE:O	2:CB:61:LEU:HB3	2.16	0.46
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.15	0.46
4:CD:12:CYS:HA	4:CD:19:LEU:CD1	2.43	0.46
4:CD:138:TYR:CD2	4:CD:139:ARG:N	2.81	0.46
5:CE:128:PRO:O	5:CE:131:ILE:HG22	2.14	0.46
8:CH:38:ILE:HA	8:CH:41:ARG:HB3	1.97	0.46
11:CK:94:ALA:HB3	11:CK:95:ILE:HD13	1.97	0.46
13:CM:107:ALA:C	13:CM:109:THR:H	2.18	0.46
19:CS:18:LYS:HG3	19:CS:18:LYS:O	2.15	0.46
19:CS:41:VAL:HB	19:CS:44:MET:SD	2.55	0.46
13:CM:80:ARG:NH2	19:CS:69:HIS:NE2	2.61	0.46
23:CW:64:A:H2'	23:CW:65:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CY:6:G:O2'	22:CY:7:A:H5'	2.16	0.46
26:D1:86:SER:OG	26:D1:89:GLU:HB2	2.15	0.46
27:D2:69:ARG:NH2	35:DA:111:A:H4'	2.30	0.46
35:DA:1497:U:H3	35:DA:1578:U:P	2.38	0.46
35:DA:2051:A:H8	35:DA:2051:A:OP2	1.99	0.46
35:DA:2086:U:H2'	35:DA:2087:G:C8	2.51	0.46
35:DA:2553:G:H2'	35:DA:2554:U:H4'	1.96	0.46
35:DA:2712:U:O2'	35:DA:2712(A):A:P	2.74	0.46
35:DA:42:G:H2'	35:DA:43:A:O4'	2.15	0.46
35:DA:626:U:H3	46:DP:105:LEU:HA	1.79	0.46
35:DA:78:A:H2'	35:DA:79:G:C8	2.49	0.46
37:DC:211:SER:HA	37:DC:220:PRO:CB	2.45	0.46
38:DD:31:LYS:O	38:DD:33:LEU:O	2.34	0.46
38:DD:33:LEU:O	38:DD:34:VAL:CB	2.58	0.46
35:DA:2787:C:H1'	39:DE:61:ARG:CG	2.46	0.46
39:DE:36:ARG:HH22	39:DE:88:GLY:HA3	1.80	0.46
41:DG:139:LEU:HD23	41:DG:139:LEU:H	1.79	0.46
41:DG:82:LEU:HD22	41:DG:87:PRO:HB3	1.97	0.46
42:DH:107:VAL:CB	42:DH:152:ARG:HG3	2.43	0.46
43:DI:71:ILE:CG1	43:DI:72:LEU:H	2.24	0.46
43:DI:93:THR:O	43:DI:97:ILE:HG13	2.16	0.46
46:DP:35:HIS:O	46:DP:36:LYS:CB	2.64	0.46
49:DS:106:ARG:HE	49:DS:106:ARG:HB3	1.54	0.46
50:DT:23:ARG:HA	50:DT:52:ILE:CD1	2.45	0.46
51:DU:12:ARG:O	51:DU:15:LYS:HD3	2.16	0.46
51:DU:57:PHE:O	51:DU:58:ARG:C	2.54	0.46
1:AA:1004:A:C2'	1:AA:1005:A:H5'	2.44	0.46
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.42	0.46
1:AA:1251:A:H4'	9:AI:12:GLU:OE1	2.15	0.46
1:AA:1314:C:N4	19:AS:4:SER:N	2.62	0.46
1:AA:759:A:H2'	1:AA:760:G:H5'	1.98	0.46
1:AA:766:A:H2'	1:AA:767:A:O4'	2.15	0.46
1:AA:826:C:H5'	8:AH:12:ARG:NH2	2.26	0.46
2:AB:100:GLY:HA3	2:AB:104:ASN:HB3	1.96	0.46
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.14	0.46
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.15	0.46
4:AD:119:GLN:NE2	4:AD:123:HIS:NE2	2.63	0.46
5:AE:71:LEU:HD22	5:AE:114:GLY:O	2.16	0.46
9:AI:19:LEU:C	9:AI:20:ARG:HD2	2.35	0.46
11:AK:53:SER:C	11:AK:55:LYS:H	2.18	0.46
13:AM:50:GLU:N	13:AM:50:GLU:OE1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.35	0.46
22:AV:37:A:H3'	22:AV:38:A:H8	1.80	0.46
26:B1:86:SER:HB2	26:B1:89:GLU:CB	2.44	0.46
29:B4:37:PRO:HA	29:B4:51:TYR:HD2	1.80	0.46
31:B6:35:GLU:HB3	31:B6:51:GLU:CG	2.45	0.46
35:BA:2033:A:H2'	35:BA:2035:G:OP2	2.15	0.46
35:BA:2208:A:H1'	35:BA:2219:G:C5	2.51	0.46
35:BA:2443:C:H2'	35:BA:2444:G:C8	2.50	0.46
35:BA:2642:G:O2'	35:BA:2643:G:H5'	2.15	0.46
35:BA:2872:G:O2'	35:BA:2873:A:H5'	2.15	0.46
35:BA:412:A:N7	35:BA:2411:A:H2	2.13	0.46
35:BA:848:G:H2'	35:BA:849:A:C8	2.49	0.46
35:BA:848:G:H5'	35:BA:848:G:C8	2.46	0.46
36:BB:21:G:O2'	36:BB:22:U:P	2.74	0.46
36:BB:59:A:H2'	36:BB:60:C:O4'	2.16	0.46
38:BD:227:ASN:HB3	38:BD:228:PRO:CD	2.31	0.46
38:BD:231:HIS:ND1	38:BD:232:PRO:CD	2.79	0.46
38:BD:95:LEU:O	38:BD:95:LEU:HD12	2.15	0.46
39:BE:104:VAL:HG11	39:BE:188:VAL:CG2	2.34	0.46
40:BF:46:ARG:HH11	40:BF:46:ARG:HG3	1.81	0.46
41:BG:101:ILE:HD11	41:BG:105:LYS:HZ1	1.79	0.46
42:BH:158:HIS:O	42:BH:159:GLU:CB	2.64	0.46
42:BH:66:GLY:C	42:BH:68:THR:N	2.69	0.46
43:BI:51:ILE:O	43:BI:55:ALA:HB2	2.15	0.46
43:BI:56:LYS:C	43:BI:58:LEU:H	2.18	0.46
44:BN:112:LEU:O	44:BN:116:LEU:HG	2.15	0.46
44:BN:57:ALA:O	44:BN:58:ASP:O	2.34	0.46
46:BP:17:LYS:C	46:BP:19:VAL:N	2.67	0.46
48:BR:7:GLY:O	48:BR:8:ARG:CG	2.64	0.46
45:BO:77:ILE:HD11	50:BT:72:VAL:HG12	1.96	0.46
35:BA:143:G:C1'	54:BX:37:THR:HG21	2.39	0.46
56:BZ:145:GLU:HG3	56:BZ:146:ILE:N	2.30	0.46
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.15	0.46
1:CA:15:G:H2'	1:CA:16:A:C8	2.51	0.46
1:CA:524:G:H2'	1:CA:525:C:C6	2.49	0.46
1:CA:954:G:H2'	1:CA:955:U:C6	2.50	0.46
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.97	0.46
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.81	0.46
9:CI:15:ALA:CB	9:CI:65:VAL:HB	2.45	0.46
10:CJ:28:ARG:NH1	10:CJ:28:ARG:HG2	2.30	0.46
12:CL:23:LYS:O	12:CL:24:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:50:GLU:N	13:CM:50:GLU:OE1	2.48	0.46
13:CM:97:PRO:O	13:CM:98:VAL:HA	2.15	0.46
16:CP:1:MET:HG2	16:CP:2:VAL:O	2.15	0.46
20:CT:45:GLN:C	20:CT:47:GLY:N	2.68	0.46
25:D0:51:VAL:HG21	25:D0:79:VAL:O	2.15	0.46
26:D1:10:LYS:HE3	26:D1:65:SER:OG	2.15	0.46
31:D6:14:THR:O	31:D6:49:HIS:HA	2.15	0.46
35:DA:1221:C:H5'	35:DA:1221:C:C6	2.37	0.46
35:DA:137:C:O2	35:DA:137:C:H2'	2.15	0.46
35:DA:1495:A:H3'	35:DA:1496:A:C2	2.51	0.46
31:D6:45:LYS:NZ	35:DA:2370:G:H21	2.06	0.46
35:DA:2810:A:N6	35:DA:2891:G:O2'	2.48	0.46
31:D6:42:TRP:CH2	35:DA:643:A:N7	2.84	0.46
35:DA:828:U:H4'	35:DA:831:G:N1	2.30	0.46
35:DA:915:C:O2'	35:DA:916:G:H5'	2.16	0.46
38:DD:218:ARG:HG3	38:DD:218:ARG:NH1	2.30	0.46
35:DA:1797:C:O2'	38:DD:259:THR:HG21	2.15	0.46
35:DA:320:A:H3'	40:DF:136:THR:HG22	1.96	0.46
40:DF:51:THR:HG23	40:DF:92:PRO:HG2	1.97	0.46
41:DG:108:ASN:C	41:DG:112:PRO:HG2	2.36	0.46
41:DG:81:LYS:O	41:DG:82:LEU:O	2.33	0.46
42:DH:105:LEU:HD22	42:DH:105:LEU:O	2.15	0.46
43:DI:82:ARG:HH11	43:DI:82:ARG:HG3	1.80	0.46
46:DP:23:PRO:HB2	46:DP:33:ARG:NE	2.30	0.46
51:DU:79:PHE:C	51:DU:79:PHE:CD2	2.86	0.46
53:DW:52:GLU:HA	53:DW:52:GLU:OE2	2.16	0.46
54:DX:3:THR:O	54:DX:4:ALA:HB3	2.14	0.46
55:DY:7:VAL:CB	55:DY:8:LYS:HZ2	2.24	0.46
56:DZ:125:LEU:HD12	56:DZ:126:VAL:H	1.80	0.46
56:DZ:128:VAL:CG2	56:DZ:129:SER:N	2.79	0.46
1:AA:309:G:H2'	1:AA:310:G:H8	1.80	0.46
1:AA:405:U:OP2	4:AD:3:ARG:HD2	2.16	0.46
1:AA:735:C:H1'	18:AR:75:ILE:HD11	1.97	0.46
2:AB:137:ARG:HD3	2:AB:138:LEU:N	2.31	0.46
2:AB:23:ARG:HH11	2:AB:23:ARG:HG2	1.79	0.46
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.16	0.46
3:AC:64:VAL:HG12	3:AC:66:VAL:HG23	1.96	0.46
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.98	0.46
1:AA:619:U:C4	4:AD:135:LEU:HD21	2.51	0.46
12:AL:8:ASN:HD22	17:AQ:34:LYS:CE	2.23	0.46
13:AM:27:LYS:HE3	13:AM:31:LYS:NZ	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:30:ALA:C	13:AM:32:GLU:H	2.17	0.46
14:AN:9:LYS:HA	14:AN:12:ARG:HH11	1.80	0.46
18:AR:85:LEU:HG	18:AR:86:VAL:H	1.81	0.46
31:B6:39:TYR:CG	31:B6:40:CYS:N	2.84	0.46
35:BA:1168:G:H1	35:BA:1181:C:H42	1.64	0.46
35:BA:1190:G:H5''	46:BP:35:HIS:CA	2.44	0.46
35:BA:1301:A:O2'	35:BA:1302:A:C2'	2.54	0.46
35:BA:1665:A:O2'	35:BA:1666:G:H5'	2.15	0.46
35:BA:185:U:H2'	35:BA:186:G:H8	1.79	0.46
35:BA:2082:A:H2'	35:BA:2083:G:O4'	2.14	0.46
35:BA:2511:U:O3'	39:BE:123:ALA:HB3	2.16	0.46
35:BA:923:C:H2'	35:BA:924:C:C6	2.51	0.46
37:BC:97:GLU:HA	37:BC:100:ILE:HG12	1.98	0.46
38:BD:131:LEU:N	38:BD:131:LEU:CD1	2.78	0.46
38:BD:66:ASP:OD2	38:BD:69:ARG:HA	2.15	0.46
38:BD:72:LYS:HE2	38:BD:101:GLU:CD	2.35	0.46
38:BD:86:PRO:HG2	38:BD:87:ASN:OD1	2.15	0.46
39:BE:111:ARG:HD2	39:BE:160:TYR:HE1	1.80	0.46
40:BF:41:LEU:HA	40:BF:44:ARG:HG2	1.96	0.46
42:BH:156:ALA:O	42:BH:157:TYR:C	2.53	0.46
47:BQ:42:ILE:HA	47:BQ:46:GLN:OE1	2.15	0.46
35:BA:2710:C:OP1	48:BR:15:SER:HB2	2.15	0.46
49:BS:90:GLY:C	49:BS:92:TYR:H	2.18	0.46
49:BS:98:VAL:CG1	49:BS:100:ALA:HB2	2.45	0.46
51:BU:76:TYR:CZ	51:BU:80:ILE:HG13	2.50	0.46
52:BV:46:VAL:HG13	52:BV:47:VAL:H	1.80	0.46
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.16	0.46
1:CA:346:G:H2'	1:CA:346:G:N3	2.30	0.46
1:CA:44:G:H1'	1:CA:399:G:N2	2.31	0.46
1:CA:848:C:H2'	1:CA:849:C:H6	1.79	0.46
2:CB:215:LEU:O	2:CB:219:VAL:HG23	2.16	0.46
2:CB:23:ARG:HB3	2:CB:23:ARG:CZ	2.44	0.46
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.16	0.46
4:CD:63:LYS:HD2	4:CD:198:VAL:HG22	1.96	0.46
5:CE:35:GLY:HA3	5:CE:41:VAL:HG12	1.97	0.46
5:CE:84:PHE:HB3	5:CE:134:ALA:HB2	1.97	0.46
9:CI:7:THR:O	9:CI:83:ARG:HD2	2.16	0.46
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.28	0.46
10:CJ:80:LYS:O	10:CJ:84:GLN:HB2	2.15	0.46
11:CK:126:ARG:C	11:CK:128:ALA:N	2.69	0.46
13:CM:30:ALA:C	13:CM:32:GLU:H	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:66:PRO:HG2	16:CP:71:ARG:NH1	2.30	0.46
16:CP:82:GLN:O	16:CP:84:ALA:N	2.49	0.46
24:CX:19:U:C2	22:CY:37:A:C2	3.03	0.46
30:D5:16:ARG:NH1	30:D5:17:ASP:OD1	2.49	0.46
31:D6:39:TYR:CG	31:D6:40:CYS:N	2.83	0.46
33:D8:61:LEU:HD12	33:D8:62:LEU:H	1.80	0.46
35:DA:1401:G:H2'	35:DA:1402:C:C6	2.51	0.46
35:DA:1656:C:H2'	35:DA:1657:C:C6	2.49	0.46
35:DA:1664:A:H1'	35:DA:2726:U:C5	2.51	0.46
35:DA:2228:G:P	38:DD:263:ARG:HH12	2.39	0.46
35:DA:2263:C:C6	35:DA:2263:C:H5'	2.30	0.46
35:DA:2801:A:H2'	35:DA:2801:A:N3	2.31	0.46
35:DA:309:G:N3	35:DA:329:G:O2'	2.48	0.46
35:DA:953:A:H2'	35:DA:954:G:C5'	2.46	0.46
36:DB:107:G:O2'	36:DB:108:U:H5'	2.15	0.46
38:DD:238:GLY:O	38:DD:239:ARG:O	2.34	0.46
40:DF:161:GLU:O	40:DF:164:ARG:HB3	2.14	0.46
41:DG:149:VAL:O	41:DG:149:VAL:HG23	2.15	0.46
41:DG:33:ARG:NE	41:DG:162:THR:HG21	2.31	0.46
43:DI:10:GLU:O	43:DI:11:ASN:HB3	2.15	0.46
44:DN:126:PRO:O	44:DN:127:ASP:CB	2.55	0.46
35:DA:661:C:O3'	46:DP:18:ARG:HD2	2.16	0.46
46:DP:25:SER:O	46:DP:30:THR:HG23	2.15	0.46
46:DP:75:ILE:N	46:DP:75:ILE:CD1	2.79	0.46
47:DQ:54:MET:CG	47:DQ:64:ILE:HD13	2.46	0.46
52:DV:21:ARG:H	52:DV:21:ARG:HD3	1.80	0.46
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.50	0.46
1:AA:356:A:H1'	1:AA:368:U:O2'	2.15	0.46
1:AA:553:A:H2'	1:AA:554:C:C6	2.50	0.46
1:AA:88:A:OP1	1:AA:90:U:H1'	2.16	0.46
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.79	0.46
2:AB:224:GLN:HG2	2:AB:224:GLN:O	2.16	0.46
2:AB:87:ARG:NH1	2:AB:223:ILE:HD11	2.30	0.46
4:AD:108:LEU:CB	4:AD:110:PHE:HE1	2.28	0.46
4:AD:43:HIS:O	4:AD:45:GLN:N	2.48	0.46
1:AA:640:A:N3	8:AH:115:SER:HB3	2.31	0.46
8:AH:28:ALA:HB3	8:AH:57:PRO:HB2	1.97	0.46
8:AH:82:HIS:CD2	8:AH:138:TRP:NE1	2.81	0.46
9:AI:63:ILE:HG22	9:AI:64:THR:N	2.31	0.46
10:AJ:78:ASN:HD21	10:AJ:80:LYS:HB2	1.81	0.46
11:AK:54:ARG:HH22	23:AW:40:C:P	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:41:ARG:HH12	12:AL:57:LYS:HZ3	1.63	0.46
13:AM:82:MET:CG	13:AM:82:MET:O	2.63	0.46
11:AK:108:ILE:HB	18:AR:87:ARG:HA	1.97	0.46
19:AS:18:LYS:HG3	19:AS:18:LYS:O	2.15	0.46
19:AS:43:GLU:OE1	19:AS:45:VAL:HG22	2.14	0.46
25:B0:36:ILE:HD12	25:B0:38:VAL:N	2.31	0.46
25:B0:41:ARG:CD	25:B0:44:ARG:HD3	2.45	0.46
25:B0:51:VAL:HG21	25:B0:79:VAL:O	2.14	0.46
26:B1:44:PRO:HA	35:BA:396:G:O3'	2.15	0.46
27:B2:42:GLY:O	27:B2:43:GLN:C	2.53	0.46
27:B2:2:LYS:O	27:B2:6:VAL:HG23	2.14	0.46
35:BA:1300:U:C6	35:BA:1626:G:C6	3.03	0.46
35:BA:1686:C:C6	35:BA:1686:C:C5'	2.94	0.46
35:BA:1685:C:O2'	35:BA:1686:C:H5''	2.14	0.46
35:BA:1721:G:C2	35:BA:1739:U:OP2	2.68	0.46
35:BA:1785:A:OP2	35:BA:1982:C:H5'	2.15	0.46
35:BA:1889:A:O2'	35:BA:2087:G:H5'	2.16	0.46
35:BA:2228:G:P	38:BD:263:ARG:HH12	2.38	0.46
35:BA:2403:C:N3	35:BA:2415:G:C2	2.84	0.46
35:BA:2716:U:O2'	35:BA:2717:G:H5'	2.16	0.46
35:BA:271(M):G:C5'	43:BI:57:ARG:HH12	2.27	0.46
35:BA:644:A:H4'	35:BA:645:C:H5	1.80	0.46
35:BA:782:A:H5'	35:BA:783:A:C2	2.51	0.46
35:BA:874:G:H5''	56:BZ:175:VAL:HG22	1.98	0.46
36:BB:28:C:H2'	36:BB:29:A:O4'	2.15	0.46
37:BC:86:ALA:HB2	37:BC:152:ILE:CB	2.45	0.46
37:BC:47:LEU:HD23	37:BC:47:LEU:N	2.30	0.46
37:BC:86:ALA:CB	37:BC:94:VAL:HG11	2.46	0.46
38:BD:165:ILE:HA	38:BD:175:LEU:HD23	1.98	0.46
39:BE:110:GLY:O	48:BR:5:LYS:NZ	2.40	0.46
39:BE:16:ARG:NH2	39:BE:171:GLU:OE2	2.43	0.46
39:BE:39:PRO:O	39:BE:43:GLY:N	2.49	0.46
40:BF:89:VAL:HG12	40:BF:90:PHE:N	2.31	0.46
45:BO:101:PRO:O	45:BO:102:VAL:HG13	2.15	0.46
51:BU:44:ASN:HD22	52:BV:75:PHE:HB3	1.80	0.46
52:BV:49:THR:HB	52:BV:50:PRO:CD	2.46	0.46
55:BY:77:PRO:O	55:BY:78:ALA:CB	2.64	0.46
56:BZ:165:VAL:CG1	56:BZ:166:SER:H	2.22	0.46
56:BZ:31:ARG:CB	56:BZ:31:ARG:NH1	2.60	0.46
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.15	0.46
1:CA:1392:G:H21	1:CA:1502:A:H8	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:617:G:H1	1:CA:623:C:N4	2.06	0.46
1:CA:868:C:H2'	1:CA:869:G:O4'	2.16	0.46
2:CB:59:GLU:HB2	2:CB:221:LEU:HD12	1.95	0.46
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.46	0.46
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.15	0.46
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	2.29	0.46
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.36	0.46
4:CD:10:ARG:HH11	4:CD:10:ARG:CG	2.28	0.46
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.98	0.46
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.30	0.46
1:CA:1346:A:C5'	9:CI:120:ARG:NH1	2.78	0.46
9:CI:59:PHE:CD1	9:CI:59:PHE:N	2.84	0.46
12:CL:8:ASN:O	12:CL:12:ARG:HG3	2.16	0.46
15:CO:39:LEU:HD22	15:CO:43:LEU:HG	1.96	0.46
18:CR:43:PHE:CE2	18:CR:58:LEU:HD11	2.45	0.46
22:CV:8:U:O2	22:CV:21:A:H2	1.98	0.46
22:CY:20:U:H2'	22:CY:21:A:H4'	1.97	0.46
27:D2:21:LEU:O	27:D2:25:VAL:HG23	2.15	0.46
27:D2:31:GLU:CB	27:D2:53:LEU:HD11	2.45	0.46
27:D2:63:VAL:HA	27:D2:66:GLU:HG2	1.96	0.46
29:D4:45:GLY:O	29:D4:46:ASN:C	2.54	0.46
33:D8:42:ARG:O	33:D8:44:LYS:N	2.45	0.46
35:DA:1820:U:O2	38:DD:201:HIS:HB3	2.15	0.46
35:DA:1860:G:H2'	35:DA:1861:G:H8	1.81	0.46
35:DA:185:U:H2'	35:DA:186:G:H8	1.80	0.46
35:DA:203:C:C3'	35:DA:204:A:H5''	2.41	0.46
35:DA:2819:G:O2'	35:DA:2820:A:H5'	2.16	0.46
35:DA:392:C:H5''	35:DA:409:C:H5''	1.98	0.46
35:DA:529:A:H4'	35:DA:530:G:H5'	1.96	0.46
35:DA:622:G:O2'	35:DA:623:G:H5'	2.16	0.46
35:DA:638:G:H2'	35:DA:639:U:H6	1.80	0.46
35:DA:857:C:C2	35:DA:858:U:C5	3.03	0.46
38:DD:31:LYS:NZ	38:DD:94:LEU:HD11	2.30	0.46
42:DH:96:ALA:HB2	42:DH:105:LEU:HB3	1.98	0.46
43:DI:94:ALA:HB1	43:DI:111:PRO:HA	1.97	0.46
44:DN:110:GLY:C	44:DN:114:ARG:HH21	2.18	0.46
44:DN:73:THR:HG22	44:DN:82:LEU:HD11	1.98	0.46
45:DO:104:ARG:NH2	50:DT:33:LYS:HD2	2.30	0.46
48:DR:11:ASN:O	48:DR:12:ARG:CB	2.63	0.46
51:DU:61:TRP:O	51:DU:62:ILE:C	2.53	0.46
54:DX:49:VAL:HB	54:DX:83:VAL:HG13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DX:65:ARG:HH11	54:DX:65:ARG:CG	2.25	0.46
1:AA:1043:C:H2'	1:AA:1044:A:C8	2.50	0.46
1:AA:350:G:O2'	1:AA:351:G:H5'	2.16	0.46
1:AA:370:C:H2'	1:AA:371:G:C8	2.49	0.46
1:AA:502:G:OP1	12:AL:117:ARG:N	2.49	0.46
1:AA:660:G:H1	1:AA:745:C:H42	1.63	0.46
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.98	0.46
3:AC:16:ARG:HH11	3:AC:16:ARG:CB	2.29	0.46
3:AC:94:LEU:HD12	3:AC:94:LEU:C	2.36	0.46
5:AE:11:ILE:HG21	5:AE:105:VAL:HA	1.98	0.46
5:AE:40:ARG:NH1	5:AE:40:ARG:CG	2.77	0.46
8:AH:56:LYS:HA	8:AH:57:PRO:HD2	1.74	0.46
8:AH:63:LEU:H	8:AH:63:LEU:HD22	1.81	0.46
13:AM:107:ALA:C	13:AM:109:THR:H	2.18	0.46
1:AA:1228:C:H4'	13:AM:116:THR:CA	2.45	0.46
13:AM:15:VAL:O	13:AM:19:LEU:CD2	2.64	0.46
13:AM:86:CYS:O	13:AM:89:GLY:N	2.49	0.46
17:AQ:76:LEU:CG	17:AQ:77:VAL:N	2.78	0.46
17:AQ:9:VAL:HG21	17:AQ:84:LEU:CD1	2.45	0.46
23:AW:4:C:C2	23:AW:70:G:C2	3.04	0.46
22:AY:19:G:N2	35:BA:881:G:H21	2.12	0.46
34:B9:20:HIS:C	34:B9:22:ARG:H	2.19	0.46
35:BA:151:C:O2'	35:BA:152:G:H5'	2.15	0.46
35:BA:1566:A:C4	38:BD:214:TRP:CE3	3.03	0.46
35:BA:2029:G:H2'	35:BA:2031:A:OP1	2.15	0.46
22:AV:77:PHA:HE2	35:BA:2061:G:H21	1.80	0.46
35:BA:363(F):A:O2'	35:BA:364:C:H5	1.98	0.46
35:BA:365:C:C6	35:BA:365:C:H5'	2.37	0.46
35:BA:724:U:H2'	35:BA:725:G:O4'	2.16	0.46
35:BA:852:G:C2'	35:BA:853:G:H5'	2.46	0.46
36:BB:48:A:H2'	36:BB:49:C:H6	1.78	0.46
38:BD:161:THR:O	38:BD:162:SER:HB3	2.16	0.46
42:BH:43:VAL:HG23	42:BH:43:VAL:O	2.15	0.46
44:BN:54:VAL:HB	44:BN:122:VAL:HG22	1.96	0.46
46:BP:33:ARG:O	46:BP:35:HIS:N	2.49	0.46
49:BS:93:LYS:CA	49:BS:93:LYS:HE3	2.45	0.46
50:BT:133:GLU:OE2	50:BT:137:LYS:HE2	2.16	0.46
51:BU:26:GLY:O	51:BU:30:LYS:HG2	2.16	0.46
51:BU:44:ASN:HD21	52:BV:75:PHE:H	1.64	0.46
54:BX:23:GLU:O	54:BX:25:LYS:N	2.47	0.46
54:BX:47:PHE:O	54:BX:49:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:52:VAL:CG2	54:BX:84:ALA:HA	2.46	0.46
55:BY:84:ARG:NH1	55:BY:97:ARG:HA	2.30	0.46
56:BZ:97:GLU:CG	56:BZ:125:LEU:HD11	2.38	0.46
1:CA:1033:G:C2'	1:CA:1034:G:H5'	2.46	0.46
1:CA:22:G:H2'	1:CA:23:C:C6	2.51	0.46
1:CA:373:A:H2'	1:CA:374:A:H8	1.80	0.46
1:CA:407:G:O2'	4:CD:116:GLN:HG3	2.16	0.46
1:CA:457:C:H2'	1:CA:458:C:C6	2.51	0.46
3:CC:54:ARG:HH12	3:CC:56:ASP:CB	2.28	0.46
4:CD:28:SER:C	4:CD:30:LYS:H	2.19	0.46
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.97	0.46
7:CG:131:LYS:O	7:CG:131:LYS:HG3	2.15	0.46
8:CH:28:ALA:HB3	8:CH:57:PRO:HB2	1.97	0.46
9:CI:15:ALA:HB2	9:CI:65:VAL:CB	2.46	0.46
10:CJ:42:THR:HG22	10:CJ:43:ARG:N	2.31	0.46
10:CJ:63:PHE:C	14:CN:59:ALA:HB2	2.35	0.46
10:CJ:96:ILE:H	10:CJ:96:ILE:HD13	1.80	0.46
12:CL:38:THR:HG23	12:CL:39:VAL:N	2.31	0.46
13:CM:116:THR:HG22	13:CM:117:VAL:H	1.80	0.46
15:CO:38:ARG:HG2	15:CO:38:ARG:NH1	2.31	0.46
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.16	0.46
23:CW:17:C:N4	35:DA:2181:G:H5'	2.31	0.46
27:D2:10:LEU:O	27:D2:14:ARG:HG2	2.16	0.46
31:D6:28:ARG:HA	31:D6:28:ARG:NE	2.30	0.46
35:DA:1140:C:H5''	44:DN:66:LYS:HZ3	1.81	0.46
35:DA:1162:G:H4'	52:DV:24:LYS:HB2	1.98	0.46
35:DA:1204:A:N1	35:DA:1241:A:H2	2.14	0.46
35:DA:2030:A:H4'	35:DA:2031:A:H8	1.80	0.46
35:DA:2162:G:O2'	35:DA:2163:C:H5'	2.16	0.46
35:DA:2240:C:O2'	35:DA:2241:A:H5'	2.15	0.46
35:DA:2460:U:H4'	47:DQ:79:LEU:HD11	1.98	0.46
35:DA:271(Q):G:O2'	35:DA:271(R):G:H8	1.99	0.46
35:DA:581:C:OP1	51:DU:33:ARG:HG2	2.16	0.46
35:DA:744:G:H2'	35:DA:745:G:O4'	2.16	0.46
35:DA:972:G:OP2	35:DA:974:G:H5''	2.16	0.46
35:DA:96:G:O2'	35:DA:97:C:H5'	2.15	0.46
36:DB:55:U:O2'	36:DB:56:G:H5'	2.16	0.46
38:DD:267:SER:HA	38:DD:270:ILE:HG13	1.97	0.46
39:DE:114:ALA:HB3	39:DE:160:TYR:HB3	1.97	0.46
41:DG:14:GLU:H	41:DG:17:PRO:HD2	1.81	0.46
43:DI:68:LEU:O	43:DI:72:LEU:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:148:LEU:O	46:DP:149:GLU:HB2	2.16	0.46
46:DP:27:HIS:CD2	46:DP:27:HIS:C	2.88	0.46
46:DP:49:ARG:NH2	46:DP:50:ARG:HH22	2.14	0.46
46:DP:46:LYS:HG2	46:DP:52:GLU:HG2	1.97	0.46
46:DP:7:ARG:C	46:DP:7:ARG:HH11	2.19	0.46
48:DR:80:PHE:O	48:DR:85:PRO:HD3	2.15	0.46
48:DR:79:LEU:HD23	48:DR:83:ILE:HB	1.97	0.46
50:DT:109:GLU:HA	50:DT:112:ARG:HD3	1.96	0.46
51:DU:27:LEU:HD22	51:DU:31:SER:CB	2.46	0.46
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.63	0.46
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.15	0.46
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.31	0.46
1:AA:1442(B):A:O2'	1:AA:1443:G:C8	2.68	0.46
1:AA:271:C:O2'	1:AA:272:C:H5'	2.15	0.46
3:AC:119:ARG:NE	3:AC:140:ARG:NE	2.63	0.46
4:AD:9:CYS:CB	4:AD:22:LYS:HD2	2.45	0.46
5:AE:45:PHE:CD2	5:AE:47:LYS:HE3	2.51	0.46
6:AF:19:LEU:HD23	6:AF:19:LEU:C	2.36	0.46
9:AI:37:PHE:HB3	9:AI:43:ALA:HB2	1.98	0.46
15:AO:10:LYS:HZ1	15:AO:14:GLU:HG2	1.80	0.46
16:AP:58:TYR:HD1	16:AP:59:TRP:N	2.14	0.46
17:AQ:56:VAL:O	17:AQ:76:LEU:HD12	2.16	0.46
19:AS:29:ARG:HB2	19:AS:48:THR:H	1.79	0.46
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.16	0.46
30:B5:16:ARG:NH1	30:B5:17:ASP:OD1	2.49	0.46
31:B6:28:ARG:HA	31:B6:28:ARG:NE	2.30	0.46
33:B8:25:MET:SD	46:BP:64:LYS:HD2	2.55	0.46
35:BA:1490:A:H5'	35:BA:1491:G:OP2	2.16	0.46
35:BA:1992:G:O2'	35:BA:1993:U:OP2	2.28	0.46
35:BA:2850:A:C2	35:BA:2851:A:C4	3.04	0.46
35:BA:705:A:C2	35:BA:727:A:H1'	2.50	0.46
37:BC:49:ILE:O	37:BC:51:PRO:N	2.49	0.46
38:BD:148:GLU:HB3	38:BD:151:LYS:HD2	1.97	0.46
39:BE:21:VAL:HG23	39:BE:23:VAL:CG1	2.45	0.46
39:BE:51:PHE:HE1	39:BE:52:LEU:HD13	1.75	0.46
40:BF:182:ASN:O	40:BF:186:ILE:HG12	2.15	0.46
40:BF:63:LYS:HE3	40:BF:67:GLN:HB2	1.97	0.46
41:BG:133:LEU:CD1	41:BG:157:ILE:CG2	2.94	0.46
44:BN:118:LYS:C	44:BN:120:LEU:H	2.19	0.46
48:BR:84:ALA:N	48:BR:85:PRO:CD	2.78	0.46
49:BS:29:PHE:O	49:BS:35:ILE:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BS:80:LEU:N	49:BS:80:LEU:HD12	2.31	0.46
54:BX:75:ASP:C	54:BX:76:ARG:HG3	2.36	0.46
56:BZ:105:VAL:O	56:BZ:140:ASP:HA	2.15	0.46
1:CA:1065:U:H6	1:CA:1190:G:H21	1.62	0.46
1:CA:1463:C:H2'	1:CA:1464:G:C8	2.51	0.46
1:CA:195:A:OP1	20:CT:65:LYS:HE2	2.16	0.46
1:CA:617:G:C2	1:CA:618:C:C5	3.04	0.46
1:CA:699:C:C2'	1:CA:700:G:H5'	2.46	0.46
1:CA:723:U:O2	1:CA:723:U:C2'	2.64	0.46
1:CA:791:G:C6	1:CA:792:A:N7	2.83	0.46
2:CB:158:LEU:HA	2:CB:159:PRO:HD3	1.81	0.46
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.30	0.46
3:CC:164:ARG:HB2	3:CC:164:ARG:CZ	2.46	0.46
3:CC:30:ARG:HH11	14:CN:38:GLY:H	1.64	0.46
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.16	0.46
5:CE:20:GLN:O	5:CE:21:ALA:C	2.53	0.46
5:CE:6:PHE:HB2	5:CE:34:VAL:HG13	1.98	0.46
7:CG:67:GLU:HA	7:CG:67:GLU:OE2	2.16	0.46
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.97	0.46
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.20	0.46
13:CM:15:VAL:O	13:CM:19:LEU:CD2	2.63	0.46
23:CW:72:C:H2'	23:CW:73:A:H8	1.80	0.46
22:CY:11:C:N4	22:CY:24:G:H1	2.14	0.46
25:D0:42:GLY:HA3	35:DA:2331:G:O4'	2.16	0.46
31:D6:9:LEU:CD2	31:D6:10:LEU:N	2.75	0.46
33:D8:15:LYS:HB2	46:DP:65:ARG:NH1	2.31	0.46
35:DA:1292:U:O2'	35:DA:1293:C:H5'	2.16	0.46
35:DA:1721:G:C2	35:DA:1739:U:OP2	2.69	0.46
35:DA:1766:U:O2'	35:DA:1767:C:H5'	2.16	0.46
35:DA:1851:U:C2'	35:DA:1852:C:H5'	2.46	0.46
35:DA:1886:C:H2'	35:DA:1887:C:H6	1.81	0.46
35:DA:2097:C:H2'	35:DA:2098:U:O4'	2.16	0.46
25:D0:43:THR:N	35:DA:2331:G:H4'	2.30	0.46
35:DA:2394:C:O2'	35:DA:2395:C:H5'	2.16	0.46
35:DA:2766:G:N3	35:DA:2766:G:H2'	2.30	0.46
35:DA:676:A:H8	35:DA:2069:G:N2	2.08	0.46
35:DA:780:G:H21	35:DA:783:A:H62	1.63	0.46
37:DC:73:ARG:O	37:DC:119:VAL:N	2.48	0.46
38:DD:63:ARG:HG3	38:DD:63:ARG:HH11	1.80	0.46
39:DE:81:ILE:O	39:DE:82:ARG:CB	2.62	0.46
35:DA:2749:A:H1'	42:DH:63:SER:OG	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:103:MET:HE2	47:DQ:125:LEU:HD13	1.98	0.46
48:DR:18:LEU:HD11	48:DR:22:ARG:CZ	2.46	0.46
51:DU:31:SER:O	51:DU:33:ARG:N	2.48	0.46
52:DV:19:LYS:HZ3	52:DV:20:LEU:CB	2.29	0.46
51:DU:104:GLN:HB3	52:DV:44:LYS:HZ3	1.81	0.46
53:DW:68:ARG:HG3	53:DW:68:ARG:HH11	1.81	0.46
55:DY:95:LYS:HG2	55:DY:100:ALA:CA	2.43	0.46
55:DY:97:ARG:O	55:DY:97:ARG:HG3	2.16	0.46
1:AA:1033:G:H2'	1:AA:1034:G:O4'	2.15	0.46
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.31	0.46
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.16	0.46
1:AA:44:G:H1'	1:AA:399:G:H22	1.80	0.46
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.44	0.46
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.16	0.46
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.15	0.46
3:AC:16:ARG:HH11	3:AC:16:ARG:CA	2.28	0.46
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.15	0.46
4:AD:145:GLU:HG2	4:AD:184:LYS:NZ	2.30	0.46
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.31	0.46
7:AG:155:ARG:O	7:AG:156:TRP:O	2.34	0.46
8:AH:40:ALA:C	8:AH:42:GLU:N	2.69	0.46
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.54	0.46
11:AK:30:VAL:O	11:AK:30:VAL:HG23	2.15	0.46
17:AQ:92:ARG:HA	17:AQ:95:TYR:CE2	2.50	0.46
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	1.98	0.46
22:AV:16:U:H4'	22:AV:17:C:H5	1.81	0.46
22:AY:52:G:H2'	22:AY:52:G:N3	2.30	0.46
31:B6:10:LEU:HD22	31:B6:10:LEU:N	2.31	0.46
34:B9:7:VAL:HG13	34:B9:34:GLN:HB2	1.96	0.46
35:BA:1676:A:H2'	35:BA:1677:A:O4'	2.16	0.46
35:BA:2178:C:H2'	35:BA:2179:C:C6	2.51	0.46
35:BA:2392:A:H2	35:BA:2424:C:N4	2.07	0.46
35:BA:2419:U:O2'	35:BA:2420:C:H5'	2.14	0.46
23:AW:76:A:C2	35:BA:2421:G:C6	3.04	0.46
35:BA:2636:U:H4'	39:BE:80:GLU:OE1	2.16	0.46
35:BA:271(F):C:H2'	35:BA:271(G):C:H6	1.80	0.46
35:BA:493:G:H2'	35:BA:494:G:O4'	2.16	0.46
35:BA:548:A:O2'	35:BA:549:G:OP1	2.26	0.46
36:BB:44:G:H1'	36:BB:47:C:H42	1.81	0.46
37:BC:168:THR:HA	37:BC:173:ALA:HB1	1.95	0.46
38:BD:134:ARG:HG3	38:BD:135:PHE:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:209:ALA:C	38:BD:210:GLY:O	2.53	0.46
39:BE:55:ASN:ND2	39:BE:75:VAL:HG22	2.27	0.46
40:BF:7:TYR:HB2	40:BF:17:ARG:N	2.31	0.46
41:BG:81:LYS:HB3	41:BG:82:LEU:H	1.48	0.46
35:BA:1141:U:H2'	44:BN:63:THR:CG2	2.45	0.46
44:BN:87:LEU:HD23	44:BN:87:LEU:O	2.16	0.46
35:BA:1952:A:C5	45:BO:22:ILE:CD1	2.99	0.46
48:BR:4:LEU:O	48:BR:4:LEU:HD13	2.16	0.46
52:BV:1:MET:HA	52:BV:1:MET:CE	2.44	0.46
52:BV:49:THR:CB	52:BV:50:PRO:CD	2.94	0.46
54:BX:53:LYS:HB3	54:BX:82:GLN:HB3	1.98	0.46
54:BX:62:LYS:O	54:BX:73:ARG:HG3	2.16	0.46
55:BY:50:ARG:C	55:BY:52:SER:N	2.67	0.46
55:BY:7:VAL:HB	55:BY:8:LYS:HD2	1.98	0.46
1:CA:1028:C:H42	1:CA:1034:G:N2	2.14	0.46
1:CA:1134:G:N2	1:CA:1141:C:C2	2.84	0.46
1:CA:1518:A:H2'	1:CA:1519:A:C8	2.51	0.46
1:CA:838:G:C2	1:CA:840:C:H5'	2.51	0.46
2:CB:115:LEU:O	2:CB:119:GLU:HB2	2.16	0.46
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.97	0.46
2:CB:91:PRO:HG2	2:CB:155:LEU:CB	2.23	0.46
3:CC:70:VAL:O	3:CC:106:VAL:N	2.49	0.46
3:CC:78:GLY:HA3	3:CC:83:ARG:CB	2.45	0.46
5:CE:71:LEU:HD22	5:CE:114:GLY:O	2.15	0.46
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.46
9:CI:53:VAL:HG12	9:CI:92:TYR:HD2	1.80	0.46
9:CI:14:VAL:O	9:CI:65:VAL:HA	2.16	0.46
10:CJ:44:VAL:CG1	10:CJ:46:ARG:HG3	2.46	0.46
12:CL:10:LEU:O	12:CL:14:GLY:HA2	2.15	0.46
17:CQ:59:ILE:HG21	17:CQ:71:PHE:HB3	1.97	0.46
17:CQ:95:TYR:O	17:CQ:96:GLU:C	2.54	0.46
22:CY:41:C:H2'	22:CY:42:C:O4'	2.16	0.46
27:D2:17:SER:HG	27:D2:20:GLU:HB2	1.78	0.46
30:D5:43:HIS:HA	35:DA:2884:U:C5	2.50	0.46
35:DA:1109:C:H5	35:DA:1110:G:C5	2.33	0.46
35:DA:1169:G:H1	35:DA:1180:C:N4	2.14	0.46
35:DA:116:C:O2'	35:DA:117:G:H5'	2.16	0.46
35:DA:1486:A:H61	35:DA:1504:C:H42	1.63	0.46
35:DA:1525:G:H2'	35:DA:1526:G:C8	2.51	0.46
35:DA:2553:G:H2'	35:DA:2554:U:C4'	2.46	0.46
35:DA:2615:U:H2'	35:DA:2616:C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2859:G:C6	35:DA:2860:A:N6	2.84	0.46
35:DA:609:A:H2'	35:DA:610:G:O4'	2.16	0.46
35:DA:952:G:OP1	47:DQ:16:ARG:NH2	2.46	0.46
38:DD:9:TYR:C	38:DD:10:THR:HG22	2.35	0.46
38:DD:253:GLN:HB2	38:DD:257:LEU:HD12	1.98	0.46
40:DF:164:ARG:O	40:DF:166:ALA:N	2.49	0.46
40:DF:157:VAL:HB	40:DF:194:MET:HB3	1.98	0.46
42:DH:158:HIS:O	42:DH:159:GLU:CB	2.63	0.46
48:DR:28:LEU:HD13	48:DR:28:LEU:C	2.36	0.46
50:DT:28:VAL:HG11	50:DT:46:GLU:OE1	2.16	0.46
54:DX:52:VAL:CG2	54:DX:84:ALA:HA	2.46	0.46
55:DY:37:VAL:O	55:DY:38:ILE:HG12	2.16	0.46
56:DZ:150:LEU:HD21	56:DZ:172:ALA:CB	2.45	0.46
47:DQ:62:GLY:O	56:DZ:178:GLU:OE1	2.34	0.46
1:AA:1030(D):A:C2'	1:AA:1031:G:H5'	2.46	0.46
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.80	0.46
1:AA:418:C:H2'	1:AA:419:C:H6	1.81	0.46
1:AA:955:U:H2'	1:AA:956:U:H6	1.81	0.46
2:AB:178:ARG:CG	2:AB:178:ARG:HH11	2.28	0.46
4:AD:138:TYR:CD2	4:AD:139:ARG:N	2.79	0.46
5:AE:35:GLY:HA3	5:AE:41:VAL:HG12	1.97	0.46
13:AM:45:VAL:O	13:AM:47:ASP:N	2.49	0.46
17:AQ:43:LEU:HD12	17:AQ:68:ARG:HG3	1.98	0.46
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.98	0.46
27:B2:55:ARG:HH11	35:BA:75:G:H4'	1.79	0.46
34:B9:10:ILE:O	34:B9:11:CYS:HB2	2.16	0.46
35:BA:1336:A:H2'	35:BA:1337:G:H8	1.80	0.46
35:BA:1722:A:C6	35:BA:1741:A:N1	2.83	0.46
35:BA:1791:A:N6	35:BA:1828:G:O2'	2.40	0.46
35:BA:2759:G:C8	35:BA:2759:G:H5'	2.51	0.46
35:BA:2897:U:O2	35:BA:2897:U:H2'	2.16	0.46
35:BA:27:G:O2'	35:BA:28:A:P	2.73	0.46
35:BA:34:C:H42	35:BA:455:C:H5'	1.80	0.46
35:BA:692:C:H2'	35:BA:693:C:H6	1.81	0.46
38:BD:134:ARG:HG3	38:BD:135:PHE:CE2	2.51	0.46
38:BD:35:LYS:CA	38:BD:63:ARG:HA	2.44	0.46
35:BA:2635:C:H5''	39:BE:78:LEU:O	2.15	0.46
40:BF:46:ARG:NH1	40:BF:46:ARG:HG3	2.31	0.46
41:BG:106:LEU:HD12	41:BG:110:ALA:HB3	1.97	0.46
42:BH:87:LEU:N	42:BH:131:VAL:O	2.44	0.46
43:BI:113:ARG:HA	43:BI:131:LYS:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:73:GLU:HB2	43:BI:136:VAL:HG21	1.96	0.46
44:BN:94:HIS:N	44:BN:95:PRO:CD	2.78	0.46
46:BP:101:VAL:HG12	46:BP:106:LEU:HB3	1.97	0.46
48:BR:10:LEU:HD13	48:BR:17:ARG:NH1	2.31	0.46
49:BS:99:LYS:C	49:BS:101:LEU:H	2.18	0.46
50:BT:19:LEU:HD22	50:BT:85:LYS:HZ2	1.81	0.46
51:BU:57:PHE:O	51:BU:58:ARG:C	2.54	0.46
52:BV:20:LEU:N	52:BV:20:LEU:CD1	2.78	0.46
52:BV:39:LEU:CB	52:BV:40:LEU:HD23	2.46	0.46
56:BZ:136:PHE:O	56:BZ:137:ILE:HD13	2.16	0.46
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.14	0.46
1:CA:1328:C:H2'	1:CA:1329:A:H8	1.81	0.46
1:CA:342:C:H2'	1:CA:343:U:O4'	2.17	0.46
1:CA:389:A:C2'	1:CA:390:C:H5'	2.37	0.46
1:CA:423:G:C2'	1:CA:424:G:H5'	2.46	0.46
1:CA:99:U:H2'	1:CA:100:C:C5	2.50	0.46
2:CB:114:ARG:HH12	2:CB:118:LEU:HD11	1.78	0.46
2:CB:71:VAL:O	2:CB:165:VAL:HG22	2.16	0.46
3:CC:87:LEU:C	3:CC:89:GLU:N	2.68	0.46
4:CD:40:PRO:O	4:CD:41:GLY:O	2.34	0.46
11:CK:53:SER:C	11:CK:55:LYS:H	2.19	0.46
16:CP:26:ARG:HH11	16:CP:26:ARG:HG2	1.81	0.46
16:CP:50:LYS:NZ	16:CP:52:ASP:HA	2.30	0.46
17:CQ:26:GLN:O	17:CQ:27:PHE:HB3	2.16	0.46
26:D1:26:ARG:NH1	26:D1:26:ARG:HG3	2.27	0.46
29:D4:57:ILE:HG22	29:D4:57:ILE:O	2.15	0.46
35:DA:1028:A:H2'	35:DA:1029:A:C8	2.51	0.46
35:DA:142:A:H8	35:DA:1408:C:H1'	1.80	0.46
35:DA:144:C:H2'	35:DA:145:G:C8	2.51	0.46
35:DA:2262:U:H2'	35:DA:2263:C:H5'	1.98	0.46
35:DA:237:C:O2'	35:DA:238:C:H5'	2.16	0.46
35:DA:1786:A:H2	35:DA:2606:C:H1'	1.81	0.46
30:D5:3:LYS:HE3	35:DA:2611:U:O2	2.16	0.46
35:DA:297:C:H2'	35:DA:298:G:O4'	2.16	0.46
35:DA:587:C:C4	46:DP:33:ARG:HG2	2.51	0.46
35:DA:732:C:O2'	35:DA:733:G:H5'	2.16	0.46
35:DA:947:G:N2	35:DA:971:C:C2	2.84	0.46
38:DD:35:LYS:HZ1	38:DD:61:LEU:HG	1.81	0.46
13:CM:7:VAL:CG2	41:DG:115:ARG:HA	2.44	0.46
41:DG:8:LYS:O	41:DG:12:TYR:HD1	1.99	0.46
42:DH:124:GLU:O	42:DH:131:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:81:VAL:HG21	43:DI:142:VAL:HB	1.98	0.46
43:DI:61:ARG:O	43:DI:133:HIS:HE1	1.99	0.46
44:DN:97:ARG:HA	44:DN:100:GLU:HB2	1.98	0.46
47:DQ:43:THR:HA	47:DQ:94:VAL:HG12	1.98	0.46
35:DA:2377:A:H4'	49:DS:107:GLU:O	2.16	0.46
49:DS:85:VAL:HG22	49:DS:106:ARG:CB	2.45	0.46
51:DU:85:LYS:C	51:DU:87:GLY:N	2.70	0.46
55:DY:28:LYS:CB	55:DY:37:VAL:HB	2.45	0.46
55:DY:48:ALA:HB3	55:DY:59:GLY:O	2.16	0.46
56:DZ:93:ASP:HA	56:DZ:130:PRO:CD	2.46	0.46
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.51	0.45
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.81	0.45
1:AA:1503:A:C2	1:AA:1507:A:OP2	2.69	0.45
1:AA:176:C:H2'	1:AA:177:C:H6	1.81	0.45
1:AA:308:C:H2'	1:AA:309:G:H8	1.81	0.45
1:AA:328:C:O2'	1:AA:329:A:OP2	2.32	0.45
1:AA:880:C:OP2	12:AL:9:GLN:HG3	2.16	0.45
1:AA:544:G:OP1	4:AD:62:GLN:HG3	2.16	0.45
8:AH:48:TYR:CD1	8:AH:49:GLU:N	2.84	0.45
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.98	0.45
9:AI:69:GLY:O	9:AI:72:GLY:N	2.49	0.45
10:AJ:47:PHE:CD1	10:AJ:47:PHE:O	2.68	0.45
12:AL:89:ARG:HH21	12:AL:91:LYS:NZ	2.14	0.45
13:AM:54:VAL:HG12	13:AM:58:GLU:HG2	1.97	0.45
15:AO:12:ILE:C	15:AO:14:GLU:H	2.19	0.45
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.75	0.45
20:AT:13:LEU:C	20:AT:13:LEU:CD1	2.83	0.45
30:B5:16:ARG:HG2	30:B5:16:ARG:NH1	2.31	0.45
30:B5:43:HIS:HA	35:BA:2884:U:C5	2.49	0.45
35:BA:1137:G:H2'	35:BA:1138:G:H8	1.80	0.45
35:BA:1665:A:C2'	35:BA:1666:G:H5'	2.46	0.45
35:BA:1686:C:C2'	35:BA:1687:G:H5'	2.46	0.45
35:BA:1686:C:H2'	35:BA:1687:G:C5'	2.46	0.45
35:BA:1865:G:H5'	35:BA:1866:C:P	2.56	0.45
35:BA:2100:G:H2'	35:BA:2101:G:C8	2.50	0.45
35:BA:2171:A:O2'	35:BA:2172:U:C6	2.65	0.45
35:BA:2533:A:H3'	35:BA:2534:A:H5''	1.98	0.45
35:BA:286:C:H2'	35:BA:287:C:H5'	1.95	0.45
35:BA:2870:C:H2'	35:BA:2871:C:C5'	2.46	0.45
35:BA:302:C:H2'	35:BA:303:U:C6	2.51	0.45
35:BA:449:A:H2'	35:BA:450:G:H5'	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:675:A:N3	35:BA:2443:C:O2'	2.45	0.45
35:BA:686:G:N2	35:BA:788:A:H61	2.13	0.45
35:BA:952:G:OP1	47:BQ:16:ARG:NH2	2.44	0.45
38:BD:35:LYS:HD3	38:BD:36:PRO:CD	2.46	0.45
39:BE:40:GLU:N	39:BE:40:GLU:OE1	2.48	0.45
40:BF:180:GLY:O	40:BF:181:LEU:C	2.54	0.45
41:BG:109:VAL:C	41:BG:112:PRO:HD2	2.36	0.45
41:BG:14:GLU:HG2	41:BG:15:VAL:N	2.31	0.45
42:BH:149:ARG:HD3	42:BH:164:TYR:CE1	2.50	0.45
42:BH:70:THR:C	42:BH:72:ILE:N	2.69	0.45
42:BH:89:ILE:CD1	42:BH:90:LYS:N	2.74	0.45
43:BI:90:GLY:N	43:BI:121:LYS:HZ1	2.14	0.45
47:BQ:135:ASP:O	47:BQ:138:ASP:OD2	2.34	0.45
30:B5:44:THR:HG21	48:BR:101:ALA:CA	2.46	0.45
48:BR:18:LEU:HD11	48:BR:22:ARG:CZ	2.46	0.45
48:BR:99:LYS:HA	48:BR:112:ALA:HA	1.97	0.45
51:BU:92:ARG:CZ	52:BV:11:GLN:CB	2.76	0.45
55:BY:60:PHE:O	55:BY:61:ILE:C	2.53	0.45
56:BZ:19:ARG:NH1	56:BZ:84:GLU:O	2.49	0.45
56:BZ:94:GLU:OE1	56:BZ:95:PRO:HD2	2.17	0.45
1:CA:1030(D):A:C2'	1:CA:1031:G:H5'	2.46	0.45
1:CA:1259:C:N4	1:CA:1276:G:H1	2.15	0.45
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.16	0.45
6:CF:33:TYR:CE2	6:CF:74:ASP:HB3	2.48	0.45
7:CG:15:ASP:OD2	7:CG:16:LEU:N	2.46	0.45
9:CI:20:ARG:O	9:CI:60:ASP:N	2.47	0.45
10:CJ:47:PHE:CD1	10:CJ:47:PHE:O	2.69	0.45
13:CM:56:LEU:O	13:CM:60:VAL:HG23	2.16	0.45
18:CR:45:SER:H	18:CR:51:LEU:CG	2.28	0.45
19:CS:44:MET:HA	19:CS:44:MET:HE3	1.98	0.45
21:CU:25:LYS:NZ	21:CU:25:LYS:HB2	2.31	0.45
22:CV:3:C:H2'	22:CV:4:C:C6	2.51	0.45
22:CV:43:C:H2'	22:CV:44:G:C8	2.51	0.45
27:D2:27:GLU:O	27:D2:30:ARG:HB3	2.15	0.45
31:D6:17:LYS:CB	31:D6:18:ARG:NH1	2.78	0.45
34:D9:7:VAL:HG13	34:D9:34:GLN:CB	2.46	0.45
35:DA:1140:C:P	44:DN:66:LYS:HZ3	2.39	0.45
35:DA:1141:U:H2'	44:DN:63:THR:CG2	2.46	0.45
35:DA:1718:G:H2'	35:DA:1719:G:C8	2.50	0.45
35:DA:1785:A:O2'	35:DA:1786:A:H2'	2.15	0.45
35:DA:1902:C:H2'	35:DA:1903:G:O5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2263:C:C5'	35:DA:2263:C:H6	2.19	0.45
35:DA:921:G:H4'	35:DA:2269:A:C6	2.51	0.45
35:DA:2735:G:C2'	35:DA:2736:G:C5'	2.90	0.45
35:DA:2809:A:C2	35:DA:2892:A:N3	2.84	0.45
35:DA:324:A:H2'	35:DA:325:G:O4'	2.16	0.45
35:DA:572:A:H2'	35:DA:573:G:O4'	2.16	0.45
35:DA:606:U:H4'	35:DA:658:C:H4'	1.98	0.45
35:DA:664:C:H4'	35:DA:941:A:OP1	2.17	0.45
36:DB:15:A:H3'	36:DB:16:G:C5'	2.46	0.45
37:DC:46:LYS:NZ	37:DC:171:ILE:O	2.44	0.45
37:DC:83:ILE:HD12	37:DC:94:VAL:HB	1.98	0.45
38:DD:22:SER:HA	38:DD:25:THR:OG1	2.16	0.45
35:DA:1800:C:P	38:DD:264:LYS:HZ3	2.38	0.45
29:D4:51:TYR:CD2	41:DG:2:PRO:HD2	2.51	0.45
42:DH:149:ARG:HA	42:DH:162:ILE:HG21	1.98	0.45
42:DH:47:GLU:C	42:DH:49:VAL:H	2.18	0.45
44:DN:90:MET:O	44:DN:93:THR:O	2.35	0.45
45:DO:26:LYS:O	45:DO:27:GLY:O	2.35	0.45
45:DO:93:PRO:HB3	45:DO:114:ILE:HD11	1.97	0.45
47:DQ:2:LEU:O	47:DQ:3:MET:HB3	2.15	0.45
49:DS:32:LEU:O	49:DS:62:LYS:HE2	2.17	0.45
50:DT:60:THR:HG22	50:DT:77:PRO:HA	1.97	0.45
1:AA:1259:C:N4	1:AA:1276:G:H1	2.14	0.45
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.98	0.45
1:AA:1441:G:H1'	1:AA:1461:G:N2	2.31	0.45
1:AA:1478:C:H2'	1:AA:1479:C:H6	1.78	0.45
1:AA:1402:C:O2	1:AA:1500:A:N1	2.49	0.45
1:AA:600:C:O2'	1:AA:601:C:H5'	2.17	0.45
1:AA:693:G:O2'	1:AA:694:A:H5'	2.16	0.45
1:AA:779:C:C2'	1:AA:780:A:H5'	2.47	0.45
1:AA:818:G:C3'	1:AA:819:A:C5'	2.94	0.45
1:AA:881:G:H2'	1:AA:882:C:O4'	2.16	0.45
1:AA:905:U:H2'	1:AA:906:G:H5'	1.97	0.45
2:AB:197:VAL:CG1	2:AB:200:ILE:HG12	2.45	0.45
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.17	0.45
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.99	0.45
7:AG:15:ASP:HB3	7:AG:19:GLY:CA	2.45	0.45
7:AG:57:GLU:HG2	7:AG:57:GLU:O	2.15	0.45
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.51	0.45
8:AH:45:ILE:C	8:AH:47:GLY:N	2.69	0.45
10:AJ:44:VAL:CG1	10:AJ:46:ARG:HG3	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:79:ARG:O	15:AO:82:ILE:HG22	2.16	0.45
17:AQ:27:PHE:C	17:AQ:27:PHE:CD1	2.89	0.45
25:B0:49:LYS:HB2	25:B0:80:HIS:HB3	1.97	0.45
29:B4:37:PRO:HA	29:B4:51:TYR:CD2	2.51	0.45
33:B8:61:LEU:HD12	33:B8:62:LEU:N	2.31	0.45
34:B9:7:VAL:HG13	34:B9:34:GLN:CB	2.45	0.45
35:BA:1171:G:H5''	35:BA:1173:G:H4'	1.98	0.45
35:BA:1268:A:H2'	35:BA:1269:A:O4'	2.16	0.45
35:BA:1401:G:H2'	35:BA:1402:C:C6	2.51	0.45
35:BA:1484:G:C3'	35:BA:1485:G:C5'	2.89	0.45
35:BA:1922:G:H2'	35:BA:1923:U:O4'	2.16	0.45
35:BA:2144:U:O2	35:BA:2148:G:N1	2.49	0.45
35:BA:2422:A:H4'	35:BA:2423:U:OP1	2.15	0.45
35:BA:2683:C:OP1	50:BT:53:ARG:NH2	2.34	0.45
35:BA:2773:C:O2'	35:BA:2774:C:H5'	2.16	0.45
35:BA:435:C:C2'	35:BA:436:C:H5'	2.46	0.45
35:BA:513:A:C2	35:BA:514:A:C4	3.04	0.45
36:BB:52:A:N7	49:BS:33:LYS:NZ	2.64	0.45
35:BA:1820:U:O2	38:BD:201:HIS:HB3	2.17	0.45
38:BD:30:GLU:CB	38:BD:35:LYS:HD2	2.27	0.45
38:BD:35:LYS:HZ1	38:BD:61:LEU:HG	1.79	0.45
38:BD:44:ASN:HB3	38:BD:49:ILE:CA	2.25	0.45
38:BD:77:ALA:HB1	38:BD:96:HIS:O	2.16	0.45
35:BA:2572:A:P	39:BE:144:ARG:HB2	2.56	0.45
39:BE:14:ILE:HG12	39:BE:21:VAL:HG22	1.98	0.45
40:BF:164:ARG:CG	40:BF:175:THR:OG1	2.60	0.45
40:BF:51:THR:HG23	40:BF:92:PRO:HG2	1.98	0.45
41:BG:103:LEU:O	41:BG:106:LEU:HB3	2.15	0.45
41:BG:47:LYS:HE3	41:BG:81:LYS:HB3	1.98	0.45
42:BH:155:SER:OG	42:BH:156:ALA:N	2.48	0.45
42:BH:65:HIS:HE1	42:BH:69:ARG:CD	2.28	0.45
42:BH:70:THR:HA	42:BH:73:ALA:CB	2.47	0.45
45:BO:60:ALA:HA	45:BO:87:ILE:HG12	1.98	0.45
46:BP:123:LEU:O	46:BP:123:LEU:HD12	2.17	0.45
46:BP:99:LEU:C	46:BP:99:LEU:HD23	2.36	0.45
47:BQ:1:MET:HE2	47:BQ:2:LEU:HB3	1.97	0.45
47:BQ:43:THR:HA	47:BQ:94:VAL:HG12	1.97	0.45
48:BR:99:LYS:CD	48:BR:99:LYS:H	2.29	0.45
51:BU:21:ALA:HA	51:BU:24:TYR:CE1	2.50	0.45
52:BV:21:ARG:N	52:BV:21:ARG:CD	2.79	0.45
53:BW:12:ILE:HD13	53:BW:17:VAL:HG12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:67:LEU:HD11	55:BY:71:LYS:CB	2.47	0.45
56:BZ:154:ASP:N	56:BZ:155:LEU:HD12	2.30	0.45
1:CA:1274:G:H2'	1:CA:1275:A:C8	2.51	0.45
1:CA:141:A:H1'	1:CA:182:U:C2	2.51	0.45
1:CA:310:G:OP1	16:CP:27:LYS:HD3	2.16	0.45
1:CA:355:C:H5'	1:CA:389:A:OP2	2.17	0.45
1:CA:418:C:H2'	1:CA:419:C:H6	1.81	0.45
1:CA:444:C:H2'	1:CA:445:G:C8	2.51	0.45
1:CA:961:U:O2'	1:CA:962:C:H5'	2.17	0.45
3:CC:42:LEU:O	3:CC:45:LYS:HB2	2.16	0.45
3:CC:77:ILE:C	3:CC:83:ARG:HB3	2.36	0.45
4:CD:43:HIS:CE1	4:CD:46:LYS:HZ1	2.32	0.45
5:CE:47:LYS:HD2	5:CE:47:LYS:N	2.31	0.45
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.31	0.45
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.31	0.45
9:CI:65:VAL:HG21	9:CI:73:GLN:CB	2.46	0.45
17:CQ:9:VAL:HG21	17:CQ:84:LEU:CD1	2.45	0.45
19:CS:66:MET:H	19:CS:66:MET:HG2	1.47	0.45
20:CT:14:LYS:HA	20:CT:17:ARG:HH21	1.81	0.45
20:CT:89:ARG:HH21	20:CT:89:ARG:HG3	1.80	0.45
22:CY:56:C:O2'	22:CY:57:G:O4'	2.34	0.45
29:D4:46:ASN:HD22	29:D4:46:ASN:C	2.18	0.45
35:DA:1234:U:C2'	35:DA:1235:G:H5'	2.47	0.45
35:DA:2329:G:H2'	35:DA:2330:G:C8	2.51	0.45
35:DA:2400:G:N3	35:DA:2400:G:H2'	2.30	0.45
35:DA:2491:U:C2'	35:DA:2492:U:H5'	2.46	0.45
35:DA:608:A:OP1	40:DF:100:THR:CG2	2.64	0.45
38:DD:26:LYS:CD	38:DD:82:ILE:H	2.29	0.45
38:DD:45:ASN:HB2	38:DD:46:GLN:OE1	2.15	0.45
39:DE:16:ARG:C	39:DE:18:ASP:N	2.66	0.45
40:DF:123:LEU:CD1	40:DF:124:LEU:H	2.17	0.45
40:DF:1:MET:O	40:DF:3:GLU:HG2	2.15	0.45
40:DF:8:GLN:O	40:DF:9:ILE:C	2.53	0.45
41:DG:105:LYS:HD3	41:DG:142:PRO:HG2	1.98	0.45
41:DG:28:VAL:HG12	41:DG:28:VAL:O	2.16	0.45
43:DI:60:GLU:OE1	43:DI:64:GLU:HG3	2.16	0.45
45:DO:53:LYS:N	45:DO:53:LYS:HD2	2.31	0.45
46:DP:126:VAL:HG12	46:DP:127:ALA:N	2.31	0.45
46:DP:17:LYS:C	46:DP:19:VAL:N	2.68	0.45
46:DP:30:THR:CG2	46:DP:31:ALA:N	2.70	0.45
35:DA:806:C:OP2	46:DP:39:LYS:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:46:VAL:HG12	49:DS:47:THR:N	2.32	0.45
50:DT:65:LYS:HG3	50:DT:66:VAL:N	2.31	0.45
51:DU:81:HIS:CE1	51:DU:85:LYS:HD3	2.51	0.45
51:DU:91:ASP:OD2	51:DU:96:ALA:CB	2.55	0.45
52:DV:52:VAL:HG13	52:DV:55:ALA:HB3	1.98	0.45
53:DW:86:LEU:HD12	53:DW:87:PRO:CD	2.46	0.45
55:DY:2:ARG:HD3	55:DY:2:ARG:C	2.36	0.45
56:DZ:100:VAL:C	56:DZ:123:ASP:HB2	2.35	0.45
56:DZ:61:LEU:N	56:DZ:61:LEU:HD22	2.31	0.45
1:AA:1170:A:H2'	1:AA:1171:G:O4'	2.16	0.45
1:AA:310:G:OP1	16:AP:27:LYS:HD3	2.16	0.45
1:AA:690:G:H2'	1:AA:691:G:O4'	2.16	0.45
1:AA:767:A:H2'	1:AA:768:A:O4'	2.16	0.45
1:AA:883:C:N3	1:AA:884:U:H5	2.14	0.45
4:AD:152:SER:HA	4:AD:155:LEU:HG	1.99	0.45
4:AD:28:SER:C	4:AD:30:LYS:H	2.19	0.45
4:AD:43:HIS:CE1	4:AD:46:LYS:HZ1	2.31	0.45
12:AL:38:THR:HG23	12:AL:39:VAL:N	2.31	0.45
15:AO:39:LEU:HD22	15:AO:43:LEU:HG	1.97	0.45
16:AP:21:VAL:HG13	16:AP:21:VAL:O	2.17	0.45
16:AP:66:PRO:HG2	16:AP:71:ARG:NH1	2.31	0.45
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.31	0.45
20:AT:75:ASN:O	20:AT:78:ALA:N	2.45	0.45
29:B4:46:ASN:ND2	29:B4:46:ASN:C	2.69	0.45
30:B5:56:LYS:HG2	30:B5:57:VAL:N	2.31	0.45
33:B8:6:THR:HG21	33:B8:63:PRO:HD3	1.92	0.45
33:B8:6:THR:CG2	35:BA:243:U:OP1	2.65	0.45
35:BA:1133:U:O2	35:BA:1137:G:H5''	2.17	0.45
35:BA:1473:G:O2'	35:BA:1474:C:H5'	2.16	0.45
35:BA:1670:C:C4	35:BA:1671:U:N3	2.85	0.45
35:BA:210:C:H2'	35:BA:211:A:C8	2.51	0.45
35:BA:2301:C:H2'	35:BA:2302:G:O4'	2.16	0.45
35:BA:2839:G:H2'	35:BA:2840:C:C6	2.51	0.45
35:BA:2892:A:H3'	35:BA:2893:G:H4'	1.97	0.45
35:BA:609:A:H2'	35:BA:610:G:O4'	2.16	0.45
37:BC:83:ILE:O	37:BC:83:ILE:HG22	2.17	0.45
38:BD:176:ARG:CG	38:BD:176:ARG:HH11	2.24	0.45
38:BD:211:ARG:HA	38:BD:214:TRP:CD2	2.51	0.45
39:BE:168:MET:O	39:BE:169:ASN:C	2.55	0.45
39:BE:188:VAL:O	39:BE:188:VAL:HG13	2.16	0.45
39:BE:61:ARG:CB	39:BE:62:PRO:CD	2.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:615:G:O2'	40:BF:205:ARG:NH2	2.49	0.45
44:BN:133:GLN:CG	44:BN:134:ARG:H	2.18	0.45
44:BN:91:LEU:C	44:BN:93:THR:H	2.19	0.45
45:BO:24:VAL:CG2	45:BO:33:ALA:HB2	2.46	0.45
46:BP:95:VAL:HG23	46:BP:125:VAL:HG23	1.97	0.45
33:B8:7:HIS:CD2	46:BP:50:ARG:HD3	2.51	0.45
51:BU:61:TRP:O	51:BU:62:ILE:C	2.54	0.45
51:BU:92:ARG:NH2	51:BU:95:LEU:HG	2.26	0.45
54:BX:12:VAL:CG2	54:BX:27:THR:HG23	2.44	0.45
54:BX:50:LYS:H	54:BX:87:GLN:HE22	1.63	0.45
55:BY:81:LYS:NZ	55:BY:97:ARG:O	2.39	0.45
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.51	0.45
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.64	0.45
1:CA:1190:G:H3'	3:CC:3:ASN:HD22	1.75	0.45
1:CA:1342:C:H2'	1:CA:1343:G:H8	1.82	0.45
1:CA:294:U:H2'	1:CA:295:C:C6	2.50	0.45
1:CA:383:A:H2'	1:CA:384:G:H5'	1.98	0.45
1:CA:44:G:H1'	1:CA:399:G:H22	1.81	0.45
1:CA:597:G:C2'	1:CA:598:U:H5'	2.45	0.45
1:CA:665:A:N3	1:CA:732:C:H2'	2.32	0.45
2:CB:191:ASP:OD2	2:CB:191:ASP:C	2.53	0.45
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.16	0.45
9:CI:9:ARG:HA	9:CI:13:ALA:O	2.15	0.45
10:CJ:46:ARG:HD3	14:CN:61:TRP:CZ3	2.51	0.45
12:CL:41:ARG:HH12	12:CL:57:LYS:HZ3	1.64	0.45
13:CM:76:ALA:CA	13:CM:79:LYS:NZ	2.79	0.45
3:CC:20:SER:O	14:CN:54:PRO:HG3	2.17	0.45
6:CF:49:ALA:HB1	18:CR:80:PRO:HG3	1.98	0.45
18:CR:85:LEU:HG	18:CR:86:VAL:H	1.80	0.45
19:CS:29:ARG:HB2	19:CS:48:THR:H	1.81	0.45
27:D2:22:GLU:HG2	27:D2:64:LEU:HD11	1.98	0.45
27:D2:65:ASN:C	27:D2:67:LYS:H	2.19	0.45
35:DA:1615:C:C5	35:DA:1617:C:C4	3.04	0.45
35:DA:2301:C:H2'	35:DA:2302:G:O4'	2.17	0.45
35:DA:2841:C:H2'	35:DA:2842:G:H8	1.82	0.45
35:DA:2855:C:H2'	35:DA:2856:C:C6	2.52	0.45
35:DA:2855:C:H2'	35:DA:2856:C:H6	1.82	0.45
35:DA:2881:C:H2'	35:DA:2882:A:H8	1.81	0.45
35:DA:796:C:H2'	35:DA:797:C:H6	1.75	0.45
35:DA:832:G:H21	46:DP:53:GLY:CA	2.30	0.45
37:DC:18:LYS:HD3	37:DC:19:VAL:HG23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:35:LYS:HD3	38:DD:36:PRO:CD	2.45	0.45
38:DD:86:PRO:HG2	38:DD:87:ASN:OD1	2.16	0.45
39:DE:24:THR:HG22	39:DE:186:GLY:N	2.28	0.45
41:DG:111:LEU:HA	41:DG:114:ILE:CD1	2.46	0.45
41:DG:116:ASP:O	41:DG:117:PHE:HB3	2.16	0.45
41:DG:32:PRO:HB2	41:DG:172:LEU:CD1	2.46	0.45
42:DH:158:HIS:NE2	42:DH:169:VAL:O	2.50	0.45
43:DI:15:VAL:CG2	43:DI:16:GLY:N	2.79	0.45
48:DR:44:LEU:HD12	48:DR:114:VAL:HG11	1.97	0.45
49:DS:19:LYS:C	49:DS:20:ARG:NH1	2.69	0.45
50:DT:124:ASP:C	50:DT:126:ALA:N	2.70	0.45
50:DT:133:GLU:HG3	50:DT:137:LYS:HG3	1.98	0.45
52:DV:21:ARG:HG2	52:DV:91:TYR:CE2	2.51	0.45
54:DX:8:ILE:HD11	54:DX:42:ALA:CB	2.46	0.45
56:DZ:136:PHE:HD1	56:DZ:137:ILE:N	2.14	0.45
1:AA:1118:C:O2'	1:AA:1119:C:H5'	2.16	0.45
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.81	0.45
1:AA:15:G:H2'	1:AA:16:A:C8	2.51	0.45
1:AA:342:C:H2'	1:AA:343:U:O4'	2.16	0.45
1:AA:724:G:O2'	1:AA:725:G:H5'	2.16	0.45
6:AF:39:LYS:O	6:AF:40:VAL:HB	2.17	0.45
7:AG:60:LYS:HZ3	7:AG:64:GLN:HB2	1.80	0.45
1:AA:759:A:H61	17:AQ:94:ASN:HD22	1.63	0.45
19:AS:22:LEU:O	19:AS:26:GLY:HA2	2.17	0.45
13:AM:84:ILE:HG21	19:AS:60:VAL:HG23	1.97	0.45
22:AY:27:G:N2	22:AY:43:C:H5	2.10	0.45
22:AY:56:C:H5''	35:BA:897:C:O5'	2.17	0.45
28:B3:4:LEU:O	28:B3:36:VAL:HA	2.16	0.45
32:B7:46:VAL:CG1	32:B7:47:ARG:N	2.79	0.45
33:B8:13:ARG:NH2	35:BA:250:G:OP2	2.50	0.45
35:BA:2063:C:C5	35:BA:2064:C:C5	3.04	0.45
35:BA:2123:G:H2'	35:BA:2124:G:H8	1.82	0.45
35:BA:2468:G:O2'	35:BA:2469:A:H8	1.85	0.45
35:BA:2516:G:C6	35:BA:2517:C:N4	2.83	0.45
35:BA:2864:G:H2'	35:BA:2865:U:O4'	2.17	0.45
35:BA:78:A:O2'	35:BA:79:G:H5'	2.17	0.45
35:BA:957:A:N6	35:BA:2459:A:C8	2.84	0.45
35:BA:947:G:N2	35:BA:971:C:C2	2.84	0.45
36:BB:73:A:H2'	36:BB:74:U:H5'	1.98	0.45
38:BD:11:PRO:C	38:BD:13:ARG:N	2.69	0.45
41:BG:147:ASP:OD1	41:BG:148:MET:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:48:GLU:C	43:BI:50:ARG:N	2.70	0.45
46:BP:21:ARG:HD3	46:BP:29:LYS:HE3	1.99	0.45
47:BQ:65:PHE:HB2	47:BQ:105:GLU:HG2	1.99	0.45
48:BR:11:ASN:O	48:BR:12:ARG:CB	2.64	0.45
48:BR:2:ARG:HH11	48:BR:5:LYS:NZ	2.14	0.45
49:BS:57:LYS:HG2	49:BS:58:LEU:N	2.32	0.45
50:BT:88:ILE:HG22	50:BT:89:VAL:H	1.75	0.45
51:BU:81:HIS:CE1	51:BU:85:LYS:HD3	2.51	0.45
53:BW:18:ARG:HG2	53:BW:76:VAL:CG1	2.46	0.45
54:BX:53:LYS:HG2	54:BX:54:VAL:N	2.32	0.45
55:BY:28:LYS:HG2	55:BY:28:LYS:H	1.41	0.45
56:BZ:24:LEU:CD2	56:BZ:86:VAL:HG12	2.46	0.45
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.64	0.45
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.97	0.45
1:CA:1401:G:O5'	1:CA:1401:G:H8	1.99	0.45
1:CA:640:A:N3	8:CH:115:SER:HB3	2.31	0.45
1:CA:646:U:H2'	1:CA:647:C:C6	2.52	0.45
4:CD:96:LEU:N	4:CD:96:LEU:CD1	2.79	0.45
13:CM:84:ILE:HG21	19:CS:60:VAL:HG23	1.97	0.45
19:CS:51:VAL:HG12	19:CS:52:TYR:O	2.16	0.45
23:CW:52:G:H2'	23:CW:53:G:C8	2.52	0.45
23:CW:57:G:N2	23:CW:58:A:O4'	2.50	0.45
26:D1:44:PRO:O	26:D1:46:LEU:N	2.45	0.45
35:DA:1171:G:H5''	35:DA:1173:G:H4'	1.97	0.45
35:DA:1573:G:H2'	35:DA:1574:C:H5'	1.99	0.45
35:DA:1300:U:C6	35:DA:1626:G:C6	3.04	0.45
35:DA:2712:U:OP1	35:DA:2714:G:H4'	2.17	0.45
35:DA:2716:U:O2'	35:DA:2717:G:H5'	2.16	0.45
35:DA:2808:U:H2'	35:DA:2809:A:H5'	1.98	0.45
35:DA:549:G:H2'	35:DA:551:G:C5'	2.42	0.45
35:DA:660:G:C6	35:DA:661:C:C4	3.05	0.45
35:DA:2073:C:H4'	38:DD:228:PRO:HB2	1.98	0.45
39:DE:134:ILE:HD13	39:DE:134:ILE:C	2.37	0.45
41:DG:122:PRO:HG2	41:DG:123:ASN:OD1	2.17	0.45
42:DH:86:GLU:HB3	42:DH:132:ARG:CB	2.44	0.45
44:DN:11:PRO:HB2	44:DN:51:PHE:CE1	2.52	0.45
44:DN:91:LEU:C	44:DN:93:THR:H	2.19	0.45
47:DQ:1:MET:HE2	47:DQ:2:LEU:HB3	1.98	0.45
47:DQ:42:ILE:HA	47:DQ:46:GLN:OE1	2.16	0.45
48:DR:67:LEU:CD1	48:DR:76:VAL:HG21	2.45	0.45
49:DS:15:ARG:HD3	49:DS:15:ARG:HA	1.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:14:VAL:CG1	49:DS:15:ARG:H	2.25	0.45
55:DY:95:LYS:HE2	55:DY:100:ALA:HB1	1.98	0.45
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.52	0.45
1:AA:1054:C:O2	1:AA:1054:C:C2'	2.65	0.45
1:AA:1060:C:H2'	1:AA:1061:G:C8	2.50	0.45
1:AA:1099:G:H5'	1:AA:1100:C:OP2	2.17	0.45
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.16	0.45
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.17	0.45
1:AA:1286:A:H2	21:AU:22:ARG:NH2	2.15	0.45
1:AA:1452:C:O4'	1:AA:1456:G:C2	2.69	0.45
1:AA:687:A:N3	1:AA:688:G:H1'	2.32	0.45
1:AA:838:G:C2	1:AA:840:C:H5'	2.52	0.45
1:AA:897:C:O2'	1:AA:898:G:H5'	2.17	0.45
1:AA:90:U:C3'	1:AA:91:C:H5'	2.47	0.45
1:AA:954:G:H2'	1:AA:955:U:C6	2.52	0.45
3:AC:164:ARG:HB2	3:AC:164:ARG:CZ	2.46	0.45
3:AC:134:ILE:CG2	3:AC:168:ALA:HB3	2.46	0.45
7:AG:67:GLU:HA	7:AG:67:GLU:OE2	2.17	0.45
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.99	0.45
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.81	0.45
17:AQ:95:TYR:O	17:AQ:96:GLU:C	2.54	0.45
26:B1:3:LYS:CG	26:B1:4:VAL:N	2.79	0.45
30:B5:3:LYS:HE3	35:BA:2611:U:O2	2.16	0.45
30:B5:48:GLU:HB2	30:B5:49:CYS:H	1.37	0.45
33:B8:25:MET:HG3	46:BP:64:LYS:CB	2.18	0.45
35:BA:1865:G:H5'	35:BA:1866:C:OP2	2.17	0.45
35:BA:1902:C:H2'	35:BA:1903:G:O5'	2.16	0.45
35:BA:2377:A:H4'	49:BS:107:GLU:O	2.17	0.45
35:BA:2460:U:H4'	47:BQ:79:LEU:HD11	1.98	0.45
35:BA:2464:C:H42	35:BA:2486:G:H1	1.65	0.45
35:BA:280:C:H42	35:BA:360:G:H1	1.64	0.45
35:BA:803:U:C2'	35:BA:804:A:H5'	2.47	0.45
39:BE:174:ASP:HB3	39:BE:183:LEU:HD22	1.99	0.45
46:BP:148:LEU:O	46:BP:149:GLU:HB2	2.15	0.45
46:BP:18:ARG:O	46:BP:18:ARG:NH1	2.49	0.45
46:BP:47:ASP:CB	46:BP:48:PRO:CA	2.87	0.45
47:BQ:140:ALA:HB1	56:BZ:99:TYR:CB	2.46	0.45
49:BS:14:VAL:CG1	49:BS:15:ARG:N	2.76	0.45
50:BT:38:ASN:ND2	50:BT:40:THR:H	2.14	0.45
50:BT:35:LYS:NZ	50:BT:41:ARG:HE	2.14	0.45
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.81	0.45
1:CA:1124:G:H5'	10:CJ:35:SER:HB2	1.97	0.45
1:CA:1317:C:OP2	14:CN:17:LYS:HE2	2.16	0.45
1:CA:1413:A:C2	1:CA:1488:G:C2	3.05	0.45
1:CA:186:C:H1'	20:CT:85:MET:HE3	1.99	0.45
1:CA:401:C:H2'	1:CA:402:G:C8	2.51	0.45
1:CA:858:G:O6	1:CA:869:G:H3'	2.16	0.45
2:CB:95:GLN:NE2	2:CB:147:LYS:CE	2.78	0.45
4:CD:147:ALA:HB2	4:CD:182:LYS:CB	2.47	0.45
4:CD:9:CYS:HB2	4:CD:22:LYS:HD2	1.97	0.45
6:CF:97:PHE:CD2	18:CR:31:LEU:HD21	2.52	0.45
8:CH:77:GLU:HG2	8:CH:78:GLN:N	2.32	0.45
9:CI:50:LEU:HB3	9:CI:55:ALA:O	2.17	0.45
9:CI:84:ALA:O	9:CI:87:GLN:HB3	2.16	0.45
10:CJ:44:VAL:HG12	10:CJ:46:ARG:HG3	1.97	0.45
12:CL:117:ARG:O	12:CL:118:SER:C	2.55	0.45
18:CR:72:ARG:O	18:CR:76:LEU:HD23	2.16	0.45
19:CS:62:ILE:HD12	19:CS:66:MET:SD	2.57	0.45
22:CV:27:G:O2'	22:CV:28:G:H5'	2.16	0.45
25:D0:41:ARG:CD	25:D0:41:ARG:N	2.66	0.45
35:DA:1859:A:N6	35:DA:1883:G:O2'	2.50	0.45
35:DA:2178:C:H2'	35:DA:2179:C:C6	2.51	0.45
35:DA:2624:G:O2'	35:DA:2625:G:H5'	2.17	0.45
35:DA:2672:G:H3'	35:DA:2673:G:H5''	1.98	0.45
35:DA:365:C:C5'	35:DA:365:C:H6	2.27	0.45
35:DA:803:U:C2'	35:DA:804:A:H5'	2.45	0.45
37:DC:19:VAL:O	37:DC:20:TYR:HB3	2.16	0.45
37:DC:43:VAL:O	37:DC:43:VAL:HG12	2.16	0.45
37:DC:56:GLN:HE22	37:DC:168:THR:N	2.14	0.45
38:DD:133:LEU:HD13	38:DD:165:ILE:CD1	2.47	0.45
38:DD:177:LEU:O	38:DD:180:GLY:N	2.45	0.45
40:DF:179:GLU:CD	40:DF:179:GLU:H	2.19	0.45
42:DH:13:LYS:HB3	42:DH:14:GLY:H	1.63	0.45
46:DP:7:ARG:CB	46:DP:7:ARG:NH1	2.79	0.45
50:DT:89:VAL:CG1	50:DT:91:ARG:NE	2.80	0.45
55:DY:50:ARG:C	55:DY:52:SER:N	2.67	0.45
1:AA:199:G:H2'	1:AA:200:G:C8	2.49	0.45
1:AA:735:C:O2'	1:AA:736:C:H5'	2.17	0.45
1:AA:782:A:C2'	1:AA:783:C:H5'	2.47	0.45
1:AA:991:U:O2	1:AA:991:U:H2'	2.16	0.45
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:19:LEU:HD13	4:AD:21:LEU:CG	2.47	0.45
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.52	0.45
6:AF:1:MET:CE	6:AF:68:PRO:HB3	2.46	0.45
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.32	0.45
10:AJ:4:ILE:HA	10:AJ:100:THR:CG2	2.32	0.45
10:AJ:85:LEU:O	10:AJ:86:MET:C	2.54	0.45
15:AO:74:ASP:O	15:AO:76:GLU:N	2.49	0.45
17:AQ:59:ILE:HG21	17:AQ:71:PHE:HB3	1.99	0.45
30:B5:36:CYS:SG	30:B5:49:CYS:HB3	2.57	0.45
35:BA:1109:C:H5	35:BA:1110:G:C5	2.34	0.45
35:BA:1047:G:C8	35:BA:1110:G:C6	3.05	0.45
35:BA:142:A:H8	35:BA:1408:C:H1'	1.80	0.45
35:BA:1436:G:C3'	35:BA:1437:C:H5''	2.45	0.45
35:BA:143:G:H1'	54:BX:37:THR:CG2	2.37	0.45
35:BA:1788:C:OP1	38:BD:222:ARG:NH2	2.42	0.45
35:BA:528:A:N1	35:BA:2042:A:H2'	2.31	0.45
35:BA:2087:G:O2'	35:BA:2088:G:H5'	2.17	0.45
35:BA:2180:U:H2'	35:BA:2181:G:C8	2.52	0.45
35:BA:2240:C:O2'	35:BA:2241:A:H5'	2.16	0.45
35:BA:2606:C:C2'	35:BA:2607:G:H5'	2.47	0.45
35:BA:297:C:H2'	35:BA:298:G:O4'	2.16	0.45
35:BA:42:G:H2'	35:BA:43:A:O4'	2.17	0.45
38:BD:25:THR:O	38:BD:26:LYS:CB	2.65	0.45
42:BH:88:LEU:HB3	42:BH:89:ILE:H	1.60	0.45
45:BO:49:ARG:NH1	45:BO:49:ARG:CG	2.78	0.45
46:BP:85:LEU:H	46:BP:85:LEU:CD2	2.19	0.45
50:BT:125:ARG:HH11	50:BT:125:ARG:HA	1.80	0.45
51:BU:110:VAL:HG12	51:BU:114:LYS:HE3	1.98	0.45
52:BV:39:LEU:HD12	52:BV:50:PRO:O	2.16	0.45
52:BV:91:TYR:C	52:BV:91:TYR:CD1	2.90	0.45
53:BW:92:ARG:HG2	53:BW:92:ARG:NH1	2.31	0.45
56:BZ:129:SER:OG	56:BZ:131:ARG:HG2	2.17	0.45
56:BZ:175:VAL:CG1	56:BZ:176:PRO:HD2	2.44	0.45
56:BZ:17:ALA:HA	56:BZ:20:ARG:CG	2.46	0.45
1:CA:1001(A):G:H2'	1:CA:1002:G:O4'	2.16	0.45
1:CA:1033:G:H2'	1:CA:1034:G:O4'	2.16	0.45
1:CA:1188:A:O2'	1:CA:1189:C:H5'	2.16	0.45
1:CA:1220:G:O2'	1:CA:1221:G:H5'	2.16	0.45
2:CB:126:GLU:O	2:CB:130:ARG:HG3	2.17	0.45
3:CC:119:ARG:NE	3:CC:140:ARG:NE	2.64	0.45
4:CD:199:ASN:OD1	4:CD:201:GLN:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:2:GLY:O	4:CD:3:ARG:C	2.55	0.45
1:CA:544:G:OP1	4:CD:62:GLN:HG3	2.16	0.45
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.98	0.45
5:CE:110:LEU:CD1	5:CE:118:ILE:HG21	2.47	0.45
5:CE:122:GLU:OE1	5:CE:131:ILE:HG13	2.17	0.45
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB3	1.98	0.45
12:CL:27:LEU:O	12:CL:29:GLY:N	2.49	0.45
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.32	0.45
32:D7:37:LYS:HG2	35:DA:458:G:C8	2.52	0.45
35:DA:1496:A:C8	35:DA:1498:C:N3	2.84	0.45
35:DA:1999:C:H4'	35:DA:2723:C:O2	2.16	0.45
35:DA:2180:U:H2'	35:DA:2181:G:C8	2.52	0.45
25:D0:43:THR:HG22	35:DA:2331:G:O3'	2.17	0.45
35:DA:2422:A:H4'	35:DA:2423:U:OP1	2.16	0.45
35:DA:263:C:O2'	35:DA:264:C:H5'	2.17	0.45
35:DA:305:U:H2'	35:DA:306:U:C6	2.52	0.45
35:DA:315:G:H2'	35:DA:316:C:H6	1.80	0.45
35:DA:575:A:O2'	35:DA:576:U:H5'	2.15	0.45
36:DB:21:G:O2'	36:DB:22:U:O4'	2.34	0.45
36:DB:44:G:H1'	36:DB:47:C:H42	1.81	0.45
38:DD:72:LYS:HE3	38:DD:101:GLU:HB3	1.98	0.45
38:DD:132:PRO:HG3	38:DD:190:TYR:CZ	2.51	0.45
38:DD:257:LEU:HD23	38:DD:257:LEU:C	2.36	0.45
35:DA:2572:A:OP1	39:DE:144:ARG:HB2	2.17	0.45
40:DF:25:PRO:HB3	40:DF:119:ARG:HD3	1.98	0.45
41:DG:56:ALA:HB2	41:DG:153:ARG:NE	2.32	0.45
41:DG:69:ALA:O	41:DG:90:LEU:HG	2.16	0.45
42:DH:116:GLU:HG2	42:DH:117:PRO:HD2	1.99	0.45
42:DH:115:VAL:HG11	42:DH:148:ILE:HD11	1.99	0.45
43:DI:107:VAL:O	43:DI:109:ILE:HD12	2.17	0.45
43:DI:33:ARG:HG2	43:DI:33:ARG:HH11	1.82	0.45
43:DI:83:ALA:CB	43:DI:88:ILE:HA	2.46	0.45
35:DA:1141:U:C5	44:DN:64:GLY:HA3	2.52	0.45
45:DO:104:ARG:NH1	45:DO:104:ARG:HB2	2.30	0.45
35:DA:833:U:O2	46:DP:55:ARG:NH1	2.50	0.45
47:DQ:50:ALA:CB	47:DQ:104:PHE:HE1	2.29	0.45
50:DT:3:ARG:O	50:DT:4:GLY:C	2.55	0.45
50:DT:50:ILE:HA	50:DT:99:LEU:CD1	2.47	0.45
51:DU:79:PHE:HE2	51:DU:83:LEU:HD11	1.82	0.45
52:DV:35:LEU:O	52:DV:36:PRO:C	2.55	0.45
56:DZ:121:HIS:CE1	56:DZ:169:GLU:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:19:ARG:NH1	56:DZ:25:PRO:CD	2.78	0.45
1:AA:1190:G:H3'	3:AC:3:ASN:HD21	1.74	0.45
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.75	0.45
1:AA:1437:C:O2'	1:AA:1438:G:H5'	2.17	0.45
1:AA:413:G:H21	1:AA:428:G:H1'	1.82	0.45
1:AA:414:A:H8	1:AA:414:A:H5'	1.81	0.45
1:AA:532:A:N6	3:AC:156:ARG:NH1	2.65	0.45
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.47	0.45
3:AC:111:LEU:HD21	3:AC:146:ALA:HB2	1.99	0.45
4:AD:40:PRO:O	4:AD:41:GLY:O	2.34	0.45
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.63	0.45
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.99	0.45
8:AH:51:VAL:HG11	8:AH:60:ARG:CG	2.44	0.45
10:AJ:57:LYS:HE3	10:AJ:60:ARG:HH22	1.82	0.45
10:AJ:63:PHE:C	14:AN:59:ALA:HB2	2.37	0.45
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.80	0.45
13:AM:52:GLU:O	13:AM:56:LEU:CB	2.64	0.45
15:AO:41:GLU:O	15:AO:45:VAL:HG23	2.17	0.45
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.80	0.45
19:AS:51:VAL:HG12	19:AS:52:TYR:O	2.17	0.45
20:AT:46:GLU:CD	20:AT:48:LYS:HE2	2.37	0.45
21:AU:5:ASP:O	21:AU:6:ARG:C	2.55	0.45
29:B4:64:LYS:O	29:B4:65:CYS:SG	2.72	0.45
32:B7:47:ARG:NH2	54:BX:60:ARG:NH2	2.65	0.45
33:B8:51:ALA:N	33:B8:53:PRO:HD2	2.32	0.45
35:BA:1039:G:H1	35:BA:1116:C:H42	1.65	0.45
35:BA:1290:C:H2'	35:BA:1291:C:H6	1.81	0.45
35:BA:758:C:O2	35:BA:1981:A:H2	2.00	0.45
35:BA:2247:A:O2'	35:BA:2248:C:H5'	2.17	0.45
35:BA:2492:U:C2	35:BA:2493:U:C5	3.05	0.45
35:BA:324:A:H2'	35:BA:325:G:O4'	2.16	0.45
35:BA:543:C:N3	35:BA:551:G:C2	2.84	0.45
35:BA:605:C:H1'	35:BA:657:U:O2'	2.16	0.45
35:BA:744:G:O2'	35:BA:745:G:H5'	2.16	0.45
35:BA:85:G:H5''	35:BA:85:G:H8	1.82	0.45
38:BD:244:ARG:HG2	38:BD:245:PRO:CD	2.47	0.45
41:BG:153:ARG:NH1	41:BG:153:ARG:HB3	2.32	0.45
41:BG:18:GLU:O	41:BG:19:LEU:C	2.55	0.45
29:B4:51:TYR:CE1	41:BG:2:PRO:HD2	2.51	0.45
43:BI:107:VAL:HG12	43:BI:108:THR:N	2.32	0.45
43:BI:61:ARG:O	43:BI:65:ALA:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:131:ILE:HG22	47:BQ:132:VAL:N	2.32	0.45
47:BQ:133:ARG:HG3	47:BQ:133:ARG:NH1	2.31	0.45
48:BR:2:ARG:HH11	48:BR:5:LYS:HZ1	1.64	0.45
1:AA:1442(B):A:N1	50:BT:118:ARG:NH2	2.65	0.45
50:BT:57:PHE:O	50:BT:58:ASN:ND2	2.49	0.45
50:BT:85:LYS:NZ	50:BT:85:LYS:HB3	2.31	0.45
51:BU:100:VAL:HG12	51:BU:101:ARG:N	2.31	0.45
54:BX:52:VAL:HG21	54:BX:84:ALA:HA	1.97	0.45
55:BY:26:LYS:O	55:BY:28:LYS:HE3	2.15	0.45
56:BZ:105:VAL:HG12	56:BZ:139:VAL:H	1.82	0.45
56:BZ:11:GLU:HB2	56:BZ:12:GLY:H	1.53	0.45
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.31	0.45
1:CA:1118:C:O2'	1:CA:1119:C:H5'	2.17	0.45
1:CA:1326:C:O2'	1:CA:1327:C:H5'	2.16	0.45
1:CA:177:C:O2'	1:CA:178:C:H5'	2.16	0.45
1:CA:109:A:C6	1:CA:326:G:C6	3.05	0.45
1:CA:619:U:C2	4:CD:135:LEU:CD2	3.00	0.45
1:CA:690:G:H2'	1:CA:691:G:O4'	2.17	0.45
1:CA:955:U:O2'	1:CA:956:U:H5'	2.17	0.45
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.99	0.45
7:CG:57:GLU:HG2	7:CG:57:GLU:O	2.17	0.45
10:CJ:85:LEU:O	10:CJ:86:MET:C	2.54	0.45
11:CK:73:MET:SD	11:CK:103:LEU:HD21	2.57	0.45
1:CA:981:U:H5'	14:CN:21:TYR:CE1	2.52	0.45
15:CO:63:ARG:CG	15:CO:67:LEU:HD12	2.41	0.45
16:CP:45:THR:HG23	16:CP:48:TRP:HB3	1.99	0.45
17:CQ:27:PHE:C	17:CQ:27:PHE:CD1	2.89	0.45
18:CR:31:LEU:HD23	18:CR:31:LEU:N	2.31	0.45
19:CS:10:PHE:HZ	19:CS:70:LYS:CD	2.28	0.45
19:CS:39:THR:CG2	19:CS:40:ILE:N	2.80	0.45
25:D0:35:ASN:HD22	25:D0:35:ASN:H	1.64	0.45
35:DA:1043:C:O2'	35:DA:1044:G:C8	2.69	0.45
35:DA:130:C:O3'	35:DA:1349:A:H1'	2.17	0.45
35:DA:1598:C:O3'	54:DX:35:THR:HG23	2.16	0.45
35:DA:1665:A:C2'	35:DA:1666:G:H5'	2.46	0.45
35:DA:1666:G:O2'	35:DA:1667:G:H5'	2.16	0.45
35:DA:1861:G:H1	35:DA:1881:C:H42	1.64	0.45
35:DA:2606:C:C2'	35:DA:2607:G:H5'	2.46	0.45
37:DC:83:ILE:HG22	37:DC:83:ILE:O	2.16	0.45
38:DD:134:ARG:HG3	38:DD:135:PHE:CE2	2.52	0.45
38:DD:224:ALA:HB2	38:DD:233:HIS:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:111:LEU:HB2	41:DG:112:PRO:HD3	1.99	0.45
41:DG:11:TYR:HD2	41:DG:12:TYR:CE1	2.35	0.45
41:DG:153:ARG:HH11	41:DG:153:ARG:HB2	1.81	0.45
43:DI:145:VAL:CG1	43:DI:146:ALA:N	2.76	0.45
46:DP:121:LYS:O	46:DP:123:LEU:HG	2.16	0.45
47:DQ:41:TRP:HB3	47:DQ:94:VAL:CG2	2.47	0.45
48:DR:2:ARG:HD2	48:DR:2:ARG:N	2.31	0.45
51:DU:34:LYS:HA	51:DU:34:LYS:CE	2.45	0.45
52:DV:49:THR:CB	52:DV:50:PRO:CD	2.94	0.45
52:DV:62:LEU:N	52:DV:62:LEU:HD22	2.31	0.45
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.52	0.45
1:AA:1426:C:O2'	1:AA:1427:U:H5'	2.16	0.45
1:AA:1442:G:N7	1:AA:1442(B):A:H2	2.10	0.45
1:AA:180:U:C2'	1:AA:181:G:C5'	2.89	0.45
1:AA:44:G:H1'	1:AA:399:G:N2	2.32	0.45
1:AA:518:C:H2'	1:AA:530:G:C2	2.52	0.45
1:AA:597:G:C2'	1:AA:598:U:H5'	2.47	0.45
1:AA:853:G:O2'	1:AA:854:G:H5'	2.17	0.45
1:AA:867:G:O2'	1:AA:868:C:H5'	2.17	0.45
1:AA:948:C:O2'	1:AA:949:A:H5'	2.17	0.45
2:AB:95:GLN:NE2	2:AB:147:LYS:CE	2.78	0.45
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.17	0.45
4:AD:63:LYS:HD2	4:AD:198:VAL:HG22	1.99	0.45
5:AE:83:GLU:CG	5:AE:88:LYS:HG3	2.47	0.45
8:AH:60:ARG:NH1	8:AH:60:ARG:HG3	2.32	0.45
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB3	1.98	0.45
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.57	0.45
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.32	0.45
19:AS:31:ILE:HG23	19:AS:49:ILE:HG13	1.98	0.45
20:AT:14:LYS:CA	20:AT:17:ARG:HH21	2.30	0.45
20:AT:30:LYS:HD2	20:AT:34:LYS:HE3	1.99	0.45
22:AV:20:U:OP1	22:AV:20:U:H4'	2.15	0.45
26:B1:7:ILE:HD13	26:B1:62:VAL:CG2	2.46	0.45
26:B1:82:LEU:C	26:B1:83:GLU:CD	2.75	0.45
26:B1:88:LYS:HD2	26:B1:88:LYS:HA	1.84	0.45
30:B5:20:ARG:HH11	30:B5:20:ARG:HG2	1.80	0.45
32:B7:21:ARG:HB2	32:B7:31:LEU:HD11	1.98	0.45
35:BA:1528(A):A:H2'	35:BA:1529:G:H5''	1.99	0.45
35:BA:1896:G:O2'	35:BA:1897:G:H5'	2.17	0.45
35:BA:2517:C:C4	35:BA:2542:A:C6	3.04	0.45
35:BA:2787:C:O2	39:BE:61:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2816:C:O2'	35:BA:2817:G:H5'	2.17	0.45
35:BA:59:U:O2'	35:BA:73:A:H2'	2.16	0.45
35:BA:2073:C:H4'	38:BD:228:PRO:HB2	1.98	0.45
38:BD:28:GLU:H	38:BD:29:PRO:CD	2.20	0.45
39:BE:79:ARG:NH1	39:BE:79:ARG:HG2	2.31	0.45
41:BG:61:ALA:CA	41:BG:64:THR:HG22	2.47	0.45
46:BP:7:ARG:CB	46:BP:7:ARG:NH1	2.80	0.45
47:BQ:39:PRO:HB3	47:BQ:99:PRO:HD3	1.98	0.45
48:BR:13:HIS:CE1	48:BR:16:HIS:HB2	2.52	0.45
48:BR:56:LYS:HD2	48:BR:94:TYR:HE2	1.82	0.45
50:BT:109:GLU:HA	50:BT:112:ARG:HD3	1.99	0.45
50:BT:78:LEU:C	50:BT:79:HIS:ND1	2.70	0.45
50:BT:96:ARG:HH11	50:BT:96:ARG:CG	2.25	0.45
51:BU:90:VAL:HG13	52:BV:39:LEU:HG	1.99	0.45
53:BW:52:GLU:OE2	53:BW:52:GLU:HA	2.16	0.45
56:BZ:51:ALA:O	56:BZ:52:SER:HB3	2.17	0.45
1:CA:1030:C:H2'	1:CA:1030(A):G:C5'	2.38	0.45
1:CA:1419:G:H1	1:CA:1481:U:H3	1.65	0.45
1:CA:277:C:P	17:CQ:41:LYS:HZ2	2.40	0.45
1:CA:818:G:H3'	1:CA:819:A:H5''	1.98	0.45
2:CB:67:THR:O	2:CB:68:ILE:HD13	2.16	0.45
3:CC:188:LEU:HD22	3:CC:188:LEU:N	2.32	0.45
3:CC:83:ARG:NH1	3:CC:83:ARG:HG2	2.31	0.45
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.46	0.45
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.51	0.45
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.31	0.45
15:CO:44:LYS:HE3	15:CO:44:LYS:HB2	1.75	0.45
16:CP:26:ARG:NH1	16:CP:26:ARG:HG2	2.32	0.45
18:CR:53:ARG:HD2	18:CR:63:GLN:HB2	1.98	0.45
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.52	0.45
22:CV:3:C:H2'	22:CV:4:C:H6	1.82	0.45
25:D0:56:ASP:O	25:D0:57:PHE:CB	2.60	0.45
29:D4:40:ILE:HG23	29:D4:57:ILE:CG2	2.47	0.45
29:D4:54:LYS:C	29:D4:56:GLU:H	2.20	0.45
33:D8:8:LYS:O	33:D8:12:LYS:HG3	2.17	0.45
35:DA:1578:U:H6	35:DA:1578:U:OP2	1.99	0.45
35:DA:1603:A:H8	35:DA:1603:A:H5'	1.82	0.45
35:DA:1946:U:C2	35:DA:1947:C:C5	3.04	0.45
35:DA:2456:C:O5'	35:DA:2456:C:H6	2.00	0.45
35:DA:2464:C:H42	35:DA:2486:G:H1	1.64	0.45
35:DA:221:A:H61	35:DA:265:A:H8	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2870:C:H2'	35:DA:2871:C:C5'	2.46	0.45
35:DA:28:A:C4	35:DA:513:A:C8	3.05	0.45
35:DA:711:G:O2'	35:DA:712:G:H5'	2.16	0.45
35:DA:760:G:H2'	35:DA:761:A:O4'	2.17	0.45
35:DA:806:C:P	46:DP:39:LYS:HB3	2.57	0.45
36:DB:59:A:H2'	36:DB:60:C:O4'	2.17	0.45
38:DD:32:SER:O	38:DD:36:PRO:CG	2.61	0.45
35:DA:779:U:P	38:DD:49:ILE:HG23	2.57	0.45
39:DE:48:GLN:NE2	39:DE:78:LEU:HD13	2.32	0.45
40:DF:99:TYR:CD2	40:DF:99:TYR:O	2.69	0.45
41:DG:101:ILE:CD1	41:DG:105:LYS:NZ	2.80	0.45
41:DG:139:LEU:CD2	41:DG:139:LEU:H	2.30	0.45
41:DG:31:VAL:HG22	41:DG:32:PRO:HD2	1.99	0.45
41:DG:49:ASP:O	41:DG:50:ALA:HB2	2.17	0.45
46:DP:139:LYS:O	46:DP:141:ALA:N	2.37	0.45
47:DQ:35:VAL:HA	47:DQ:102:VAL:HA	1.98	0.45
50:DT:118:ARG:O	50:DT:121:ILE:HB	2.17	0.45
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.17	0.45
1:AA:383:A:C2'	1:AA:384:G:H5'	2.47	0.45
1:AA:506:G:C6	1:AA:507:C:N3	2.85	0.45
1:AA:61:G:O2'	1:AA:62:U:H5'	2.16	0.45
1:AA:71:C:H2'	1:AA:72:C:H6	1.82	0.45
2:AB:121:LEU:CD1	2:AB:130:ARG:HH11	2.28	0.45
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.32	0.45
3:AC:40:ARG:HH11	3:AC:40:ARG:HG3	1.82	0.45
4:AD:10:ARG:HH11	4:AD:10:ARG:CG	2.30	0.45
4:AD:146:ILE:N	4:AD:146:ILE:CD1	2.75	0.45
5:AE:128:PRO:O	5:AE:131:ILE:HG22	2.16	0.45
5:AE:68:GLU:O	5:AE:69:VAL:C	2.55	0.45
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.52	0.45
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.17	0.45
9:AI:128:ARG:H	9:AI:128:ARG:HD3	1.82	0.45
9:AI:84:ALA:O	9:AI:87:GLN:HB3	2.17	0.45
12:AL:27:LEU:O	12:AL:29:GLY:N	2.49	0.45
13:AM:108:ARG:HH12	13:AM:112:GLY:CA	2.30	0.45
23:AW:59:U:C2'	23:AW:60:U:H5'	2.46	0.45
24:AX:20:U:N3	22:AY:36:A:C2	2.84	0.45
29:B4:40:ILE:HG23	29:B4:57:ILE:CG2	2.47	0.45
33:B8:61:LEU:C	33:B8:63:PRO:HD2	2.38	0.45
35:BA:1968:G:C2'	35:BA:1969:A:H5''	2.47	0.45
35:BA:1264:G:H2'	35:BA:2014:A:N6	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2323:G:H2'	35:BA:2324:C:O4'	2.17	0.45
35:BA:2672:G:H3'	35:BA:2673:G:H5''	1.99	0.45
35:BA:365:C:H6	35:BA:365:C:C5'	2.25	0.45
35:BA:604:G:C6	35:BA:625:G:C2	3.05	0.45
35:BA:638:G:H2'	35:BA:639:U:C6	2.51	0.45
39:BE:134:ILE:HD13	39:BE:135:HIS:N	2.32	0.45
39:BE:3:GLY:CA	39:BE:81:ILE:HG21	2.46	0.45
41:BG:108:ASN:O	41:BG:112:PRO:HG2	2.17	0.45
41:BG:50:ALA:C	41:BG:52:ILE:N	2.68	0.45
41:BG:40:ASN:ND2	41:BG:91:ARG:HB2	2.31	0.45
42:BH:76:VAL:O	42:BH:79:VAL:HG22	2.17	0.45
43:BI:73:GLU:HB2	43:BI:136:VAL:CG2	2.47	0.45
43:BI:83:ALA:HA	43:BI:89:TYR:CZ	2.52	0.45
44:BN:55:VAL:HG22	44:BN:56:ASN:H	1.81	0.45
45:BO:53:LYS:N	45:BO:53:LYS:HD2	2.32	0.45
46:BP:78:PRO:HB2	46:BP:111:ARG:HD2	1.99	0.45
47:BQ:35:VAL:HA	47:BQ:102:VAL:HA	1.99	0.45
47:BQ:35:VAL:HG22	47:BQ:36:ALA:N	2.32	0.45
47:BQ:62:GLY:O	56:BZ:178:GLU:OE1	2.35	0.45
49:BS:42:ASP:O	49:BS:43:GLU:CB	2.63	0.45
49:BS:49:VAL:HG12	49:BS:50:SER:N	2.32	0.45
50:BT:50:ILE:HD12	50:BT:50:ILE:N	2.32	0.45
55:BY:27:VAL:CG1	55:BY:29:GLU:OE1	2.63	0.45
56:BZ:81:ARG:HH11	56:BZ:81:ARG:HG3	1.82	0.45
1:CA:1264:C:H2'	1:CA:1265:G:H8	1.81	0.45
1:CA:1287:A:H2	1:CA:1353:G:N3	2.15	0.45
1:CA:413:G:H21	1:CA:428:G:H1'	1.81	0.45
1:CA:457:C:H2'	1:CA:458:C:H6	1.82	0.45
1:CA:518:C:H2'	1:CA:530:G:C2	2.52	0.45
1:CA:541:G:H2'	1:CA:542:G:C8	2.52	0.45
1:CA:625:G:C4	1:CA:626:U:C5	3.05	0.45
1:CA:818:G:C3'	1:CA:819:A:C5'	2.94	0.45
1:CA:90:U:C3'	1:CA:91:C:H5'	2.47	0.45
1:CA:922:G:H2'	1:CA:923:A:C8	2.52	0.45
2:CB:8:LYS:HD3	2:CB:217:ARG:HH22	1.78	0.45
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.47	0.45
4:CD:128:VAL:O	4:CD:130:GLY:N	2.50	0.45
6:CF:44:GLY:HA2	6:CF:59:TYR:CE1	2.51	0.45
6:CF:75:LEU:HD23	6:CF:79:LEU:HG	1.98	0.45
8:CH:11:THR:O	8:CH:15:ASN:ND2	2.50	0.45
9:CI:37:PHE:HB3	9:CI:43:ALA:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:98:PRO:C	9:CI:100:GLY:H	2.20	0.45
13:CM:23:TYR:CE1	13:CM:70:LEU:HD22	2.39	0.45
15:CO:64:ARG:NH1	15:CO:64:ARG:HG3	2.30	0.45
22:CY:29:G:H2'	22:CY:30:G:O4'	2.17	0.45
32:D7:21:ARG:HB2	32:D7:31:LEU:HD11	1.99	0.45
32:D7:8:ASN:ND2	32:D7:8:ASN:C	2.69	0.45
33:D8:61:LEU:HD12	33:D8:62:LEU:N	2.32	0.45
34:D9:24:TYR:CE2	34:D9:35:ARG:HG3	2.51	0.45
35:DA:1275:A:N1	35:DA:1295:C:O2'	2.44	0.45
35:DA:1495:A:N3	35:DA:1495:A:H2'	2.31	0.45
35:DA:1657:C:H2'	35:DA:1658:C:C6	2.51	0.45
35:DA:2439:A:H5'	35:DA:2439:A:C8	2.52	0.45
35:DA:2839:G:H2'	35:DA:2840:C:C6	2.52	0.45
35:DA:626:U:H5''	35:DA:627:A:H5'	1.98	0.45
35:DA:89:G:H3'	35:DA:90:U:C5'	2.47	0.45
35:DA:941:A:H2'	35:DA:942:G:C8	2.52	0.45
36:DB:40:U:HO2'	36:DB:43:C:H5	1.61	0.45
38:DD:53:PHE:CE1	38:DD:220:HIS:HA	2.52	0.45
39:DE:101:ARG:HA	39:DE:101:ARG:HD3	1.63	0.45
39:DE:119:ARG:CG	39:DE:160:TYR:HB2	2.39	0.45
39:DE:16:ARG:NH2	39:DE:171:GLU:OE2	2.44	0.45
39:DE:181:LEU:HB3	39:DE:182:LEU:H	1.66	0.45
40:DF:78:ILE:HA	40:DF:83:PHE:CD1	2.51	0.45
42:DH:85:LYS:CD	42:DH:141:VAL:HG22	2.45	0.45
42:DH:86:GLU:OE1	42:DH:86:GLU:N	2.50	0.45
43:DI:92:VAL:CG1	43:DI:120:ILE:HB	2.47	0.45
43:DI:61:ARG:O	43:DI:65:ALA:HB3	2.17	0.45
35:DA:558:G:OP2	44:DN:111:PRO:HD2	2.16	0.45
35:DA:2394:C:P	46:DP:63:PRO:HD2	2.57	0.45
49:DS:58:LEU:HG	49:DS:59:LYS:H	1.81	0.45
51:DU:27:LEU:CD2	51:DU:30:LYS:HB2	2.40	0.45
1:AA:243:A:H4'	1:AA:244:U:H5''	1.98	0.45
1:AA:314:C:O2'	1:AA:315:A:H5'	2.17	0.45
1:AA:346:G:N3	1:AA:346:G:H2'	2.32	0.45
1:AA:541:G:H2'	1:AA:542:G:H8	1.80	0.45
1:AA:885:G:H8	1:AA:885:G:O5'	2.00	0.45
3:AC:115:LEU:O	3:AC:116:VAL:C	2.55	0.45
1:AA:1070:U:H5'	5:AE:18:ARG:HH22	1.82	0.45
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.47	0.45
10:AJ:46:ARG:HD3	14:AN:61:TRP:CZ3	2.52	0.45
16:AP:1:MET:HG2	16:AP:2:VAL:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.53	0.45
19:AS:5:LEU:N	19:AS:6:LYS:HZ1	2.15	0.45
22:AY:74:C:C2'	22:AY:75:C:H5'	2.46	0.45
26:B1:50:ARG:HA	26:B1:59:THR:HG22	1.99	0.45
26:B1:58:ILE:CD1	26:B1:94:LEU:HD13	2.47	0.45
30:B5:6:VAL:HG22	30:B5:7:PRO:CD	2.45	0.45
32:B7:22:MET:O	32:B7:28:ARG:NH1	2.45	0.45
32:B7:24:THR:HG23	32:B7:27:GLY:N	2.31	0.45
34:B9:17:ILE:CG2	34:B9:19:ARG:HE	2.30	0.45
35:BA:1171:G:C3'	35:BA:1173:G:H4'	2.27	0.45
35:BA:1445:A:H5''	35:BA:1445(A):C:H5	1.81	0.45
35:BA:1486:A:N6	35:BA:1504:C:H42	2.15	0.45
35:BA:2219:G:C2'	35:BA:2220:G:H5'	2.47	0.45
35:BA:2808:U:H2'	35:BA:2809:A:H5'	1.97	0.45
35:BA:955:C:H5'	35:BA:956:G:OP2	2.17	0.45
35:BA:993:G:OP1	51:BU:50:ARG:NH2	2.50	0.45
37:BC:64:LEU:HD13	37:BC:66:HIS:HB2	1.99	0.45
37:BC:83:ILE:HD12	37:BC:94:VAL:HB	1.98	0.45
38:BD:176:ARG:HA	38:BD:182:LEU:HD23	1.99	0.45
41:BG:57:ALA:CB	41:BG:90:LEU:HD11	2.47	0.45
42:BH:86:GLU:N	42:BH:86:GLU:OE1	2.50	0.45
43:BI:6:LEU:O	43:BI:7:GLU:C	2.55	0.45
45:BO:5:GLN:HE21	45:BO:20:MET:CE	2.30	0.45
45:BO:2:ILE:CD1	45:BO:6:THR:HG21	2.37	0.45
48:BR:49:ASP:O	48:BR:52:ILE:N	2.50	0.45
49:BS:58:LEU:HG	49:BS:59:LYS:H	1.82	0.45
50:BT:106:SER:O	50:BT:107:ASP:OD1	2.35	0.45
1:AA:346:G:C5'	50:BT:41:ARG:NE	2.77	0.45
52:BV:21:ARG:HD3	52:BV:21:ARG:H	1.82	0.45
35:BA:1224:C:H4'	52:BV:86:GLY:O	2.16	0.45
1:CA:1275:A:O2'	1:CA:1276:G:H5'	2.16	0.45
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.52	0.45
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.82	0.45
1:CA:706:A:C8	1:CA:707:C:H5	2.35	0.45
1:CA:784:C:H4'	35:DA:1837:C:OP1	2.17	0.45
2:CB:162:ILE:O	2:CB:162:ILE:HG13	2.15	0.45
4:CD:106:TYR:HE1	4:CD:112:VAL:O	2.00	0.45
1:CA:1194:U:H5''	5:CE:22:GLY:O	2.17	0.45
8:CH:112:LEU:HA	8:CH:134:ILE:CG1	2.39	0.45
17:CQ:43:LEU:HD12	17:CQ:68:ARG:HG3	1.99	0.45
22:CV:63:G:H5''	25:D0:11:ARG:HH12	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:17:C:N4	35:DA:2180:U:O3'	2.49	0.45
23:CW:25:C:H2'	23:CW:26:A:C8	2.52	0.45
25:D0:41:ARG:NE	25:D0:41:ARG:H	2.14	0.45
27:D2:57:ILE:O	27:D2:58:ALA:C	2.55	0.45
35:DA:1548:C:H2'	35:DA:1549:C:H6	1.82	0.45
35:DA:2193:G:C4	35:DA:2194:G:C8	3.05	0.45
35:DA:2852:G:C2	35:DA:2853:C:C2	3.05	0.45
35:DA:34:C:C4	35:DA:455:C:H5'	2.52	0.45
35:DA:425:G:O2'	35:DA:426:C:H5'	2.16	0.45
37:DC:67:GLY:HA2	37:DC:162:GLU:HA	1.99	0.45
38:DD:117:VAL:HG22	38:DD:118:VAL:N	2.31	0.45
38:DD:153:ALA:O	38:DD:154:LYS:HG2	2.17	0.45
39:DE:111:ARG:HD2	39:DE:160:TYR:CE1	2.52	0.45
39:DE:143:ASN:CB	39:DE:147:PRO:HD2	2.41	0.45
39:DE:76:ARG:O	39:DE:77:ILE:O	2.35	0.45
41:DG:137:GLU:HG2	41:DG:152:LEU:HD11	1.99	0.45
41:DG:45:GLU:OE1	41:DG:45:GLU:HA	2.17	0.45
41:DG:56:ALA:O	41:DG:60:LEU:HB2	2.17	0.45
42:DH:68:THR:HG22	42:DH:72:ILE:CD1	2.46	0.45
43:DI:113:ARG:HA	43:DI:131:LYS:HG3	1.99	0.45
46:DP:135:LEU:HD13	46:DP:135:LEU:O	2.17	0.45
46:DP:32:THR:HG21	46:DP:37:GLY:CA	2.47	0.45
47:DQ:68:ILE:HD13	47:DQ:103:MET:HG2	1.99	0.45
48:DR:99:LYS:N	48:DR:99:LYS:CD	2.80	0.45
50:DT:48:ILE:CD1	50:DT:65:LYS:HD3	2.47	0.45
50:DT:62:THR:HA	50:DT:74:ARG:O	2.16	0.45
53:DW:5:ALA:O	53:DW:6:ILE:CB	2.63	0.45
35:DA:2012:G:O3'	53:DW:96:ILE:HD11	2.17	0.45
54:DX:70:LEU:HD23	54:DX:71:GLY:N	2.32	0.45
55:DY:7:VAL:HB	55:DY:8:LYS:HD2	1.99	0.45
56:DZ:16:SER:O	56:DZ:20:ARG:HB2	2.16	0.45
56:DZ:31:ARG:O	56:DZ:31:ARG:HG2	2.16	0.45
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.52	0.44
2:AB:115:LEU:O	2:AB:119:GLU:HB2	2.18	0.44
4:AD:196:LEU:CD1	4:AD:196:LEU:N	2.76	0.44
5:AE:16:THR:OG1	5:AE:17:ALA:N	2.48	0.44
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	2.17	0.44
9:AI:98:PRO:C	9:AI:100:GLY:H	2.19	0.44
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.80	0.44
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.33	0.44
13:AM:84:ILE:HG12	19:AS:66:MET:HE3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1317:C:OP2	14:AN:17:LYS:HE2	2.16	0.44
15:AO:67:LEU:CD2	15:AO:78:TYR:HE1	2.29	0.44
16:AP:80:PHE:CD1	16:AP:80:PHE:N	2.83	0.44
1:AA:195:A:OP1	20:AT:65:LYS:HE2	2.18	0.44
23:AW:23:A:H2'	23:AW:24:G:C8	2.52	0.44
35:BA:129:C:O2'	35:BA:130:C:H5'	2.17	0.44
35:BA:1333:C:H2'	35:BA:1334:G:H8	1.82	0.44
35:BA:1886:C:H2'	35:BA:1887:C:H6	1.82	0.44
35:BA:1899:G:HO2'	35:BA:1900:A:H5''	1.79	0.44
35:BA:237:C:O2'	35:BA:238:C:H5'	2.18	0.44
35:BA:2400:G:N3	35:BA:2400:G:H2'	2.31	0.44
35:BA:2572:A:OP1	39:BE:144:ARG:HB2	2.17	0.44
35:BA:2600:A:H2'	35:BA:2601:C:C6	2.51	0.44
35:BA:360:G:H2'	35:BA:361:G:H8	1.83	0.44
35:BA:587:C:C4	46:BP:33:ARG:HG2	2.52	0.44
35:BA:796:C:H2'	35:BA:797:C:H6	1.80	0.44
39:BE:145:LYS:HD3	39:BE:145:LYS:HA	1.88	0.44
39:BE:64:LYS:C	39:BE:66:HIS:H	2.20	0.44
39:BE:49:LEU:O	39:BE:78:LEU:HB3	2.17	0.44
40:BF:157:VAL:HB	40:BF:194:MET:HB3	1.99	0.44
40:BF:8:GLN:O	40:BF:9:ILE:C	2.55	0.44
41:BG:132:ASN:OD1	41:BG:158:ALA:CB	2.64	0.44
42:BH:13:LYS:HB3	42:BH:14:GLY:H	1.63	0.44
45:BO:105:GLU:OE1	45:BO:105:GLU:N	2.50	0.44
47:BQ:120:ILE:O	47:BQ:123:HIS:HB2	2.16	0.44
48:BR:10:LEU:HD23	48:BR:21:TYR:OH	2.16	0.44
50:BT:50:ILE:HD13	50:BT:64:ARG:HB3	1.97	0.44
50:BT:78:LEU:O	50:BT:79:HIS:ND1	2.50	0.44
51:BU:8:VAL:HG12	51:BU:12:ARG:NE	2.30	0.44
54:BX:63:LYS:HB2	54:BX:72:LYS:HG3	1.98	0.44
1:CA:1031:G:H2'	1:CA:1032:G:C8	2.52	0.44
1:CA:648:A:H2'	1:CA:649:G:H8	1.82	0.44
1:CA:775:G:O2'	1:CA:776:G:H5'	2.17	0.44
1:CA:853:G:O2'	1:CA:854:G:H5'	2.17	0.44
1:CA:972:C:OP2	10:CJ:57:LYS:NZ	2.33	0.44
3:CC:30:ARG:NH1	14:CN:38:GLY:H	2.15	0.44
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.31	0.44
5:CE:52:PRO:HA	5:CE:55:VAL:HG23	1.98	0.44
6:CF:5:GLU:HB3	6:CF:62:TRP:HE1	1.81	0.44
8:CH:63:LEU:N	8:CH:63:LEU:HD22	2.32	0.44
9:CI:3:GLN:C	9:CI:4:TYR:CD1	2.90	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:67:THR:O	10:CJ:67:THR:HG22	2.16	0.44
19:CS:31:ILE:HG23	19:CS:49:ILE:HG13	1.99	0.44
26:D1:34:THR:O	35:DA:2432:A:N6	2.45	0.44
26:D1:45:ASN:ND2	26:D1:47:GLN:HE21	2.13	0.44
27:D2:4:SER:HA	27:D2:7:ARG:NH1	2.32	0.44
31:D6:46:HIS:HB3	31:D6:47:THR:N	2.31	0.44
35:DA:1034:G:H2'	35:DA:1035:U:O4'	2.17	0.44
35:DA:1348:G:H2'	35:DA:1349:A:C5'	2.37	0.44
35:DA:1428:C:O2'	35:DA:1429:G:H5'	2.16	0.44
35:DA:151:C:O2'	35:DA:152:G:H5'	2.17	0.44
35:DA:1641:A:H2'	35:DA:1642:G:O4'	2.17	0.44
35:DA:1767:C:C2'	35:DA:1768:U:H5'	2.47	0.44
35:DA:1889:A:O2'	35:DA:2087:G:H5'	2.16	0.44
33:D8:39:LYS:HE3	35:DA:2365:G:O6	2.16	0.44
35:DA:2662:A:H2'	35:DA:2663:G:O4'	2.17	0.44
35:DA:2745:C:H5'	42:DH:146:ALA:HB2	1.99	0.44
35:DA:2872:G:O2'	35:DA:2873:A:H5'	2.17	0.44
35:DA:667:U:H2'	35:DA:668:G:O4'	2.17	0.44
35:DA:94(A):G:H2'	35:DA:95:G:O4'	2.17	0.44
37:DC:27:ARG:O	37:DC:34:THR:HB	2.17	0.44
37:DC:58:VAL:O	37:DC:59:ARG:HD3	2.17	0.44
38:DD:146:GLU:HG2	38:DD:152:GLY:O	2.17	0.44
38:DD:260:ARG:HD3	38:DD:261:LYS:O	2.17	0.44
39:DE:101:ARG:HH21	39:DE:171:GLU:HB2	1.80	0.44
39:DE:182:LEU:O	39:DE:183:LEU:HD12	2.17	0.44
39:DE:21:VAL:HG23	39:DE:23:VAL:CG1	2.47	0.44
40:DF:38:ARG:HH11	40:DF:38:ARG:HG3	1.81	0.44
42:DH:87:LEU:N	42:DH:131:VAL:O	2.45	0.44
42:DH:169:VAL:O	42:DH:169:VAL:HG13	2.17	0.44
42:DH:46:GLU:HG3	42:DH:50:VAL:HG13	2.00	0.44
35:DA:2758:A:C5	42:DH:67:LEU:HD21	2.52	0.44
45:DO:1:MET:HE2	45:DO:67:LYS:HG2	1.99	0.44
48:DR:28:LEU:HD11	48:DR:116:LEU:CD2	2.43	0.44
51:DU:81:HIS:O	51:DU:84:LYS:HB3	2.17	0.44
52:DV:72:VAL:CG2	52:DV:85:LYS:HB3	2.33	0.44
53:DW:75:TYR:CE1	53:DW:104:THR:CB	3.00	0.44
54:DX:12:VAL:CG2	54:DX:27:THR:HG23	2.42	0.44
47:DQ:141:GLN:HG3	56:DZ:72:ARG:NH1	2.32	0.44
1:AA:949:A:C2	1:AA:1233:G:N3	2.85	0.44
1:AA:355:C:H5'	1:AA:389:A:OP2	2.17	0.44
1:AA:601:C:H2'	1:AA:602:A:C8	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:955:U:O2'	1:AA:956:U:H5'	2.18	0.44
2:AB:116:GLU:HA	2:AB:119:GLU:HB3	1.98	0.44
2:AB:67:THR:O	2:AB:68:ILE:HD13	2.17	0.44
3:AC:158:GLY:C	3:AC:160:ALA:H	2.20	0.44
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.32	0.44
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.38	0.44
3:AC:52:LEU:HD12	3:AC:55:VAL:CG2	2.47	0.44
3:AC:86:VAL:C	3:AC:89:GLU:HB3	2.37	0.44
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.82	0.44
6:AF:72:VAL:CG1	6:AF:73:ASN:N	2.80	0.44
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.46	0.44
9:AI:3:GLN:C	9:AI:4:TYR:CD1	2.90	0.44
12:AL:102:ARG:NH1	12:AL:102:ARG:CG	2.79	0.44
13:AM:17:VAL:O	13:AM:17:VAL:HG12	2.17	0.44
1:AA:976:G:P	14:AN:32:SER:H	2.40	0.44
1:AA:186:C:H1'	20:AT:85:MET:HE3	2.00	0.44
28:B3:52:HIS:CD2	28:B3:52:HIS:H	2.34	0.44
29:B4:57:ILE:O	29:B4:57:ILE:HG22	2.16	0.44
29:B4:41:ILE:N	29:B4:57:ILE:O	2.45	0.44
35:BA:1034:G:H2'	35:BA:1035:U:O4'	2.17	0.44
35:BA:1718:G:H2'	35:BA:1719:G:C8	2.53	0.44
35:BA:1851:U:C2'	35:BA:1852:C:H5'	2.47	0.44
35:BA:2070:G:H2'	35:BA:2071:A:O4'	2.17	0.44
35:BA:2855:C:H2'	35:BA:2856:C:C6	2.52	0.44
37:BC:19:VAL:O	37:BC:20:TYR:HB3	2.16	0.44
37:BC:27:ARG:O	37:BC:34:THR:HB	2.18	0.44
38:BD:24:ILE:O	38:BD:25:THR:C	2.56	0.44
38:BD:257:LEU:C	38:BD:257:LEU:HD23	2.37	0.44
41:BG:153:ARG:CZ	41:BG:153:ARG:HB3	2.46	0.44
41:BG:18:GLU:HG3	41:BG:22:ARG:HD2	2.00	0.44
43:BI:101:LEU:CD2	43:BI:109:ILE:HG12	2.47	0.44
43:BI:114:LEU:O	43:BI:115:ALA:HB3	2.17	0.44
43:BI:15:VAL:CG2	43:BI:16:GLY:N	2.80	0.44
43:BI:60:GLU:OE1	43:BI:64:GLU:HG3	2.17	0.44
44:BN:94:HIS:HA	44:BN:96:GLU:OE1	2.17	0.44
45:BO:2:ILE:HD11	45:BO:82:ASN:HD22	1.81	0.44
47:BQ:55:VAL:HG12	47:BQ:64:ILE:HD12	1.97	0.44
48:BR:111:LEU:HD23	48:BR:111:LEU:HA	1.72	0.44
49:BS:89:ARG:CB	49:BS:92:TYR:HB3	2.25	0.44
52:BV:23:GLU:O	52:BV:24:LYS:C	2.56	0.44
52:BV:40:LEU:N	52:BV:40:LEU:HD22	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:23:GLU:C	54:BX:25:LYS:H	2.20	0.44
1:CA:949:A:C2	1:CA:1233:G:N3	2.86	0.44
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.79	0.44
1:CA:66:G:H4'	1:CA:173:U:C5	2.52	0.44
1:CA:685:G:O2'	1:CA:686:U:H5'	2.16	0.44
2:CB:89:GLY:O	2:CB:154:LEU:HD13	2.17	0.44
3:CC:85:ARG:HA	3:CC:88:ARG:HD2	1.98	0.44
4:CD:173:TRP:O	4:CD:186:LEU:HB2	2.18	0.44
4:CD:19:LEU:HD13	4:CD:21:LEU:CG	2.47	0.44
7:CG:155:ARG:O	7:CG:156:TRP:O	2.35	0.44
9:CI:92:TYR:O	9:CI:95:LYS:HG3	2.17	0.44
9:CI:99:LEU:HD12	9:CI:101:PHE:CZ	2.53	0.44
10:CJ:13:HIS:HB3	10:CJ:68:HIS:HE1	1.75	0.44
11:CK:32:ILE:HD12	11:CK:68:ALA:O	2.17	0.44
13:CM:45:VAL:O	13:CM:47:ASP:N	2.50	0.44
13:CM:54:VAL:O	13:CM:58:GLU:HG2	2.17	0.44
15:CO:74:ASP:C	15:CO:76:GLU:N	2.71	0.44
15:CO:79:ARG:O	15:CO:82:ILE:HG22	2.17	0.44
23:CW:56:C:H2'	23:CW:57:G:H5''	1.99	0.44
27:D2:18:PRO:CG	27:D2:19:VAL:N	2.76	0.44
35:DA:1247:A:OP2	46:DP:18:ARG:NH2	2.50	0.44
35:DA:1257:C:H2'	35:DA:1258:C:C6	2.52	0.44
35:DA:1300:U:H4'	35:DA:1301:A:O5'	2.17	0.44
35:DA:1473:G:O2'	35:DA:1474:C:H5'	2.16	0.44
35:DA:1968:G:C2'	35:DA:1969:A:H5''	2.48	0.44
35:DA:2192:G:H2'	35:DA:2192:G:N3	2.32	0.44
35:DA:2328:A:H2'	35:DA:2329:G:H8	1.82	0.44
35:DA:2584:U:O2	35:DA:2585:U:C4	2.71	0.44
35:DA:2882:A:OP1	48:DR:96:ARG:HD3	2.17	0.44
35:DA:2897:U:H2'	35:DA:2897:U:O2	2.17	0.44
35:DA:542:C:C4	35:DA:543:C:N4	2.85	0.44
36:DB:38:C:O2	36:DB:48:A:H1'	2.17	0.44
38:DD:198:ASN:HD22	38:DD:198:ASN:C	2.21	0.44
38:DD:8:PRO:HB3	38:DD:14:ARG:HB3	1.99	0.44
42:DH:43:VAL:HG23	42:DH:43:VAL:O	2.17	0.44
46:DP:6:LEU:CG	46:DP:8:PRO:O	2.62	0.44
46:DP:99:LEU:HD23	46:DP:99:LEU:O	2.16	0.44
49:DS:66:ALA:HA	49:DS:69:VAL:CG1	2.48	0.44
49:DS:98:VAL:CG1	49:DS:100:ALA:HB2	2.47	0.44
50:DT:35:LYS:O	50:DT:37:GLY:N	2.50	0.44
52:DV:91:TYR:C	52:DV:91:TYR:HD1	2.19	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DW:4:LYS:HA	53:DW:106:ILE:HG22	2.00	0.44
55:DY:28:LYS:HA	55:DY:39:VAL:H	1.81	0.44
56:DZ:97:GLU:CB	56:DZ:125:LEU:HD11	2.41	0.44
56:DZ:146:ILE:HG12	56:DZ:146:ILE:H	1.30	0.44
1:AA:1256:A:H5''	3:AC:27:LYS:NZ	2.33	0.44
1:AA:312:C:H2'	1:AA:313:A:H8	1.81	0.44
1:AA:401:C:H2'	1:AA:402:G:C8	2.53	0.44
1:AA:413:G:H22	1:AA:429:U:P	2.41	0.44
1:AA:930:C:C2'	1:AA:931:C:H5'	2.47	0.44
3:AC:156:ARG:H	3:AC:163:ALA:HA	1.82	0.44
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.40	0.44
3:AC:83:ARG:NH1	3:AC:83:ARG:HG2	2.33	0.44
4:AD:9:CYS:HB2	4:AD:22:LYS:HD2	1.98	0.44
5:AE:47:LYS:H	5:AE:47:LYS:HD2	1.81	0.44
5:AE:6:PHE:HB2	5:AE:34:VAL:HG13	2.00	0.44
6:AF:7:ASN:HD22	6:AF:7:ASN:N	2.14	0.44
9:AI:65:VAL:HG21	9:AI:73:GLN:CB	2.46	0.44
13:AM:56:LEU:HD13	13:AM:56:LEU:C	2.38	0.44
13:AM:29:ARG:HD3	13:AM:64:TRP:CZ2	2.52	0.44
3:AC:30:ARG:NH1	14:AN:38:GLY:H	2.16	0.44
19:AS:10:PHE:HZ	19:AS:70:LYS:CD	2.28	0.44
20:AT:18:GLN:O	20:AT:22:ARG:HG3	2.17	0.44
22:AV:72:C:C2'	22:AV:73:A:H5'	2.47	0.44
31:B6:17:LYS:CB	31:B6:18:ARG:NH1	2.80	0.44
35:BA:1037:G:H1	35:BA:1118:C:N4	2.16	0.44
35:BA:1496:A:C8	35:BA:1498:C:N3	2.85	0.44
35:BA:1550:C:H2'	35:BA:1551:C:H6	1.81	0.44
35:BA:201:C:C2'	35:BA:202:U:H5'	2.48	0.44
35:BA:2056:G:N2	35:BA:2057:A:C4	2.86	0.44
35:BA:2086:U:H2'	35:BA:2087:G:C8	2.52	0.44
35:BA:2162:G:H2'	35:BA:2163:C:O4'	2.17	0.44
35:BA:2309:A:H2	35:BA:2310:A:C2	2.35	0.44
35:BA:2456:C:H6	35:BA:2456:C:O5'	2.00	0.44
35:BA:2553:G:H2'	35:BA:2554:U:C4'	2.48	0.44
35:BA:2811:G:N2	35:BA:2891:G:H1'	2.32	0.44
35:BA:594:U:H2'	35:BA:595:C:H6	1.82	0.44
36:BB:69:G:H2'	36:BB:70:C:H6	1.81	0.44
37:BC:43:VAL:O	37:BC:43:VAL:HG12	2.17	0.44
38:BD:44:ASN:N	38:BD:44:ASN:OD1	2.50	0.44
41:BG:133:LEU:HD12	41:BG:157:ILE:HG22	2.00	0.44
41:BG:91:ARG:CD	41:BG:92:VAL:N	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2657:A:O2'	42:BH:160:LYS:HE2	2.18	0.44
44:BN:65:LYS:O	44:BN:69:GLN:HB2	2.18	0.44
46:BP:62:LEU:N	46:BP:62:LEU:CD2	2.81	0.44
46:BP:71:VAL:HG12	46:BP:72:PRO:HD3	1.97	0.44
48:BR:44:LEU:O	48:BR:48:VAL:HG23	2.18	0.44
50:BT:33:LYS:O	50:BT:40:THR:O	2.35	0.44
51:BU:90:VAL:HG11	52:BV:39:LEU:HG	1.97	0.44
52:BV:19:LYS:CG	52:BV:94:LEU:HB2	2.39	0.44
54:BX:3:THR:O	54:BX:4:ALA:HB3	2.18	0.44
54:BX:52:VAL:O	54:BX:52:VAL:HG12	2.18	0.44
54:BX:59:VAL:N	54:BX:76:ARG:O	2.50	0.44
1:CA:1095:U:H2'	1:CA:1096:C:O4'	2.17	0.44
1:CA:1372:U:H2'	1:CA:1373:G:H5'	1.99	0.44
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.17	0.44
1:CA:199:G:H2'	1:CA:200:G:C8	2.50	0.44
1:CA:460:G:C6	1:CA:470:C:H5"	2.51	0.44
1:CA:898:G:N2	1:CA:901:A:OP2	2.49	0.44
1:CA:914:A:H2'	1:CA:915:A:H8	1.82	0.44
2:CB:166:ASP:CG	2:CB:169:LYS:HB2	2.37	0.44
2:CB:45:GLN:O	2:CB:48:MET:HB3	2.16	0.44
6:CF:1:MET:CE	6:CF:68:PRO:HB3	2.47	0.44
7:CG:97:GLN:HG2	7:CG:101:LEU:HD11	1.99	0.44
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.82	0.44
8:CH:56:LYS:HA	8:CH:57:PRO:HD2	1.75	0.44
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.99	0.44
10:CJ:47:PHE:O	10:CJ:47:PHE:HD1	1.99	0.44
12:CL:79:GLU:HG2	12:CL:80:HIS:ND1	2.33	0.44
1:CA:472:A:H4'	16:CP:82:GLN:HE22	1.82	0.44
17:CQ:29:HIS:HB3	17:CQ:33:GLY:O	2.16	0.44
17:CQ:94:ASN:O	17:CQ:98:LEU:HG	2.17	0.44
23:CW:27:G:H2'	23:CW:28:G:C8	2.52	0.44
30:D5:36:CYS:HB3	30:D5:38:ALA:HB3	1.96	0.44
30:D5:56:LYS:HG2	30:D5:57:VAL:N	2.31	0.44
31:D6:19:ARG:HD3	31:D6:43:CYS:SG	2.57	0.44
31:D6:40:CYS:SG	31:D6:45:LYS:NZ	2.82	0.44
33:D8:37:SER:OG	33:D8:40:GLU:HG3	2.17	0.44
35:DA:1181:C:O2'	35:DA:1182:A:H5'	2.17	0.44
35:DA:1260:G:O2'	35:DA:1261:C:H5'	2.17	0.44
30:D5:19:ARG:NH1	35:DA:1266:G:OP2	2.50	0.44
35:DA:2144:U:O2	35:DA:2148:G:N1	2.50	0.44
35:DA:2206:G:N3	35:DA:2206:G:H3'	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2472:G:H2'	35:DA:2475:C:H42	1.82	0.44
35:DA:302:C:H2'	35:DA:303:U:C6	2.52	0.44
35:DA:389:G:C2	46:DP:70:GLN:HG3	2.52	0.44
41:DG:9:ARG:O	41:DG:11:TYR:N	2.51	0.44
41:DG:36:LYS:HD2	41:DG:38:VAL:CG2	2.46	0.44
43:DI:127:VAL:HG12	43:DI:128:LEU:N	2.33	0.44
45:DO:26:LYS:HB3	45:DO:27:GLY:H	1.66	0.44
47:DQ:118:LEU:O	47:DQ:121:ALA:N	2.50	0.44
47:DQ:1:MET:HE2	47:DQ:2:LEU:CB	2.47	0.44
1:AA:1030:C:C3'	1:AA:1030(A):G:H5'	2.48	0.44
1:AA:1054:C:H5	1:AA:1196:U:C5	2.36	0.44
1:AA:190:U:O2	20:AT:105:SER:HB2	2.16	0.44
1:AA:409:G:H2'	1:AA:410:G:O4'	2.17	0.44
1:AA:513:C:N3	1:AA:539:A:C2	2.85	0.44
1:AA:830:G:O2'	1:AA:831:U:H5'	2.18	0.44
6:AF:66:GLU:O	6:AF:67:MET:HB3	2.16	0.44
7:AG:148:ASN:ND2	7:AG:148:ASN:N	2.64	0.44
7:AG:18:TYR:HD2	7:AG:59:LEU:HB2	1.82	0.44
9:AI:103:THR:HG22	9:AI:105:ASP:N	2.32	0.44
9:AI:65:VAL:C	9:AI:66:ARG:HG3	2.38	0.44
9:AI:53:VAL:HG11	9:AI:85:LEU:CD2	2.48	0.44
9:AI:93:ARG:NH1	9:AI:96:LEU:HD23	2.32	0.44
10:AJ:42:THR:HG22	10:AJ:43:ARG:N	2.32	0.44
12:AL:64:TYR:HB3	12:AL:65:GLU:H	1.60	0.44
20:AT:89:ARG:HG3	20:AT:89:ARG:NH2	2.32	0.44
23:AW:38:A:H2'	23:AW:39:U:C5'	2.47	0.44
25:B0:41:ARG:H	25:B0:41:ARG:NE	2.12	0.44
29:B4:45:GLY:O	29:B4:46:ASN:C	2.56	0.44
35:BA:1107:G:O2'	35:BA:1108:U:H5'	2.17	0.44
35:BA:1168:G:O2'	35:BA:1169:G:H5'	2.17	0.44
35:BA:1958:C:O2'	35:BA:1959:G:H5'	2.17	0.44
35:BA:1996:C:P	45:BO:31:LYS:NZ	2.90	0.44
35:BA:2097:C:H2'	35:BA:2098:U:O4'	2.18	0.44
35:BA:2777:G:H5''	35:BA:2778:A:H5'	1.99	0.44
35:BA:563:G:H5'	35:BA:572:A:H4'	1.98	0.44
35:BA:686:G:H21	35:BA:788:A:H61	1.64	0.44
35:BA:878:A:H5'	35:BA:878:A:N3	2.32	0.44
38:BD:215:LEU:HD13	38:BD:217:ARG:NH2	2.33	0.44
38:BD:65:ILE:HD13	38:BD:65:ILE:O	2.17	0.44
38:BD:8:PRO:HB3	38:BD:14:ARG:CB	2.48	0.44
44:BN:72:TYR:N	44:BN:85:ILE:O	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:72:LYS:HA	47:BQ:73:PRO:HD3	1.79	0.44
48:BR:34:ILE:CG2	48:BR:35:THR:N	2.80	0.44
49:BS:99:LYS:C	49:BS:101:LEU:N	2.71	0.44
50:BT:103:ARG:O	50:BT:104:ASN:C	2.56	0.44
50:BT:128:GLU:C	50:BT:128:GLU:OE1	2.56	0.44
50:BT:133:GLU:HG3	50:BT:137:LYS:HG3	1.99	0.44
51:BU:103:PRO:HG2	51:BU:104:GLN:OE1	2.18	0.44
51:BU:27:LEU:HA	51:BU:27:LEU:HD23	1.73	0.44
35:BA:1162:G:H4'	52:BV:24:LYS:HB2	1.99	0.44
27:B2:37:PHE:HE2	54:BX:92:LEU:HD21	1.81	0.44
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.83	0.44
1:CA:1259:C:H42	1:CA:1276:G:H1	1.64	0.44
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.99	0.44
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.17	0.44
1:CA:830:G:N2	1:CA:857:C:C2	2.86	0.44
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.99	0.44
2:CB:57:PHE:HD2	2:CB:185:ILE:HD11	1.82	0.44
2:CB:74:LYS:HB2	2:CB:74:LYS:NZ	2.32	0.44
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.16	0.44
12:CL:126:LYS:CD	12:CL:127:GLU:H	2.31	0.44
12:CL:86:ARG:N	12:CL:99:HIS:O	2.45	0.44
14:CN:3:ARG:CG	14:CN:3:ARG:HH11	2.30	0.44
17:CQ:89:LEU:O	17:CQ:92:ARG:HB3	2.17	0.44
22:CV:1:G:H1	22:CV:72:C:H42	1.64	0.44
23:CW:36:A:H2'	23:CW:37:A:O4'	2.17	0.44
31:D6:47:THR:HB	31:D6:49:HIS:HE1	1.82	0.44
32:D7:46:VAL:CG1	32:D7:47:ARG:N	2.80	0.44
33:D8:33:ASN:O	33:D8:34:TRP:CB	2.65	0.44
35:DA:1125:G:H3'	35:DA:1126:A:H5''	1.99	0.44
35:DA:1504:C:O2'	35:DA:1505:C:H5'	2.17	0.44
35:DA:2313:C:C6	35:DA:2314:C:H5	2.35	0.44
35:DA:665:C:O2'	35:DA:666:G:H5'	2.17	0.44
35:DA:79:G:O2'	35:DA:80:G:H5'	2.18	0.44
35:DA:827:U:H2'	35:DA:2068:U:C2	2.52	0.44
37:DC:40:THR:CG2	37:DC:215:THR:CB	2.96	0.44
38:DD:231:HIS:ND1	38:DD:232:PRO:CD	2.78	0.44
38:DD:44:ASN:OD1	38:DD:44:ASN:N	2.50	0.44
38:DD:8:PRO:HB3	38:DD:14:ARG:CB	2.47	0.44
39:DE:68:ALA:C	39:DE:70:ALA:H	2.21	0.44
41:DG:153:ARG:NH1	41:DG:153:ARG:HB2	2.31	0.44
35:DA:2313:C:C4'	41:DG:40:ASN:ND2	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:95:ARG:O	41:DG:96:ARG:C	2.55	0.44
43:DI:107:VAL:HG12	43:DI:108:THR:N	2.32	0.44
43:DI:8:PRO:HB3	43:DI:14:ASP:CA	2.47	0.44
35:DA:1139:G:H5'	44:DN:102:ALA:HA	1.98	0.44
47:DQ:20:ALA:O	47:DQ:21:THR:OG1	2.30	0.44
49:DS:98:VAL:HG12	49:DS:100:ALA:H	1.82	0.44
50:DT:38:ASN:ND2	50:DT:40:THR:H	2.15	0.44
54:DX:63:LYS:HB2	54:DX:72:LYS:HG3	1.98	0.44
56:DZ:141:VAL:HG13	56:DZ:141:VAL:O	2.18	0.44
1:AA:1001(A):G:H2'	1:AA:1002:G:O4'	2.17	0.44
1:AA:1134:G:N2	1:AA:1141:C:C2	2.85	0.44
1:AA:119:A:H4'	1:AA:120:A:O5'	2.18	0.44
1:AA:1445:C:H2'	1:AA:1446:U:C5'	2.47	0.44
1:AA:174:C:O5'	1:AA:174:C:H6	2.01	0.44
1:AA:373:A:H2'	1:AA:374:A:H8	1.82	0.44
1:AA:685:G:O2'	1:AA:686:U:H5'	2.17	0.44
1:AA:699:C:C2'	1:AA:700:G:H5'	2.47	0.44
2:AB:214:ILE:O	2:AB:218:ALA:HB2	2.18	0.44
3:AC:101:LEU:HD23	3:AC:102:ASN:O	2.17	0.44
3:AC:40:ARG:NH1	3:AC:40:ARG:HG3	2.33	0.44
6:AF:52:ILE:HD12	6:AF:87:ARG:HH12	1.82	0.44
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.17	0.44
8:AH:65:TYR:CD1	8:AH:65:TYR:N	2.85	0.44
9:AI:48:GLU:HA	9:AI:51:ARG:HD2	2.00	0.44
10:AJ:28:ARG:NH1	10:AJ:28:ARG:HG2	2.31	0.44
19:AS:13:ASP:C	19:AS:15:LEU:N	2.70	0.44
22:AY:8:U:C4'	22:AY:48:C:H4'	2.44	0.44
26:B1:80:LEU:HD22	26:B1:82:LEU:CD1	2.48	0.44
30:B5:41:PRO:O	30:B5:44:THR:OG1	2.32	0.44
35:BA:1495:A:H2'	35:BA:1495:A:N3	2.33	0.44
35:BA:1548:C:H2'	35:BA:1549:C:H6	1.82	0.44
35:BA:1794:U:H2'	35:BA:1795:C:C6	2.51	0.44
35:BA:2282:G:H5''	35:BA:2283:C:O4'	2.18	0.44
35:BA:2409:G:H2'	35:BA:2410:G:O4'	2.17	0.44
35:BA:2852:G:C2	35:BA:2853:C:C2	3.05	0.44
35:BA:2855:C:H2'	35:BA:2856:C:H6	1.82	0.44
35:BA:353:G:O2'	35:BA:354:G:H5'	2.18	0.44
35:BA:491:G:H2'	35:BA:492:A:C8	2.52	0.44
35:BA:760:G:H2'	35:BA:761:A:O4'	2.18	0.44
27:B2:10:LEU:HD11	35:BA:77:C:H5''	1.99	0.44
35:BA:94(A):G:H2'	35:BA:95:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:972:G:OP2	35:BA:974:G:H5''	2.18	0.44
36:BB:21:G:O2'	36:BB:22:U:C6	2.70	0.44
36:BB:37:C:C2'	36:BB:38:C:H5'	2.47	0.44
36:BB:4:C:H2'	36:BB:5:C:C6	2.53	0.44
36:BB:32:C:C2	36:BB:51:G:N2	2.86	0.44
39:BE:79:ARG:HH11	39:BE:79:ARG:CG	2.29	0.44
40:BF:179:GLU:CD	40:BF:179:GLU:H	2.20	0.44
41:BG:133:LEU:CD1	41:BG:157:ILE:HG22	2.48	0.44
42:BH:137:ASP:HB3	42:BH:140:LYS:HB3	1.99	0.44
43:BI:10:GLU:O	43:BI:11:ASN:HB3	2.16	0.44
44:BN:97:ARG:HA	44:BN:100:GLU:HB2	2.00	0.44
44:BN:51:PHE:CE2	44:BN:119:ARG:HD2	2.53	0.44
35:BA:833:U:O2	46:BP:55:ARG:NH1	2.50	0.44
49:BS:66:ALA:HA	49:BS:69:VAL:CG1	2.47	0.44
50:BT:92:GLY:C	50:BT:94:ALA:N	2.71	0.44
51:BU:8:VAL:HG11	51:BU:12:ARG:NH2	2.32	0.44
51:BU:62:ILE:HD11	51:BU:93:LYS:HG2	1.99	0.44
52:BV:18:LEU:HD22	52:BV:19:LYS:HA	1.97	0.44
53:BW:82:LEU:HD13	53:BW:98:LYS:CB	2.48	0.44
54:BX:3:THR:HA	54:BX:6:ASP:OD2	2.17	0.44
54:BX:64:LYS:HB2	54:BX:64:LYS:NZ	2.33	0.44
56:BZ:128:VAL:CG2	56:BZ:129:SER:N	2.81	0.44
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.17	0.44
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.52	0.44
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.47	0.44
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.52	0.44
1:CA:359:U:H2'	1:CA:360:A:C8	2.53	0.44
2:CB:121:LEU:CD1	2:CB:130:ARG:HH11	2.29	0.44
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.98	0.44
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.47	0.44
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.58	0.44
18:CR:53:ARG:HH11	18:CR:53:ARG:CB	2.31	0.44
19:CS:5:LEU:HD22	19:CS:5:LEU:N	2.32	0.44
28:D3:8:LEU:HD12	28:D3:31:LEU:CA	2.32	0.44
32:D7:30:VAL:HG12	32:D7:31:LEU:N	2.32	0.44
35:DA:1436:G:C3'	35:DA:1437:C:H5''	2.47	0.44
35:DA:1865:G:H5'	35:DA:1866:C:P	2.57	0.44
35:DA:2777:G:H5''	35:DA:2778:A:H5'	1.99	0.44
35:DA:2820:A:O2'	35:DA:2821:A:OP1	2.29	0.44
35:DA:418:G:O2'	35:DA:419:C:H5'	2.18	0.44
35:DA:605:C:H1'	35:DA:657:U:O2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:672:C:H2'	35:DA:673:C:H6	1.83	0.44
35:DA:728:G:C6	35:DA:730:C:C4	3.05	0.44
35:DA:875:G:O4'	56:DZ:170:THR:HG21	2.17	0.44
37:DC:78:ALA:HB3	37:DC:83:ILE:HD13	2.00	0.44
38:DD:25:THR:O	38:DD:26:LYS:CB	2.65	0.44
38:DD:80:ALA:HB3	38:DD:94:LEU:HD22	1.98	0.44
40:DF:24:LEU:HD13	40:DF:24:LEU:HA	1.88	0.44
47:DQ:62:GLY:HA3	47:DQ:107:ALA:O	2.17	0.44
55:DY:60:PHE:O	55:DY:61:ILE:C	2.55	0.44
1:AA:1028:C:H42	1:AA:1034:G:N2	2.15	0.44
1:AA:1313:U:P	19:AS:6:LYS:CB	3.06	0.44
1:AA:1287:A:H2	1:AA:1353:G:N3	2.15	0.44
1:AA:646:U:H2'	1:AA:647:C:C6	2.53	0.44
1:AA:649:G:H2'	1:AA:650:G:C8	2.51	0.44
1:AA:940:C:H2'	1:AA:941:G:H8	1.83	0.44
1:AA:942:G:N2	9:AI:124:GLN:HE22	2.16	0.44
1:AA:961:U:O2'	1:AA:962:C:H5'	2.17	0.44
1:AA:977:A:HO2'	1:AA:978:A:H5'	1.83	0.44
3:AC:151:VAL:HG12	3:AC:152:ILE:N	2.33	0.44
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.99	0.44
12:AL:41:ARG:HH22	12:AL:57:LYS:NZ	2.15	0.44
3:AC:30:ARG:HH11	14:AN:38:GLY:H	1.64	0.44
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.18	0.44
16:AP:21:VAL:CG1	16:AP:34:GLU:HB3	2.48	0.44
23:AW:19:G:H5'	23:AW:20:U:H5	1.82	0.44
22:AY:41:C:C3'	22:AY:42:C:C5'	2.94	0.44
26:B1:50:ARG:HG2	26:B1:59:THR:HG22	1.99	0.44
30:B5:48:GLU:C	30:B5:50:GLY:H	2.21	0.44
33:B8:37:SER:OG	33:B8:40:GLU:HG3	2.18	0.44
35:BA:1188:U:C2'	35:BA:1189:A:H5'	2.47	0.44
35:BA:1493:C:C4	35:BA:2206:G:O2'	2.70	0.44
35:BA:1866:C:C2'	35:BA:1866:C:O2	2.60	0.44
25:B0:43:THR:N	35:BA:2331:G:H4'	2.31	0.44
35:BA:2625:G:H2'	35:BA:2626:C:O4'	2.18	0.44
35:BA:2779:U:H4'	35:BA:2780:G:C5'	2.48	0.44
35:BA:2841:C:H2'	35:BA:2842:G:C8	2.51	0.44
35:BA:39:C:H2'	35:BA:40:C:H6	1.83	0.44
35:BA:501:A:C6	35:BA:502:A:C6	3.05	0.44
35:BA:587:C:O2'	35:BA:588:U:OP2	2.27	0.44
35:BA:672:C:H2'	35:BA:673:C:H6	1.83	0.44
36:BB:56:G:H5'	41:BG:27:ASN:ND2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:78:ALA:HB3	37:BC:83:ILE:HD13	1.98	0.44
35:BA:744:G:OP1	39:BE:132:HIS:HB2	2.17	0.44
39:BE:111:ARG:HD2	39:BE:160:TYR:CE1	2.53	0.44
40:BF:161:GLU:O	40:BF:164:ARG:HB3	2.17	0.44
41:BG:8:LYS:O	41:BG:12:TYR:HD1	2.01	0.44
41:BG:92:VAL:HG13	41:BG:92:VAL:O	2.17	0.44
43:BI:110:ASP:HA	43:BI:111:PRO:HD2	1.92	0.44
43:BI:114:LEU:N	43:BI:114:LEU:HD23	2.31	0.44
43:BI:81:VAL:HB	43:BI:123:LEU:HD21	2.00	0.44
35:BA:1952:A:C6	45:BO:22:ILE:HD12	2.53	0.44
47:BQ:1:MET:HE2	47:BQ:2:LEU:CB	2.47	0.44
47:BQ:56:ARG:NE	47:BQ:56:ARG:HA	2.22	0.44
47:BQ:53:ALA:O	47:BQ:56:ARG:HB2	2.17	0.44
47:BQ:55:VAL:HG12	47:BQ:64:ILE:CD1	2.48	0.44
51:BU:104:GLN:HB3	52:BV:44:LYS:NZ	2.33	0.44
51:BU:114:LYS:HA	51:BU:117:GLN:HG3	2.00	0.44
51:BU:34:LYS:HA	51:BU:34:LYS:CE	2.46	0.44
51:BU:6:THR:O	51:BU:9:VAL:HG23	2.18	0.44
52:BV:34:GLU:O	52:BV:36:PRO:HD2	2.17	0.44
55:BY:41:GLY:O	55:BY:42:VAL:O	2.35	0.44
1:CA:1264:C:H2'	1:CA:1265:G:C8	2.53	0.44
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.16	0.44
1:CA:371:G:H21	1:CA:374:A:N6	2.16	0.44
1:CA:522:C:H42	1:CA:528:C:N4	2.15	0.44
1:CA:622:A:C8	1:CA:623:C:C6	3.05	0.44
1:CA:90:U:H3'	1:CA:91:C:H5'	2.00	0.44
2:CB:61:LEU:HD12	2:CB:66:GLY:HA3	1.98	0.44
2:CB:8:LYS:HD3	2:CB:217:ARG:CZ	2.46	0.44
2:CB:69:LEU:HD13	2:CB:92:TYR:HA	2.00	0.44
3:CC:156:ARG:H	3:CC:163:ALA:HA	1.82	0.44
3:CC:90:GLU:OE1	3:CC:93:LYS:HD3	2.18	0.44
4:CD:154:ASN:O	4:CD:155:LEU:C	2.55	0.44
5:CE:63:ARG:HH11	5:CE:63:ARG:HG2	1.82	0.44
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.82	0.44
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.17	0.44
16:CP:8:ARG:CG	16:CP:9:PHE:H	2.29	0.44
17:CQ:83:ASP:CG	17:CQ:84:LEU:H	2.21	0.44
26:D1:73:LEU:HD13	26:D1:94:LEU:HD22	1.99	0.44
27:D2:23:LYS:O	27:D2:27:GLU:HG3	2.17	0.44
27:D2:50:ILE:C	27:D2:52:ASP:N	2.70	0.44
35:DA:1445:A:H5''	35:DA:1445(A):C:H5	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:827:U:H2'	35:DA:2068:U:O2	2.17	0.44
35:DA:2162:G:H2'	35:DA:2163:C:O4'	2.17	0.44
35:DA:2481:G:HO2'	35:DA:2482:G:P	2.40	0.44
35:DA:2632:A:H2'	35:DA:2633:G:C8	2.53	0.44
35:DA:2759:G:H5'	35:DA:2759:G:C8	2.52	0.44
35:DA:2849:U:O4	50:DT:23:ARG:NH2	2.49	0.44
35:DA:2864:G:H8	35:DA:2864:G:C5'	2.30	0.44
35:DA:594:U:H2'	35:DA:595:C:H6	1.82	0.44
35:DA:688:U:H2'	35:DA:689:A:C8	2.52	0.44
35:DA:948:G:C2	35:DA:970:C:O2	2.71	0.44
36:DB:87:G:H3'	36:DB:88:C:C5'	2.47	0.44
39:DE:14:ILE:HG12	39:DE:21:VAL:HG22	1.98	0.44
39:DE:176:ILE:N	39:DE:176:ILE:CD1	2.75	0.44
40:DF:125:LEU:HD22	40:DF:125:LEU:N	2.33	0.44
40:DF:157:VAL:HB	40:DF:194:MET:CB	2.48	0.44
41:DG:83:ARG:NH1	41:DG:84:LYS:NZ	2.64	0.44
42:DH:125:VAL:HG12	42:DH:125:VAL:O	2.17	0.44
42:DH:85:LYS:HE2	42:DH:141:VAL:O	2.16	0.44
43:DI:60:GLU:O	43:DI:64:GLU:HB2	2.18	0.44
44:DN:117:PHE:O	44:DN:117:PHE:CG	2.70	0.44
46:DP:16:ARG:C	46:DP:16:ARG:HH11	2.21	0.44
47:DQ:39:PRO:HB3	47:DQ:99:PRO:HD3	1.99	0.44
53:DW:34:ASN:O	53:DW:37:ARG:HB3	2.18	0.44
56:DZ:19:ARG:HH11	56:DZ:25:PRO:HD2	1.77	0.44
56:DZ:41:LEU:HD22	56:DZ:82:ARG:NH1	2.32	0.44
56:DZ:27:VAL:HG12	56:DZ:85:HIS:HE1	1.83	0.44
1:AA:1036:G:OP2	1:AA:1036:G:H8	2.01	0.44
1:AA:1147:C:O2	9:AI:16:ARG:NH1	2.50	0.44
1:AA:123:C:H5''	1:AA:311:C:O2'	2.17	0.44
1:AA:66:G:H4'	1:AA:173:U:C5	2.53	0.44
1:AA:277:C:P	17:AQ:41:LYS:HZ2	2.40	0.44
1:AA:509:A:C2	1:AA:510:A:C2	3.06	0.44
1:AA:59:A:H1'	1:AA:354:G:C2	2.53	0.44
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	1.99	0.44
2:AB:61:LEU:HD12	2:AB:66:GLY:HA3	2.00	0.44
3:AC:159:GLY:HA2	3:AC:193:TYR:CG	2.53	0.44
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.99	0.44
5:AE:122:GLU:OE1	5:AE:131:ILE:HG13	2.18	0.44
6:AF:2:ARG:HD2	6:AF:4:TYR:OH	2.18	0.44
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	2.00	0.44
7:AG:30:ILE:HD13	7:AG:105:VAL:HG22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:38:ILE:HA	8:AH:41:ARG:HB3	1.99	0.44
9:AI:82:ALA:HA	9:AI:85:LEU:HG	1.98	0.44
10:AJ:62:HIS:N	10:AJ:62:HIS:CD2	2.83	0.44
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.38	0.44
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.82	0.44
11:AK:88:GLY:O	11:AK:91:ARG:HB2	2.18	0.44
10:AJ:47:PHE:CE2	14:AN:37:PHE:HE2	2.36	0.44
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.18	0.44
22:AY:33:U:H3'	22:AY:34:G:H5''	1.99	0.44
26:B1:51:VAL:HG21	26:B1:74:VAL:HG21	1.99	0.44
28:B3:6:VAL:HG13	28:B3:56:VAL:HG22	1.98	0.44
31:B6:23:THR:HG21	35:BA:2419:U:C4'	2.48	0.44
35:BA:1028:A:H2'	35:BA:1029:A:C8	2.53	0.44
35:BA:1186:G:H8	35:BA:1186:G:O5'	2.01	0.44
35:BA:1192:G:C2'	35:BA:1193:G:H5'	2.47	0.44
35:BA:1261:C:C2'	35:BA:1262:A:O5'	2.66	0.44
30:B5:19:ARG:NH1	35:BA:1266:G:OP2	2.51	0.44
35:BA:1503:U:C2	35:BA:1504:C:C5	3.06	0.44
35:BA:1570:A:H2'	35:BA:1571:A:C8	2.52	0.44
35:BA:1588:C:O2	35:BA:1588:C:H2'	2.16	0.44
35:BA:2097:C:O2'	35:BA:2098:U:H5'	2.17	0.44
35:BA:2147:G:C2'	35:BA:2148:G:O4'	2.58	0.44
35:BA:2262:U:H2'	35:BA:2263:C:H5'	2.00	0.44
35:BA:2391:G:O6	35:BA:2425:A:H8	2.01	0.44
35:BA:2707:G:H2'	35:BA:2708:G:C8	2.52	0.44
34:B9:22:ARG:HH12	35:BA:2741:A:H5''	1.83	0.44
35:BA:2870:C:H5''	48:BR:65:LEU:CD2	2.40	0.44
35:BA:608:A:OP1	40:BF:100:THR:CG2	2.65	0.44
35:BA:942:G:O2'	35:BA:943:U:H5'	2.18	0.44
37:BC:99:ILE:HG22	37:BC:99:ILE:O	2.18	0.44
42:BH:158:HIS:NE2	42:BH:170:ARG:CA	2.67	0.44
46:BP:139:LYS:O	46:BP:139:LYS:HD2	2.17	0.44
46:BP:98:GLU:C	46:BP:98:GLU:OE1	2.56	0.44
48:BR:87:TYR:CE1	48:BR:117:VAL:O	2.67	0.44
50:BT:23:ARG:HA	50:BT:52:ILE:CD1	2.48	0.44
51:BU:91:ASP:OD1	51:BU:96:ALA:HB2	2.16	0.44
53:BW:68:ARG:HH11	53:BW:68:ARG:HG3	1.81	0.44
54:BX:27:THR:HA	54:BX:80:ILE:HA	1.99	0.44
56:BZ:108:PRO:HD3	56:BZ:117:LEU:CD2	2.47	0.44
56:BZ:108:PRO:CB	56:BZ:117:LEU:HB2	2.48	0.44
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.17	0.44
1:CA:62:U:O2'	1:CA:379:C:H1'	2.18	0.44
1:CA:603:U:H2'	1:CA:604:G:H8	1.82	0.44
1:CA:61:G:O2'	1:CA:62:U:H5'	2.18	0.44
1:CA:942:G:C2	1:CA:943:U:C2	3.06	0.44
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.17	0.44
2:CB:8:LYS:C	2:CB:12:GLU:HG3	2.38	0.44
3:CC:158:GLY:C	3:CC:160:ALA:H	2.21	0.44
5:CE:76:ILE:CG2	5:CE:77:PRO:HD2	2.44	0.44
8:CH:40:ALA:C	8:CH:42:GLU:N	2.71	0.44
10:CJ:28:ARG:NH1	10:CJ:34:VAL:H	2.15	0.44
10:CJ:57:LYS:HE3	10:CJ:60:ARG:HH22	1.83	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
11:CK:111:ASP:HA	18:CR:84:LYS:CG	2.46	0.44
12:CL:24:VAL:HA	12:CL:25:PRO:HD2	1.89	0.44
17:CQ:76:LEU:CG	17:CQ:77:VAL:H	2.30	0.44
17:CQ:92:ARG:HA	17:CQ:95:TYR:CD2	2.52	0.44
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.17	0.44
22:CV:17:C:C2'	22:CV:18:G:H5''	2.48	0.44
23:CW:56:C:C4	23:CW:57:G:N7	2.86	0.44
22:CY:51:U:H3'	22:CY:52:G:C8	2.48	0.44
26:D1:83:GLU:O	26:D1:84:GLY:O	2.35	0.44
31:D6:39:TYR:O	31:D6:40:CYS:HB2	2.18	0.44
33:D8:6:THR:HG21	33:D8:63:PRO:HD3	1.95	0.44
35:DA:1011:G:C2	35:DA:1151:G:C2	3.06	0.44
35:DA:1362:C:O2'	35:DA:1363:C:H5'	2.18	0.44
35:DA:1503:U:C2	35:DA:1504:C:C5	3.06	0.44
35:DA:1570:A:H2'	35:DA:1571:A:C8	2.53	0.44
35:DA:2492:U:C2	35:DA:2493:U:C5	3.05	0.44
35:DA:251:A:C5	35:DA:252:G:H1'	2.52	0.44
35:DA:2534:A:H2'	35:DA:2535:G:O4'	2.18	0.44
35:DA:2558:C:H2'	35:DA:2559:C:H6	1.82	0.44
36:DB:73:A:H2'	36:DB:74:U:H5'	1.99	0.44
38:DD:211:ARG:HA	38:DD:214:TRP:CD2	2.53	0.44
39:DE:4:ILE:HG23	39:DE:4:ILE:O	2.17	0.44
40:DF:147:GLY:O	40:DF:148:LEU:HD23	2.17	0.44
41:DG:171:ALA:O	41:DG:175:LEU:HG	2.17	0.44
42:DH:27:LYS:HG2	42:DH:32:GLU:OE1	2.18	0.44
44:DN:90:MET:HB3	44:DN:98:VAL:CG2	2.47	0.44
46:DP:7:ARG:NH1	46:DP:7:ARG:HB3	2.33	0.44
48:DR:49:ASP:O	48:DR:52:ILE:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:87:TYR:CE1	48:DR:117:VAL:O	2.66	0.44
49:DS:99:LYS:C	49:DS:101:LEU:H	2.21	0.44
49:DS:57:LYS:HG2	49:DS:58:LEU:N	2.33	0.44
50:DT:33:LYS:O	50:DT:40:THR:O	2.36	0.44
51:DU:85:LYS:C	51:DU:87:GLY:H	2.21	0.44
52:DV:21:ARG:H	52:DV:21:ARG:CD	2.30	0.44
52:DV:83:ARG:HG2	52:DV:83:ARG:HH11	1.83	0.44
1:AA:1324:A:C4'	1:AA:1362:C:H4'	2.48	0.44
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.52	0.44
1:AA:423:G:C2'	1:AA:424:G:H5'	2.48	0.44
1:AA:718:G:H5'	11:AK:117:ASN:CG	2.38	0.44
2:AB:118:LEU:HB2	2:AB:142:LEU:CD1	2.35	0.44
2:AB:67:THR:CG2	2:AB:155:LEU:HD21	2.48	0.44
4:AD:128:VAL:O	4:AD:130:GLY:N	2.51	0.44
6:AF:33:TYR:CE2	6:AF:74:ASP:HB3	2.49	0.44
7:AG:18:TYR:CD2	7:AG:59:LEU:HB2	2.52	0.44
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.48	0.44
13:AM:120:LYS:HA	13:AM:120:LYS:CE	2.39	0.44
10:AJ:65:LEU:CD1	14:AN:55:GLY:HA3	2.48	0.44
16:AP:18:ARG:HD3	16:AP:35:LYS:CD	2.42	0.44
18:AR:30:ASP:C	18:AR:32:ARG:H	2.22	0.44
22:AV:68:C:H2'	22:AV:69:G:O4'	2.17	0.44
23:AW:16:U:N3	23:AW:19:G:OP2	2.51	0.44
25:B0:19:LYS:O	25:B0:20:ARG:C	2.56	0.44
27:B2:2:LYS:HE3	27:B2:2:LYS:O	2.17	0.44
27:B2:30:ARG:NH2	54:BX:46:ALA:HA	2.33	0.44
28:B3:19:GLN:NE2	28:B3:52:HIS:HE1	2.09	0.44
30:B5:33:CYS:HB3	30:B5:38:ALA:HB3	1.99	0.44
31:B6:25:LYS:HD2	33:B8:34:TRP:CZ2	2.53	0.44
35:BA:1125:G:H3'	35:BA:1126:A:H5''	1.99	0.44
35:BA:1140:C:P	44:BN:66:LYS:HZ3	2.41	0.44
35:BA:1234:U:C2'	35:BA:1235:G:H5'	2.47	0.44
35:BA:1292:U:H2'	35:BA:1293:C:C6	2.53	0.44
35:BA:2390:U:O2'	35:BA:2391:G:H5'	2.18	0.44
35:BA:2819:G:H1	35:BA:2827:C:H42	1.66	0.44
35:BA:730:C:O2'	35:BA:731:C:H5'	2.17	0.44
36:BB:21:G:O2'	36:BB:22:U:O4'	2.36	0.44
37:BC:172:HIS:O	37:BC:173:ALA:O	2.35	0.44
38:BD:52:ARG:HG3	38:BD:52:ARG:H	1.52	0.44
38:BD:72:LYS:HE3	38:BD:101:GLU:HB3	2.00	0.44
39:BE:48:GLN:O	39:BE:48:GLN:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:113:ARG:HB3	43:BI:131:LYS:CB	2.43	0.44
43:BI:8:PRO:HB3	43:BI:14:ASP:HA	2.00	0.44
45:BO:88:ASN:ND2	45:BO:90:GLN:N	2.64	0.44
46:BP:59:LEU:C	46:BP:61:ARG:HD2	2.38	0.44
49:BS:93:LYS:O	49:BS:94:TYR:C	2.55	0.44
50:BT:3:ARG:C	50:BT:5:ALA:N	2.71	0.44
52:BV:62:LEU:N	52:BV:62:LEU:HD22	2.33	0.44
35:BA:1598:C:O3'	54:BX:35:THR:HG23	2.18	0.44
55:BY:67:LEU:HD11	55:BY:71:LYS:HB2	1.99	0.44
55:BY:84:ARG:HH22	55:BY:97:ARG:HD3	1.83	0.44
56:BZ:153:SER:H	56:BZ:167:PRO:HB2	1.82	0.44
1:CA:1030:C:C3'	1:CA:1030(A):G:H5'	2.48	0.44
1:CA:1513:A:C4	1:CA:1514:C:C5	3.06	0.44
1:CA:414:A:H5'	1:CA:414:A:H8	1.82	0.44
1:CA:687:A:N3	1:CA:688:G:H1'	2.33	0.44
3:CC:111:LEU:HD21	3:CC:146:ALA:HB2	1.99	0.44
3:CC:159:GLY:HA2	3:CC:193:TYR:CG	2.53	0.44
3:CC:206:GLU:HG2	3:CC:207:VAL:N	2.33	0.44
3:CC:86:VAL:C	3:CC:89:GLU:HB3	2.38	0.44
5:CE:41:VAL:C	5:CE:66:MET:HG2	2.38	0.44
7:CG:111:ARG:HB3	7:CG:113:GLU:OE2	2.17	0.44
9:CI:53:VAL:HG11	9:CI:85:LEU:CD2	2.47	0.44
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.56	0.44
13:CM:119:GLY:O	13:CM:121:LYS:HE2	2.18	0.44
16:CP:2:VAL:HG22	16:CP:3:LYS:N	2.33	0.44
22:CV:56:C:H2'	22:CV:57:G:C8	2.53	0.44
25:D0:20:ARG:H	25:D0:20:ARG:HD3	1.82	0.44
30:D5:20:ARG:HG2	30:D5:20:ARG:HH11	1.83	0.44
33:D8:61:LEU:C	33:D8:63:PRO:HD2	2.38	0.44
35:DA:1045:A:N3	35:DA:1045:A:C2'	2.81	0.44
35:DA:136:G:H1	35:DA:143(A):C:N4	2.14	0.44
35:DA:157:U:P	35:DA:157:U:H6	2.41	0.44
35:DA:1963:U:C2'	35:DA:1963:U:O2	2.66	0.44
35:DA:2334:G:H5'	49:DS:13:ARG:HG3	1.98	0.44
35:DA:2726:U:H6	45:DO:67:LYS:NZ	2.14	0.44
35:DA:2811:G:N2	35:DA:2891:G:H1'	2.33	0.44
35:DA:2854:G:O2'	35:DA:2855:C:H5'	2.18	0.44
35:DA:481:G:O2'	35:DA:482:A:P	2.76	0.44
35:DA:817:C:H2'	35:DA:818:G:O4'	2.17	0.44
35:DA:858:U:O2	35:DA:2268:A:N3	2.51	0.44
38:DD:10:THR:O	38:DD:13:ARG:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:110:GLY:O	48:DR:5:LYS:NZ	2.48	0.44
41:DG:113:ARG:NH1	41:DG:113:ARG:HG2	2.33	0.44
44:DN:62:VAL:CG1	44:DN:62:VAL:O	2.65	0.44
33:D8:13:ARG:HD2	46:DP:61:ARG:NH1	2.33	0.44
46:DP:90:ARG:HD3	46:DP:91:PHE:CD2	2.53	0.44
47:DQ:133:ARG:HG3	47:DQ:133:ARG:NH1	2.32	0.44
47:DQ:55:VAL:HG12	47:DQ:64:ILE:HD12	2.00	0.44
50:DT:64:ARG:HG2	50:DT:64:ARG:NH1	2.33	0.44
52:DV:20:LEU:CD1	52:DV:20:LEU:N	2.80	0.44
53:DW:6:ILE:HG12	53:DW:104:THR:HG23	2.00	0.44
54:DX:12:VAL:HG13	54:DX:27:THR:O	2.17	0.44
54:DX:83:VAL:HG12	54:DX:87:GLN:HB2	1.99	0.44
56:DZ:166:SER:HB2	56:DZ:167:PRO:CA	2.48	0.44
56:DZ:115:GLY:HA2	56:DZ:174:VAL:CG1	2.48	0.44
1:AA:1054:C:C2'	1:AA:1055:A:H5''	2.47	0.44
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.17	0.44
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.18	0.44
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.53	0.44
1:AA:1487:G:C2'	1:AA:1488:G:H5'	2.47	0.44
1:AA:189(I):G:H2'	1:AA:189(J):G:C8	2.53	0.44
1:AA:266:G:H4'	1:AA:267:C:C5	2.52	0.44
1:AA:282:A:N3	1:AA:282:A:H2'	2.32	0.44
1:AA:90:U:H3'	1:AA:91:C:H5'	2.00	0.44
2:AB:132:LYS:HA	2:AB:135:GLN:HG3	1.99	0.44
2:AB:166:ASP:CG	2:AB:169:LYS:HB2	2.38	0.44
3:AC:11:ARG:O	3:AC:13:GLY:N	2.50	0.44
3:AC:39:ILE:HG21	3:AC:57:ILE:HD11	2.00	0.44
3:AC:77:ILE:HG12	3:AC:84:ILE:CD1	2.48	0.44
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.83	0.44
4:AD:54:TYR:CE1	4:AD:209:ARG:NH1	2.86	0.44
4:AD:2:GLY:O	4:AD:3:ARG:C	2.56	0.44
4:AD:49:ARG:O	4:AD:51:PRO:HD3	2.18	0.44
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.18	0.44
6:AF:70:ASP:O	6:AF:72:VAL:N	2.50	0.44
7:AG:46:ALA:O	7:AG:49:ILE:N	2.50	0.44
9:AI:116:LYS:O	9:AI:117:HIS:C	2.56	0.44
9:AI:92:TYR:O	9:AI:95:LYS:HG3	2.18	0.44
15:AO:38:ARG:NH1	15:AO:38:ARG:HG2	2.33	0.44
15:AO:44:LYS:HB2	15:AO:44:LYS:HE3	1.74	0.44
15:AO:46:HIS:C	15:AO:48:LYS:H	2.21	0.44
22:AV:41:C:H2'	22:AV:42:C:H5''	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:78:LYS:HB2	26:B1:78:LYS:HE3	1.84	0.44
31:B6:19:ARG:HD3	31:B6:43:CYS:SG	2.58	0.44
35:BA:1042:G:N2	35:BA:1043:C:H4'	2.33	0.44
35:BA:1131:G:OP2	35:BA:2515:C:H4'	2.18	0.44
35:BA:1502:C:H5'	35:BA:1503:U:OP2	2.18	0.44
35:BA:1711:C:H2'	35:BA:1712:C:H6	1.83	0.44
35:BA:1999:C:H2'	35:BA:2000:G:O4'	2.18	0.44
35:BA:2329:G:H2'	35:BA:2330:G:C8	2.52	0.44
25:B0:42:GLY:HA3	35:BA:2331:G:O4'	2.17	0.44
35:BA:2749:A:H1'	42:BH:63:SER:OG	2.18	0.44
35:BA:529:A:H4'	35:BA:530:G:H5'	1.99	0.44
35:BA:765:G:H2'	35:BA:766:C:C6	2.53	0.44
35:BA:999:U:C2'	35:BA:1000:A:H5''	2.48	0.44
38:BD:197:GLY:O	38:BD:198:ASN:HB3	2.18	0.44
38:BD:215:LEU:HD13	38:BD:217:ARG:HH21	1.83	0.44
39:BE:101:ARG:HD3	39:BE:101:ARG:HA	1.65	0.44
39:BE:34:VAL:CG2	39:BE:48:GLN:HE21	2.30	0.44
39:BE:86:PRO:O	39:BE:88:GLY:N	2.47	0.44
43:BI:94:ALA:O	43:BI:96:ASP:N	2.50	0.44
45:BO:71:ARG:HB3	45:BO:73:ASP:OD2	2.18	0.44
46:BP:57:THR:OG1	46:BP:59:LEU:HB3	2.17	0.44
47:BQ:54:MET:HG2	47:BQ:64:ILE:HD13	2.00	0.44
48:BR:12:ARG:HB3	48:BR:16:HIS:CD2	2.53	0.44
50:BT:48:ILE:CD1	50:BT:65:LYS:HD3	2.48	0.44
51:BU:92:ARG:NH1	51:BU:92:ARG:CG	2.80	0.44
51:BU:92:ARG:HH21	51:BU:95:LEU:CD1	2.31	0.44
53:BW:57:ASN:O	53:BW:58:ALA:C	2.57	0.44
47:BQ:140:ALA:HA	56:BZ:99:TYR:CE1	2.53	0.44
1:CA:1053:G:C3'	1:CA:1054:C:C5'	2.94	0.44
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.18	0.44
1:CA:1124:G:H4'	10:CJ:38:ILE:CG2	2.48	0.44
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.51	0.44
1:CA:328:C:O2'	1:CA:329:A:OP2	2.33	0.44
1:CA:522:C:H2'	1:CA:523:A:O4'	2.18	0.44
1:CA:586:C:C2'	1:CA:587:G:H5'	2.48	0.44
1:CA:71:C:H2'	1:CA:72:C:H6	1.83	0.44
3:CC:130:VAL:HG21	3:CC:157:ILE:HG23	2.00	0.44
3:CC:141:VAL:CG1	3:CC:202:ILE:HD12	2.30	0.44
5:CE:105:VAL:HB	5:CE:106:PRO:CD	2.46	0.44
7:CG:148:ASN:O	7:CG:150:ALA:N	2.50	0.44
11:CK:88:GLY:O	11:CK:91:ARG:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:551:U:H5'	12:CL:119:LYS:HE2	1.99	0.44
13:CM:52:GLU:O	13:CM:56:LEU:CB	2.66	0.44
17:CQ:25:ARG:HG3	17:CQ:25:ARG:HH11	1.82	0.44
17:CQ:68:ARG:NH1	17:CQ:68:ARG:CG	2.81	0.44
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.28	0.44
22:CY:19:G:H5'	22:CY:20:U:C5	2.53	0.44
26:D1:86:SER:O	26:D1:87:PRO:C	2.56	0.44
33:D8:6:THR:CG2	35:DA:243:U:OP1	2.65	0.44
35:DA:1131:G:O2'	35:DA:1132:A:H8	2.01	0.44
35:DA:1003:G:N2	35:DA:1153:C:C2	2.85	0.44
35:DA:1157:G:C2'	35:DA:1158:C:H5'	2.47	0.44
35:DA:1528(A):A:H2'	35:DA:1529:G:H5''	2.00	0.44
35:DA:1922:G:H2'	35:DA:1923:U:O4'	2.17	0.44
35:DA:2188:C:H2'	35:DA:2189:U:O4'	2.18	0.44
35:DA:826:U:OP1	35:DA:2428:G:H3'	2.17	0.44
35:DA:2735:G:H2'	35:DA:2736:G:H5'	2.00	0.44
35:DA:479:A:H4'	35:DA:480:A:OP1	2.17	0.44
35:DA:527:C:N4	35:DA:2779:U:OP2	2.51	0.44
35:DA:910:A:C6	35:DA:911:A:C6	3.06	0.44
38:DD:186:HIS:HD2	38:DD:188:GLU:N	2.07	0.44
38:DD:215:LEU:HD13	38:DD:217:ARG:HH21	1.82	0.44
38:DD:215:LEU:HD13	38:DD:217:ARG:NH2	2.33	0.44
38:DD:24:ILE:O	38:DD:25:THR:C	2.55	0.44
38:DD:48:ARG:CG	38:DD:48:ARG:HH11	2.12	0.44
40:DF:150:GLY:HA2	40:DF:172:TRP:CD2	2.53	0.44
42:DH:149:ARG:NH1	42:DH:164:TYR:HD1	2.16	0.44
43:DI:48:GLU:C	43:DI:50:ARG:N	2.71	0.44
43:DI:6:LEU:O	43:DI:7:GLU:C	2.54	0.44
44:DN:41:ASP:O	44:DN:42:TRP:C	2.56	0.44
45:DO:5:GLN:HE21	45:DO:20:MET:HE1	1.83	0.44
45:DO:69:ILE:HG13	45:DO:69:ILE:H	1.68	0.44
46:DP:106:LEU:HD13	46:DP:112:LEU:HD23	2.00	0.44
48:DR:104:ARG:NH1	48:DR:104:ARG:CB	2.78	0.44
48:DR:107:ASP:C	48:DR:107:ASP:OD2	2.56	0.44
49:DS:106:ARG:NH2	49:DS:109:GLY:N	2.66	0.44
50:DT:57:PHE:O	50:DT:58:ASN:ND2	2.50	0.44
55:DY:28:LYS:H	55:DY:28:LYS:HG2	1.43	0.44
55:DY:2:ARG:HG2	55:DY:2:ARG:NH1	2.33	0.44
55:DY:77:PRO:O	55:DY:78:ALA:CB	2.65	0.44
1:AA:105:G:H2'	1:AA:106:C:H6	1.83	0.43
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:189(B):C:H2'	1:AA:189(C):C:C6	2.53	0.43
1:AA:266:G:O2'	1:AA:267:C:P	2.76	0.43
1:AA:586:C:O2'	1:AA:587:G:H5'	2.18	0.43
2:AB:8:LYS:HD3	2:AB:217:ARG:CZ	2.47	0.43
7:AG:72:ARG:O	7:AG:73:MET:HG3	2.17	0.43
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.83	0.43
8:AH:84:ARG:HH22	8:AH:86:ILE:HD11	1.74	0.43
9:AI:15:ALA:HB2	9:AI:65:VAL:CB	2.46	0.43
10:AJ:13:HIS:HB3	10:AJ:68:HIS:HE1	1.74	0.43
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.31	0.43
11:AK:124:LYS:HB3	11:AK:125:PHE:HD1	1.81	0.43
16:AP:73:LEU:O	16:AP:77:ALA:HB2	2.18	0.43
18:AR:53:ARG:HD2	18:AR:63:GLN:HB2	1.99	0.43
19:AS:15:LEU:N	19:AS:15:LEU:CD2	2.80	0.43
21:AU:5:ASP:O	21:AU:8:THR:HG23	2.18	0.43
23:AW:62:C:H2'	23:AW:63:G:C8	2.53	0.43
27:B2:18:PRO:O	27:B2:20:GLU:N	2.51	0.43
35:BA:1169:G:H1	35:BA:1180:C:N4	2.16	0.43
35:BA:1711:C:O2'	35:BA:1712:C:H5'	2.18	0.43
35:BA:2592:G:O5'	35:BA:2592:G:H8	2.01	0.43
35:BA:953:A:H2'	35:BA:954:G:C5'	2.48	0.43
35:BA:1797:C:O2'	38:BD:259:THR:HG21	2.17	0.43
38:BD:270:ILE:C	38:BD:271:ILE:CG1	2.85	0.43
41:BG:112:PRO:O	41:BG:114:ILE:N	2.51	0.43
43:BI:56:LYS:HG3	43:BI:57:ARG:N	2.33	0.43
46:BP:40:SER:O	46:BP:41:ARG:NE	2.51	0.43
51:BU:89:GLU:HG2	52:BV:50:PRO:HG3	2.00	0.43
53:BW:75:TYR:HE1	53:BW:104:THR:CB	2.30	0.43
55:BY:2:ARG:HG2	55:BY:2:ARG:NH1	2.33	0.43
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.17	0.43
1:CA:119:A:H4'	1:CA:120:A:O5'	2.18	0.43
1:CA:180:U:C2'	1:CA:181:G:C5'	2.89	0.43
1:CA:143:A:H2	1:CA:220:G:H1	1.64	0.43
2:CB:207:ALA:C	2:CB:209:ARG:N	2.70	0.43
2:CB:34:ALA:HB1	2:CB:36:ARG:CD	2.48	0.43
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	2.00	0.43
1:CA:5:U:C2	4:CD:86:LYS:HE2	2.53	0.43
6:CF:52:ILE:HD12	6:CF:87:ARG:HH12	1.83	0.43
7:CG:113:GLU:O	7:CG:119:ARG:HD3	2.18	0.43
10:CJ:46:ARG:HA	10:CJ:64:GLU:HA	2.00	0.43
11:CK:93:GLN:O	11:CK:97:ALA:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:82:MET:O	13:CM:82:MET:CG	2.64	0.43
16:CP:73:LEU:O	16:CP:77:ALA:HB2	2.18	0.43
23:CW:15:G:N2	23:CW:48:C:C2	2.86	0.43
29:D4:64:LYS:O	29:D4:65:CYS:SG	2.73	0.43
30:D5:36:CYS:SG	30:D5:38:ALA:HB2	2.58	0.43
31:D6:20:ASN:CG	31:D6:21:TYR:N	2.71	0.43
34:D9:20:HIS:C	34:D9:22:ARG:H	2.19	0.43
35:DA:1175:U:O5'	35:DA:1176:G:H5'	2.18	0.43
35:DA:1368:G:O2'	35:DA:1369:G:H5'	2.18	0.43
35:DA:1419:A:C3'	35:DA:1420:U:H5''	2.48	0.43
35:DA:1503:U:C4	35:DA:1504:C:N4	2.85	0.43
35:DA:1819:A:H5''	38:DD:161:THR:HG21	2.00	0.43
35:DA:2517:C:C4	35:DA:2542:A:C6	3.06	0.43
35:DA:510:C:O2'	35:DA:511:U:H5'	2.17	0.43
35:DA:724:U:H2'	35:DA:725:G:O4'	2.18	0.43
35:DA:741:G:O2'	35:DA:742:G:H5'	2.18	0.43
36:DB:37:C:C2'	36:DB:38:C:H5'	2.48	0.43
36:DB:66:A:O2'	36:DB:67:G:P	2.76	0.43
39:DE:4:ILE:C	39:DE:5:LEU:HD23	2.39	0.43
39:DE:6:GLY:O	39:DE:195:LEU:HD12	2.18	0.43
39:DE:86:PRO:O	39:DE:88:GLY:N	2.45	0.43
41:DG:123:ASN:O	41:DG:126:ASP:OD2	2.35	0.43
43:DI:114:LEU:O	43:DI:129:THR:O	2.35	0.43
35:DA:1190:G:H5''	46:DP:35:HIS:CA	2.45	0.43
46:DP:5:ASP:OD2	46:DP:6:LEU:HD22	2.18	0.43
48:DR:34:ILE:CG2	48:DR:35:THR:N	2.80	0.43
50:DT:103:ARG:O	50:DT:104:ASN:C	2.56	0.43
55:DY:40:GLU:HA	55:DY:40:GLU:OE2	2.18	0.43
56:DZ:29:TYR:O	56:DZ:89:PHE:HD2	2.01	0.43
56:DZ:44:PHE:HE1	56:DZ:48:PHE:CD2	2.36	0.43
56:DZ:41:LEU:HD22	56:DZ:82:ARG:HH12	1.83	0.43
56:DZ:89:PHE:CE1	56:DZ:96:VAL:HG21	2.53	0.43
1:AA:1254:C:H2'	1:AA:1255:G:C8	2.53	0.43
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.18	0.43
1:AA:184:G:C4'	1:AA:224:C:H4'	2.47	0.43
1:AA:490:G:H2'	1:AA:491:G:H8	1.83	0.43
1:AA:880:C:O2'	1:AA:881:G:H5'	2.18	0.43
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.91	0.43
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.33	0.43
3:AC:44:GLU:HG2	3:AC:52:LEU:HD11	2.00	0.43
3:AC:72:LYS:O	3:AC:72:LYS:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:89:MET:HG2	6:AF:89:MET:O	2.18	0.43
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.33	0.43
9:AI:14:VAL:O	9:AI:65:VAL:HA	2.17	0.43
9:AI:88:TYR:O	9:AI:89:ASN:ND2	2.52	0.43
13:AM:46:LYS:O	13:AM:47:ASP:HB3	2.18	0.43
15:AO:9:GLN:O	15:AO:10:LYS:C	2.55	0.43
20:AT:14:LYS:HA	20:AT:17:ARG:HH21	1.83	0.43
20:AT:43:LEU:HB3	20:AT:48:LYS:HB2	1.99	0.43
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.17	0.43
26:B1:57:GLU:O	26:B1:58:ILE:O	2.36	0.43
29:B4:57:ILE:HD12	41:BG:142:PRO:O	2.18	0.43
31:B6:47:THR:HB	31:B6:49:HIS:HE1	1.82	0.43
33:B8:61:LEU:HD12	33:B8:62:LEU:H	1.81	0.43
35:BA:1011:G:C2	35:BA:1151:G:C2	3.06	0.43
35:BA:1291:C:H2'	35:BA:1292:U:C6	2.53	0.43
35:BA:1464:C:O2'	35:BA:1528:A:H8	1.99	0.43
35:BA:1666:G:H1'	45:BO:3:GLN:HE21	1.80	0.43
35:BA:185:U:H2'	35:BA:186:G:C8	2.53	0.43
35:BA:2192:G:N3	35:BA:2192:G:H2'	2.32	0.43
31:B6:27:LYS:HG3	35:BA:2286:A:OP2	2.18	0.43
35:BA:2298:A:H62	35:BA:2318:G:H8	1.63	0.43
35:BA:2457:U:O2'	35:BA:2458:G:H5'	2.18	0.43
35:BA:2051:A:H5'	35:BA:2578:G:O4'	2.18	0.43
35:BA:2862:G:H2'	35:BA:2863:C:H6	1.83	0.43
35:BA:390:A:O3'	35:BA:391:G:H8	2.02	0.43
35:BA:413:C:H2'	35:BA:414:C:H6	1.82	0.43
35:BA:575:A:O2'	35:BA:576:U:H5'	2.18	0.43
35:BA:843:G:C2'	35:BA:844:C:H5'	2.48	0.43
38:BD:218:ARG:HG3	38:BD:218:ARG:NH1	2.33	0.43
38:BD:44:ASN:CB	38:BD:48:ARG:O	2.59	0.43
39:BE:69:LYS:O	39:BE:71:GLY:N	2.51	0.43
40:BF:25:PRO:CB	40:BF:119:ARG:HD3	2.49	0.43
41:BG:105:LYS:HB2	41:BG:105:LYS:NZ	2.32	0.43
43:BI:73:GLU:OE2	43:BI:137:PRO:HD2	2.18	0.43
35:BA:1139:G:H5'	44:BN:102:ALA:HA	2.00	0.43
44:BN:27:ALA:O	44:BN:28:THR:C	2.55	0.43
44:BN:32:THR:HG22	44:BN:37:LYS:HB3	2.00	0.43
45:BO:12:ASP:C	45:BO:14:THR:H	2.22	0.43
46:BP:90:ARG:HD3	46:BP:91:PHE:CD2	2.53	0.43
47:BQ:17:LEU:HD12	47:BQ:39:PRO:HB2	1.99	0.43
48:BR:79:LEU:HD23	48:BR:83:ILE:HB	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:35:LYS:O	50:BT:37:GLY:N	2.51	0.43
50:BT:32:TYR:HB3	50:BT:81:PRO:HB3	2.00	0.43
1:CA:1298:C:H4'	1:CA:1299:A:N9	2.33	0.43
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.53	0.43
1:CA:1401:G:C2'	1:CA:1402:C:H5'	2.48	0.43
1:CA:376:G:H4'	16:CP:5:ARG:NH1	2.32	0.43
1:CA:59:A:H5'	1:CA:60:A:H5''	2.00	0.43
1:CA:947:G:H2'	1:CA:948:C:H6	1.83	0.43
1:CA:96:U:HO2'	1:CA:97:G:P	2.41	0.43
2:CB:167:PRO:HG2	2:CB:168:THR:H	1.83	0.43
2:CB:173:ALA:O	2:CB:175:ARG:N	2.51	0.43
6:CF:77:ARG:HB3	6:CF:77:ARG:NH1	2.33	0.43
8:CH:63:LEU:H	8:CH:63:LEU:HD22	1.83	0.43
9:CI:115:GLY:C	9:CI:116:LYS:HG2	2.39	0.43
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.81	0.43
9:CI:82:ALA:HA	9:CI:85:LEU:HG	1.99	0.43
11:CK:17:GLY:O	11:CK:80:VAL:HA	2.18	0.43
10:CJ:63:PHE:CZ	14:CN:45:ARG:HG3	2.52	0.43
18:CR:60:ALA:O	18:CR:64:ARG:HG3	2.18	0.43
1:CA:1313:U:P	19:CS:6:LYS:CB	3.06	0.43
23:CW:20:U:H2'	23:CW:21:A:H4'	2.00	0.43
23:CW:31:A:O2'	23:CW:32:U:H5'	2.17	0.43
23:CW:41:C:H2'	23:CW:42:C:H6	1.83	0.43
25:D0:41:ARG:CD	25:D0:44:ARG:HD3	2.48	0.43
25:D0:73:GLY:O	25:D0:75:LEU:N	2.45	0.43
35:DA:1168:G:O2'	35:DA:1169:G:H5'	2.18	0.43
35:DA:143(A):C:O2	35:DA:143(A):C:H2'	2.17	0.43
35:DA:2070:G:H2'	35:DA:2071:A:O4'	2.17	0.43
35:DA:2197:U:H1'	35:DA:2198:A:C8	2.53	0.43
35:DA:2310:A:O2'	35:DA:2311:A:H5'	2.18	0.43
35:DA:405:U:H3'	35:DA:406:G:C5'	2.45	0.43
36:DB:80:U:H2'	36:DB:81:G:C8	2.53	0.43
38:DD:159:ALA:HB1	38:DD:198:ASN:O	2.18	0.43
39:DE:79:ARG:NH1	39:DE:79:ARG:HG2	2.31	0.43
40:DF:101:LEU:HD12	40:DF:102:PRO:HD2	2.00	0.43
41:DG:14:GLU:H	41:DG:17:PRO:CD	2.30	0.43
41:DG:46:ALA:C	41:DG:51:ARG:HD2	2.38	0.43
43:DI:130:TYR:O	43:DI:135:GLU:HG2	2.18	0.43
47:DQ:39:PRO:HD3	47:DQ:99:PRO:HG3	1.99	0.43
49:DS:33:LYS:C	49:DS:34:HIS:HD2	2.21	0.43
51:DU:114:LYS:HA	51:DU:117:GLN:HG3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DX:50:LYS:H	54:DX:87:GLN:HE22	1.66	0.43
55:DY:2:ARG:N	55:DY:5:MET:CE	2.81	0.43
56:DZ:108:PRO:O	56:DZ:110:GLY:N	2.51	0.43
1:AA:1275:A:O2'	1:AA:1276:G:H5'	2.18	0.43
1:AA:1321:C:H5''	1:AA:1322:C:H5'	2.00	0.43
1:AA:1334:G:OP2	1:AA:1334:G:H8	2.02	0.43
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.18	0.43
1:AA:376:G:H4'	16:AP:5:ARG:NH1	2.30	0.43
1:AA:414:A:O2'	1:AA:415:A:H5'	2.18	0.43
1:AA:798:G:OP1	11:AK:122:LYS:NZ	2.51	0.43
2:AB:97:TRP:HZ2	2:AB:102:LEU:CD1	2.28	0.43
3:AC:91:LEU:O	3:AC:94:LEU:HG	2.18	0.43
4:AD:173:TRP:HA	4:AD:187:ARG:NH1	2.33	0.43
9:AI:102:LEU:C	9:AI:102:LEU:HD23	2.38	0.43
14:AN:15:LYS:O	14:AN:16:PHE:C	2.57	0.43
1:AA:980:C:O2	14:AN:19:ARG:HA	2.19	0.43
15:AO:74:ASP:OD2	15:AO:76:GLU:HB3	2.19	0.43
15:AO:78:TYR:O	15:AO:82:ILE:HG22	2.19	0.43
20:AT:14:LYS:CB	20:AT:17:ARG:HH21	2.31	0.43
11:AK:54:ARG:HH12	23:AW:40:C:H5''	1.82	0.43
25:B0:43:THR:HG22	35:BA:2331:G:O3'	2.18	0.43
25:B0:45:PHE:HB2	25:B0:59:LEU:HD11	2.00	0.43
26:B1:57:GLU:O	26:B1:58:ILE:C	2.57	0.43
27:B2:63:VAL:O	27:B2:66:GLU:CG	2.67	0.43
30:B5:36:CYS:SG	30:B5:38:ALA:HB2	2.58	0.43
33:B8:30:ARG:O	33:B8:30:ARG:HD3	2.18	0.43
33:B8:39:LYS:HE3	35:BA:2365:G:O6	2.17	0.43
34:B9:30:PRO:HB2	35:BA:2527:C:H5'	2.01	0.43
35:BA:282:A:HO2'	35:BA:283:A:H8	1.67	0.43
35:BA:464:U:O2'	35:BA:465:G:H5'	2.18	0.43
35:BA:481:G:C2'	35:BA:482:A:OP2	2.66	0.43
35:BA:910:A:C6	35:BA:911:A:C6	3.06	0.43
38:BD:53:PHE:CD1	38:BD:219:PRO:O	2.71	0.43
39:BE:36:ARG:HE	39:BE:36:ARG:HB2	1.44	0.43
40:BF:128:ALA:O	40:BF:130:ALA:N	2.46	0.43
40:BF:25:PRO:HB3	40:BF:119:ARG:HD3	2.00	0.43
42:BH:85:LYS:HE2	42:BH:141:VAL:O	2.18	0.43
42:BH:149:ARG:HH11	42:BH:164:TYR:HD1	1.65	0.43
43:BI:120:ILE:HD13	43:BI:126:TYR:CD1	2.53	0.43
44:BN:19:GLU:HG3	44:BN:20:GLY:H	1.82	0.43
45:BO:17:ARG:HD3	45:BO:47:ILE:CD1	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:129:ARG:NH2	50:BT:131:ALA:HB3	2.32	0.43
50:BT:96:ARG:CG	50:BT:96:ARG:NH1	2.82	0.43
56:BZ:166:SER:CB	56:BZ:167:PRO:C	2.84	0.43
56:BZ:56:VAL:CG1	56:BZ:57:ILE:N	2.82	0.43
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.18	0.43
1:CA:1054:C:C2'	1:CA:1054:C:O2	2.65	0.43
1:CA:509:A:C2	1:CA:510:A:C2	3.06	0.43
1:CA:991:U:O2	1:CA:991:U:H2'	2.16	0.43
2:CB:91:PRO:CG	2:CB:154:LEU:HB2	2.33	0.43
2:CB:23:ARG:CG	2:CB:23:ARG:HH11	2.32	0.43
3:CC:182:ILE:HG23	3:CC:202:ILE:O	2.18	0.43
4:CD:23:GLY:HA3	4:CD:112:VAL:HG22	2.00	0.43
4:CD:16:GLY:O	4:CD:18:LYS:N	2.52	0.43
6:CF:25:ILE:HD13	6:CF:25:ILE:HA	1.84	0.43
6:CF:39:LYS:O	6:CF:40:VAL:HB	2.18	0.43
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.99	0.43
8:CH:48:TYR:CD1	8:CH:49:GLU:N	2.86	0.43
9:CI:114:TYR:CD2	9:CI:114:TYR:N	2.67	0.43
10:CJ:35:SER:O	10:CJ:36:GLY:C	2.57	0.43
11:CK:33:THR:HA	11:CK:40:ILE:HG12	2.01	0.43
13:CM:70:LEU:O	13:CM:73:GLU:N	2.48	0.43
17:CQ:59:ILE:N	17:CQ:59:ILE:HD13	2.33	0.43
19:CS:15:LEU:O	19:CS:19:VAL:N	2.52	0.43
20:CT:14:LYS:CB	20:CT:17:ARG:HH21	2.31	0.43
24:CX:14:A:O2'	24:CX:15:A:H5'	2.18	0.43
22:CY:77:PHA:HD2	35:DA:2451:A:N3	2.34	0.43
25:D0:19:LYS:NZ	35:DA:2262:U:P	2.91	0.43
25:D0:25:ARG:HA	25:D0:29:GLN:NE2	2.29	0.43
26:D1:78:LYS:O	26:D1:80:LEU:N	2.49	0.43
27:D2:43:GLN:HE21	27:D2:44:LEU:H	1.66	0.43
31:D6:10:LEU:HD12	33:D8:34:TRP:HD1	1.83	0.43
35:DA:565:C:H4'	35:DA:1253:A:C6	2.53	0.43
35:DA:1332:G:H5'	35:DA:1333:C:H5	1.83	0.43
35:DA:185:U:H2'	35:DA:186:G:C8	2.54	0.43
35:DA:1947:C:O2	35:DA:1947:C:H2'	2.18	0.43
35:DA:2236:C:H2'	35:DA:2237:G:C5'	2.47	0.43
35:DA:2600:A:H2'	35:DA:2601:C:C6	2.54	0.43
35:DA:2646:C:OP2	35:DA:2732:G:O2'	2.25	0.43
35:DA:2864:G:H2'	35:DA:2865:U:O4'	2.18	0.43
35:DA:481:G:C2'	35:DA:482:A:OP2	2.66	0.43
35:DA:744:G:O2'	35:DA:745:G:H5'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:811:U:C2	35:DA:1251:C:C5	3.06	0.43
35:DA:986:C:C2'	35:DA:987:G:H5'	2.49	0.43
36:DB:21:G:O2'	36:DB:22:U:P	2.76	0.43
38:DD:65:ILE:N	38:DD:65:ILE:HD13	2.29	0.43
40:DF:25:PRO:CB	40:DF:119:ARG:HD3	2.47	0.43
41:DG:81:LYS:O	41:DG:82:LEU:C	2.56	0.43
42:DH:88:LEU:HB3	42:DH:89:ILE:H	1.61	0.43
42:DH:91:GLY:HA3	42:DH:94:TYR:CG	2.53	0.43
43:DI:113:ARG:HB3	43:DI:131:LYS:CB	2.47	0.43
43:DI:121:LYS:O	43:DI:122:GLU:HB2	2.19	0.43
43:DI:94:ALA:O	43:DI:96:ASP:N	2.51	0.43
46:DP:140:ALA:O	46:DP:141:ALA:CB	2.67	0.43
47:DQ:53:ALA:O	47:DQ:56:ARG:HB2	2.19	0.43
48:DR:38:VAL:CB	48:DR:39:PRO:HD3	2.37	0.43
49:DS:27:SER:HA	49:DS:88:ASP:HB3	2.00	0.43
50:DT:128:GLU:OE1	50:DT:129:ARG:N	2.51	0.43
50:DT:64:ARG:HD2	50:DT:73:GLU:CD	2.38	0.43
50:DT:89:VAL:HG11	50:DT:91:ARG:HE	1.82	0.43
50:DT:8:LYS:HE2	50:DT:8:LYS:HB3	1.79	0.43
52:DV:28:GLU:HB3	52:DV:29:PRO:CD	2.40	0.43
52:DV:39:LEU:CB	52:DV:40:LEU:HD23	2.48	0.43
56:DZ:116:VAL:O	56:DZ:117:LEU:C	2.56	0.43
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.18	0.43
1:AA:159:G:H1	1:AA:163:C:N4	2.15	0.43
1:AA:603:U:H2'	1:AA:604:G:H8	1.83	0.43
1:AA:60:A:H8	1:AA:60:A:P	2.41	0.43
2:AB:87:ARG:HD2	2:AB:87:ARG:O	2.19	0.43
3:AC:141:VAL:CG1	3:AC:202:ILE:HD12	2.29	0.43
3:AC:28:GLN:CA	3:AC:28:GLN:HE21	2.31	0.43
4:AD:33:MET:HE1	4:AD:37:PRO:HA	1.97	0.43
6:AF:77:ARG:NH1	6:AF:77:ARG:HB3	2.33	0.43
1:AA:1280:A:C8	10:AJ:41:PRO:HD2	2.54	0.43
11:AK:126:ARG:C	11:AK:128:ALA:N	2.68	0.43
11:AK:67:ASP:OD1	11:AK:71:LYS:HE3	2.19	0.43
13:AM:33:ALA:HB1	13:AM:59:TYR:HD2	1.84	0.43
13:AM:76:ALA:CA	13:AM:79:LYS:NZ	2.81	0.43
1:AA:981:U:H5'	14:AN:21:TYR:CE1	2.53	0.43
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	2.00	0.43
20:AT:28:ALA:O	20:AT:30:LYS:N	2.51	0.43
27:B2:17:SER:O	27:B2:18:PRO:C	2.57	0.43
28:B3:15:TYR:O	28:B3:20:LYS:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:15:GLU:HG3	31:B6:41:PRO:HG3	1.99	0.43
35:BA:1045:A:C2'	35:BA:1045:A:N3	2.80	0.43
26:B1:12:PRO:CG	35:BA:1365:A:H5'	2.49	0.43
35:BA:1419:A:C3'	35:BA:1420:U:H5''	2.49	0.43
35:BA:144:C:H2'	35:BA:145:G:C8	2.53	0.43
35:BA:158:U:C2'	35:BA:158:U:O2	2.66	0.43
35:BA:1796:U:H2'	35:BA:1797:C:C6	2.53	0.43
35:BA:2063:C:C2'	35:BA:2064:C:H5'	2.48	0.43
35:BA:2758:A:C5	42:BH:67:LEU:HD21	2.53	0.43
35:BA:2872:G:C2	35:BA:2873:A:N6	2.86	0.43
35:BA:292:C:C2'	35:BA:293:U:H5'	2.49	0.43
35:BA:330:A:H2	35:BA:1210:A:H2'	1.84	0.43
35:BA:510:C:O2'	35:BA:511:U:H5'	2.19	0.43
35:BA:679:C:H2'	35:BA:680:G:C8	2.54	0.43
36:BB:15:A:H3'	36:BB:16:G:C5'	2.47	0.43
36:BB:1:U:O2	36:BB:1:U:H2'	2.19	0.43
37:BC:221:SER:O	37:BC:222:VAL:O	2.36	0.43
37:BC:82:LYS:HE2	37:BC:149:ILE:HA	2.00	0.43
39:BE:34:VAL:HG13	39:BE:48:GLN:O	2.18	0.43
46:BP:106:LEU:HD13	46:BP:112:LEU:HD23	1.99	0.43
47:BQ:79:LEU:HD23	47:BQ:80:GLU:HB2	1.98	0.43
48:BR:2:ARG:HD2	48:BR:2:ARG:O	2.19	0.43
54:BX:32:PRO:HA	54:BX:77:LYS:HB2	2.01	0.43
56:BZ:138:GLU:O	56:BZ:139:VAL:HG13	2.18	0.43
56:BZ:144:LEU:HD21	56:BZ:149:SER:HB3	2.00	0.43
1:CA:1049:U:O2'	1:CA:1050:G:OP2	2.30	0.43
1:CA:1125:U:O3'	1:CA:1126:U:C6	2.72	0.43
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.18	0.43
1:CA:316:G:H2'	1:CA:317:G:H8	1.84	0.43
1:CA:448:A:O2'	1:CA:449:C:H5'	2.18	0.43
1:CA:513:C:N3	1:CA:539:A:C2	2.86	0.43
1:CA:763:G:H2'	1:CA:764:C:H6	1.83	0.43
1:CA:782:A:H2'	1:CA:783:C:H5'	2.00	0.43
1:CA:838:G:N2	1:CA:849:C:C2	2.87	0.43
3:CC:16:ARG:HH11	3:CC:16:ARG:HA	1.83	0.43
3:CC:52:LEU:HD12	3:CC:55:VAL:CG2	2.49	0.43
3:CC:77:ILE:HG12	3:CC:84:ILE:CD1	2.48	0.43
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.53	0.43
6:CF:66:GLU:O	6:CF:67:MET:HB3	2.19	0.43
6:CF:69:GLU:O	6:CF:70:ASP:C	2.56	0.43
11:CK:29:ILE:CB	11:CK:44:SER:HB3	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:9:GLN:O	15:CO:10:LYS:C	2.57	0.43
15:CO:24:SER:O	15:CO:28:GLN:HG3	2.18	0.43
19:CS:13:ASP:C	19:CS:15:LEU:N	2.70	0.43
20:CT:30:LYS:HD2	20:CT:34:LYS:HE3	1.99	0.43
1:CA:1340:A:OP1	23:CW:35:A:OP1	2.36	0.43
25:D0:12:ASN:O	25:D0:13:GLY:C	2.56	0.43
28:D3:52:HIS:CD2	28:D3:52:HIS:H	2.36	0.43
30:D5:48:GLU:C	30:D5:50:GLY:H	2.22	0.43
35:DA:1022:G:C6	35:DA:1140:C:C4	3.07	0.43
35:DA:1335:U:H2'	35:DA:1336:A:H8	1.83	0.43
35:DA:1865:G:H5'	35:DA:1866:C:OP2	2.19	0.43
35:DA:758:C:O2	35:DA:1981:A:H2	2.00	0.43
35:DA:2391:G:O6	35:DA:2425:A:H8	2.01	0.43
35:DA:524:U:H4'	35:DA:555:U:H4'	1.99	0.43
35:DA:649:G:H2'	35:DA:650:C:H6	1.83	0.43
36:DB:32:C:C2	36:DB:51:G:N2	2.86	0.43
37:DC:82:LYS:HE2	37:DC:149:ILE:HA	2.00	0.43
37:DC:99:ILE:O	37:DC:99:ILE:HG22	2.18	0.43
41:DG:164:GLU:OE1	41:DG:165:THR:HG23	2.17	0.43
41:DG:60:LEU:HD13	41:DG:60:LEU:C	2.39	0.43
43:DI:110:ASP:OD1	43:DI:113:ARG:HG2	2.18	0.43
44:DN:91:LEU:CD2	44:DN:98:VAL:HG21	2.48	0.43
47:DQ:35:VAL:HG22	47:DQ:36:ALA:N	2.33	0.43
50:DT:112:ARG:HB2	50:DT:112:ARG:HH11	1.83	0.43
50:DT:32:TYR:HB3	50:DT:81:PRO:HB3	2.01	0.43
35:DA:993:G:OP1	51:DU:50:ARG:NH2	2.51	0.43
51:DU:104:GLN:HB3	52:DV:44:LYS:NZ	2.33	0.43
55:DY:27:VAL:O	55:DY:29:GLU:OE2	2.36	0.43
1:AA:1259:C:H42	1:AA:1276:G:H1	1.64	0.43
1:AA:1346:A:C5'	9:AI:120:ARG:NH1	2.79	0.43
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.19	0.43
1:AA:985:C:H2'	1:AA:986:A:C8	2.54	0.43
2:AB:173:ALA:O	2:AB:175:ARG:N	2.51	0.43
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.83	0.43
3:AC:206:GLU:HG2	3:AC:207:VAL:N	2.34	0.43
5:AE:80:ILE:HD11	5:AE:138:ALA:HB1	2.00	0.43
5:AE:147:ASP:HA	5:AE:150:ARG:HB3	2.01	0.43
5:AE:8:GLU:CB	5:AE:34:VAL:HG22	2.47	0.43
7:AG:17:VAL:HG12	7:AG:18:TYR:CD1	2.54	0.43
9:AI:115:GLY:C	9:AI:116:LYS:HG2	2.39	0.43
9:AI:89:ASN:O	9:AI:91:ASP:N	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:CB	10:AJ:62:HIS:HB3	2.48	0.43
13:AM:22:ILE:HG22	13:AM:25:ILE:HD13	2.00	0.43
1:AA:255:G:O3'	17:AQ:17:LYS:HD2	2.19	0.43
18:AR:36:ASN:N	18:AR:36:ASN:OD1	2.48	0.43
19:AS:5:LEU:N	19:AS:5:LEU:HD22	2.32	0.43
25:B0:12:ASN:O	25:B0:13:GLY:C	2.56	0.43
25:B0:25:ARG:HD2	25:B0:29:GLN:HE21	1.84	0.43
30:B5:42:PRO:HB2	30:B5:43:HIS:HD2	1.81	0.43
33:B8:37:SER:HG	33:B8:40:GLU:HG3	1.83	0.43
34:B9:9:ARG:CB	34:B9:9:ARG:HH11	2.32	0.43
35:BA:10:G:C6	35:BA:2629:A:C8	3.06	0.43
35:BA:1141:U:C5	44:BN:64:GLY:HA3	2.53	0.43
35:BA:1003:G:N2	35:BA:1153:C:C2	2.87	0.43
35:BA:1348:G:H2'	35:BA:1349:A:C5'	2.38	0.43
35:BA:1591:G:H8	35:BA:1591:G:C5'	2.29	0.43
35:BA:1820:U:H4'	35:BA:1821:A:OP2	2.17	0.43
35:BA:2334:G:H5'	49:BS:13:ARG:HG3	2.00	0.43
35:BA:2696:U:H2'	35:BA:2697:G:C8	2.53	0.43
35:BA:2712:U:O2'	35:BA:2712(A):A:P	2.76	0.43
35:BA:2801:A:N3	35:BA:2801:A:H2'	2.32	0.43
35:BA:305:U:H2'	35:BA:306:U:C6	2.54	0.43
35:BA:699:A:C2'	35:BA:700:G:H5'	2.49	0.43
35:BA:811:U:C2	35:BA:1251:C:C5	3.06	0.43
35:BA:893:C:H2'	35:BA:894:C:H6	1.78	0.43
36:BB:55:U:O2'	36:BB:56:G:H5'	2.17	0.43
38:BD:121:PRO:HB3	38:BD:135:PHE:CD1	2.53	0.43
38:BD:149:PRO:O	38:BD:150:LYS:HB2	2.18	0.43
38:BD:2:ALA:O	38:BD:3:VAL:CB	2.67	0.43
39:BE:101:ARG:HH21	39:BE:171:GLU:HB2	1.79	0.43
40:BF:119:ARG:HH11	40:BF:119:ARG:HG2	1.83	0.43
40:BF:150:GLY:HA2	40:BF:172:TRP:CD2	2.54	0.43
40:BF:150:GLY:HA2	40:BF:172:TRP:CE3	2.54	0.43
41:BG:21:ARG:CD	41:BG:21:ARG:O	2.67	0.43
42:BH:46:GLU:HG3	42:BH:51:ARG:O	2.18	0.43
43:BI:121:LYS:O	43:BI:122:GLU:HB2	2.18	0.43
43:BI:93:THR:O	43:BI:96:ASP:HB2	2.18	0.43
44:BN:62:VAL:CG1	44:BN:62:VAL:O	2.66	0.43
46:BP:115:LEU:HD23	46:BP:115:LEU:O	2.18	0.43
47:BQ:14:ARG:HG2	47:BQ:14:ARG:NH1	2.32	0.43
48:BR:26:LYS:CE	48:BR:71:GLN:H	2.31	0.43
50:BT:48:ILE:HD12	50:BT:48:ILE:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:50:ILE:HA	50:BT:99:LEU:CD1	2.48	0.43
50:BT:62:THR:HA	50:BT:74:ARG:O	2.19	0.43
50:BT:65:LYS:HG3	50:BT:66:VAL:N	2.33	0.43
51:BU:85:LYS:C	51:BU:87:GLY:N	2.72	0.43
54:BX:46:ALA:C	54:BX:47:PHE:CD1	2.91	0.43
55:BY:26:LYS:O	55:BY:39:VAL:HA	2.17	0.43
55:BY:75:ILE:HG13	55:BY:79:CYS:O	2.19	0.43
56:BZ:5:LEU:HG	56:BZ:47:VAL:HG11	2.00	0.43
56:BZ:97:GLU:HG2	56:BZ:125:LEU:CD1	2.37	0.43
1:CA:344:A:O2'	1:CA:346:G:N7	2.47	0.43
1:CA:35:G:H2'	1:CA:36:C:H6	1.82	0.43
1:CA:405:U:OP2	4:CD:3:ARG:HD2	2.19	0.43
1:CA:600:C:H2'	1:CA:601:C:C6	2.54	0.43
1:CA:832:C:O2'	1:CA:833:U:P	2.77	0.43
2:CB:28:PHE:CE1	2:CB:31:TYR:HB2	2.53	0.43
3:CC:19:GLU:O	3:CC:40:ARG:NH2	2.44	0.43
4:CD:18:LYS:HB2	4:CD:33:MET:CG	2.30	0.43
6:CF:100:ASN:N	6:CF:100:ASN:ND2	2.67	0.43
6:CF:91:VAL:HG12	6:CF:92:LYS:N	2.32	0.43
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.86	0.43
9:CI:53:VAL:C	9:CI:54:ASP:N	2.71	0.43
9:CI:88:TYR:O	9:CI:89:ASN:ND2	2.51	0.43
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.49	0.43
11:CK:13:GLN:HG2	11:CK:75:TYR:HA	2.01	0.43
13:CM:56:LEU:C	13:CM:56:LEU:HD13	2.39	0.43
13:CM:86:CYS:O	13:CM:89:GLY:N	2.51	0.43
15:CO:10:LYS:CG	15:CO:11:VAL:N	2.82	0.43
15:CO:18:PHE:CD1	15:CO:19:PRO:O	2.72	0.43
21:CU:5:ASP:O	21:CU:6:ARG:C	2.56	0.43
29:D4:37:PRO:HA	29:D4:51:TYR:CD2	2.53	0.43
35:DA:1292:U:H2'	35:DA:1293:C:C6	2.53	0.43
35:DA:1972:A:H2'	35:DA:1973:G:H8	1.84	0.43
35:DA:957:A:C6	35:DA:2459:A:C8	3.07	0.43
35:DA:2636:U:H4'	39:DE:80:GLU:CD	2.39	0.43
35:DA:2841:C:H2'	35:DA:2842:G:C8	2.53	0.43
35:DA:302:C:H2'	35:DA:303:U:H6	1.83	0.43
35:DA:413:C:H2'	35:DA:414:C:H6	1.83	0.43
35:DA:543:C:N3	35:DA:551:G:C2	2.85	0.43
35:DA:85:G:H5''	35:DA:85:G:H8	1.82	0.43
38:DD:161:THR:O	38:DD:162:SER:HB3	2.18	0.43
38:DD:6:PHE:N	38:DD:6:PHE:CD1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:95:LEU:HD12	38:DD:95:LEU:O	2.18	0.43
39:DE:92:THR:OG1	39:DE:93:VAL:N	2.52	0.43
40:DF:16:GLY:O	40:DF:17:ARG:HG3	2.18	0.43
41:DG:173:LEU:HD13	41:DG:178:PHE:CE2	2.53	0.43
41:DG:87:PRO:O	41:DG:88:ILE:HD12	2.18	0.43
42:DH:52:VAL:HG12	42:DH:52:VAL:O	2.19	0.43
43:DI:102:SER:HA	43:DI:107:VAL:H	1.84	0.43
45:DO:34:THR:HG22	45:DO:37:ASP:OD2	2.19	0.43
45:DO:35:VAL:HG21	45:DO:69:ILE:HD13	2.00	0.43
47:DQ:14:ARG:NH1	47:DQ:14:ARG:HG2	2.33	0.43
50:DT:106:SER:O	50:DT:107:ASP:OD1	2.37	0.43
50:DT:133:GLU:OE2	50:DT:137:LYS:HE2	2.18	0.43
50:DT:41:ARG:O	50:DT:43:GLN:N	2.52	0.43
51:DU:50:ARG:HG2	51:DU:53:ARG:NH2	2.33	0.43
51:DU:92:ARG:CZ	52:DV:11:GLN:CB	2.80	0.43
51:DU:92:ARG:NH2	51:DU:95:LEU:HG	2.29	0.43
56:DZ:163:LEU:H	56:DZ:163:LEU:CD1	2.15	0.43
56:DZ:72:ARG:HD3	56:DZ:72:ARG:HA	1.83	0.43
47:DQ:141:GLN:NE2	56:DZ:72:ARG:HD3	2.33	0.43
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.17	0.43
1:AA:1124:G:H4'	10:AJ:38:ILE:CG2	2.49	0.43
1:AA:1220:G:O2'	1:AA:1221:G:H5'	2.17	0.43
1:AA:123:C:O5'	1:AA:123:C:H6	2.01	0.43
1:AA:1392:G:H21	1:AA:1502:A:H8	1.67	0.43
1:AA:177:C:O2'	1:AA:178:C:H5'	2.18	0.43
1:AA:186:C:H2'	1:AA:187:C:H6	1.84	0.43
1:AA:301:G:H2'	1:AA:302:G:C8	2.54	0.43
1:AA:522:C:H42	1:AA:528:C:N4	2.16	0.43
1:AA:791:G:C6	1:AA:792:A:N7	2.87	0.43
1:AA:838:G:N2	1:AA:849:C:C2	2.87	0.43
2:AB:54:THR:CG2	2:AB:201:ILE:HD11	2.43	0.43
2:AB:74:LYS:NZ	2:AB:76:GLN:HB2	2.34	0.43
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.18	0.43
4:AD:209:ARG:NH1	4:AD:209:ARG:HG3	2.33	0.43
7:AG:115:ARG:HB2	7:AG:118:VAL:CG2	2.48	0.43
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.19	0.43
10:AJ:63:PHE:CA	14:AN:59:ALA:HB2	2.49	0.43
11:AK:99:GLN:CD	11:AK:105:VAL:HG11	2.39	0.43
13:AM:119:GLY:O	13:AM:121:LYS:HE2	2.19	0.43
13:AM:16:ASP:OD2	13:AM:17:VAL:N	2.52	0.43
13:AM:76:ALA:HB2	13:AM:79:LYS:NZ	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:72:ARG:O	18:AR:76:LEU:HD23	2.18	0.43
27:B2:3:LEU:C	27:B2:5:GLU:H	2.20	0.43
27:B2:7:ARG:CG	27:B2:7:ARG:HH11	2.31	0.43
35:BA:1590:U:C3'	35:BA:1591:G:H5''	2.48	0.43
35:BA:2534:A:H2'	35:BA:2535:G:O4'	2.18	0.43
35:BA:1782:C:H1'	35:BA:2609:U:H5''	2.00	0.43
35:BA:271(A):A:H1'	35:BA:365:C:O4'	2.18	0.43
35:BA:32:C:H2'	35:BA:33:U:H5'	2.00	0.43
35:BA:392:C:H5''	35:BA:409:C:H5''	2.01	0.43
38:BD:132:PRO:HG3	38:BD:190:TYR:CZ	2.51	0.43
38:BD:224:ALA:HB2	38:BD:233:HIS:HB3	1.99	0.43
41:BG:138:GLN:C	41:BG:140:ILE:N	2.72	0.43
41:BG:144:ILE:HD12	41:BG:145:THR:N	2.30	0.43
41:BG:144:ILE:HD11	41:BG:148:MET:HG2	2.01	0.43
41:BG:153:ARG:HG2	41:BG:153:ARG:O	2.19	0.43
41:BG:15:VAL:HG22	41:BG:175:LEU:CB	2.48	0.43
42:BH:105:LEU:HD13	42:BH:105:LEU:H	1.83	0.43
42:BH:149:ARG:HA	42:BH:162:ILE:HG21	1.99	0.43
42:BH:70:THR:HA	42:BH:73:ALA:HB3	2.01	0.43
43:BI:102:SER:HA	43:BI:107:VAL:H	1.84	0.43
44:BN:128:HIS:HE1	44:BN:134:ARG:NH1	2.16	0.43
46:BP:16:ARG:HH11	46:BP:16:ARG:C	2.21	0.43
49:BS:32:LEU:O	49:BS:62:LYS:HE2	2.19	0.43
50:BT:28:VAL:HG11	50:BT:46:GLU:OE1	2.17	0.43
50:BT:46:GLU:HG3	50:BT:88:ILE:HD11	2.01	0.43
51:BU:106:PHE:O	51:BU:110:VAL:HG23	2.19	0.43
51:BU:114:LYS:H	51:BU:114:LYS:HD2	1.83	0.43
51:BU:92:ARG:CZ	51:BU:92:ARG:CB	2.95	0.43
52:BV:19:LYS:HZ3	52:BV:20:LEU:CB	2.32	0.43
52:BV:21:ARG:CD	52:BV:21:ARG:H	2.32	0.43
53:BW:12:ILE:HD13	53:BW:17:VAL:CG1	2.48	0.43
35:BA:26:G:P	53:BW:80:PRO:HB3	2.58	0.43
55:BY:89:PHE:O	55:BY:90:LEU:HB3	2.17	0.43
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.53	0.43
1:CA:1184:G:O2'	1:CA:1185:G:H5'	2.17	0.43
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.19	0.43
1:CA:1271:G:H5'	1:CA:1314:C:H5'	2.00	0.43
1:CA:179:A:H2'	1:CA:180:U:H6	1.84	0.43
1:CA:189(I):G:H2'	1:CA:189(J):G:C8	2.53	0.43
1:CA:190:U:O2	20:CT:105:SER:HB2	2.18	0.43
1:CA:237:C:H2'	1:CA:238:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:350:G:O2'	1:CA:351:G:H5'	2.19	0.43
1:CA:533:A:C1'	1:CA:534:U:OP1	2.67	0.43
1:CA:52:G:O2'	1:CA:53:A:H5'	2.18	0.43
1:CA:930:C:C2'	1:CA:931:C:H5'	2.49	0.43
2:CB:194:PRO:O	2:CB:195:ASP:C	2.57	0.43
2:CB:87:ARG:NH1	2:CB:223:ILE:HD11	2.32	0.43
5:CE:13:ILE:HA	5:CE:29:GLY:O	2.18	0.43
6:CF:50:TYR:HE2	6:CF:52:ILE:HD11	1.84	0.43
7:CG:47:CYS:O	7:CG:50:ILE:HB	2.19	0.43
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.48	0.43
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.39	0.43
10:CJ:29:ARG:HH11	10:CJ:29:ARG:HG2	1.83	0.43
13:CM:125:ARG:NH1	35:DA:1913:A:C8	2.87	0.43
13:CM:65:LYS:HZ2	13:CM:65:LYS:HB3	1.83	0.43
16:CP:12:LYS:C	16:CP:14:ASN:H	2.21	0.43
19:CS:22:LEU:O	19:CS:26:GLY:HA2	2.18	0.43
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.99	0.43
20:CT:43:LEU:HB3	20:CT:48:LYS:HB2	2.00	0.43
20:CT:50:GLU:N	20:CT:100:ILE:HG12	2.34	0.43
1:CA:1270:C:OP2	21:CU:24:ARG:NH2	2.51	0.43
21:CU:5:ASP:O	21:CU:8:THR:HG23	2.19	0.43
34:D9:24:TYR:CZ	34:D9:35:ARG:HG3	2.54	0.43
35:DA:1464:C:O2'	35:DA:1528:A:C8	2.69	0.43
35:DA:1550:C:H2'	35:DA:1551:C:H6	1.82	0.43
35:DA:1588:C:O2	35:DA:1588:C:H2'	2.16	0.43
35:DA:2219:G:C2'	35:DA:2220:G:H5'	2.48	0.43
35:DA:198:C:H5'	35:DA:2244:U:OP1	2.19	0.43
35:DA:2737:G:H2'	35:DA:2738:A:H8	1.84	0.43
35:DA:286:C:H2'	35:DA:287:C:H5'	1.97	0.43
35:DA:614:U:O2	35:DA:614:U:O4'	2.36	0.43
35:DA:955:C:H2'	35:DA:955:C:O2	2.19	0.43
38:DD:121:PRO:HB3	38:DD:135:PHE:CD1	2.53	0.43
38:DD:244:ARG:HA	38:DD:245:PRO:HA	1.85	0.43
40:DF:83:PHE:O	40:DF:84:VAL:HB	2.19	0.43
41:DG:129:GLY:C	41:DG:130:ASN:OD1	2.57	0.43
41:DG:135:LEU:N	41:DG:135:LEU:CD1	2.82	0.43
41:DG:27:ASN:C	41:DG:29:TRP:H	2.21	0.43
42:DH:84:SER:O	42:DH:85:LYS:CB	2.64	0.43
46:DP:139:LYS:O	46:DP:139:LYS:HD2	2.18	0.43
47:DQ:12:GLN:HG2	47:DQ:73:PRO:HD2	1.99	0.43
47:DQ:79:LEU:HD23	47:DQ:80:GLU:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:96:GLY:O	49:DS:97:ARG:C	2.57	0.43
49:DS:99:LYS:HB3	49:DS:101:LEU:HD12	2.00	0.43
49:DS:69:VAL:CG1	49:DS:99:LYS:HE3	2.44	0.43
50:DT:48:ILE:HD12	50:DT:48:ILE:N	2.33	0.43
50:DT:7:ILE:O	50:DT:10:VAL:HB	2.18	0.43
50:DT:92:GLY:C	50:DT:94:ALA:N	2.72	0.43
54:DX:8:ILE:CD1	54:DX:42:ALA:HB1	2.47	0.43
1:AA:1203:C:OP1	14:AN:3:ARG:CD	2.67	0.43
1:AA:154:C:H2'	1:AA:155:C:C6	2.54	0.43
1:AA:143:A:H2	1:AA:220:G:H1	1.62	0.43
1:AA:457:C:H2'	1:AA:458:C:C6	2.54	0.43
1:AA:518:C:H2'	1:AA:530:G:N3	2.34	0.43
1:AA:626:U:C2	1:AA:627:G:C8	3.07	0.43
2:AB:17:PHE:HD1	2:AB:44:LEU:HG	1.84	0.43
2:AB:69:LEU:HB2	2:AB:159:PRO:HG2	2.00	0.43
2:AB:69:LEU:HD13	2:AB:92:TYR:HA	2.00	0.43
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.53	0.43
4:AD:199:ASN:OD1	4:AD:201:GLN:HB2	2.18	0.43
5:AE:52:PRO:HA	5:AE:55:VAL:HG23	2.01	0.43
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.82	0.43
6:AF:52:ILE:HD12	6:AF:87:ARG:NH1	2.33	0.43
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.49	0.43
10:AJ:8:LEU:O	10:AJ:16:LEU:HD21	2.19	0.43
10:AJ:47:PHE:CE1	10:AJ:63:PHE:HB2	2.54	0.43
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.47	0.43
12:AL:43:VAL:HG23	12:AL:44:THR:N	2.33	0.43
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.19	0.43
17:AQ:68:ARG:CG	17:AQ:68:ARG:HH11	2.29	0.43
22:AY:45:U:H6	22:AY:45:U:O5'	2.02	0.43
26:B1:49:VAL:HB	26:B1:60:PHE:HB2	2.01	0.43
35:BA:1190:G:H2'	35:BA:1191:G:H8	1.83	0.43
35:BA:1246:A:OP2	46:BP:18:ARG:HG3	2.19	0.43
35:BA:1300:U:H4'	35:BA:1301:A:O5'	2.18	0.43
35:BA:1448:G:H5'	35:BA:1449:A:P	2.58	0.43
35:BA:16:G:H2'	35:BA:17:G:H8	1.83	0.43
35:BA:2531:A:H2'	35:BA:2532:G:C8	2.54	0.43
35:BA:2745:C:H5'	42:BH:146:ALA:HB2	2.00	0.43
35:BA:922:U:H2'	35:BA:923:C:H6	1.83	0.43
36:BB:76:G:H2'	36:BB:77:U:O4'	2.19	0.43
37:BC:67:GLY:HA2	37:BC:162:GLU:HA	2.00	0.43
39:BE:68:ALA:C	39:BE:70:ALA:H	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:76:ARG:O	39:BE:77:ILE:O	2.36	0.43
40:BF:89:VAL:O	40:BF:91:GLY:N	2.49	0.43
41:BG:128:ARG:O	41:BG:130:ASN:N	2.39	0.43
41:BG:161:THR:C	41:BG:163:ALA:H	2.22	0.43
42:BH:115:VAL:O	42:BH:115:VAL:HG12	2.18	0.43
42:BH:28:GLY:HA3	42:BH:79:VAL:CG2	2.49	0.43
42:BH:30:LYS:HB2	42:BH:79:VAL:HA	2.01	0.43
46:BP:115:LEU:HD23	46:BP:115:LEU:N	2.32	0.43
46:BP:121:LYS:O	46:BP:123:LEU:HG	2.18	0.43
46:BP:99:LEU:O	46:BP:99:LEU:HD23	2.18	0.43
47:BQ:141:GLN:HB2	56:BZ:98:MET:HA	2.00	0.43
47:BQ:54:MET:HG2	47:BQ:64:ILE:HG21	2.00	0.43
49:BS:85:VAL:HG22	49:BS:106:ARG:CB	2.48	0.43
49:BS:33:LYS:C	49:BS:34:HIS:HD2	2.22	0.43
50:BT:19:LEU:HA	50:BT:20:PRO:HD3	1.73	0.43
51:BU:22:LYS:HE2	57:BU:201:MG:MG	1.44	0.43
52:BV:47:VAL:O	52:BV:49:THR:O	2.37	0.43
55:BY:27:VAL:N	55:BY:28:LYS:NZ	2.67	0.43
56:BZ:121:HIS:HB2	56:BZ:171:ILE:HA	1.99	0.43
56:BZ:151:HIS:CB	56:BZ:171:ILE:HG13	2.49	0.43
1:CA:1030(A):G:H1'	1:CA:1031:G:N2	2.32	0.43
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.19	0.43
1:CA:1316:G:C2'	1:CA:1317:C:H5''	2.49	0.43
1:CA:1477:C:O2'	1:CA:1478:C:H5'	2.17	0.43
1:CA:189(A):C:H2'	1:CA:189(B):C:C6	2.54	0.43
1:CA:394:G:H2'	1:CA:395:C:H6	1.83	0.43
1:CA:443:C:H2'	1:CA:444:C:H6	1.84	0.43
1:CA:649:G:H2'	1:CA:650:G:C8	2.53	0.43
1:CA:839:U:C2'	1:CA:839:U:O2	2.66	0.43
1:CA:936:C:H2'	1:CA:937:A:O4'	2.17	0.43
1:CA:964:A:OP1	1:CA:1199:U:OP1	2.36	0.43
2:CB:54:THR:CG2	2:CB:201:ILE:HD11	2.43	0.43
2:CB:60:ASP:OD2	2:CB:64:ARG:NH2	2.52	0.43
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.19	0.43
4:CD:191:ARG:NE	4:CD:200:GLU:OE2	2.52	0.43
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.49	0.43
5:CE:122:GLU:HG2	5:CE:131:ILE:HD11	2.00	0.43
5:CE:41:VAL:HG11	5:CE:113:ALA:CA	2.48	0.43
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.65	0.43
6:CF:53:ALA:O	6:CF:54:LYS:HB2	2.19	0.43
6:CF:7:ASN:HD22	6:CF:7:ASN:N	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:148:ASN:N	7:CG:148:ASN:ND2	2.64	0.43
8:CH:39:LEU:O	8:CH:44:PHE:HB2	2.19	0.43
9:CI:65:VAL:C	9:CI:66:ARG:HG3	2.39	0.43
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.39	0.43
10:CJ:47:PHE:CE2	14:CN:37:PHE:HE2	2.37	0.43
15:CO:65:ARG:NH1	15:CO:65:ARG:HG2	2.34	0.43
16:CP:15:PRO:HB2	16:CP:41:PRO:HG3	2.00	0.43
17:CQ:95:TYR:O	17:CQ:98:LEU:N	2.51	0.43
18:CR:53:ARG:CD	18:CR:63:GLN:HB2	2.49	0.43
23:CW:66:U:H2'	23:CW:67:C:C6	2.54	0.43
27:D2:17:SER:CB	27:D2:18:PRO:CD	2.96	0.43
27:D2:40:SER:C	27:D2:42:GLY:H	2.21	0.43
27:D2:48:HIS:O	27:D2:52:ASP:OD2	2.36	0.43
29:D4:37:PRO:HA	29:D4:51:TYR:HD2	1.83	0.43
30:D5:37:LYS:O	30:D5:38:ALA:O	2.37	0.43
30:D5:40:LYS:HZ2	30:D5:46:CYS:CA	2.31	0.43
31:D6:27:LYS:HG3	35:DA:2286:A:OP2	2.18	0.43
35:DA:1357:U:H2'	35:DA:1358:G:O4'	2.18	0.43
35:DA:2168:G:N2	35:DA:2171:A:C8	2.87	0.43
35:DA:2863:C:OP1	50:DT:93:ARG:NH2	2.47	0.43
35:DA:59:U:O2'	35:DA:73:A:H2'	2.19	0.43
35:DA:755:C:H2'	35:DA:756:C:C6	2.53	0.43
37:DC:128:GLY:O	37:DC:130:ILE:N	2.52	0.43
37:DC:172:HIS:O	37:DC:173:ALA:O	2.37	0.43
38:DD:176:ARG:NH1	38:DD:176:ARG:CG	2.82	0.43
35:DA:744:G:OP1	39:DE:132:HIS:HB2	2.19	0.43
39:DE:23:VAL:HA	39:DE:184:VAL:O	2.19	0.43
39:DE:93:VAL:C	39:DE:95:ILE:H	2.21	0.43
40:DF:101:LEU:O	40:DF:106:ARG:NH1	2.52	0.43
40:DF:119:ARG:HH11	40:DF:119:ARG:HG2	1.84	0.43
43:DI:101:LEU:CD2	43:DI:109:ILE:HG12	2.47	0.43
26:D1:71:TYR:CD1	43:DI:27:ARG:HD2	2.54	0.43
44:DN:65:LYS:O	44:DN:69:GLN:HB2	2.18	0.43
45:DO:53:LYS:O	45:DO:56:ASP:CG	2.57	0.43
46:DP:115:LEU:HD23	46:DP:115:LEU:N	2.33	0.43
51:DU:91:ASP:O	51:DU:92:ARG:O	2.36	0.43
52:DV:21:ARG:HB3	52:DV:91:TYR:CB	2.45	0.43
52:DV:95:LEU:HD23	52:DV:95:LEU:C	2.39	0.43
54:DX:27:THR:HA	54:DX:80:ILE:HA	1.99	0.43
55:DY:47:LYS:O	55:DY:49:VAL:N	2.52	0.43
1:AA:285:G:O2'	1:AA:286:G:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:775:G:O2'	1:AA:776:G:H5'	2.19	0.43
2:AB:20:GLU:OE2	2:AB:23:ARG:NH2	2.52	0.43
3:AC:141:VAL:CG1	3:AC:202:ILE:HG23	2.48	0.43
7:AG:6:ARG:O	7:AG:7:ALA:O	2.37	0.43
8:AH:39:LEU:O	8:AH:44:PHE:HB2	2.19	0.43
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.49	0.43
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.39	0.43
10:AJ:16:LEU:HD23	10:AJ:94:VAL:CG1	2.49	0.43
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.84	0.43
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.18	0.43
13:AM:19:LEU:O	13:AM:25:ILE:HB	2.18	0.43
3:AC:20:SER:O	14:AN:54:PRO:HG3	2.18	0.43
16:AP:74:LEU:O	16:AP:79:VAL:HG23	2.19	0.43
16:AP:76:GLN:CG	16:AP:76:GLN:O	2.67	0.43
18:AR:24:ALA:O	18:AR:26:LEU:N	2.52	0.43
19:AS:15:LEU:O	19:AS:19:VAL:N	2.51	0.43
20:AT:10:LEU:C	20:AT:12:ALA:H	2.22	0.43
29:B4:40:ILE:HA	29:B4:57:ILE:HB	2.01	0.43
29:B4:54:LYS:C	29:B4:56:GLU:H	2.21	0.43
31:B6:10:LEU:C	31:B6:11:LEU:HD22	2.39	0.43
35:BA:1184:G:C6	35:BA:1185:C:C4	3.07	0.43
35:BA:1568:G:C5'	38:BD:61:LEU:HB2	2.48	0.43
35:BA:157:U:H6	35:BA:157:U:P	2.42	0.43
35:BA:143:G:H5''	35:BA:1598:C:O2'	2.18	0.43
35:BA:1666:G:O2'	35:BA:1667:G:H5'	2.19	0.43
35:BA:1980:G:O2'	35:BA:1982:C:OP2	2.35	0.43
35:BA:21:A:O2'	35:BA:22:C:H5'	2.19	0.43
35:BA:2373:G:H2'	35:BA:2374:C:C6	2.54	0.43
35:BA:2506:U:C3'	35:BA:2506:U:H6	2.21	0.43
35:BA:2741:A:H2'	35:BA:2742:C:O4'	2.19	0.43
35:BA:2811:G:C6	35:BA:2891:G:N2	2.86	0.43
35:BA:2821:A:O5'	35:BA:2821:A:H8	2.01	0.43
35:BA:413:C:H2'	35:BA:414:C:C6	2.54	0.43
35:BA:606:U:H4'	35:BA:658:C:H4'	2.01	0.43
37:BC:58:VAL:O	37:BC:59:ARG:HD3	2.18	0.43
37:BC:68:LEU:HD22	37:BC:180:PHE:CB	2.49	0.43
38:BD:198:ASN:C	38:BD:198:ASN:HD22	2.22	0.43
40:BF:139:PHE:O	40:BF:140:LEU:C	2.57	0.43
40:BF:3:GLU:HA	40:BF:24:LEU:CD2	2.49	0.43
41:BG:21:ARG:HD2	41:BG:21:ARG:O	2.19	0.43
42:BH:159:GLU:HG3	42:BH:160:LYS:H	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:77:LEU:HD11	43:BI:101:LEU:CD1	2.35	0.43
44:BN:110:GLY:C	44:BN:114:ARG:HH21	2.22	0.43
44:BN:11:PRO:HB2	44:BN:51:PHE:CE1	2.54	0.43
44:BN:73:THR:HG22	44:BN:82:LEU:HD11	2.00	0.43
45:BO:13:ASN:C	45:BO:15:GLY:N	2.72	0.43
50:BT:118:ARG:O	50:BT:121:ILE:HB	2.18	0.43
54:BX:37:THR:O	54:BX:38:GLU:C	2.57	0.43
56:BZ:10:ARG:NH2	56:BZ:26:GLY:N	2.63	0.43
56:BZ:23:LYS:HB3	56:BZ:38:TYR:CD1	2.54	0.43
56:BZ:82:ARG:NH1	56:BZ:82:ARG:HG2	2.34	0.43
56:BZ:95:PRO:O	56:BZ:96:VAL:O	2.37	0.43
1:CA:1036:G:H8	1:CA:1036:G:OP2	2.01	0.43
1:CA:232:G:H2'	1:CA:233:C:O4'	2.19	0.43
1:CA:282:A:H2'	1:CA:282:A:N3	2.34	0.43
1:CA:336:C:O2'	1:CA:337:C:H5'	2.19	0.43
1:CA:570:G:C2	1:CA:571:U:C4	3.07	0.43
1:CA:724:G:O2'	1:CA:725:G:H5'	2.19	0.43
1:CA:769:G:O2'	1:CA:770:C:H5'	2.19	0.43
1:CA:797:C:H2'	1:CA:798:G:C8	2.53	0.43
1:CA:570:G:H1'	1:CA:820:U:C4	2.54	0.43
1:CA:830:G:O2'	1:CA:831:U:H5'	2.17	0.43
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.46	0.43
1:CA:952:U:H4'	1:CA:964:A:N1	2.33	0.43
1:CA:953:G:H2'	1:CA:954:G:O4'	2.19	0.43
2:CB:131:PRO:O	2:CB:133:LYS:N	2.52	0.43
3:CC:40:ARG:HH11	3:CC:40:ARG:HG3	1.83	0.43
3:CC:94:LEU:HD12	3:CC:94:LEU:C	2.39	0.43
4:CD:54:TYR:CE1	4:CD:209:ARG:NH1	2.87	0.43
5:CE:110:LEU:HD12	5:CE:118:ILE:HG21	1.99	0.43
5:CE:90:VAL:C	5:CE:91:LEU:HD22	2.39	0.43
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.54	0.43
8:CH:100:ILE:HA	8:CH:101:PRO:HD3	1.75	0.43
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.49	0.43
10:CJ:47:PHE:CE1	10:CJ:63:PHE:HB2	2.54	0.43
12:CL:38:THR:CG2	12:CL:57:LYS:HB2	2.49	0.43
12:CL:41:ARG:HH22	12:CL:57:LYS:HZ1	1.67	0.43
13:CM:46:LYS:O	13:CM:47:ASP:HB3	2.19	0.43
14:CN:15:LYS:O	14:CN:16:PHE:C	2.56	0.43
16:CP:21:VAL:CG1	16:CP:34:GLU:HB3	2.48	0.43
17:CQ:92:ARG:HA	17:CQ:95:TYR:CE2	2.53	0.43
13:CM:84:ILE:HG12	19:CS:66:MET:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:46:GLU:CD	20:CT:48:LYS:HE2	2.38	0.43
27:D2:13:ALA:O	27:D2:16:LEU:N	2.50	0.43
27:D2:65:ASN:C	27:D2:67:LYS:N	2.71	0.43
29:D4:51:TYR:CG	41:DG:2:PRO:CD	3.02	0.43
35:DA:1107:G:O2'	35:DA:1108:U:H5'	2.18	0.43
35:DA:1123:C:H2'	35:DA:1124:C:C6	2.53	0.43
35:DA:158:U:O2	35:DA:158:U:C2'	2.66	0.43
35:DA:1847:A:H2'	35:DA:1847:A:N3	2.34	0.43
22:CV:74:C:H42	35:DA:2252:G:H1	1.66	0.43
15:CO:64:ARG:NH2	35:DA:715:G:OP1	2.51	0.43
35:DA:786:C:C2'	35:DA:787:U:H5'	2.49	0.43
35:DA:843:G:C2'	35:DA:844:C:H5'	2.49	0.43
38:DD:125:ILE:HG13	38:DD:137:PRO:CD	2.49	0.43
38:DD:268:ARG:HB3	38:DD:268:ARG:CZ	2.49	0.43
38:DD:65:ILE:O	38:DD:65:ILE:HD13	2.19	0.43
41:DG:139:LEU:C	41:DG:141:PHE:N	2.72	0.43
41:DG:110:ALA:CA	41:DG:140:ILE:HG22	2.48	0.43
41:DG:31:VAL:CG2	41:DG:32:PRO:HD2	2.49	0.43
42:DH:115:VAL:HG12	42:DH:115:VAL:O	2.17	0.43
43:DI:73:GLU:HB2	43:DI:136:VAL:HG21	2.01	0.43
45:DO:22:ILE:HA	45:DO:22:ILE:HD13	1.75	0.43
46:DP:99:LEU:HA	46:DP:102:ARG:HH22	1.84	0.43
48:DR:111:LEU:HD23	48:DR:111:LEU:HA	1.74	0.43
50:DT:30:VAL:HA	50:DT:44:ASP:HA	2.01	0.43
52:DV:34:GLU:O	52:DV:36:PRO:HD2	2.18	0.43
56:DZ:148:ASP:O	56:DZ:149:SER:HB3	2.17	0.43
1:AA:1004:A:OP1	1:AA:1025:U:O4	2.37	0.43
1:AA:1095:U:H2'	1:AA:1096:C:O4'	2.19	0.43
1:AA:1199:U:H4'	10:AJ:54:PHE:CE2	2.54	0.43
1:AA:1310:G:N2	1:AA:1328:C:C2	2.87	0.43
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.53	0.43
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.18	0.43
1:AA:1505:G:H5''	1:AA:1506:U:H5''	2.00	0.43
1:AA:406:G:H5''	4:AD:5:ILE:HD13	1.99	0.43
1:AA:460:G:C6	1:AA:470:C:H5''	2.53	0.43
1:AA:806:C:H2'	1:AA:807:A:C8	2.53	0.43
2:AB:229:VAL:HG12	2:AB:229:VAL:O	2.19	0.43
3:AC:87:LEU:C	3:AC:89:GLU:N	2.68	0.43
4:AD:191:ARG:NE	4:AD:200:GLU:OE2	2.51	0.43
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.18	0.43
10:AJ:32:ALA:CB	10:AJ:76:ASN:N	2.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:17:GLY:O	11:AK:80:VAL:HA	2.19	0.43
14:AN:26:ARG:HD3	14:AN:43:CYS:HB3	2.00	0.43
17:AQ:25:ARG:HH11	17:AQ:25:ARG:HG3	1.84	0.43
35:BA:1106:A:C4	35:BA:1107:G:N7	2.87	0.43
35:BA:1708:C:O2'	35:BA:1709:U:H5'	2.19	0.43
35:BA:2619:C:H1'	39:BE:156:MET:HE1	2.00	0.43
35:BA:320:A:H3'	40:BF:136:THR:HG21	2.01	0.43
35:BA:688:U:H2'	35:BA:689:A:C8	2.53	0.43
35:BA:875:G:C6	35:BA:876:C:N3	2.86	0.43
37:BC:56:GLN:HE22	37:BC:168:THR:N	2.16	0.43
38:BD:8:PRO:C	38:BD:10:THR:H	2.21	0.43
35:BA:1654:A:C2	39:BE:113:PHE:CD1	3.07	0.43
42:BH:169:VAL:O	42:BH:169:VAL:HG13	2.19	0.43
45:BO:69:ILE:H	45:BO:69:ILE:HG13	1.69	0.43
35:BA:814:C:H41	46:BP:27:HIS:CD2	2.37	0.43
49:BS:57:LYS:HG2	49:BS:58:LEU:H	1.84	0.43
50:BT:28:VAL:CG2	50:BT:46:GLU:HA	2.48	0.43
50:BT:65:LYS:HG3	50:BT:66:VAL:H	1.83	0.43
1:CA:1125:U:O3'	1:CA:1126:U:H6	2.01	0.43
1:CA:1222:G:O2'	1:CA:1223:C:H5'	2.18	0.43
1:CA:184:G:C4'	1:CA:224:C:H4'	2.49	0.43
1:CA:634:C:H2'	1:CA:635:G:C8	2.44	0.43
1:CA:973:G:C3'	1:CA:974:A:H5''	2.45	0.43
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.43	0.43
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.84	0.43
3:CC:32:LEU:HD22	3:CC:59:ARG:NH1	2.33	0.43
5:CE:40:ARG:NH1	5:CE:40:ARG:CG	2.76	0.43
5:CE:83:GLU:CG	5:CE:88:LYS:HG3	2.49	0.43
6:CF:2:ARG:HD2	6:CF:4:TYR:OH	2.19	0.43
6:CF:63:TYR:O	6:CF:64:GLN:C	2.56	0.43
8:CH:84:ARG:NH2	8:CH:86:ILE:CD1	2.74	0.43
13:CM:76:ALA:CB	13:CM:79:LYS:HZ3	2.23	0.43
15:CO:46:HIS:C	15:CO:48:LYS:H	2.22	0.43
18:CR:65:ILE:H	18:CR:65:ILE:HG12	1.53	0.43
19:CS:27:GLU:O	19:CS:28:LYS:O	2.37	0.43
20:CT:89:ARG:NH2	20:CT:89:ARG:HG3	2.34	0.43
22:CY:27:G:N2	22:CY:43:C:H5	2.16	0.43
25:D0:45:PHE:HB2	25:D0:59:LEU:HD11	1.99	0.43
26:D1:29:GLY:O	26:D1:30:VAL:CG2	2.57	0.43
33:D8:18:ALA:HB3	35:DA:651:G:H4'	2.01	0.43
35:DA:1316:U:O2'	35:DA:1317:A:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1400:G:H2'	35:DA:1401:G:C8	2.54	0.43
35:DA:1503:U:O2'	35:DA:1504:C:H5'	2.19	0.43
35:DA:1600:C:O2'	35:DA:1601:G:H5'	2.19	0.43
35:DA:1748:G:H8	35:DA:1748:G:H5'	1.84	0.43
35:DA:1782:C:H1'	35:DA:2609:U:H5''	2.01	0.43
35:DA:16:G:H2'	35:DA:17:G:H8	1.84	0.43
35:DA:2219:G:H2'	35:DA:2220:G:H5'	2.01	0.43
35:DA:2247:A:O2'	35:DA:2248:C:H5'	2.18	0.43
35:DA:2282:G:H5''	35:DA:2283:C:O4'	2.19	0.43
35:DA:2625:G:H2'	35:DA:2626:C:O4'	2.19	0.43
35:DA:679:C:H2'	35:DA:680:G:C8	2.53	0.43
36:DB:91:C:H2'	36:DB:92:C:C6	2.53	0.43
38:DD:45:ASN:OD1	38:DD:46:GLN:N	2.52	0.43
35:DA:2572:A:P	39:DE:144:ARG:HB2	2.59	0.43
41:DG:55:LYS:O	41:DG:58:GLN:NE2	2.49	0.43
42:DH:85:LYS:CD	42:DH:141:VAL:HG13	2.36	0.43
44:DN:115:ARG:O	44:DN:118:LYS:HB2	2.18	0.43
35:DA:1665:A:H5''	45:DO:66:LYS:HG3	2.01	0.43
45:DO:88:ASN:ND2	45:DO:90:GLN:N	2.65	0.43
35:DA:832:G:N3	46:DP:53:GLY:HA2	2.34	0.43
47:DQ:29:PHE:HB3	47:DQ:105:GLU:OE2	2.19	0.43
47:DQ:42:ILE:HG23	47:DQ:46:GLN:OE1	2.18	0.43
51:DU:92:ARG:NH1	51:DU:92:ARG:CG	2.81	0.43
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.84	0.43
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.19	0.43
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.19	0.43
1:AA:1488:G:O2'	1:AA:1489:G:H5'	2.18	0.43
1:AA:371:G:H21	1:AA:374:A:N6	2.16	0.43
1:AA:448:A:O2'	1:AA:449:C:H5'	2.19	0.43
2:AB:131:PRO:O	2:AB:133:LYS:N	2.52	0.43
2:AB:71:VAL:O	2:AB:165:VAL:HG22	2.19	0.43
2:AB:74:LYS:NZ	2:AB:74:LYS:HB2	2.33	0.43
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.22	0.43
3:AC:35:GLU:OE2	3:AC:97:LYS:HD2	2.19	0.43
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	2.01	0.43
7:AG:84:ASN:HD22	23:AW:33:U:H4'	1.84	0.43
1:AA:643:C:H5'	8:AH:31:PHE:CD1	2.54	0.43
9:AI:92:TYR:C	9:AI:94:ALA:N	2.73	0.43
10:AJ:67:THR:HG22	10:AJ:67:THR:O	2.18	0.43
11:AK:33:THR:HG22	11:AK:39:PRO:CA	2.49	0.43
11:AK:74:ALA:C	11:AK:76:GLY:N	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:4:ILE:O	16:AP:66:PRO:HA	2.19	0.43
17:AQ:91:ARG:O	17:AQ:94:ASN:HB2	2.19	0.43
20:AT:50:GLU:N	20:AT:100:ILE:HG12	2.34	0.43
23:AW:23:A:C8	23:AW:24:G:N7	2.87	0.43
28:B3:4:LEU:HA	28:B3:4:LEU:HD23	1.86	0.43
34:B9:24:TYR:CE2	34:B9:35:ARG:HG3	2.54	0.43
35:BA:1637:A:H2'	35:BA:1638:C:C6	2.54	0.43
35:BA:2193:G:C4	35:BA:2194:G:C8	3.07	0.43
35:BA:2219:G:H2'	35:BA:2220:G:H5'	2.01	0.43
35:BA:2735:G:H2'	35:BA:2736:G:H5'	1.98	0.43
35:BA:45:C:OP2	35:BA:215:G:H2'	2.19	0.43
35:BA:464:U:H2'	35:BA:465:G:O4'	2.19	0.43
35:BA:742:G:H2'	35:BA:743:G:H8	1.83	0.43
35:BA:857:C:C2	35:BA:858:U:C5	3.07	0.43
37:BC:181:PRO:O	37:BC:182:PRO:CB	2.66	0.43
37:BC:51:PRO:HB2	37:BC:203:GLY:O	2.19	0.43
38:BD:253:GLN:HB2	38:BD:257:LEU:HD12	2.01	0.43
38:BD:68:LYS:HG3	38:BD:68:LYS:O	2.18	0.43
38:BD:80:ALA:HB3	38:BD:94:LEU:HD22	2.00	0.43
39:BE:3:GLY:HA3	39:BE:81:ILE:CG2	2.44	0.43
40:BF:157:VAL:HB	40:BF:194:MET:CB	2.49	0.43
40:BF:84:VAL:HB	40:BF:85:GLY:H	1.47	0.43
41:BG:109:VAL:HG11	41:BG:142:PRO:HB3	2.00	0.43
41:BG:91:ARG:O	41:BG:91:ARG:HD2	2.19	0.43
36:BB:45:A:H1'	41:BG:95:ARG:NH2	2.34	0.43
42:BH:91:GLY:HA3	42:BH:94:TYR:CG	2.54	0.43
43:BI:71:ILE:CG1	43:BI:72:LEU:H	2.26	0.43
44:BN:41:ASP:O	44:BN:42:TRP:C	2.56	0.43
35:BA:832:G:H21	46:BP:53:GLY:HA3	1.83	0.43
48:BR:41:ALA:O	48:BR:43:GLU:N	2.51	0.43
48:BR:87:TYR:O	48:BR:89:ASP:N	2.52	0.43
53:BW:71:VAL:O	53:BW:71:VAL:HG12	2.18	0.43
35:BA:2015:A:H5'	53:BW:92:ARG:HH22	1.84	0.43
56:BZ:23:LYS:HB3	56:BZ:38:TYR:HD1	1.84	0.43
1:CA:1043:C:H2'	1:CA:1044:A:H8	1.83	0.43
1:CA:1068:G:N7	1:CA:1094:G:H2'	2.33	0.43
1:CA:1422:G:H2'	1:CA:1423:G:H8	1.84	0.43
1:CA:1515:C:H2'	1:CA:1516:G:H8	1.84	0.43
1:CA:200:G:C2	1:CA:201:C:H1'	2.54	0.43
1:CA:735:C:O2'	1:CA:736:C:H5'	2.19	0.43
1:CA:955:U:H2'	1:CA:956:U:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:40:ARG:NH1	3:CC:40:ARG:HG3	2.33	0.43
4:CD:152:SER:HA	4:CD:155:LEU:HG	2.00	0.43
5:CE:139:LEU:C	5:CE:141:GLN:N	2.72	0.43
7:CG:115:ARG:HB2	7:CG:118:VAL:CG2	2.48	0.43
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.19	0.43
13:CM:17:VAL:O	13:CM:17:VAL:HG12	2.18	0.43
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.67	0.43
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.19	0.43
17:CQ:11:VAL:HG22	17:CQ:20:THR:O	2.18	0.43
1:CA:255:G:O3'	17:CQ:17:LYS:HD2	2.19	0.43
17:CQ:76:LEU:CG	17:CQ:77:VAL:N	2.81	0.43
27:D2:41:ILE:O	27:D2:41:ILE:HG13	2.18	0.43
35:DA:1039:G:C6	35:DA:1040:C:N4	2.87	0.43
35:DA:1637:A:H2'	35:DA:1638:C:C6	2.53	0.43
35:DA:1663:C:O2'	35:DA:1664:A:H8	2.02	0.43
35:DA:1711:C:O2'	35:DA:1712:C:H5'	2.19	0.43
35:DA:1796:U:H2'	35:DA:1797:C:C6	2.54	0.43
35:DA:1844:C:H2'	35:DA:1845:G:C8	2.54	0.43
35:DA:188:G:H2'	35:DA:189:G:H5'	2.00	0.43
35:DA:1958:C:O2'	35:DA:1959:G:H5'	2.19	0.43
35:DA:2025:C:H2'	35:DA:2026:C:H6	1.80	0.43
35:DA:2468:G:O2'	35:DA:2469:A:H8	1.83	0.43
35:DA:2464:C:N4	35:DA:2487:G:C6	2.87	0.43
35:DA:2852:G:H2'	35:DA:2853:C:C6	2.54	0.43
35:DA:365:C:C6	35:DA:365:C:H5'	2.40	0.43
35:DA:513:A:C2	35:DA:514:A:C4	3.07	0.43
35:DA:745:G:H2'	35:DA:746:A:H5'	2.01	0.43
35:DA:951:C:O2'	35:DA:952:G:H5'	2.18	0.43
35:DA:953:A:OP2	47:DQ:16:ARG:NH2	2.52	0.43
36:DB:16:G:C6	36:DB:69:G:C2	3.06	0.43
37:DC:181:PRO:O	37:DC:182:PRO:CB	2.67	0.43
35:DA:1789:A:P	38:DD:222:ARG:HE	2.42	0.43
39:DE:11:MET:HB2	39:DE:24:THR:HA	1.97	0.43
39:DE:33:VAL:HA	39:DE:49:LEU:HA	2.01	0.43
39:DE:69:LYS:O	39:DE:71:GLY:N	2.52	0.43
35:DA:2636:U:H4'	39:DE:80:GLU:OE1	2.18	0.43
40:DF:164:ARG:CG	40:DF:175:THR:OG1	2.63	0.43
42:DH:65:HIS:HE1	42:DH:69:ARG:HD3	1.84	0.43
43:DI:120:ILE:HD13	43:DI:126:TYR:CD1	2.54	0.43
43:DI:40:THR:O	43:DI:44:LEU:HB2	2.19	0.43
44:DN:27:ALA:O	44:DN:28:THR:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DN:68:GLU:HG2	44:DN:88:GLU:OE1	2.19	0.43
47:DQ:31:ASP:OD2	47:DQ:107:ALA:HA	2.18	0.43
47:DQ:78:PRO:HB2	47:DQ:81:VAL:CG1	2.48	0.43
48:DR:41:ALA:O	48:DR:43:GLU:N	2.51	0.43
49:DS:106:ARG:HH22	49:DS:109:GLY:N	2.17	0.43
49:DS:88:ASP:CG	49:DS:89:ARG:N	2.73	0.43
50:DT:91:ARG:O	50:DT:93:ARG:N	2.41	0.43
51:DU:90:VAL:HG13	52:DV:39:LEU:HG	2.00	0.43
53:DW:10:VAL:O	53:DW:11:ARG:CB	2.67	0.43
54:DX:65:ARG:CG	54:DX:65:ARG:NH1	2.82	0.43
54:DX:75:ASP:C	54:DX:76:ARG:HG3	2.39	0.43
56:DZ:89:PHE:HE1	56:DZ:96:VAL:HG11	1.84	0.43
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.83	0.42
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.18	0.42
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.83	0.42
3:AC:89:GLU:HG3	3:AC:90:GLU:N	2.33	0.42
4:AD:171:GLY:HA2	4:AD:172:PRO:HD3	1.85	0.42
5:AE:126:ARG:NH1	5:AE:126:ARG:CG	2.74	0.42
5:AE:67:VAL:CG2	5:AE:68:GLU:N	2.82	0.42
10:AJ:3:LYS:O	10:AJ:100:THR:HG22	2.19	0.42
10:AJ:34:VAL:CG1	10:AJ:35:SER:N	2.82	0.42
1:AA:538:G:H5''	12:AL:114:LYS:HB2	2.01	0.42
13:AM:73:GLU:O	13:AM:76:ALA:N	2.50	0.42
14:AN:12:ARG:HD3	14:AN:12:ARG:H	1.84	0.42
15:AO:74:ASP:C	15:AO:76:GLU:N	2.68	0.42
17:AQ:61:GLU:HA	17:AQ:71:PHE:CE1	2.54	0.42
18:AR:31:LEU:N	18:AR:31:LEU:HD23	2.33	0.42
20:AT:14:LYS:HA	20:AT:17:ARG:NE	2.34	0.42
22:AV:12:U:H2'	22:AV:13:C:O4'	2.19	0.42
26:B1:29:GLY:C	26:B1:31:GLY:N	2.72	0.42
27:B2:48:HIS:O	27:B2:52:ASP:HB2	2.19	0.42
29:B4:42:CYS:SG	29:B4:62:CYS:HB3	2.59	0.42
35:BA:443:A:H2	35:BA:1245:G:N3	2.17	0.42
35:BA:1477:A:H5'	35:BA:1478:G:OP2	2.19	0.42
35:BA:1847:A:H2'	35:BA:1847:A:N3	2.33	0.42
35:BA:1859:A:N6	35:BA:1883:G:O2'	2.52	0.42
35:BA:195:A:H5''	35:BA:196:A:OP2	2.19	0.42
35:BA:2263:C:H6	35:BA:2263:C:C5'	2.19	0.42
35:BA:2346:A:H5'	35:BA:2383:G:H1'	1.99	0.42
35:BA:2402:C:C3'	35:BA:2403:C:H5'	2.49	0.42
32:B7:37:LYS:HG2	35:BA:458:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:570:G:H2'	35:BA:2030:A:C5	2.54	0.42
35:BA:589:C:H2'	35:BA:590:A:H8	1.82	0.42
35:BA:71:A:H5''	35:BA:73:A:C8	2.54	0.42
35:BA:92:A:O2'	35:BA:93:G:H5'	2.18	0.42
39:BE:101:ARG:HB3	39:BE:201:THR:HG21	2.01	0.42
42:BH:107:VAL:CB	42:BH:152:ARG:HG3	2.42	0.42
42:BH:45:VAL:O	42:BH:47:GLU:N	2.52	0.42
44:BN:51:PHE:CZ	44:BN:119:ARG:HD2	2.54	0.42
45:BO:1:MET:CE	45:BO:67:LYS:HE2	2.49	0.42
46:BP:66:GLY:O	46:BP:67:MET:CB	2.66	0.42
35:BA:1453:U:O2	48:BR:60:LEU:HD21	2.19	0.42
48:BR:7:GLY:O	48:BR:8:ARG:HB2	2.18	0.42
50:BT:57:PHE:CG	50:BT:58:ASN:N	2.87	0.42
51:BU:108:GLU:OE1	52:BV:44:LYS:HD3	2.18	0.42
51:BU:99:ALA:HB2	51:BU:106:PHE:CE1	2.54	0.42
53:BW:99:ARG:CG	53:BW:99:ARG:NH1	2.82	0.42
1:CA:1288:A:O4'	1:CA:1353:G:H4'	2.19	0.42
1:CA:623:C:C5	1:CA:624:C:C5	3.07	0.42
1:CA:942:G:N2	9:CI:124:GLN:HE22	2.17	0.42
3:CC:124:ILE:C	3:CC:126:ARG:N	2.72	0.42
3:CC:39:ILE:HG22	3:CC:43:LEU:HD12	2.01	0.42
3:CC:89:GLU:HG3	3:CC:90:GLU:N	2.34	0.42
4:CD:108:LEU:CB	4:CD:110:PHE:HE1	2.31	0.42
9:CI:89:ASN:O	9:CI:91:ASP:N	2.48	0.42
11:CK:126:ARG:CZ	11:CK:126:ARG:HB3	2.49	0.42
13:CM:108:ARG:HG3	13:CM:108:ARG:NH1	2.32	0.42
13:CM:73:GLU:O	13:CM:76:ALA:N	2.51	0.42
20:CT:93:GLU:OE1	20:CT:94:ALA:N	2.52	0.42
22:CY:26:A:H2'	22:CY:27:G:H5'	2.00	0.42
22:CY:43:C:O2'	22:CY:44:G:H5'	2.18	0.42
26:D1:20:ARG:HH11	26:D1:20:ARG:HG2	1.84	0.42
27:D2:4:SER:O	27:D2:7:ARG:CG	2.66	0.42
34:D9:30:PRO:HB2	35:DA:2527:C:H4'	2.01	0.42
35:DA:1333:C:H2'	35:DA:1334:G:H8	1.84	0.42
35:DA:1502:C:H5'	35:DA:1503:U:OP2	2.19	0.42
35:DA:1528(A):A:C3'	35:DA:1529:G:C5'	2.96	0.42
35:DA:1676:A:H2'	35:DA:1677:A:O4'	2.18	0.42
35:DA:1925:C:C2'	35:DA:1926:U:H5'	2.49	0.42
35:DA:1980:G:O2'	35:DA:1982:C:OP2	2.35	0.42
35:DA:1651:G:C2	35:DA:2007:C:C2	3.07	0.42
35:DA:2491:U:H4'	35:DA:2570:G:OP1	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2779:U:H4'	35:DA:2780:G:C5'	2.46	0.42
35:DA:26:G:N1	35:DA:27:G:N2	2.67	0.42
35:DA:413:C:H2'	35:DA:414:C:C6	2.54	0.42
35:DA:960:A:N7	35:DA:962:G:C4	2.87	0.42
37:DC:51:PRO:HB2	37:DC:203:GLY:O	2.19	0.42
38:DD:30:GLU:CB	38:DD:35:LYS:HD2	2.28	0.42
39:DE:67:PHE:O	39:DE:70:ALA:HB2	2.19	0.42
43:DI:60:GLU:CD	43:DI:64:GLU:HG3	2.39	0.42
44:DN:128:HIS:HE1	44:DN:134:ARG:NH1	2.17	0.42
45:DO:35:VAL:HG21	45:DO:69:ILE:HD11	2.00	0.42
48:DR:42:LYS:O	48:DR:45:ARG:CG	2.64	0.42
48:DR:26:LYS:CE	48:DR:71:GLN:H	2.31	0.42
49:DS:30:ARG:NH2	49:DS:62:LYS:HB3	2.29	0.42
49:DS:93:LYS:HE3	49:DS:93:LYS:CA	2.48	0.42
50:DT:50:ILE:HD13	50:DT:64:ARG:HB3	2.01	0.42
53:DW:82:LEU:HD13	53:DW:98:LYS:CB	2.49	0.42
55:DY:81:LYS:HB2	55:DY:96:ILE:HG22	2.01	0.42
56:DZ:128:VAL:HG21	56:DZ:132:ASN:HB2	2.00	0.42
56:DZ:157:LEU:HD11	56:DZ:163:LEU:CG	2.46	0.42
56:DZ:19:ARG:HB3	56:DZ:82:ARG:NH2	2.34	0.42
56:DZ:52:SER:O	56:DZ:71:VAL:HG21	2.18	0.42
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.84	0.42
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.18	0.42
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.42
1:AA:1406:U:C2'	1:AA:1407:C:H5'	2.49	0.42
1:AA:328:C:HO2'	1:AA:329:A:P	2.41	0.42
1:AA:586:C:C2'	1:AA:587:G:H5'	2.49	0.42
1:AA:797:C:H2'	1:AA:798:G:C8	2.54	0.42
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	2.01	0.42
2:AB:220:ASP:C	2:AB:222:ILE:N	2.71	0.42
3:AC:129:ALA:HB3	3:AC:132:ARG:HB3	2.01	0.42
3:AC:170:GLN:CG	3:AC:171:GLY:N	2.78	0.42
3:AC:39:ILE:HG22	3:AC:43:LEU:HD12	2.00	0.42
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.19	0.42
3:AC:90:GLU:OE1	3:AC:93:LYS:HD3	2.18	0.42
8:AH:16:ALA:CB	8:AH:24:THR:OG1	2.67	0.42
8:AH:4:ASP:OD1	8:AH:7:ALA:N	2.48	0.42
10:AJ:18:ALA:O	10:AJ:21:GLN:N	2.45	0.42
13:AM:108:ARG:HG3	13:AM:108:ARG:NH1	2.34	0.42
14:AN:26:ARG:HD2	14:AN:47:LEU:HD11	2.01	0.42
15:AO:46:HIS:C	15:AO:48:LYS:N	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:11:VAL:HG22	17:AQ:20:THR:O	2.19	0.42
20:AT:93:GLU:OE1	20:AT:94:ALA:N	2.51	0.42
23:AW:12:U:H2'	23:AW:13:C:O4'	2.18	0.42
22:AY:9:A:O2'	22:AY:10:G:C8	2.72	0.42
30:B5:51:TYR:CD1	30:B5:52:TYR:CE2	3.08	0.42
33:B8:33:ASN:O	33:B8:34:TRP:CB	2.66	0.42
33:B8:42:ARG:O	33:B8:44:LYS:N	2.42	0.42
35:BA:1042:G:H3'	35:BA:1043:C:O4'	2.19	0.42
35:BA:1175:U:O5'	35:BA:1176:G:H5'	2.19	0.42
35:BA:1486:A:H61	35:BA:1504:C:H42	1.65	0.42
35:BA:1525:G:H2'	35:BA:1526:G:C8	2.54	0.42
35:BA:1691:C:O2'	35:BA:1692:U:H5'	2.19	0.42
35:BA:1987:G:C8	35:BA:1987:G:C5'	2.99	0.42
35:BA:2309:A:C2	35:BA:2310:A:C2	3.07	0.42
35:BA:302:C:H2'	35:BA:303:U:H6	1.83	0.42
35:BA:96:G:O2'	35:BA:97:C:H5'	2.19	0.42
37:BC:36:LYS:HZ3	37:BC:36:LYS:HB2	1.84	0.42
35:BA:779:U:P	38:BD:49:ILE:HG23	2.59	0.42
38:BD:63:ARG:HH11	38:BD:63:ARG:HG3	1.84	0.42
40:BF:117:ARG:CZ	46:BP:5:ASP:N	2.82	0.42
41:BG:37:VAL:HA	41:BG:158:ALA:O	2.20	0.42
42:BH:105:LEU:O	42:BH:105:LEU:HD22	2.19	0.42
44:BN:117:PHE:O	44:BN:117:PHE:CG	2.71	0.42
44:BN:91:LEU:C	44:BN:93:THR:N	2.72	0.42
45:BO:107:ARG:HB2	45:BO:107:ARG:HE	1.69	0.42
46:BP:47:ASP:HB2	46:BP:51:PHE:HD2	1.84	0.42
46:BP:7:ARG:HB3	46:BP:7:ARG:NH1	2.34	0.42
46:BP:86:LYS:HG2	46:BP:86:LYS:O	2.19	0.42
35:BA:2882:A:OP1	48:BR:96:ARG:HD3	2.18	0.42
52:BV:18:LEU:CD2	52:BV:19:LYS:N	2.74	0.42
52:BV:91:TYR:C	52:BV:91:TYR:HD1	2.21	0.42
56:BZ:144:LEU:O	56:BZ:174:VAL:HG21	2.19	0.42
1:CA:1310:G:N2	1:CA:1328:C:C2	2.87	0.42
1:CA:1334:G:OP2	1:CA:1334:G:H8	2.01	0.42
1:CA:1431:C:H2'	1:CA:1432:G:H5'	2.01	0.42
1:CA:266:G:H4'	1:CA:267:C:C5	2.54	0.42
1:CA:271:C:O2'	1:CA:272:C:H5'	2.19	0.42
1:CA:600:C:O2'	1:CA:601:C:H5'	2.19	0.42
1:CA:948:C:O2'	1:CA:949:A:H5'	2.18	0.42
1:CA:955:U:H2'	1:CA:956:U:O4'	2.20	0.42
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.93	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:11:ARG:O	3:CC:13:GLY:N	2.53	0.42
3:CC:35:GLU:OE2	3:CC:97:LYS:HD2	2.19	0.42
4:CD:151:LYS:O	4:CD:151:LYS:HG2	2.19	0.42
4:CD:196:LEU:N	4:CD:196:LEU:CD1	2.77	0.42
4:CD:53:ASP:O	4:CD:57:ARG:HG3	2.18	0.42
5:CE:18:ARG:HH21	5:CE:25:ARG:HD2	1.82	0.42
7:CG:120:ILE:HG22	7:CG:124:LEU:HD12	2.01	0.42
9:CI:93:ARG:NH1	9:CI:96:LEU:HD23	2.33	0.42
1:CA:798:G:OP1	11:CK:122:LYS:NZ	2.52	0.42
12:CL:18:VAL:CG2	12:CL:19:ARG:H	2.27	0.42
1:CA:552:U:H4'	12:CL:86:ARG:O	2.18	0.42
17:CQ:52:LYS:H	17:CQ:52:LYS:CD	2.14	0.42
19:CS:36:ARG:HH22	19:CS:75:ALA:HB3	1.84	0.42
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.19	0.42
22:CV:63:G:H2'	22:CV:64:A:C8	2.53	0.42
22:CV:73:A:H3'	22:CV:73:A:N3	2.33	0.42
35:DA:1047:G:C8	35:DA:1110:G:C6	3.07	0.42
35:DA:1190:G:H2'	35:DA:1191:G:C8	2.54	0.42
35:DA:1488:G:H2'	35:DA:1488:G:N3	2.34	0.42
35:DA:1943:U:C2	35:DA:1945:G:O4'	2.73	0.42
35:DA:2056:G:H2'	35:DA:2056:G:N3	2.34	0.42
35:DA:2273:A:O2'	35:DA:2274:A:H5'	2.19	0.42
35:DA:2811:G:C6	35:DA:2891:G:N2	2.87	0.42
35:DA:742:G:H2'	35:DA:743:G:H8	1.84	0.42
36:DB:1:U:O2	36:DB:1:U:H2'	2.17	0.42
36:DB:4:C:H2'	36:DB:5:C:C6	2.53	0.42
37:DC:24:GLU:H	37:DC:24:GLU:CD	2.22	0.42
38:DD:205:VAL:O	38:DD:206:LEU:C	2.58	0.42
39:DE:145:LYS:HA	39:DE:145:LYS:HD3	1.88	0.42
40:DF:132:VAL:O	40:DF:134:GLY:N	2.51	0.42
41:DG:78:SER:O	41:DG:79:ASN:C	2.56	0.42
42:DH:66:GLY:C	42:DH:68:THR:N	2.73	0.42
43:DI:59:ALA:O	43:DI:63:ALA:CB	2.68	0.42
43:DI:73:GLU:OE2	43:DI:137:PRO:HD2	2.19	0.42
44:DN:1:MET:C	44:DN:2:LYS:HD2	2.39	0.42
46:DP:48:PRO:CG	46:DP:49:ARG:N	2.77	0.42
48:DR:56:LYS:HD2	48:DR:94:TYR:HE2	1.83	0.42
49:DS:20:ARG:HA	49:DS:20:ARG:HD3	1.62	0.42
49:DS:80:LEU:CD1	49:DS:80:LEU:N	2.83	0.42
49:DS:92:TYR:N	49:DS:92:TYR:CD1	2.87	0.42
51:DU:68:ALA:HB1	51:DU:99:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DV:18:LEU:HD22	52:DV:19:LYS:CA	2.48	0.42
52:DV:19:LYS:HZ3	52:DV:20:LEU:CA	2.33	0.42
54:DX:59:VAL:N	54:DX:76:ARG:O	2.49	0.42
56:DZ:118:GLN:NE2	56:DZ:175:VAL:HG13	2.33	0.42
56:DZ:22:GLY:HA2	56:DZ:41:LEU:HD12	2.00	0.42
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.31	0.42
1:AA:1133:G:N3	1:AA:1142:G:N2	2.67	0.42
1:AA:80:G:N7	1:AA:81:U:C5	2.87	0.42
1:AA:839:U:O2	1:AA:839:U:C2'	2.68	0.42
1:AA:868:C:H2'	1:AA:869:G:O4'	2.19	0.42
1:AA:898:G:N2	1:AA:901:A:OP2	2.52	0.42
1:AA:986:A:H1'	19:AS:55:LYS:HA	2.01	0.42
1:AA:986:A:H2'	1:AA:987:G:C8	2.55	0.42
2:AB:23:ARG:HH11	2:AB:23:ARG:CG	2.31	0.42
2:AB:31:TYR:N	2:AB:31:TYR:CD2	2.85	0.42
3:AC:39:ILE:O	3:AC:43:LEU:HG	2.19	0.42
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	2.01	0.42
1:AA:437:U:OP1	4:AD:155:LEU:HD22	2.19	0.42
7:AG:79:ARG:HD3	7:AG:80:VAL:H	1.84	0.42
9:AI:53:VAL:C	9:AI:54:ASP:N	2.72	0.42
12:AL:10:LEU:O	12:AL:14:GLY:HA2	2.19	0.42
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.52	0.42
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.59	0.42
12:AL:79:GLU:HG2	12:AL:80:HIS:ND1	2.34	0.42
15:AO:18:PHE:CD1	15:AO:19:PRO:O	2.72	0.42
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.82	0.42
19:AS:27:GLU:O	19:AS:28:LYS:O	2.36	0.42
20:AT:38:LYS:HA	20:AT:41:ILE:HD11	2.00	0.42
22:AV:22:G:H2'	22:AV:23:A:C8	2.54	0.42
22:AV:42:C:H6	22:AV:42:C:H5'	1.83	0.42
22:AV:6:G:C6	22:AV:7:A:C6	3.07	0.42
22:AY:77:PHA:HD2	35:BA:2451:A:N3	2.33	0.42
26:B1:46:LEU:CB	26:B1:63:ALA:HA	2.47	0.42
31:B6:10:LEU:HD12	33:B8:34:TRP:HD1	1.81	0.42
35:BA:1043:C:O2'	35:BA:1044:G:C8	2.70	0.42
35:BA:2438:U:H5''	35:BA:2600:A:OP1	2.19	0.42
22:AY:77:PHA:HA	35:BA:2506:U:O2	2.20	0.42
35:BA:2636:U:H4'	39:BE:80:GLU:CD	2.39	0.42
35:BA:2774:C:H2'	35:BA:2775:A:O4'	2.18	0.42
35:BA:2780:G:H4'	35:BA:2781:A:OP2	2.19	0.42
38:BD:94:LEU:HB2	38:BD:104:TYR:HE2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:6:GLY:HA2	39:BE:27:LEU:O	2.20	0.42
40:BF:129:PHE:CD2	40:BF:163:VAL:HG21	2.54	0.42
40:BF:22:ALA:C	40:BF:26:ALA:HB2	2.40	0.42
41:BG:120:LEU:O	41:BG:121:ASN:C	2.57	0.42
42:BH:123:PHE:N	42:BH:123:PHE:HD1	2.17	0.42
45:BO:7:TYR:CZ	45:BO:44:LYS:HG3	2.54	0.42
45:BO:71:ARG:C	45:BO:73:ASP:N	2.71	0.42
40:BF:34:TRP:CH2	46:BP:12:ALA:HB2	2.54	0.42
46:BP:18:ARG:CB	46:BP:18:ARG:NH1	2.64	0.42
35:BA:2880:C:H1'	48:BR:92:GLY:O	2.19	0.42
49:BS:89:ARG:HD3	49:BS:92:TYR:HA	1.99	0.42
50:BT:82:LEU:C	50:BT:84:GLN:N	2.72	0.42
56:BZ:150:LEU:N	56:BZ:150:LEU:HD13	2.35	0.42
1:CA:1099:G:H5'	1:CA:1100:C:OP2	2.18	0.42
1:CA:1124:G:H4'	10:CJ:38:ILE:HG21	2.02	0.42
1:CA:1151:A:C4	1:CA:1152:A:N7	2.88	0.42
1:CA:1170:A:H2'	1:CA:1171:G:O4'	2.19	0.42
1:CA:1460:A:C2'	1:CA:1461:G:H5'	2.49	0.42
1:CA:176:C:H2'	1:CA:177:C:H6	1.83	0.42
1:CA:250:A:HO2'	1:CA:251:G:P	2.42	0.42
1:CA:475:G:O2'	1:CA:476:G:H5'	2.20	0.42
1:CA:501:C:OP1	12:CL:117:ARG:NH2	2.52	0.42
1:CA:880:C:O2'	1:CA:881:G:H5'	2.19	0.42
2:CB:67:THR:CG2	2:CB:155:LEU:HD21	2.49	0.42
3:CC:115:LEU:O	3:CC:116:VAL:C	2.57	0.42
4:CD:133:VAL:CG1	4:CD:138:TYR:HD1	2.30	0.42
4:CD:209:ARG:NH1	4:CD:209:ARG:HG3	2.32	0.42
7:CG:17:VAL:HG12	7:CG:18:TYR:CD1	2.53	0.42
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.19	0.42
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	2.01	0.42
15:CO:10:LYS:C	15:CO:10:LYS:HD2	2.39	0.42
15:CO:48:LYS:HD3	15:CO:48:LYS:HA	1.89	0.42
18:CR:36:ASN:O	18:CR:39:VAL:HB	2.18	0.42
26:D1:5:CYS:HB3	26:D1:10:LYS:N	2.35	0.42
30:D5:36:CYS:HB3	30:D5:38:ALA:N	2.34	0.42
30:D5:30:LEU:HD22	30:D5:39:MET:O	2.18	0.42
32:D7:27:GLY:O	32:D7:30:VAL:HB	2.20	0.42
33:D8:4:MET:O	33:D8:62:LEU:CD1	2.66	0.42
35:DA:1424:G:H2'	35:DA:1425:G:O4'	2.19	0.42
35:DA:1654:A:H2	39:DE:113:PHE:CD1	2.38	0.42
35:DA:1857:G:N2	35:DA:1886:C:N4	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2147:G:C2'	35:DA:2148:G:O4'	2.57	0.42
35:DA:2178:C:H4'	37:DC:172:HIS:CB	2.49	0.42
35:DA:2183:C:H2'	35:DA:2184:G:H8	1.84	0.42
35:DA:2309:A:H2	35:DA:2310:A:C2	2.37	0.42
35:DA:292:C:C2'	35:DA:293:U:H5'	2.49	0.42
35:DA:443:A:H2	35:DA:1245:G:N3	2.17	0.42
35:DA:543:C:O2	35:DA:549:G:N2	2.52	0.42
35:DA:612:C:C3'	35:DA:613:G:H5''	2.45	0.42
35:DA:856:C:H5''	35:DA:856:C:C6	2.54	0.42
35:DA:923:C:H2'	35:DA:924:C:H6	1.85	0.42
37:DC:168:THR:CB	37:DC:173:ALA:HB2	2.50	0.42
35:DA:2600:A:OP2	38:DD:237:GLU:OE1	2.38	0.42
38:DD:94:LEU:HA	38:DD:104:TYR:HD2	1.85	0.42
43:DI:131:LYS:HB3	43:DI:132:PRO:HA	2.00	0.42
45:DO:25:LEU:O	45:DO:26:LYS:HG3	2.19	0.42
47:DQ:43:THR:CB	47:DQ:45:GLN:HE21	2.30	0.42
47:DQ:54:MET:HG2	47:DQ:64:ILE:HD13	2.01	0.42
51:DU:44:ASN:HD21	52:DV:75:PHE:N	2.16	0.42
51:DU:61:TRP:O	51:DU:65:ILE:HG13	2.19	0.42
52:DV:19:LYS:NZ	52:DV:20:LEU:N	2.42	0.42
52:DV:5:VAL:HG23	52:DV:37:VAL:O	2.19	0.42
52:DV:43:GLU:OE1	52:DV:43:GLU:HA	2.19	0.42
35:DA:748:G:C8	53:DW:89:ALA:HB1	2.54	0.42
55:DY:12:THR:HG23	55:DY:12:THR:O	2.20	0.42
55:DY:27:VAL:N	55:DY:28:LYS:NZ	2.66	0.42
56:DZ:28:MET:CE	56:DZ:33:LEU:HD21	2.49	0.42
1:AA:1052:U:H2'	1:AA:1055:A:OP1	2.19	0.42
1:AA:1241:G:H2'	1:AA:1242:C:H6	1.84	0.42
1:AA:1372:U:H2'	1:AA:1373:G:H5'	2.01	0.42
1:AA:200:G:C2	1:AA:201:C:H1'	2.55	0.42
1:AA:403:C:H2'	1:AA:404:U:H6	1.83	0.42
1:AA:625:G:C4	1:AA:626:U:C5	3.08	0.42
1:AA:689:C:H2'	1:AA:690:G:O4'	2.20	0.42
1:AA:706:A:C8	1:AA:707:C:H5	2.38	0.42
1:AA:763:G:H2'	1:AA:764:C:C6	2.54	0.42
2:AB:8:LYS:C	2:AB:12:GLU:HG3	2.39	0.42
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.49	0.42
2:AB:163:PHE:HE1	2:AB:215:LEU:HD13	1.85	0.42
2:AB:34:ALA:HB1	2:AB:36:ARG:CD	2.49	0.42
3:AC:124:ILE:C	3:AC:126:ARG:N	2.72	0.42
5:AE:139:LEU:C	5:AE:141:GLN:N	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:41:VAL:HG11	5:AE:113:ALA:CA	2.48	0.42
6:AF:5:GLU:HG2	6:AF:62:TRP:HZ2	1.85	0.42
9:AI:50:LEU:HB3	9:AI:55:ALA:O	2.19	0.42
10:AJ:29:ARG:HH11	10:AJ:29:ARG:HG2	1.84	0.42
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD13	2.01	0.42
13:AM:91:ARG:HG3	13:AM:98:VAL:HG13	2.02	0.42
23:AW:66:U:H2'	23:AW:67:C:C6	2.55	0.42
35:BA:1257:C:H2'	35:BA:1258:C:C6	2.55	0.42
35:BA:1451:C:N3	35:BA:1459:G:O6	2.52	0.42
35:BA:1844:C:H2'	35:BA:1845:G:C8	2.51	0.42
35:BA:2619:C:OP1	39:BE:152:LYS:HE3	2.19	0.42
35:BA:2737:G:H2'	35:BA:2738:A:H8	1.84	0.42
35:BA:2870:C:H2'	35:BA:2871:C:H5'	2.01	0.42
35:BA:309:G:N3	35:BA:329:G:O2'	2.52	0.42
35:BA:614(C):A:C4	40:BF:180:GLY:HA2	2.54	0.42
35:BA:640:C:H2'	35:BA:641:C:C6	2.54	0.42
35:BA:649:G:H2'	35:BA:650:C:H6	1.82	0.42
35:BA:842:G:O2'	35:BA:843:G:H5'	2.19	0.42
35:BA:2178:C:H4'	37:BC:172:HIS:CB	2.49	0.42
38:BD:34:VAL:C	38:BD:36:PRO:HD2	2.40	0.42
40:BF:191:ARG:NH1	40:BF:191:ARG:HG2	2.33	0.42
41:BG:83:ARG:HD3	41:BG:84:LYS:HG3	2.01	0.42
44:BN:1:MET:C	44:BN:2:LYS:HD2	2.40	0.42
47:BQ:116:GLU:O	47:BQ:120:ILE:HG12	2.18	0.42
48:BR:106:GLY:O	48:BR:107:ASP:HB3	2.20	0.42
48:BR:56:LYS:HD2	48:BR:94:TYR:CE2	2.54	0.42
50:BT:106:SER:C	50:BT:107:ASP:OD1	2.58	0.42
50:BT:3:ARG:O	50:BT:4:GLY:C	2.58	0.42
51:BU:31:SER:C	51:BU:33:ARG:N	2.71	0.42
54:BX:14:SER:O	54:BX:15:GLU:C	2.58	0.42
1:CA:73:G:C2	1:CA:97:G:N1	2.87	0.42
1:CA:985:C:H2'	1:CA:986:A:C8	2.53	0.42
3:CC:29:TYR:O	3:CC:29:TYR:HD2	2.01	0.42
3:CC:39:ILE:O	3:CC:43:LEU:HG	2.20	0.42
3:CC:39:ILE:HG21	3:CC:57:ILE:HD11	2.01	0.42
4:CD:133:VAL:HG12	4:CD:135:LEU:H	1.84	0.42
4:CD:49:ARG:HD3	4:CD:49:ARG:HA	1.81	0.42
5:CE:45:PHE:CD2	5:CE:47:LYS:HE3	2.54	0.42
8:CH:45:ILE:C	8:CH:47:GLY:N	2.72	0.42
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.34	0.42
9:CI:102:LEU:C	9:CI:102:LEU:HD23	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:62:HIS:H	10:CJ:62:HIS:HD2	1.66	0.42
11:CK:21:ILE:CG1	11:CK:94:ALA:HB1	2.50	0.42
11:CK:23:ALA:O	11:CK:87:THR:O	2.37	0.42
12:CL:119:LYS:O	12:CL:120:TYR:CB	2.67	0.42
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.67	0.42
17:CQ:13:ASP:C	17:CQ:15:MET:H	2.23	0.42
17:CQ:82:MET:O	17:CQ:85:VAL:HB	2.18	0.42
17:CQ:83:ASP:CG	17:CQ:84:LEU:N	2.73	0.42
23:CW:75:C:H5'	26:D1:30:VAL:HG11	2.01	0.42
25:D0:14:ARG:O	25:D0:15:ASP:HB2	2.20	0.42
26:D1:88:LYS:O	26:D1:88:LYS:HD2	2.18	0.42
33:D8:6:THR:HG21	35:DA:243:U:OP1	2.18	0.42
35:DA:1290:C:H2'	35:DA:1291:C:H6	1.85	0.42
35:DA:1430:C:H2'	35:DA:1431:U:C6	2.54	0.42
35:DA:1952:A:C5	45:DO:22:ILE:CD1	3.02	0.42
35:DA:2266:A:C2	35:DA:2272:U:C5	3.07	0.42
35:DA:2346:A:H5'	35:DA:2383:G:H1'	2.02	0.42
35:DA:448:U:H1'	40:DF:84:VAL:HG13	2.01	0.42
35:DA:45:C:OP2	35:DA:215:G:H2'	2.18	0.42
35:DA:620:G:H8	35:DA:622:G:O6	2.01	0.42
35:DA:604:G:C6	35:DA:625:G:C2	3.07	0.42
35:DA:730:C:O2'	35:DA:731:C:H5'	2.19	0.42
37:DC:62:VAL:O	37:DC:63:SER:C	2.58	0.42
40:DF:129:PHE:CD2	40:DF:163:VAL:HG21	2.53	0.42
44:DN:87:LEU:O	44:DN:87:LEU:HD23	2.18	0.42
45:DO:2:ILE:HG23	45:DO:6:THR:HB	2.01	0.42
47:DQ:135:ASP:O	47:DQ:138:ASP:OD2	2.38	0.42
48:DR:51:LEU:CD2	48:DR:66:VAL:HG13	2.49	0.42
49:DS:92:TYR:HD1	49:DS:92:TYR:N	2.18	0.42
50:DT:85:LYS:NZ	50:DT:85:LYS:HB3	2.32	0.42
51:DU:99:ALA:HB2	51:DU:106:PHE:CE1	2.54	0.42
52:DV:18:LEU:CD2	52:DV:19:LYS:N	2.76	0.42
54:DX:23:GLU:C	54:DX:25:LYS:H	2.22	0.42
1:AA:1053:G:O2'	1:AA:1199:U:H5	2.02	0.42
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.19	0.42
1:AA:27:G:H2'	1:AA:28:G:O4'	2.19	0.42
1:AA:541:G:O2'	1:AA:542:G:H5'	2.19	0.42
1:AA:593:G:O2'	1:AA:594:G:H5'	2.20	0.42
1:AA:737:A:H2'	1:AA:738:C:H6	1.84	0.42
1:AA:947:G:H2'	1:AA:948:C:H6	1.84	0.42
2:AB:207:ALA:C	2:AB:209:ARG:N	2.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:16:ARG:NH1	3:AC:16:ARG:CB	2.81	0.42
5:AE:84:PHE:HB3	5:AE:134:ALA:HB2	2.00	0.42
7:AG:60:LYS:HZ1	7:AG:64:GLN:HB2	1.84	0.42
8:AH:84:ARG:HH22	8:AH:86:ILE:HD13	1.85	0.42
11:AK:32:ILE:HD12	11:AK:68:ALA:O	2.20	0.42
12:AL:89:ARG:HH21	12:AL:91:LYS:HZ3	1.68	0.42
13:AM:111:LYS:CG	13:AM:112:GLY:N	2.82	0.42
13:AM:16:ASP:O	13:AM:30:ALA:HB1	2.19	0.42
16:AP:26:ARG:HH11	16:AP:26:ARG:HG2	1.85	0.42
17:AQ:83:ASP:CG	17:AQ:84:LEU:H	2.23	0.42
20:AT:28:ALA:C	20:AT:30:LYS:N	2.73	0.42
22:AV:11:C:H2'	22:AV:12:U:C6	2.54	0.42
28:B3:36:VAL:HG23	28:B3:36:VAL:O	2.18	0.42
28:B3:59:VAL:CG1	28:B3:60:GLU:N	2.81	0.42
31:B6:39:TYR:O	31:B6:40:CYS:HB2	2.20	0.42
35:BA:1221(A):C:O2'	35:BA:1222:C:H5'	2.19	0.42
35:BA:142:A:H5''	35:BA:142(A):C:C5	2.50	0.42
35:BA:1430:C:H2'	35:BA:1431:U:C6	2.55	0.42
35:BA:1573:G:H2'	35:BA:1574:C:H5'	2.00	0.42
35:BA:1854:A:C2	35:BA:2087:G:N3	2.88	0.42
35:BA:34:C:C2'	35:BA:35:G:H5'	2.45	0.42
35:BA:364:C:H2'	35:BA:365:C:C5'	2.49	0.42
35:BA:425:G:O2'	35:BA:426:C:H5'	2.20	0.42
35:BA:565:C:H4'	35:BA:1253:A:C6	2.54	0.42
35:BA:732:C:O2'	35:BA:733:G:H5'	2.19	0.42
35:BA:753:C:H6	35:BA:753:C:O5'	2.02	0.42
35:BA:806:C:OP2	46:BP:39:LYS:HB3	2.20	0.42
35:BA:806:C:P	46:BP:39:LYS:HB3	2.59	0.42
35:BA:893:C:O2'	35:BA:894:C:H5'	2.19	0.42
35:BA:908:C:O2'	35:BA:909:A:H5'	2.19	0.42
36:BB:16:G:C6	36:BB:69:G:C2	3.07	0.42
38:BD:153:ALA:C	38:BD:154:LYS:HG2	2.40	0.42
38:BD:45:ASN:HB2	38:BD:46:GLN:OE1	2.19	0.42
42:BH:27:LYS:HG2	42:BH:32:GLU:OE1	2.18	0.42
42:BH:41:MET:SD	42:BH:55:PRO:HG3	2.59	0.42
43:BI:127:VAL:HG12	43:BI:128:LEU:N	2.34	0.42
43:BI:60:GLU:O	43:BI:64:GLU:HB2	2.18	0.42
35:BA:558:G:OP2	44:BN:111:PRO:HD2	2.20	0.42
47:BQ:50:ALA:HB2	47:BQ:124:LYS:HB2	2.01	0.42
48:BR:99:LYS:H	48:BR:99:LYS:HD3	1.84	0.42
53:BW:78:GLU:OE2	53:BW:99:ARG:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BY:2:ARG:O	55:BY:4:LYS:N	2.52	0.42
56:BZ:155:LEU:HB2	56:BZ:157:LEU:CD2	2.50	0.42
1:CA:1177:G:OP2	9:CI:97:LYS:HE3	2.18	0.42
1:CA:1404:C:H6	1:CA:1404:C:O5'	2.03	0.42
1:CA:490:G:H2'	1:CA:491:G:H8	1.85	0.42
2:CB:214:ILE:O	2:CB:218:ALA:HB2	2.18	0.42
2:CB:219:VAL:O	2:CB:223:ILE:HG12	2.18	0.42
2:CB:224:GLN:HG2	2:CB:224:GLN:O	2.19	0.42
4:CD:86:LYS:HD3	4:CD:86:LYS:HA	1.82	0.42
8:CH:16:ALA:CB	8:CH:24:THR:OG1	2.67	0.42
11:CK:67:ASP:CG	11:CK:71:LYS:HE3	2.40	0.42
15:CO:37:ASN:N	15:CO:37:ASN:HD22	2.17	0.42
16:CP:21:VAL:HG12	16:CP:34:GLU:O	2.19	0.42
26:D1:46:LEU:O	26:D1:46:LEU:CD2	2.67	0.42
26:D1:81:LYS:HG2	26:D1:83:GLU:OE2	2.18	0.42
27:D2:21:LEU:O	27:D2:24:LEU:N	2.52	0.42
28:D3:6:VAL:HG13	28:D3:56:VAL:HG22	2.01	0.42
35:DA:1590:U:C3'	35:DA:1591:G:H5''	2.48	0.42
35:DA:1686:C:H2'	35:DA:1687:G:C5'	2.48	0.42
35:DA:2390:U:O2'	35:DA:2391:G:H5'	2.19	0.42
35:DA:2068:U:C2	35:DA:2430:A:H2	2.37	0.42
35:DA:2787:C:O2	39:DE:61:ARG:NH1	2.53	0.42
35:DA:39:C:H2'	35:DA:40:C:H6	1.84	0.42
35:DA:491:G:H2'	35:DA:492:A:C8	2.54	0.42
35:DA:501:A:C6	35:DA:502:A:C6	3.07	0.42
35:DA:51:G:N3	35:DA:119:A:C2	2.87	0.42
35:DA:71:A:H5''	35:DA:73:A:C8	2.55	0.42
37:DC:68:LEU:HD22	37:DC:180:PHE:CB	2.49	0.42
42:DH:46:GLU:HG3	42:DH:51:ARG:O	2.20	0.42
45:DO:13:ASN:C	45:DO:15:GLY:N	2.72	0.42
45:DO:49:ARG:CG	45:DO:49:ARG:NH1	2.80	0.42
48:DR:51:LEU:HD23	48:DR:66:VAL:HG13	2.01	0.42
48:DR:74:LYS:CD	48:DR:77:ARG:NH2	2.83	0.42
49:DS:92:TYR:O	49:DS:93:LYS:HB3	2.20	0.42
50:DT:82:LEU:C	50:DT:84:GLN:N	2.70	0.42
35:DA:533:G:H5'	51:DU:24:TYR:CE2	2.55	0.42
35:DA:1614:A:H61	53:DW:88:ARG:H	1.68	0.42
55:DY:65:ALA:HA	55:DY:66:PRO:HD2	1.80	0.42
56:DZ:103:ARG:HG2	56:DZ:137:ILE:O	2.20	0.42
1:AA:1333:A:H2'	1:AA:1334:G:C1'	2.50	0.42
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:250:A:HO2'	1:AA:251:G:P	2.42	0.42
1:AA:336:C:O2'	1:AA:337:C:H5'	2.19	0.42
1:AA:506:G:C5	1:AA:507:C:C4	3.07	0.42
1:AA:570:G:H1'	1:AA:820:U:C4	2.55	0.42
1:AA:883:C:C2	1:AA:884:U:C5	2.93	0.42
1:AA:936:C:H2'	1:AA:937:A:O4'	2.19	0.42
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.65	0.42
3:AC:16:ARG:HA	3:AC:16:ARG:HH11	1.84	0.42
4:AD:53:ASP:O	4:AD:57:ARG:HG3	2.20	0.42
9:AI:121:ARG:NH1	9:AI:121:ARG:HG2	2.34	0.42
9:AI:4:TYR:HD1	9:AI:4:TYR:N	2.18	0.42
11:AK:93:GLN:O	11:AK:97:ALA:HB3	2.19	0.42
12:AL:25:PRO:HG2	12:AL:98:TYR:OH	2.19	0.42
12:AL:38:THR:CG2	12:AL:57:LYS:HB2	2.49	0.42
14:AN:53:LEU:HB3	14:AN:56:VAL:HG21	2.01	0.42
16:AP:12:LYS:C	16:AP:14:ASN:H	2.22	0.42
18:AR:53:ARG:CB	18:AR:53:ARG:HH11	2.32	0.42
20:AT:45:GLN:O	20:AT:47:GLY:N	2.53	0.42
22:AY:48:C:N3	22:AY:59:U:C2	2.87	0.42
25:B0:20:ARG:HD3	25:B0:20:ARG:H	1.84	0.42
30:B5:40:LYS:HZ2	30:B5:46:CYS:C	2.23	0.42
33:B8:47:LYS:HD3	33:B8:48:PHE:O	2.20	0.42
35:BA:110:G:O2'	35:BA:111:A:H5'	2.19	0.42
35:BA:1663:C:HO2'	35:BA:1664:A:H8	1.66	0.42
35:BA:1773:A:C2'	35:BA:1774:C:H5'	2.50	0.42
35:BA:1778:U:H2'	35:BA:1784:A:N6	2.34	0.42
35:BA:1812:A:H2'	35:BA:1813:G:C8	2.55	0.42
35:BA:2197:U:H1'	35:BA:2198:A:C8	2.54	0.42
35:BA:2582:G:N2	35:BA:2583:G:H1'	2.34	0.42
35:BA:272(G):C:N4	35:BA:272(H):C:N4	2.68	0.42
35:BA:2854:G:O2'	35:BA:2855:C:H5'	2.19	0.42
35:BA:418:G:O2'	35:BA:419:C:H5'	2.20	0.42
35:BA:748:G:C8	53:BW:89:ALA:HB1	2.55	0.42
35:BA:89:G:H3'	35:BA:90:U:C5'	2.48	0.42
36:BB:39:A:H2'	36:BB:39:A:N3	2.34	0.42
36:BB:50:G:P	49:BS:62:LYS:HB2	2.60	0.42
36:BB:66:A:O2'	36:BB:67:G:P	2.77	0.42
36:BB:70:C:H2'	36:BB:71:C:H6	1.85	0.42
39:BE:6:GLY:CA	39:BE:27:LEU:O	2.68	0.42
39:BE:67:PHE:O	39:BE:70:ALA:HB2	2.20	0.42
40:BF:132:VAL:C	40:BF:134:GLY:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:186:ILE:HD12	40:BF:192:LEU:HD12	2.02	0.42
40:BF:192:LEU:HD21	40:BF:194:MET:CE	2.49	0.42
42:BH:68:THR:HG22	42:BH:72:ILE:CD1	2.49	0.42
43:BI:133:HIS:ND1	43:BI:134:PRO:HD2	2.35	0.42
44:BN:3:THR:HG22	44:BN:5:VAL:HB	2.01	0.42
45:BO:86:ILE:CD1	45:BO:86:ILE:N	2.79	0.42
46:BP:83:VAL:O	46:BP:83:VAL:HG13	2.20	0.42
47:BQ:50:ALA:CB	47:BQ:104:PHE:HE1	2.33	0.42
47:BQ:58:PHE:CD1	47:BQ:58:PHE:O	2.72	0.42
47:BQ:63:LYS:NZ	56:BZ:175:VAL:HG11	2.34	0.42
49:BS:105:ALA:O	49:BS:107:GLU:N	2.53	0.42
49:BS:96:GLY:O	49:BS:97:ARG:C	2.56	0.42
49:BS:97:ARG:O	49:BS:97:ARG:NE	2.53	0.42
53:BW:10:VAL:O	53:BW:11:ARG:CB	2.67	0.42
53:BW:82:LEU:HD13	53:BW:98:LYS:HB2	2.00	0.42
53:BW:84:ARG:HB2	53:BW:96:ILE:HG22	2.00	0.42
54:BX:83:VAL:HG12	54:BX:87:GLN:HB2	2.00	0.42
56:BZ:74:VAL:O	56:BZ:76:LEU:HG	2.19	0.42
1:CA:1095:U:H5'	1:CA:1109:C:O2	2.19	0.42
1:CA:1160:G:O6	1:CA:1181:G:C6	2.73	0.42
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.18	0.42
1:CA:403:C:H2'	1:CA:404:U:H6	1.85	0.42
1:CA:759:A:H2'	1:CA:760:G:H5'	2.02	0.42
1:CA:80:G:N7	1:CA:81:U:C5	2.87	0.42
2:CB:163:PHE:HE1	2:CB:215:LEU:HD13	1.84	0.42
2:CB:16:HIS:HB3	2:CB:210:SER:CB	2.49	0.42
2:CB:23:ARG:NH1	2:CB:23:ARG:HB3	2.35	0.42
3:CC:141:VAL:CG1	3:CC:202:ILE:HG23	2.50	0.42
3:CC:172:ARG:HH11	3:CC:172:ARG:HB3	1.83	0.42
5:CE:103:GLY:O	5:CE:104:ALA:C	2.58	0.42
5:CE:90:VAL:HG23	5:CE:121:LYS:H	1.84	0.42
9:CI:23:ASN:HD22	9:CI:23:ASN:N	2.17	0.42
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.99	0.42
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.19	0.42
13:CM:111:LYS:CG	13:CM:112:GLY:N	2.82	0.42
20:CT:28:ALA:O	20:CT:30:LYS:N	2.51	0.42
20:CT:76:ALA:O	20:CT:80:ARG:HG2	2.19	0.42
26:D1:27:GLU:O	26:D1:28:GLY:O	2.38	0.42
30:D5:20:ARG:NH2	53:DW:15:ARG:HH11	2.18	0.42
32:D7:7:PRO:HG3	35:DA:1612:C:H5'	2.01	0.42
35:DA:1261:C:C2'	35:DA:1262:A:O5'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1565:C:H1'	35:DA:1566:A:H8	1.84	0.42
35:DA:1670:C:C4	35:DA:1671:U:N3	2.88	0.42
35:DA:1924:C:H2'	35:DA:1925:C:C6	2.52	0.42
35:DA:229:A:H5''	35:DA:230:U:H5'	2.00	0.42
35:DA:231:C:O2'	35:DA:232:G:H5'	2.20	0.42
35:DA:2842:G:O2'	35:DA:2843:G:H5'	2.20	0.42
35:DA:285:C:C2'	35:DA:286:C:H5''	2.48	0.42
35:DA:353:G:O2'	35:DA:354:G:H5'	2.18	0.42
35:DA:955:C:H5'	35:DA:956:G:OP2	2.18	0.42
36:DB:56:G:H4'	36:DB:57:A:H8	1.84	0.42
38:DD:244:ARG:HG2	38:DD:245:PRO:HD3	2.02	0.42
41:DG:114:ILE:HG23	41:DG:115:ARG:NH1	2.34	0.42
41:DG:51:ARG:NE	41:DG:51:ARG:CA	2.83	0.42
35:DA:2747:G:O2'	42:DH:67:LEU:HD13	2.19	0.42
43:DI:56:LYS:C	43:DI:58:LEU:N	2.72	0.42
45:DO:105:GLU:N	45:DO:105:GLU:OE1	2.52	0.42
46:DP:18:ARG:O	46:DP:18:ARG:NH1	2.53	0.42
33:D8:13:ARG:CB	46:DP:63:PRO:HB3	2.27	0.42
47:DQ:33:GLY:O	47:DQ:131:ILE:HG23	2.19	0.42
48:DR:7:GLY:O	48:DR:8:ARG:CG	2.65	0.42
51:DU:91:ASP:OD1	51:DU:96:ALA:HB2	2.18	0.42
51:DU:90:VAL:HG11	52:DV:39:LEU:HG	2.02	0.42
52:DV:39:LEU:HB3	52:DV:47:VAL:HG11	2.01	0.42
53:DW:58:ALA:HB1	53:DW:69:LEU:HD21	2.02	0.42
1:AA:1030:C:H2'	1:AA:1030(A):G:C5'	2.38	0.42
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.20	0.42
1:AA:1125:U:O3'	1:AA:1126:U:H6	2.02	0.42
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.54	0.42
1:AA:541:G:H2'	1:AA:542:G:C8	2.54	0.42
3:AC:19:GLU:HA	3:AC:54:ARG:NH2	2.34	0.42
3:AC:39:ILE:HG22	3:AC:43:LEU:CD1	2.50	0.42
4:AD:151:LYS:HG2	4:AD:151:LYS:O	2.20	0.42
5:AE:122:GLU:HG2	5:AE:131:ILE:HD11	2.02	0.42
5:AE:41:VAL:C	5:AE:66:MET:HG2	2.40	0.42
9:AI:99:LEU:HD12	9:AI:101:PHE:CZ	2.55	0.42
9:AI:27:THR:CG2	9:AI:31:GLN:H	2.30	0.42
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.19	0.42
11:AK:95:ILE:N	11:AK:95:ILE:CD1	2.81	0.42
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.67	0.42
13:AM:65:LYS:HG2	13:AM:66:LEU:N	2.35	0.42
13:AM:97:PRO:C	13:AM:98:VAL:HA	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:28:G:H2'	23:AW:29:G:H8	1.84	0.42
26:B1:20:ARG:C	26:B1:21:ARG:HG2	2.39	0.42
27:B2:16:LEU:O	27:B2:17:SER:HB3	2.19	0.42
31:B6:36:LEU:HB3	31:B6:50:ARG:HH11	1.84	0.42
33:B8:7:HIS:HD2	46:BP:50:ARG:HD3	1.85	0.42
34:B9:24:TYR:CZ	34:B9:35:ARG:HG3	2.54	0.42
35:BA:1022:G:C6	35:BA:1140:C:C4	3.07	0.42
35:BA:1496:A:N7	35:BA:1498:C:N3	2.67	0.42
35:BA:1578:U:OP2	35:BA:1578:U:H6	2.03	0.42
35:BA:1657:C:H2'	35:BA:1658:C:C6	2.55	0.42
35:BA:1812:A:H2'	35:BA:1813:G:H8	1.84	0.42
35:BA:1887:C:C3'	35:BA:1888:G:C5'	2.97	0.42
35:BA:2266:A:C2	35:BA:2272:U:C5	3.07	0.42
35:BA:225:A:C2'	35:BA:226:G:H5'	2.50	0.42
35:BA:2662:A:H2'	35:BA:2663:G:O4'	2.20	0.42
35:BA:717:G:H2'	35:BA:718:A:O4'	2.20	0.42
35:BA:755:C:H2'	35:BA:756:C:C6	2.55	0.42
36:BB:75:G:H22	56:BZ:73:GLN:HE21	1.67	0.42
37:BC:18:LYS:HD3	37:BC:19:VAL:HG23	2.01	0.42
39:BE:11:MET:HB2	39:BE:24:THR:HA	2.01	0.42
40:BF:160:ASN:ND2	40:BF:162:LEU:H	2.18	0.42
40:BF:16:GLY:O	40:BF:17:ARG:HG3	2.20	0.42
40:BF:53:THR:CG2	40:BF:56:GLU:H	2.32	0.42
41:BG:126:ASP:O	41:BG:128:ARG:NH2	2.52	0.42
42:BH:65:HIS:HE1	42:BH:69:ARG:HD3	1.84	0.42
42:BH:86:GLU:HB3	42:BH:132:ARG:CB	2.45	0.42
43:BI:133:HIS:HB2	43:BI:134:PRO:HD2	1.96	0.42
44:BN:128:HIS:O	44:BN:130:HIS:N	2.53	0.42
46:BP:102:ARG:NH2	46:BP:102:ARG:HB3	2.34	0.42
46:BP:38:GLN:CG	46:BP:39:LYS:H	2.16	0.42
47:BQ:45:GLN:H	47:BQ:45:GLN:NE2	2.17	0.42
49:BS:106:ARG:HB3	49:BS:106:ARG:HE	1.51	0.42
50:BT:91:ARG:C	50:BT:93:ARG:N	2.73	0.42
53:BW:5:ALA:O	53:BW:6:ILE:CB	2.67	0.42
53:BW:86:LEU:HD12	53:BW:87:PRO:CD	2.49	0.42
36:BB:103:G:H21	56:BZ:73:GLN:HE22	1.68	0.42
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.19	0.42
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.19	0.42
1:CA:1347:G:O2'	1:CA:1348:U:OP2	2.37	0.42
1:CA:976:G:N2	1:CA:1362:C:H2'	2.35	0.42
1:CA:385:C:HO2'	1:CA:386:C:H5'	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:606:G:H21	1:CA:631:G:H2'	1.85	0.42
1:CA:66:G:H4'	1:CA:173:U:C4	2.55	0.42
1:CA:676:A:H2'	1:CA:677:U:H6	1.85	0.42
1:CA:883:C:N3	1:CA:884:U:H5	2.15	0.42
2:CB:16:HIS:HD2	2:CB:210:SER:CA	2.32	0.42
2:CB:197:VAL:HB	2:CB:200:ILE:HG12	2.01	0.42
3:CC:12:LEU:HD13	3:CC:18:TRP:CH2	2.54	0.42
3:CC:91:LEU:O	3:CC:94:LEU:HG	2.19	0.42
3:CC:95:THR:C	3:CC:97:LYS:H	2.23	0.42
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.20	0.42
4:CD:168:ARG:HH11	4:CD:168:ARG:HG3	1.83	0.42
6:CF:52:ILE:HD12	6:CF:87:ARG:NH1	2.34	0.42
10:CJ:8:LEU:HD13	10:CJ:20:ALA:HA	2.01	0.42
15:CO:74:ASP:OD2	15:CO:76:GLU:HB3	2.19	0.42
18:CR:30:ASP:C	18:CR:32:ARG:H	2.23	0.42
20:CT:28:ALA:C	20:CT:30:LYS:N	2.73	0.42
20:CT:43:LEU:HB3	20:CT:48:LYS:CG	2.49	0.42
25:D0:20:ARG:CD	25:D0:20:ARG:H	2.33	0.42
27:D2:69:ARG:C	27:D2:70:GLN:HG2	2.40	0.42
27:D2:69:ARG:HH11	27:D2:69:ARG:CG	2.32	0.42
29:D4:42:CYS:SG	29:D4:62:CYS:HB3	2.60	0.42
33:D8:46:ARG:O	33:D8:47:LYS:CB	2.67	0.42
35:DA:1291:C:H2'	35:DA:1292:U:C6	2.55	0.42
35:DA:143:G:H2'	35:DA:143(A):C:C6	2.55	0.42
35:DA:1485:G:C8	35:DA:1486:A:N7	2.88	0.42
35:DA:1879:C:C2'	35:DA:1880:C:C5'	2.90	0.42
35:DA:1979:C:O2'	35:DA:1980:G:H5'	2.20	0.42
35:DA:1999:C:H2'	35:DA:2000:G:O4'	2.19	0.42
35:DA:2123:G:H2'	35:DA:2124:G:H8	1.83	0.42
35:DA:2637:U:H5''	39:DE:82:ARG:NH2	2.34	0.42
35:DA:2543:G:H21	35:DA:2646:C:H5''	1.83	0.42
35:DA:26:G:P	53:DW:80:PRO:HB3	2.59	0.42
35:DA:2822:G:H2'	35:DA:2823:A:H5''	2.02	0.42
35:DA:350:U:H2'	35:DA:351:G:O4'	2.20	0.42
35:DA:570:G:H2'	35:DA:2030:A:C5	2.55	0.42
35:DA:703:U:C2'	35:DA:704:G:H5'	2.50	0.42
35:DA:717:G:H2'	35:DA:718:A:O4'	2.19	0.42
35:DA:966:G:H2'	35:DA:967:C:C6	2.55	0.42
37:DC:23:ASP:O	37:DC:26:ALA:HB3	2.19	0.42
38:DD:112:GLN:N	38:DD:115:GLN:NE2	2.67	0.42
38:DD:210:GLY:O	38:DD:211:ARG:CB	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:52:ARG:H	38:DD:52:ARG:HG3	1.52	0.42
40:DF:186:ILE:HD12	40:DF:192:LEU:HD12	2.02	0.42
40:DF:89:VAL:O	40:DF:91:GLY:N	2.52	0.42
41:DG:115:ARG:HD3	41:DG:115:ARG:N	2.35	0.42
41:DG:58:GLN:C	41:DG:60:LEU:N	2.72	0.42
42:DH:137:ASP:HB3	42:DH:140:LYS:HB3	2.01	0.42
43:DI:110:ASP:HA	43:DI:111:PRO:HD2	1.94	0.42
43:DI:34:GLY:O	43:DI:35:LEU:HD23	2.19	0.42
45:DO:71:ARG:HB3	45:DO:73:ASP:OD2	2.20	0.42
46:DP:98:GLU:C	46:DP:98:GLU:OE1	2.57	0.42
47:DQ:58:PHE:CD1	47:DQ:58:PHE:O	2.71	0.42
48:DR:99:LYS:HA	48:DR:112:ALA:HA	2.00	0.42
49:DS:95:HIS:C	49:DS:96:GLY:O	2.55	0.42
51:DU:103:PRO:HG2	51:DU:104:GLN:OE1	2.19	0.42
51:DU:33:ARG:HG3	51:DU:33:ARG:O	2.20	0.42
52:DV:19:LYS:CG	52:DV:94:LEU:HB2	2.35	0.42
56:DZ:150:LEU:HD23	56:DZ:171:ILE:CB	2.24	0.42
56:DZ:44:PHE:C	56:DZ:44:PHE:HD1	2.22	0.42
1:AA:1387:G:C6	1:AA:1388:C:N4	2.88	0.42
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.54	0.42
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.85	0.42
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.19	0.42
58:AA:1799:PAR:N64	58:AA:1799:PAR:H34	2.27	0.42
1:AA:522:C:H2'	1:AA:523:A:O4'	2.18	0.42
1:AA:600:C:H2'	1:AA:601:C:C6	2.55	0.42
2:AB:150:SER:O	2:AB:153:ARG:HG3	2.20	0.42
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.85	0.42
3:AC:152:ILE:CG1	3:AC:199:LYS:HB2	2.49	0.42
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.40	0.42
1:AA:551:U:H5'	12:AL:119:LYS:HE2	2.01	0.42
14:AN:42:ILE:O	14:AN:46:GLU:HG3	2.19	0.42
1:AA:449:C:O2	16:AP:42:ARG:HD2	2.19	0.42
16:AP:45:THR:HG23	16:AP:48:TRP:HB3	2.00	0.42
22:AV:15:G:N2	22:AV:21:A:H1'	2.35	0.42
22:AV:39:U:O2'	22:AV:40:C:H5'	2.20	0.42
23:AW:20:U:O4	23:AW:59:U:O4	2.38	0.42
26:B1:80:LEU:HB3	26:B1:82:LEU:HD21	2.02	0.42
32:B7:17:GLY:O	32:B7:21:ARG:HG2	2.19	0.42
33:B8:6:THR:HG21	35:BA:243:U:OP1	2.19	0.42
34:B9:9:ARG:HH11	34:B9:9:ARG:HB3	1.84	0.42
35:BA:1051:G:N3	35:BA:1052:C:H5	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1169:G:H2'	35:BA:1170:G:O4'	2.20	0.42
26:B1:12:PRO:HG3	35:BA:1365:A:H5'	2.02	0.42
35:BA:1509(B):A:H2'	35:BA:1510:G:C8	2.55	0.42
25:B0:19:LYS:NZ	35:BA:2262:U:P	2.93	0.42
35:BA:455:C:H3'	35:BA:456:C:H5''	2.02	0.42
35:BA:664:C:H4'	35:BA:941:A:OP1	2.20	0.42
36:BB:15:A:H1'	36:BB:110:G:N7	2.34	0.42
39:BE:68:ALA:O	39:BE:70:ALA:N	2.53	0.42
40:BF:27:GLU:O	40:BF:28:ILE:C	2.58	0.42
41:BG:116:ASP:HB3	41:BG:117:PHE:H	1.59	0.42
42:BH:159:GLU:HG2	42:BH:160:LYS:NZ	2.35	0.42
43:BI:85:GLU:OE2	43:BI:85:GLU:HA	2.20	0.42
48:BR:24:GLN:HB2	48:BR:44:LEU:HD23	2.02	0.42
49:BS:95:HIS:C	49:BS:96:GLY:O	2.56	0.42
52:BV:2:PHE:CZ	52:BV:13:ARG:HD2	2.55	0.42
53:BW:50:VAL:HG13	53:BW:51:LEU:N	2.34	0.42
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.54	0.42
1:CA:1254:C:H2'	1:CA:1255:G:C8	2.55	0.42
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.44	0.42
1:CA:1346:A:H5'	9:CI:120:ARG:NH1	2.34	0.42
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.34	0.42
1:CA:314:C:O2'	1:CA:315:A:H5'	2.19	0.42
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.54	0.42
1:CA:980:C:O2	14:CN:19:ARG:HA	2.20	0.42
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.32	0.42
2:CB:31:TYR:N	2:CB:31:TYR:CD2	2.87	0.42
2:CB:87:ARG:HD2	2:CB:87:ARG:O	2.20	0.42
3:CC:39:ILE:HG22	3:CC:43:LEU:CD1	2.50	0.42
3:CC:77:ILE:HG22	3:CC:81:GLY:HA2	2.01	0.42
5:CE:11:ILE:HD11	5:CE:33:VAL:HG21	2.02	0.42
5:CE:147:ASP:HA	5:CE:150:ARG:HB3	2.01	0.42
5:CE:67:VAL:CG2	5:CE:68:GLU:N	2.83	0.42
6:CF:72:VAL:HG13	6:CF:73:ASN:H	1.83	0.42
7:CG:6:ARG:O	7:CG:7:ALA:O	2.38	0.42
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.20	0.42
25:D0:19:LYS:O	25:D0:20:ARG:C	2.58	0.42
27:D2:7:ARG:O	27:D2:11:GLU:HG3	2.20	0.42
33:D8:44:LYS:HD2	33:D8:44:LYS:N	2.34	0.42
35:DA:1042:G:H3'	35:DA:1043:C:O4'	2.20	0.42
35:DA:1286:A:N6	35:DA:1289:C:C2	2.88	0.42
35:DA:1493:C:C4	35:DA:2206:G:O2'	2.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1548:C:H2'	35:DA:1549:C:C6	2.55	0.42
35:DA:201:C:C2'	35:DA:202:U:H5'	2.50	0.42
35:DA:2172:U:O3'	35:DA:2173:A:H8	2.03	0.42
35:DA:2409:G:H2'	35:DA:2410:G:O4'	2.18	0.42
35:DA:2520:C:H6	35:DA:2520:C:O5'	2.02	0.42
35:DA:2681:C:C5	35:DA:2725:A:N6	2.81	0.42
35:DA:2692:C:O2'	35:DA:2693:A:H5'	2.20	0.42
35:DA:271(Q):G:O2'	35:DA:271(R):G:P	2.78	0.42
35:DA:2726:U:O2'	35:DA:2727:G:H5'	2.20	0.42
35:DA:2774:C:H2'	35:DA:2775:A:O4'	2.19	0.42
35:DA:530:G:C5	35:DA:2022:U:H5''	2.55	0.42
35:DA:531:C:C5	35:DA:2035:G:C2	3.07	0.42
35:DA:613:G:H8	35:DA:613:G:C5'	2.31	0.42
36:DB:21:G:O2'	36:DB:22:U:C6	2.73	0.42
36:DB:39:A:O2'	36:DB:46:A:N1	2.48	0.42
36:DB:70:C:H2'	36:DB:71:C:H6	1.84	0.42
36:DB:76:G:H2'	36:DB:77:U:O4'	2.19	0.42
38:DD:197:GLY:O	38:DD:198:ASN:HB3	2.20	0.42
38:DD:209:ALA:C	38:DD:210:GLY:O	2.55	0.42
38:DD:39:LYS:HZ2	38:DD:87:ASN:HB3	1.77	0.42
39:DE:59:VAL:CG2	39:DE:63:LEU:HG	2.47	0.42
40:DF:46:ARG:HG3	40:DF:46:ARG:HH11	1.85	0.42
40:DF:46:ARG:HG3	40:DF:46:ARG:NH1	2.34	0.42
41:DG:7:LEU:HB3	41:DG:100:TRP:HE3	1.82	0.42
42:DH:100:GLY:C	42:DH:102:ALA:N	2.72	0.42
42:DH:137:ASP:O	42:DH:138:LYS:HB2	2.20	0.42
43:DI:76:THR:O	43:DI:77:LEU:HB2	2.19	0.42
44:DN:57:ALA:C	44:DN:58:ASP:O	2.57	0.42
44:DN:94:HIS:HA	44:DN:96:GLU:OE1	2.20	0.42
47:DQ:17:LEU:HD12	47:DQ:39:PRO:HB2	2.02	0.42
49:DS:95:HIS:O	49:DS:96:GLY:C	2.58	0.42
51:DU:106:PHE:O	51:DU:110:VAL:HG23	2.20	0.42
55:DY:2:ARG:O	55:DY:4:LYS:N	2.52	0.42
56:DZ:52:SER:OG	56:DZ:53:ILE:N	2.53	0.42
56:DZ:4:ARG:HG2	56:DZ:58:VAL:CG2	2.49	0.42
56:DZ:89:PHE:CE1	56:DZ:96:VAL:HG11	2.54	0.42
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.20	0.42
1:AA:1125:U:O3'	1:AA:1126:U:C6	2.73	0.42
1:AA:1347:G:H5''	9:AI:107:ARG:HB3	2.01	0.42
1:AA:179:A:H2'	1:AA:180:U:H6	1.83	0.42
1:AA:311:C:O2'	1:AA:312:C:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:953:G:H2'	1:AA:954:G:O4'	2.20	0.42
2:AB:197:VAL:HB	2:AB:200:ILE:HG12	2.01	0.42
4:AD:133:VAL:HG12	4:AD:135:LEU:H	1.83	0.42
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.48	0.42
4:AD:38:TYR:CG	4:AD:45:GLN:HB3	2.55	0.42
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.54	0.42
10:AJ:52:GLY:O	14:AN:41:ARG:NH2	2.52	0.42
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HE3	2.55	0.42
11:AK:21:ILE:HG21	11:AK:94:ALA:CB	2.50	0.42
11:AK:58:PRO:HG2	11:AK:59:TYR:H	1.85	0.42
13:AM:73:GLU:C	13:AM:76:ALA:H	2.22	0.42
15:AO:65:ARG:NH1	15:AO:65:ARG:HG2	2.34	0.42
16:AP:26:ARG:NH1	16:AP:26:ARG:HG2	2.35	0.42
22:AV:28:G:H1	22:AV:42:C:H42	1.67	0.42
25:B0:49:LYS:O	25:B0:50:ASN:HB2	2.20	0.42
27:B2:46:GLN:OE1	27:B2:46:GLN:HA	2.20	0.42
30:B5:15:ARG:HH21	35:BA:2021:C:P	2.43	0.42
31:B6:16:CYS:O	31:B6:18:ARG:NH1	2.53	0.42
32:B7:29:LYS:HE3	35:BA:210:C:OP2	2.20	0.42
35:BA:136:G:H1	35:BA:143(A):C:N4	2.15	0.42
35:BA:2468:G:C2'	35:BA:2469:A:OP2	2.68	0.42
35:BA:2558:C:H2'	35:BA:2559:C:C6	2.55	0.42
35:BA:2632:A:H2'	35:BA:2633:G:C8	2.55	0.42
35:BA:2759:G:H8	35:BA:2759:G:H5'	1.85	0.42
35:BA:687:C:H2'	35:BA:688:U:O4'	2.20	0.42
35:BA:997:G:OP1	51:BU:93:LYS:HB2	2.20	0.42
37:BC:158:ALA:C	37:BC:160:ARG:N	2.72	0.42
37:BC:24:GLU:CD	37:BC:24:GLU:H	2.22	0.42
38:BD:80:ALA:HB2	38:BD:96:HIS:CD2	2.55	0.42
40:BF:19:GLU:CD	40:BF:19:GLU:N	2.73	0.42
35:BA:1258:C:O4'	40:BF:84:VAL:HG21	2.19	0.42
41:BG:102:PHE:O	41:BG:105:LYS:HB3	2.20	0.42
43:BI:61:ARG:O	43:BI:133:HIS:HE1	2.01	0.42
46:BP:48:PRO:O	46:BP:49:ARG:HB2	2.20	0.42
46:BP:6:LEU:HD21	46:BP:9:ASN:HB3	2.00	0.42
47:BQ:31:ASP:OD2	47:BQ:107:ALA:HA	2.20	0.42
50:BT:41:ARG:O	50:BT:43:GLN:N	2.51	0.42
51:BU:49:HIS:O	51:BU:52:ARG:HB2	2.20	0.42
53:BW:29:LEU:CD2	53:BW:33:ARG:HH21	2.30	0.42
1:CA:123:C:O5'	1:CA:123:C:H6	2.03	0.42
1:CA:174:C:H6	1:CA:174:C:O5'	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:18:C:H4'	1:CA:1078:U:O2	2.20	0.42
1:CA:266:G:O2'	1:CA:267:C:P	2.78	0.42
1:CA:123:C:OP1	1:CA:312:C:H5'	2.20	0.42
1:CA:514:C:O2'	1:CA:515:G:H5'	2.19	0.42
1:CA:518:C:H2'	1:CA:530:G:N3	2.35	0.42
1:CA:663:A:O2'	1:CA:664:G:H5'	2.20	0.42
1:CA:905:U:H2'	1:CA:906:G:H5'	2.01	0.42
2:CB:124:SER:C	2:CB:126:GLU:H	2.23	0.42
2:CB:118:LEU:CB	2:CB:142:LEU:HD13	2.35	0.42
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.35	0.42
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.54	0.42
6:CF:22:GLU:HA	6:CF:22:GLU:OE2	2.19	0.42
8:CH:82:HIS:HB3	8:CH:138:TRP:CE2	2.55	0.42
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.20	0.42
9:CI:69:GLY:O	9:CI:72:GLY:N	2.51	0.42
10:CJ:90:LEU:HD12	10:CJ:90:LEU:N	2.35	0.42
11:CK:67:ASP:OD1	11:CK:71:LYS:HE3	2.19	0.42
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.59	0.42
17:CQ:3:LYS:HD3	17:CQ:60:ILE:HD11	2.02	0.42
19:CS:70:LYS:HD3	19:CS:70:LYS:N	2.35	0.42
20:CT:48:LYS:HB2	20:CT:52:ALA:HB2	2.01	0.42
22:CV:25:C:H2'	22:CV:26:A:O4'	2.20	0.42
27:D2:59:ARG:HH11	35:DA:77:C:P	2.42	0.42
30:D5:44:THR:HG21	48:DR:101:ALA:CA	2.49	0.42
33:D8:31:HIS:C	33:D8:33:ASN:N	2.68	0.42
35:DA:1127:A:C2'	35:DA:1128:A:H5''	2.50	0.42
35:DA:1858:G:O2'	35:DA:1884:A:N6	2.53	0.42
35:DA:2063:C:C5	35:DA:2064:C:C5	3.08	0.42
35:DA:2457:U:O2'	35:DA:2458:G:H5'	2.18	0.42
35:DA:2819:G:H1	35:DA:2827:C:H42	1.68	0.42
35:DA:61:G:H1	35:DA:94:C:N4	2.14	0.42
35:DA:69:C:O2	35:DA:73:A:O2'	2.37	0.42
35:DA:92:A:O2'	35:DA:93:G:H5'	2.20	0.42
35:DA:956:G:P	47:DQ:87:LYS:HG3	2.59	0.42
25:D0:74:ARG:NH1	36:DB:13:A:OP2	2.53	0.42
38:DD:131:LEU:CD1	38:DD:131:LEU:N	2.82	0.42
35:DA:1490:A:H62	38:DD:98:VAL:HG11	1.85	0.42
39:DE:199:ARG:NH1	39:DE:199:ARG:HG3	2.35	0.42
39:DE:2:LYS:HE3	39:DE:95:ILE:HG22	2.01	0.42
40:DF:139:PHE:O	40:DF:140:LEU:C	2.58	0.42
43:DI:8:PRO:HB3	43:DI:14:ASP:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:63:LYS:HD3	47:DQ:65:PHE:CZ	2.55	0.42
48:DR:113:LEU:HD12	48:DR:114:VAL:N	2.34	0.42
48:DR:118:GLU:HA	48:DR:118:GLU:OE1	2.20	0.42
48:DR:12:ARG:HB3	48:DR:16:HIS:CD2	2.53	0.42
49:DS:99:LYS:C	49:DS:101:LEU:N	2.73	0.42
50:DT:65:LYS:HD2	50:DT:65:LYS:HA	1.82	0.42
53:DW:57:ASN:O	53:DW:58:ALA:C	2.58	0.42
54:DX:53:LYS:HG2	54:DX:54:VAL:N	2.35	0.42
32:D7:47:ARG:NH2	54:DX:60:ARG:NH2	2.67	0.42
56:DZ:30:ASN:OD1	56:DZ:90:VAL:HB	2.20	0.42
56:DZ:94:GLU:HA	56:DZ:95:PRO:HD3	1.83	0.42
1:AA:119:A:O2'	1:AA:120:A:OP2	2.29	0.42
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.85	0.42
1:AA:34:C:O2'	1:AA:35:G:H5'	2.20	0.42
2:AB:60:ASP:OD2	2:AB:64:ARG:NH2	2.53	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	2.01	0.42
3:AC:78:GLY:HA3	3:AC:83:ARG:HB3	2.01	0.42
6:AF:100:ASN:ND2	6:AF:100:ASN:N	2.68	0.42
7:AG:79:ARG:HG3	7:AG:79:ARG:NH1	2.34	0.42
8:AH:40:ALA:O	8:AH:42:GLU:N	2.53	0.42
8:AH:67:PRO:O	8:AH:68:ARG:C	2.58	0.42
9:AI:112:LYS:HD2	9:AI:117:HIS:O	2.19	0.42
9:AI:33:PHE:CZ	9:AI:47:LEU:HD11	2.55	0.42
1:AA:1177:G:OP2	9:AI:97:LYS:HE3	2.20	0.42
11:AK:43:SER:HA	11:AK:47:VAL:HG21	2.02	0.42
17:AQ:99:SER:OG	17:AQ:100:LYS:N	2.51	0.42
6:AF:49:ALA:HB1	18:AR:80:PRO:HG3	2.02	0.42
20:AT:71:THR:CG2	20:AT:72:LEU:H	2.31	0.42
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.20	0.42
22:AY:3:C:H2'	22:AY:4:C:H6	1.85	0.42
28:B3:19:GLN:NE2	28:B3:52:HIS:CE1	2.87	0.42
26:B1:3:LYS:HE2	35:BA:1364:G:N7	2.35	0.42
35:BA:1424:G:H2'	35:BA:1425:G:O4'	2.20	0.42
35:BA:1858:G:O2'	35:BA:1884:A:N6	2.53	0.42
35:BA:1972:A:H2'	35:BA:1973:G:H8	1.84	0.42
35:BA:2063:C:H2'	35:BA:2064:C:H5'	2.02	0.42
35:BA:2236:C:H2'	35:BA:2237:G:C5'	2.48	0.42
35:BA:2308:G:C2	35:BA:2309:A:C6	3.08	0.42
35:BA:2364:C:H2'	35:BA:2365:G:O4'	2.20	0.42
35:BA:2481:G:O2'	35:BA:2482:G:O5'	2.38	0.42
35:BA:2491:U:H4'	35:BA:2570:G:OP1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:262:A:H2'	35:BA:263:C:O4'	2.20	0.42
35:BA:817:C:H2'	35:BA:818:G:O4'	2.19	0.42
35:BA:921:G:H4'	35:BA:2269:A:C6	2.55	0.42
35:BA:967:C:O2'	35:BA:968:G:H5'	2.19	0.42
36:BB:39:A:O2'	36:BB:46:A:N1	2.48	0.42
36:BB:80:U:H2'	36:BB:81:G:C8	2.55	0.42
37:BC:23:ASP:O	37:BC:26:ALA:HB3	2.20	0.42
38:BD:268:ARG:HB3	38:BD:268:ARG:CZ	2.49	0.42
35:BA:1490:A:H62	38:BD:98:VAL:HG11	1.84	0.42
41:BG:139:LEU:C	41:BG:139:LEU:HD23	2.41	0.42
41:BG:172:LEU:HD23	41:BG:173:LEU:N	2.35	0.42
45:BO:24:VAL:HG21	45:BO:32:TYR:O	2.19	0.42
46:BP:99:LEU:HA	46:BP:102:ARG:HH22	1.84	0.42
47:BQ:111:GLU:OE2	47:BQ:133:ARG:NH2	2.52	0.42
47:BQ:43:THR:CB	47:BQ:45:GLN:HE21	2.31	0.42
35:BA:1754:C:H5'	50:BT:101:PHE:CE2	2.55	0.42
51:BU:79:PHE:HE2	51:BU:83:LEU:HD11	1.85	0.42
51:BU:44:ASN:HD21	52:BV:75:PHE:N	2.17	0.42
53:BW:2:GLU:HA	53:BW:64:MET:HE1	2.02	0.42
55:BY:50:ARG:HB2	55:BY:53:PRO:HA	2.02	0.42
1:CA:1334:G:H5'	1:CA:1335:C:OP2	2.20	0.42
1:CA:27:G:H2'	1:CA:28:G:O4'	2.20	0.42
1:CA:986:A:H2'	1:CA:987:G:C8	2.55	0.42
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.67	0.42
2:CB:59:GLU:HB2	2:CB:221:LEU:HD11	2.00	0.42
3:CC:164:ARG:CB	3:CC:164:ARG:NH1	2.83	0.42
9:CI:10:ARG:HG2	9:CI:104:ARG:O	2.19	0.42
9:CI:4:TYR:HD1	9:CI:4:TYR:N	2.18	0.42
10:CJ:34:VAL:CG1	10:CJ:35:SER:N	2.83	0.42
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.85	0.42
12:CL:41:ARG:HH22	12:CL:57:LYS:NZ	2.17	0.42
13:CM:29:ARG:HD3	13:CM:64:TRP:CZ2	2.55	0.42
14:CN:43:CYS:O	14:CN:46:GLU:HB2	2.20	0.42
14:CN:47:LEU:HB2	14:CN:53:LEU:HD11	2.01	0.42
15:CO:46:HIS:C	15:CO:48:LYS:N	2.74	0.42
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.35	0.42
17:CQ:61:GLU:HA	17:CQ:71:PHE:CE1	2.54	0.42
18:CR:37:VAL:O	18:CR:39:VAL:N	2.53	0.42
18:CR:85:LEU:CG	18:CR:86:VAL:H	2.33	0.42
1:CA:986:A:H1'	19:CS:55:LYS:HA	2.02	0.42
22:CV:75:C:H2'	22:CV:76:8AN:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:24:G:H2'	23:CW:25:C:C6	2.55	0.42
23:CW:57:G:H21	23:CW:58:A:C4'	2.33	0.42
23:CW:15:G:N2	23:CW:59:U:H1'	2.35	0.42
26:D1:40:ARG:HD3	26:D1:40:ARG:C	2.40	0.42
33:D8:14:VAL:HG21	33:D8:22:VAL:HG13	2.01	0.42
34:D9:8:LYS:HE2	34:D9:8:LYS:HB3	1.90	0.42
35:DA:1264:G:C3'	35:DA:1265:A:H5''	2.49	0.42
32:D7:9:ARG:CZ	35:DA:1310:G:OP2	2.68	0.42
35:DA:195:A:H5''	35:DA:196:A:OP2	2.20	0.42
35:DA:2111:C:H42	35:DA:2147:G:N2	2.18	0.42
35:DA:2175:C:H2'	35:DA:2176:A:C8	2.55	0.42
35:DA:2870:C:H2'	35:DA:2871:C:H5'	2.02	0.42
35:DA:330:A:H2	35:DA:1210:A:H2'	1.84	0.42
35:DA:364:C:H2'	35:DA:365:C:C5'	2.50	0.42
35:DA:907:U:O2'	47:DQ:101:ARG:NH2	2.52	0.42
40:DF:150:GLY:HA2	40:DF:172:TRP:CE3	2.54	0.42
41:DG:81:LYS:HG2	41:DG:82:LEU:H	1.85	0.42
45:DO:71:ARG:C	45:DO:73:ASP:N	2.72	0.42
46:DP:95:VAL:HG23	46:DP:125:VAL:HG23	2.02	0.42
48:DR:56:LYS:HD2	48:DR:94:TYR:CE2	2.55	0.42
39:DE:7:VAL:HG21	50:DT:1:MET:HE1	2.01	0.42
50:DT:35:LYS:CE	50:DT:41:ARG:HG3	2.50	0.42
50:DT:78:LEU:C	50:DT:79:HIS:ND1	2.73	0.42
51:DU:108:GLU:HA	51:DU:111:GLU:HG2	2.02	0.42
52:DV:15:GLU:CB	52:DV:16:PRO:CD	2.89	0.42
52:DV:39:LEU:CD1	52:DV:51:VAL:HA	2.50	0.42
54:DX:18:TYR:HA	54:DX:21:PHE:CD1	2.55	0.42
1:AA:1271:G:H5'	1:AA:1314:C:H5'	2.01	0.41
1:AA:1346:A:H5'	9:AI:120:ARG:NH1	2.35	0.41
1:AA:1399:C:C2	1:AA:1502:A:N6	2.88	0.41
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.20	0.41
1:AA:244:U:O4	1:AA:906:G:H1'	2.20	0.41
1:AA:590:C:H2'	1:AA:591:U:C6	2.55	0.41
1:AA:638:G:O2'	1:AA:639:G:H5'	2.19	0.41
1:AA:749:C:O2	1:AA:749:C:H2'	2.20	0.41
3:AC:94:LEU:HD12	3:AC:94:LEU:O	2.20	0.41
6:AF:60:PHE:N	6:AF:60:PHE:CD1	2.88	0.41
6:AF:69:GLU:O	6:AF:70:ASP:C	2.58	0.41
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.49	0.41
10:AJ:40:LEU:CD2	10:AJ:69:ASN:HB3	2.50	0.41
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:65:LYS:HB3	13:AM:65:LYS:HZ2	1.84	0.41
1:AA:1203:C:OP1	14:AN:3:ARG:HD2	2.20	0.41
17:AQ:95:TYR:O	17:AQ:98:LEU:N	2.53	0.41
19:AS:29:ARG:HD3	19:AS:48:THR:OG1	2.20	0.41
23:AW:14:A:H3'	23:AW:15:G:C8	2.54	0.41
23:AW:57:G:H21	23:AW:58:A:H4'	1.85	0.41
23:AW:66:U:O2'	23:AW:67:C:H5'	2.20	0.41
22:AY:16:U:C3'	22:AY:17:C:C5'	2.96	0.41
26:B1:95:LEU:HA	26:B1:95:LEU:HD12	1.79	0.41
27:B2:20:GLU:O	27:B2:23:LYS:HB2	2.19	0.41
33:B8:58:ILE:HG22	33:B8:58:ILE:O	2.20	0.41
35:BA:1221:C:C6	35:BA:1221:C:H5'	2.40	0.41
35:BA:1488:G:N3	35:BA:1488:G:H2'	2.34	0.41
35:BA:1675:C:C2	39:BE:129:HIS:CD2	3.07	0.41
35:BA:1861:G:H1	35:BA:1881:C:H42	1.66	0.41
35:BA:2025:C:H2'	35:BA:2026:C:H6	1.84	0.41
35:BA:2543:G:H21	35:BA:2646:C:H5''	1.85	0.41
35:BA:2736:G:O2'	35:BA:2737:G:H5'	2.19	0.41
35:BA:2815:C:H2'	35:BA:2816:C:C6	2.51	0.41
35:BA:576:U:H2'	35:BA:577:G:C8	2.55	0.41
35:BA:923:C:H2'	35:BA:924:C:H6	1.85	0.41
36:BB:56:G:H4'	36:BB:57:A:H8	1.85	0.41
37:BC:158:ALA:C	37:BC:160:ARG:H	2.23	0.41
38:BD:10:THR:O	38:BD:13:ARG:HB3	2.19	0.41
38:BD:35:LYS:HE3	38:BD:36:PRO:N	2.35	0.41
39:BE:143:ASN:CB	39:BE:147:PRO:HD2	2.44	0.41
40:BF:117:ARG:HD3	40:BF:117:ARG:HA	1.74	0.41
40:BF:32:LEU:HD22	40:BF:112:MET:CE	2.48	0.41
41:BG:39:ILE:HD13	41:BG:155:MET:SD	2.60	0.41
42:BH:116:GLU:HG2	42:BH:117:PRO:HD2	2.00	0.41
42:BH:141:VAL:HG12	42:BH:142:GLY:H	1.84	0.41
42:BH:24:VAL:HG23	42:BH:24:VAL:O	2.20	0.41
49:BS:27:SER:HA	49:BS:88:ASP:HB3	2.02	0.41
50:BT:78:LEU:HD22	50:BT:79:HIS:CE1	2.55	0.41
52:BV:21:ARG:HB3	52:BV:91:TYR:CB	2.46	0.41
52:BV:83:ARG:HG2	52:BV:83:ARG:HH11	1.85	0.41
54:BX:66:LEU:C	54:BX:66:LEU:CD2	2.87	0.41
36:BB:75:G:H22	56:BZ:73:GLN:NE2	2.18	0.41
1:CA:1126:U:H6	1:CA:1126:U:P	2.42	0.41
1:CA:1198:G:H2'	1:CA:1199:U:O4'	2.20	0.41
1:CA:137:C:H1'	16:CP:62:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.20	0.41
1:CA:189(B):C:H2'	1:CA:189(C):C:C6	2.55	0.41
3:CC:19:GLU:HA	3:CC:54:ARG:NH2	2.35	0.41
4:CD:11:LEU:O	4:CD:13:ARG:N	2.53	0.41
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	2.02	0.41
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.84	0.41
11:CK:102:GLY:C	11:CK:103:LEU:HD22	2.41	0.41
11:CK:43:SER:HA	11:CK:47:VAL:HG21	2.01	0.41
12:CL:6:THR:HG23	12:CL:9:GLN:H	1.85	0.41
14:CN:42:ILE:O	14:CN:46:GLU:HG3	2.19	0.41
20:CT:25:ARG:HH11	20:CT:25:ARG:HG3	1.85	0.41
22:CV:37:A:H3'	22:CV:38:A:C8	2.51	0.41
23:CW:37:A:H2'	23:CW:38:A:O4'	2.20	0.41
35:DA:1022:G:O2'	35:DA:1023:U:P	2.77	0.41
35:DA:1106:A:C4	35:DA:1107:G:N7	2.88	0.41
35:DA:1243:G:C6	35:DA:1244:G:C5	3.08	0.41
35:DA:1301:A:O2'	35:DA:1302:A:P	2.78	0.41
35:DA:1318:C:C3'	35:DA:1319:G:H5''	2.41	0.41
35:DA:1686:C:C2'	35:DA:1687:G:H5'	2.50	0.41
35:DA:1884:A:C3'	35:DA:1885:A:H5''	2.48	0.41
35:DA:19:C:H2'	35:DA:20:C:H6	1.85	0.41
35:DA:2645:G:C3'	35:DA:2646:C:C5'	2.93	0.41
35:DA:2864:G:O2'	35:DA:2865:U:H5'	2.19	0.41
35:DA:455:C:H3'	35:DA:456:C:H5''	2.01	0.41
35:DA:13:A:H61	35:DA:525:U:H3'	1.85	0.41
35:DA:589:C:H2'	35:DA:590:A:H8	1.83	0.41
35:DA:94:C:O2	35:DA:94:C:H2'	2.20	0.41
36:DB:77:U:OP1	56:DZ:15:PRO:HB2	2.20	0.41
40:DF:45:ARG:NH1	40:DF:97:TYR:CE1	2.88	0.41
41:DG:33:ARG:HB2	41:DG:162:THR:HG21	2.02	0.41
43:DI:133:HIS:ND1	43:DI:134:PRO:HD2	2.35	0.41
44:DN:128:HIS:O	44:DN:130:HIS:N	2.53	0.41
44:DN:82:LEU:HD12	44:DN:82:LEU:HA	1.83	0.41
45:DO:12:ASP:C	45:DO:14:THR:H	2.23	0.41
47:DQ:19:GLY:HA3	56:DZ:79:ARG:HH22	1.79	0.41
49:DS:18:ILE:HD13	49:DS:18:ILE:HA	1.94	0.41
53:DW:84:ARG:HB2	53:DW:96:ILE:HG22	2.02	0.41
54:DX:66:LEU:C	54:DX:66:LEU:CD2	2.88	0.41
55:DY:29:GLU:HB2	55:DY:38:ILE:HG13	2.02	0.41
55:DY:34:LYS:HE2	55:DY:34:LYS:HB3	1.91	0.41
1:AA:1014:A:H5'	19:AS:14:HIS:CD2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.95	0.41
1:AA:1064:G:OP2	1:AA:1386:G:H4'	2.20	0.41
1:AA:1248:A:C2'	1:AA:1249:C:H5'	2.50	0.41
1:AA:1334:G:H5'	1:AA:1335:C:OP2	2.20	0.41
1:AA:271:C:H2'	1:AA:272:C:H6	1.85	0.41
1:AA:418:C:H2'	1:AA:419:C:C6	2.56	0.41
1:AA:617:G:C2	1:AA:618:C:C5	3.07	0.41
1:AA:645:C:H2'	1:AA:646:U:C6	2.55	0.41
1:AA:648:A:H2'	1:AA:649:G:H8	1.86	0.41
1:AA:952:U:H4'	1:AA:964:A:N1	2.35	0.41
2:AB:194:PRO:O	2:AB:195:ASP:C	2.57	0.41
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.41	0.41
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.27	0.41
5:AE:79:GLU:HB3	5:AE:92:LYS:HG3	2.01	0.41
6:AF:60:PHE:O	6:AF:61:LEU:HD12	2.20	0.41
7:AG:22:LEU:HG	7:AG:62:PHE:HE2	1.84	0.41
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.20	0.41
8:AH:29:SER:HB3	8:AH:32:LYS:CG	2.49	0.41
10:AJ:46:ARG:HA	10:AJ:64:GLU:HA	2.01	0.41
10:AJ:90:LEU:N	10:AJ:90:LEU:HD12	2.35	0.41
11:AK:109:VAL:HG12	11:AK:110:ASP:N	2.35	0.41
11:AK:29:ILE:CB	11:AK:44:SER:HB3	2.45	0.41
15:AO:74:ASP:OD2	15:AO:77:ARG:N	2.51	0.41
17:AQ:89:LEU:O	17:AQ:92:ARG:HB3	2.20	0.41
18:AR:56:THR:O	18:AR:58:LEU:N	2.53	0.41
19:AS:70:LYS:HD3	19:AS:70:LYS:N	2.35	0.41
27:B2:3:LEU:C	27:B2:5:GLU:N	2.73	0.41
35:BA:1022:G:O2'	35:BA:1023:U:P	2.78	0.41
35:BA:1048:A:N3	35:BA:1048:A:P	2.93	0.41
35:BA:1503:U:O2'	35:BA:1504:C:H5'	2.19	0.41
35:BA:2516:G:C6	35:BA:2517:C:C4	3.09	0.41
35:BA:1669:A:O3'	35:BA:2549:G:H5'	2.21	0.41
35:BA:271(Q):G:O2'	35:BA:271(R):G:P	2.78	0.41
35:BA:2849:U:O4	50:BT:23:ARG:NH2	2.50	0.41
35:BA:437:G:O2'	35:BA:438:G:H5'	2.21	0.41
35:BA:614:U:O4'	35:BA:614:U:O2	2.38	0.41
35:BA:676:A:H8	35:BA:2069:G:N2	2.09	0.41
36:BB:71:C:C2	36:BB:72:G:C8	3.08	0.41
37:BC:66:HIS:NE2	37:BC:187:ASP:HA	2.35	0.41
37:BC:68:LEU:HD22	37:BC:180:PHE:N	2.26	0.41
40:BF:160:ASN:HD22	40:BF:160:ASN:C	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:37:VAL:O	40:BF:38:ARG:C	2.58	0.41
40:BF:78:ILE:HA	40:BF:83:PHE:CD1	2.55	0.41
41:BG:68:PRO:HB3	41:BG:90:LEU:CD2	2.48	0.41
42:BH:148:ILE:C	42:BH:150:ALA:N	2.73	0.41
43:BI:37:VAL:CG1	43:BI:38:LEU:N	2.83	0.41
43:BI:71:ILE:CG1	43:BI:72:LEU:N	2.77	0.41
45:BO:63:VAL:HG23	45:BO:83:ALA:CB	2.49	0.41
49:BS:61:ASN:OD1	49:BS:64:GLU:OE2	2.38	0.41
50:BT:78:LEU:HD22	50:BT:79:HIS:HE1	1.85	0.41
51:BU:79:PHE:HE1	51:BU:106:PHE:CZ	2.38	0.41
52:BV:35:LEU:O	52:BV:36:PRO:C	2.57	0.41
53:BW:73:ALA:HB3	53:BW:106:ILE:CD1	2.41	0.41
56:BZ:177:PRO:HB2	56:BZ:178:GLU:H	1.72	0.41
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.20	0.41
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.20	0.41
1:CA:227:G:O2'	1:CA:228:A:H5'	2.19	0.41
1:CA:301:G:H2'	1:CA:302:G:C8	2.56	0.41
1:CA:383:A:C2'	1:CA:384:G:H5'	2.50	0.41
1:CA:502:G:OP1	12:CL:117:ARG:N	2.53	0.41
1:CA:60:A:P	1:CA:60:A:H8	2.42	0.41
1:CA:67:C:H2'	1:CA:68:G:H8	1.83	0.41
2:CB:127:ILE:O	2:CB:127:ILE:HG22	2.20	0.41
2:CB:25:ASN:O	2:CB:27:LYS:N	2.53	0.41
2:CB:32:ILE:HD11	2:CB:40:HIS:HB3	2.02	0.41
3:CC:110:ASN:C	3:CC:112:SER:N	2.74	0.41
3:CC:19:GLU:O	3:CC:19:GLU:HG2	2.20	0.41
5:CE:68:GLU:O	5:CE:69:VAL:C	2.58	0.41
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.20	0.41
7:CG:79:ARG:HD3	7:CG:80:VAL:H	1.84	0.41
9:CI:20:ARG:HH11	9:CI:20:ARG:CG	2.31	0.41
10:CJ:3:LYS:O	10:CJ:100:THR:HG22	2.19	0.41
11:CK:91:ARG:HG2	11:CK:91:ARG:HH11	1.86	0.41
13:CM:33:ALA:HB1	13:CM:59:TYR:HD2	1.85	0.41
1:CA:1203:C:OP1	14:CN:3:ARG:HD2	2.20	0.41
15:CO:18:PHE:HD1	15:CO:19:PRO:O	2.03	0.41
17:CQ:9:VAL:HA	17:CQ:55:ASP:O	2.20	0.41
17:CQ:56:VAL:O	17:CQ:76:LEU:HD12	2.20	0.41
18:CR:36:ASN:N	18:CR:36:ASN:OD1	2.50	0.41
20:CT:10:LEU:C	20:CT:12:ALA:H	2.24	0.41
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.20	0.41
22:CV:50:U:H2'	22:CV:51:U:C5'	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:32:ARG:O	25:D0:35:ASN:ND2	2.52	0.41
27:D2:25:VAL:O	27:D2:26:ARG:C	2.58	0.41
29:D4:62:CYS:SG	29:D4:63:SER:N	2.93	0.41
30:D5:58:LEU:N	30:D5:58:LEU:HD12	2.31	0.41
35:DA:1169:G:H2'	35:DA:1170:G:O4'	2.20	0.41
35:DA:1186:G:H2'	35:DA:1187:G:O4'	2.20	0.41
35:DA:1451:C:N3	35:DA:1459:G:O6	2.52	0.41
35:DA:1771:C:H2'	35:DA:1772:G:C8	2.55	0.41
35:DA:2038:G:H2'	35:DA:2039:C:O4'	2.20	0.41
35:DA:2126:A:O2'	35:DA:2127:G:OP2	2.37	0.41
35:DA:2295:C:O2'	35:DA:2296:U:H5'	2.20	0.41
35:DA:2348:U:O2'	35:DA:2349:G:H5''	2.20	0.41
35:DA:2418:A:C6	35:DA:2419:U:C4	3.09	0.41
35:DA:2605:U:H2'	35:DA:2606:C:C6	2.55	0.41
35:DA:8:A:H2	35:DA:2896:C:O2	2.03	0.41
35:DA:309:G:O3'	55:DY:18:GLY:HA2	2.20	0.41
35:DA:613:G:C2	35:DA:615:G:C5	3.08	0.41
35:DA:705:A:C2	35:DA:727:A:H1'	2.55	0.41
36:DB:15:A:H1'	36:DB:110:G:C5	2.55	0.41
36:DB:15:A:C3'	36:DB:16:G:H5'	2.50	0.41
38:DD:9:TYR:CD2	38:DD:10:THR:HG22	2.55	0.41
35:DA:574:C:N3	39:DE:145:LYS:HE2	2.35	0.41
40:DF:2:LYS:HD3	40:DF:2:LYS:H	1.84	0.41
41:DG:178:PHE:O	41:DG:180:PHE:N	2.53	0.41
42:DH:85:LYS:HZ2	42:DH:133:VAL:HB	1.84	0.41
42:DH:85:LYS:CE	42:DH:145:ALA:HB2	2.50	0.41
44:DN:62:VAL:HG22	44:DN:66:LYS:CD	2.42	0.41
45:DO:86:ILE:H	45:DO:86:ILE:CD1	2.31	0.41
47:DQ:140:ALA:HB1	56:DZ:99:TYR:CB	2.41	0.41
49:DS:18:ILE:C	49:DS:20:ARG:N	2.72	0.41
49:DS:49:VAL:HG12	49:DS:50:SER:N	2.35	0.41
50:DT:19:LEU:HA	50:DT:20:PRO:HD3	1.73	0.41
51:DU:110:VAL:O	51:DU:113:ALA:HB3	2.20	0.41
53:DW:18:ARG:CG	53:DW:76:VAL:CG1	2.98	0.41
53:DW:20:VAL:HG11	53:DW:44:ALA:HA	2.02	0.41
55:DY:26:LYS:O	55:DY:28:LYS:HE3	2.21	0.41
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.55	0.41
1:AA:1261:A:H2'	1:AA:1262:C:H5'	2.02	0.41
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.20	0.41
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.85	0.41
1:AA:1479:C:O2'	1:AA:1480:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1487:G:H2'	1:AA:1488:G:H5'	2.02	0.41
1:AA:1503:A:O2'	1:AA:1504:G:O5'	2.33	0.41
1:AA:73:G:C2	1:AA:97:G:N1	2.87	0.41
1:AA:959:A:H3'	1:AA:960:U:H5''	2.01	0.41
2:AB:219:VAL:O	2:AB:223:ILE:HG12	2.19	0.41
2:AB:8:LYS:O	2:AB:9:GLU:C	2.59	0.41
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.83	0.41
4:AD:169:LYS:HE2	4:AD:169:LYS:HB3	1.83	0.41
5:AE:92:LYS:O	5:AE:119:LEU:HB2	2.20	0.41
6:AF:77:ARG:NH1	6:AF:77:ARG:CB	2.83	0.41
11:AK:104:GLN:C	11:AK:106:LYS:H	2.23	0.41
13:AM:56:LEU:HD13	13:AM:60:VAL:HG21	2.02	0.41
13:AM:69:GLU:CA	13:AM:70:LEU:N	2.64	0.41
15:AO:18:PHE:HD1	15:AO:19:PRO:O	2.03	0.41
1:AA:472:A:H4'	16:AP:82:GLN:HE22	1.83	0.41
17:AQ:62:SER:CB	17:AQ:72:ARG:HG3	2.50	0.41
25:B0:14:ARG:O	25:B0:15:ASP:HB2	2.20	0.41
29:B4:51:TYR:HE1	41:BG:5:VAL:HG13	1.85	0.41
35:BA:116:C:O2'	35:BA:117:G:H5'	2.20	0.41
35:BA:143:G:H2'	35:BA:143(A):C:C6	2.55	0.41
35:BA:1554:A:H3'	35:BA:1555:G:H8	1.85	0.41
35:BA:1748:G:H8	35:BA:1748:G:H5'	1.85	0.41
35:BA:1983:C:O2'	35:BA:1984:G:H5'	2.20	0.41
35:BA:2110:G:OP2	35:BA:2110:G:H8	2.03	0.41
35:BA:2328:A:H2'	35:BA:2329:G:H8	1.85	0.41
35:BA:2464:C:HO2'	35:BA:2465:C:P	2.43	0.41
35:BA:34:C:C4	35:BA:455:C:H5'	2.55	0.41
35:BA:960:A:C4'	35:BA:2457:U:H4'	2.50	0.41
36:BB:38:C:O2	36:BB:48:A:H1'	2.20	0.41
37:BC:45:ALA:O	37:BC:46:LYS:CB	2.63	0.41
38:BD:122:ASP:OD1	38:BD:123:ALA:N	2.54	0.41
38:BD:206:LEU:O	38:BD:211:ARG:HG2	2.20	0.41
38:BD:45:ASN:CG	38:BD:46:GLN:H	2.22	0.41
39:BE:109:LYS:HB3	48:BR:2:ARG:NH2	2.31	0.41
35:BA:1670:C:O2	39:BE:129:HIS:HE1	2.04	0.41
40:BF:89:VAL:C	40:BF:91:GLY:H	2.24	0.41
41:BG:12:TYR:O	41:BG:17:PRO:HD3	2.20	0.41
43:BI:60:GLU:CD	43:BI:64:GLU:HG3	2.39	0.41
44:BN:82:LEU:HD12	44:BN:82:LEU:HA	1.81	0.41
44:BN:87:LEU:CD2	44:BN:87:LEU:O	2.68	0.41
47:BQ:109:VAL:CG1	47:BQ:110:THR:N	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:107:ASP:C	48:BR:107:ASP:OD2	2.59	0.41
50:BT:70:VAL:HG12	50:BT:71:GLY:N	2.35	0.41
51:BU:110:VAL:O	51:BU:113:ALA:HB3	2.20	0.41
51:BU:28:ARG:HG2	51:BU:38:THR:OG1	2.20	0.41
52:BV:18:LEU:CG	52:BV:19:LYS:N	2.81	0.41
55:BY:40:GLU:HA	55:BY:40:GLU:OE2	2.20	0.41
55:BY:35:TYR:CE2	55:BY:69:ALA:HB3	2.55	0.41
55:BY:7:VAL:CG2	55:BY:8:LYS:NZ	2.84	0.41
56:BZ:114:GLY:HA3	56:BZ:177:PRO:HG3	2.01	0.41
56:BZ:13:GLU:O	56:BZ:15:PRO:HD3	2.20	0.41
1:CA:1026:G:N3	1:CA:1026:G:H2'	2.35	0.41
1:CA:1057:G:C5	1:CA:1204:A:C2	3.08	0.41
1:CA:1346:A:H5''	9:CI:120:ARG:NH1	2.35	0.41
1:CA:1378:C:H5''	7:CG:6:ARG:HE	1.84	0.41
1:CA:1445:C:C4	1:CA:1446:U:C4	3.09	0.41
1:CA:189(I):G:H2'	1:CA:189(J):G:H8	1.85	0.41
1:CA:940:C:H2'	1:CA:941:G:H8	1.82	0.41
1:CA:986:A:H2'	1:CA:987:G:H8	1.85	0.41
2:CB:19:HIS:CG	2:CB:20:GLU:N	2.85	0.41
1:CA:1256:A:H5''	3:CC:27:LYS:NZ	2.34	0.41
6:CF:100:ASN:N	6:CF:100:ASN:HD22	2.18	0.41
7:CG:135:VAL:O	7:CG:138:LYS:HB3	2.20	0.41
13:CM:16:ASP:O	13:CM:30:ALA:HB1	2.19	0.41
1:CA:976:G:P	14:CN:32:SER:H	2.43	0.41
20:CT:14:LYS:HA	20:CT:17:ARG:NE	2.34	0.41
23:CW:16:U:C4	23:CW:18:G:H3'	2.55	0.41
23:CW:32:U:C2'	23:CW:33:U:H5'	2.50	0.41
28:D3:4:LEU:HD23	28:D3:4:LEU:HA	1.90	0.41
29:D4:40:ILE:HA	29:D4:57:ILE:HB	2.02	0.41
30:D5:15:ARG:HH21	35:DA:2021:C:P	2.43	0.41
33:D8:30:ARG:HD3	33:D8:30:ARG:O	2.21	0.41
35:DA:1210:A:O2'	35:DA:1211:U:OP2	2.33	0.41
35:DA:1309:G:C2'	35:DA:1310:G:H5'	2.50	0.41
35:DA:1902:C:H5'	38:DD:246:PRO:HD3	2.02	0.41
35:DA:2348:U:C2'	35:DA:2349:G:C5'	2.91	0.41
35:DA:239:U:H2'	35:DA:240:G:O4'	2.20	0.41
35:DA:2652:C:H42	35:DA:2668:G:H1	1.68	0.41
35:DA:394:A:C6	35:DA:395:U:C4	3.08	0.41
35:DA:464:U:O2'	35:DA:465:G:H5'	2.20	0.41
35:DA:690:G:H2'	35:DA:691:C:C6	2.56	0.41
30:D5:2:ALA:HB3	35:DA:747:U:C2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:814:C:H41	46:DP:27:HIS:CD2	2.38	0.41
35:DA:833:U:H5''	46:DP:48:PRO:CB	2.47	0.41
37:DC:221:SER:O	37:DC:222:VAL:O	2.39	0.41
37:DC:64:LEU:HD13	37:DC:66:HIS:HB2	2.00	0.41
38:DD:80:ALA:HB2	38:DD:96:HIS:CD2	2.54	0.41
39:DE:109:LYS:HB3	48:DR:2:ARG:NH2	2.33	0.41
39:DE:15:PHE:CD2	50:DT:80:SER:HB2	2.55	0.41
39:DE:68:ALA:O	39:DE:70:ALA:N	2.53	0.41
40:DF:38:ARG:HH12	46:DP:16:ARG:NH2	2.19	0.41
41:DG:114:ILE:O	41:DG:115:ARG:C	2.58	0.41
41:DG:32:PRO:HB2	41:DG:172:LEU:HD13	2.02	0.41
41:DG:86:MET:O	41:DG:87:PRO:O	2.39	0.41
42:DH:67:LEU:O	42:DH:71:LEU:HB2	2.20	0.41
45:DO:101:PRO:HG3	45:DO:120:GLU:HG2	2.02	0.41
48:DR:41:ALA:O	48:DR:44:LEU:N	2.54	0.41
35:DA:1453:U:O2	48:DR:60:LEU:HD21	2.20	0.41
51:DU:44:ASN:HD22	52:DV:75:PHE:HB3	1.83	0.41
52:DV:23:GLU:O	52:DV:24:LYS:C	2.58	0.41
53:DW:82:LEU:HB3	53:DW:84:ARG:HH12	1.85	0.41
55:DY:7:VAL:CB	55:DY:8:LYS:HZ3	2.33	0.41
56:DZ:56:VAL:CG1	56:DZ:57:ILE:N	2.83	0.41
1:AA:865:A:H5'	1:AA:1078:U:O4	2.20	0.41
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.34	0.41
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.84	0.41
1:AA:1342:C:H1'	9:AI:124:GLN:NE2	2.35	0.41
1:AA:604:G:C6	1:AA:605:U:C4	3.08	0.41
1:AA:688:G:H2'	1:AA:689:C:C6	2.54	0.41
2:AB:16:HIS:HD2	2:AB:210:SER:CA	2.34	0.41
10:AJ:8:LEU:HD13	10:AJ:20:ALA:HA	2.03	0.41
12:AL:126:LYS:CD	12:AL:127:GLU:H	2.32	0.41
17:AQ:59:ILE:N	17:AQ:59:ILE:HD13	2.36	0.41
17:AQ:94:ASN:O	17:AQ:98:LEU:HG	2.20	0.41
19:AS:36:ARG:HH22	19:AS:75:ALA:HB3	1.84	0.41
20:AT:48:LYS:HB2	20:AT:52:ALA:HB2	2.01	0.41
35:BA:1005:C:O2'	44:BN:28:THR:HG21	2.21	0.41
35:BA:1290:C:H2'	35:BA:1291:C:C6	2.56	0.41
35:BA:1332:G:H5'	35:BA:1333:C:H5	1.85	0.41
35:BA:1331:A:H2'	35:BA:1333:C:C5	2.55	0.41
35:BA:1548:C:H2'	35:BA:1549:C:C6	2.56	0.41
35:BA:1839:G:C8	35:BA:1839:G:H5'	2.50	0.41
35:BA:1963:U:C2'	35:BA:1963:U:O2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:33:LYS:HB3	35:BA:2432:A:C6	2.55	0.41
35:BA:271(D):G:N2	35:BA:271(T):C:N3	2.68	0.41
35:BA:2842:G:O2'	35:BA:2843:G:H5'	2.20	0.41
35:BA:364:C:H2'	35:BA:365:C:H5''	2.01	0.41
35:BA:601:C:O2'	35:BA:605:C:H5''	2.21	0.41
35:BA:863:A:P	47:BQ:22:LYS:HG2	2.61	0.41
37:BC:83:ILE:HD11	37:BC:95:GLY:O	2.20	0.41
38:BD:16:MET:HE1	38:BD:208:LYS:HD2	2.02	0.41
40:BF:196:LEU:O	40:BF:199:TRP:HB3	2.20	0.41
42:BH:100:GLY:C	42:BH:102:ALA:N	2.73	0.41
43:BI:40:THR:O	43:BI:44:LEU:HB2	2.20	0.41
44:BN:116:LEU:C	44:BN:118:LYS:N	2.74	0.41
45:BO:4:PRO:O	45:BO:5:GLN:CB	2.50	0.41
45:BO:50:GLY:C	45:BO:52:VAL:H	2.21	0.41
46:BP:5:ASP:OD2	46:BP:6:LEU:HD22	2.21	0.41
47:BQ:27:VAL:O	47:BQ:28:ALA:C	2.58	0.41
47:BQ:39:PRO:O	47:BQ:40:ALA:CB	2.63	0.41
48:BR:104:ARG:CB	48:BR:104:ARG:NH1	2.80	0.41
48:BR:118:GLU:HA	48:BR:118:GLU:OE1	2.21	0.41
52:BV:72:VAL:HG23	52:BV:72:VAL:O	2.21	0.41
53:BW:14:PRO:O	53:BW:15:ARG:C	2.57	0.41
35:BA:2012:G:O3'	53:BW:96:ILE:HD11	2.21	0.41
56:BZ:155:LEU:HB2	56:BZ:157:LEU:HD22	2.02	0.41
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.20	0.41
1:CA:1387:G:C6	1:CA:1388:C:N4	2.89	0.41
1:CA:159:G:H1	1:CA:163:C:N4	2.18	0.41
1:CA:161:A:H2'	1:CA:162:A:O4'	2.20	0.41
1:CA:15:G:H2'	1:CA:16:A:H8	1.86	0.41
1:CA:579:G:C6	1:CA:580:U:C4	3.08	0.41
1:CA:604:G:C6	1:CA:605:U:C4	3.08	0.41
1:CA:718:G:H5'	11:CK:117:ASN:CG	2.40	0.41
2:CB:220:ASP:C	2:CB:222:ILE:N	2.72	0.41
3:CC:5:ILE:C	3:CC:5:ILE:HD12	2.41	0.41
5:CE:59:GLY:O	5:CE:63:ARG:HG3	2.20	0.41
7:CG:65:ALA:O	7:CG:69:VAL:HG23	2.20	0.41
9:CI:66:ARG:CB	9:CI:66:ARG:NH1	2.84	0.41
14:CN:26:ARG:HD3	14:CN:43:CYS:HB3	2.01	0.41
17:CQ:62:SER:CB	17:CQ:72:ARG:HG3	2.50	0.41
18:CR:24:ALA:O	18:CR:26:LEU:N	2.52	0.41
19:CS:41:VAL:HG13	19:CS:42:PRO:HD2	2.01	0.41
19:CS:29:ARG:HD3	19:CS:48:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:29:GLY:C	26:D1:31:GLY:H	2.24	0.41
26:D1:87:PRO:O	26:D1:90:ILE:HG12	2.20	0.41
35:DA:999:U:C2'	35:DA:1000:A:H5''	2.50	0.41
35:DA:1313:U:C2'	35:DA:1313:U:O2	2.68	0.41
35:DA:1496:A:N7	35:DA:1498:C:N3	2.68	0.41
35:DA:1773:A:C2'	35:DA:1774:C:H5'	2.49	0.41
35:DA:2056:G:N2	35:DA:2057:A:C4	2.88	0.41
35:DA:2222:G:H2'	35:DA:2223:G:O4'	2.21	0.41
35:DA:2298:A:H62	35:DA:2318:G:H8	1.67	0.41
35:DA:2529:G:OP2	35:DA:2530:A:H5''	2.20	0.41
35:DA:10:G:C6	35:DA:2629:A:C8	3.09	0.41
35:DA:2689:U:P	35:DA:2719:G:H22	2.44	0.41
35:DA:34:C:C2'	35:DA:35:G:H5'	2.46	0.41
35:DA:777:A:O2'	35:DA:778:G:H5'	2.21	0.41
37:DC:158:ALA:C	37:DC:160:ARG:N	2.73	0.41
37:DC:36:LYS:CD	37:DC:37:PHE:H	2.34	0.41
40:DF:19:GLU:N	40:DF:19:GLU:CD	2.74	0.41
40:DF:27:GLU:O	40:DF:28:ILE:C	2.59	0.41
41:DG:64:THR:OG1	41:DG:94:LEU:HD21	2.20	0.41
42:DH:43:VAL:CG2	42:DH:43:VAL:O	2.67	0.41
43:DI:2:LYS:N	43:DI:2:LYS:HD2	2.35	0.41
44:DN:91:LEU:C	44:DN:93:THR:N	2.74	0.41
45:DO:87:ILE:CG2	45:DO:88:ASN:N	2.83	0.41
46:DP:102:ARG:HB3	46:DP:102:ARG:NH2	2.35	0.41
47:DQ:141:GLN:CB	56:DZ:98:MET:HA	2.49	0.41
47:DQ:54:MET:HG2	47:DQ:64:ILE:HG21	2.02	0.41
49:DS:105:ALA:O	49:DS:107:GLU:N	2.53	0.41
49:DS:85:VAL:HG22	49:DS:106:ARG:CG	2.50	0.41
50:DT:78:LEU:O	50:DT:79:HIS:ND1	2.54	0.41
52:DV:39:LEU:HB3	52:DV:47:VAL:CG1	2.51	0.41
55:DY:27:VAL:C	55:DY:28:LYS:HZ2	2.24	0.41
1:AA:1151:A:C4	1:AA:1152:A:N7	2.88	0.41
1:AA:1163:C:H5'	10:CJ:80:LYS:NZ	2.36	0.41
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.85	0.41
1:AA:1434:A:H2'	1:AA:1435:G:C5'	2.50	0.41
1:AA:1413:A:N1	1:AA:1488:G:C2	2.89	0.41
2:AB:23:ARG:HB3	2:AB:23:ARG:NH1	2.36	0.41
2:AB:35:GLU:O	2:AB:36:ARG:C	2.59	0.41
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.50	0.41
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.85	0.41
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.21	0.41
10:AJ:12:ASP:HB3	10:AJ:15:THR:OG1	2.21	0.41
11:AK:102:GLY:C	11:AK:103:LEU:HD22	2.40	0.41
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB2	2.03	0.41
18:AR:45:SER:H	18:AR:51:LEU:CG	2.30	0.41
22:AV:21:A:C3'	22:AV:22:G:H5''	2.50	0.41
22:AY:43:C:O2'	22:AY:44:G:H5'	2.21	0.41
27:B2:33:MET:O	27:B2:34:GLU:C	2.57	0.41
27:B2:65:ASN:HB3	27:B2:69:ARG:HH22	1.85	0.41
33:B8:32:LEU:CB	33:B8:36:LYS:NZ	2.84	0.41
35:BA:1164:G:C2	35:BA:1165:U:C2	3.08	0.41
35:BA:1299:G:O5'	35:BA:1299:G:H8	2.03	0.41
35:BA:1686:C:H2'	35:BA:1687:G:H5'	2.01	0.41
35:BA:1766:U:O2'	35:BA:1767:C:H5'	2.21	0.41
35:BA:1784:A:H4'	35:BA:1785:A:C5'	2.51	0.41
35:BA:1925:C:C2'	35:BA:1926:U:H5'	2.50	0.41
35:BA:2492:U:H2'	35:BA:2493:U:H6	1.85	0.41
35:BA:2663:G:H2'	35:BA:2664:G:H8	1.84	0.41
35:BA:2703:C:C2'	35:BA:2703:C:O2	2.68	0.41
35:BA:350:U:H2'	35:BA:351:G:O4'	2.19	0.41
36:BB:91:C:H2'	36:BB:92:C:C6	2.55	0.41
37:BC:62:VAL:O	37:BC:63:SER:C	2.58	0.41
38:BD:112:GLN:HB2	38:BD:115:GLN:NE2	2.35	0.41
38:BD:175:LEU:O	38:BD:182:LEU:HA	2.21	0.41
35:BA:2239:G:H5'	38:BD:251:GLY:HA3	2.03	0.41
38:BD:2:ALA:C	38:BD:3:VAL:HG23	2.40	0.41
39:BE:92:THR:OG1	39:BE:93:VAL:N	2.53	0.41
41:BG:125:PHE:O	41:BG:128:ARG:NE	2.54	0.41
41:BG:81:LYS:O	41:BG:82:LEU:C	2.59	0.41
35:BA:631:A:HO2'	46:BP:67:MET:HB3	1.84	0.41
47:BQ:30:GLY:N	47:BQ:105:GLU:OE2	2.54	0.41
49:BS:33:LYS:HA	49:BS:33:LYS:HD3	1.81	0.41
50:BT:64:ARG:HG2	50:BT:64:ARG:NH1	2.34	0.41
50:BT:8:LYS:HB3	50:BT:8:LYS:HE2	1.81	0.41
51:BU:100:VAL:O	51:BU:103:PRO:HD3	2.21	0.41
52:BV:57:VAL:O	52:BV:57:VAL:HG13	2.19	0.41
54:BX:12:VAL:HG13	54:BX:27:THR:O	2.21	0.41
55:BY:31:LEU:HD23	55:BY:36:ALA:C	2.41	0.41
55:BY:48:ALA:O	55:BY:58:GLY:HA3	2.20	0.41
56:BZ:151:HIS:HA	56:BZ:171:ILE:CG1	2.50	0.41
1:CA:1239:A:H2'	1:CA:1298:C:N4	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1421:G:C2	1:CA:1422:G:C4	3.09	0.41
1:CA:218:C:O2'	1:CA:219:C:H5'	2.21	0.41
1:CA:593:G:O2'	1:CA:594:G:H5'	2.21	0.41
2:CB:173:ALA:O	2:CB:174:VAL:C	2.59	0.41
3:CC:129:ALA:HB3	3:CC:132:ARG:HB3	2.01	0.41
3:CC:28:GLN:HE21	3:CC:28:GLN:CA	2.31	0.41
3:CC:69:HIS:CD2	3:CC:69:HIS:N	2.89	0.41
5:CE:9:LYS:CB	5:CE:112:LEU:HD11	2.46	0.41
5:CE:8:GLU:CB	5:CE:34:VAL:HG22	2.51	0.41
5:CE:75:THR:HA	5:CE:115:VAL:HG13	2.03	0.41
6:CF:12:PRO:HB3	6:CF:45:LEU:HD13	2.02	0.41
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.19	0.41
9:CI:92:TYR:C	9:CI:94:ALA:N	2.74	0.41
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	2.21	0.41
12:CL:104:VAL:O	12:CL:105:TYR:HB2	2.20	0.41
13:CM:80:ARG:O	13:CM:82:MET:N	2.53	0.41
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.20	0.41
18:CR:58:LEU:HD13	18:CR:63:GLN:OE1	2.21	0.41
19:CS:19:VAL:HG11	19:CS:44:MET:CE	2.50	0.41
31:D6:15:GLU:HG2	31:D6:18:ARG:CZ	2.49	0.41
31:D6:16:CYS:O	31:D6:18:ARG:NH1	2.53	0.41
32:D7:34:ARG:HB2	32:D7:42:LEU:HD22	2.02	0.41
32:D7:41:ARG:HD3	32:D7:45:ALA:HB2	2.02	0.41
33:D8:4:MET:HE2	35:DA:593:G:C1'	2.50	0.41
35:DA:1300:U:O2'	35:DA:1301:A:P	2.79	0.41
35:DA:1766:U:H2'	35:DA:1767:C:H6	1.85	0.41
35:DA:1968:G:O2'	35:DA:1969:A:O4'	2.34	0.41
35:DA:2165:G:H2'	35:DA:2166:G:O4'	2.20	0.41
35:DA:2364:C:H2'	35:DA:2365:G:O4'	2.20	0.41
35:DA:2517:C:N3	35:DA:2542:A:N6	2.69	0.41
35:DA:2663:G:H2'	35:DA:2664:G:H8	1.85	0.41
35:DA:1629:U:O2	35:DA:2698:U:H5''	2.20	0.41
35:DA:2736:G:O2'	35:DA:2737:G:H5'	2.20	0.41
35:DA:2773:C:C2	35:DA:2774:C:C5	3.08	0.41
35:DA:360:G:H2'	35:DA:361:G:H8	1.84	0.41
35:DA:732:C:H2'	35:DA:733:G:H5'	2.02	0.41
38:DD:153:ALA:C	38:DD:154:LYS:HG2	2.41	0.41
38:DD:68:LYS:O	38:DD:68:LYS:HG3	2.21	0.41
41:DG:110:ALA:O	41:DG:111:LEU:C	2.59	0.41
42:DH:123:PHE:HD1	42:DH:123:PHE:N	2.18	0.41
46:DP:47:ASP:HB2	46:DP:51:PHE:HD2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:57:PHE:CD2	50:DT:58:ASN:N	2.85	0.41
50:DT:3:ARG:C	50:DT:5:ALA:N	2.72	0.41
53:DW:71:VAL:HG12	53:DW:71:VAL:O	2.20	0.41
56:DZ:121:HIS:CB	56:DZ:171:ILE:HA	2.50	0.41
56:DZ:136:PHE:CD1	56:DZ:137:ILE:N	2.88	0.41
56:DZ:23:LYS:HD2	56:DZ:23:LYS:N	2.36	0.41
56:DZ:29:TYR:O	56:DZ:89:PHE:CD2	2.74	0.41
1:AA:1004:A:H5''	1:AA:1025:U:H3	1.85	0.41
1:AA:1184:G:O2'	1:AA:1185:G:H5'	2.21	0.41
1:AA:1228:C:P	13:AM:108:ARG:NH2	2.92	0.41
1:AA:1298:C:H4'	1:AA:1299:A:N9	2.35	0.41
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.20	0.41
1:AA:189(I):G:H2'	1:AA:189(J):G:H8	1.85	0.41
1:AA:543:C:H2'	1:AA:544:G:C8	2.55	0.41
1:AA:923:A:C2	1:AA:924:C:C2	3.08	0.41
1:AA:955:U:H2'	1:AA:956:U:O4'	2.20	0.41
3:AC:119:ARG:HE	3:AC:140:ARG:NE	2.18	0.41
3:AC:164:ARG:CB	3:AC:164:ARG:NH1	2.84	0.41
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	2.03	0.41
3:AC:5:ILE:C	3:AC:5:ILE:HD12	2.40	0.41
1:AA:7:G:H2'	5:AE:119:LEU:HD22	2.03	0.41
6:AF:42:GLU:OE1	6:AF:59:TYR:HE2	2.03	0.41
7:AG:54:THR:OG1	7:AG:56:GLN:CG	2.63	0.41
7:AG:97:GLN:HG2	7:AG:101:LEU:HD11	2.01	0.41
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.21	0.41
9:AI:65:VAL:HG11	9:AI:73:GLN:HB3	2.03	0.41
10:AJ:30:SER:CA	10:AJ:80:LYS:HB3	2.51	0.41
12:AL:27:LEU:C	12:AL:29:GLY:H	2.23	0.41
10:AJ:63:PHE:CZ	14:AN:45:ARG:HG3	2.52	0.41
15:AO:10:LYS:NZ	15:AO:14:GLU:HG2	2.35	0.41
15:AO:3:ILE:N	15:AO:3:ILE:CD1	2.80	0.41
16:AP:20:VAL:CG2	16:AP:32:TYR:HB3	2.51	0.41
17:AQ:68:ARG:CG	17:AQ:68:ARG:NH1	2.84	0.41
18:AR:85:LEU:CG	18:AR:86:VAL:H	2.33	0.41
19:AS:41:VAL:HG13	19:AS:42:PRO:HD2	2.01	0.41
25:B0:55:ARG:HB3	25:B0:55:ARG:HE	1.50	0.41
27:B2:45:SER:O	27:B2:46:GLN:NE2	2.54	0.41
27:B2:28:LYS:NZ	27:B2:56:GLN:OE1	2.52	0.41
33:B8:13:ARG:HB3	46:BP:63:PRO:CB	2.29	0.41
33:B8:44:LYS:N	33:B8:44:LYS:HD2	2.36	0.41
34:B9:17:ILE:HG21	34:B9:19:ARG:HH21	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1243:G:C6	35:BA:1244:G:C5	3.09	0.41
35:BA:1456:G:O2'	35:BA:1457:A:H5'	2.21	0.41
35:BA:1480:G:H2'	35:BA:1480:G:N3	2.36	0.41
35:BA:1495:A:H3'	35:BA:1496:A:C2	2.56	0.41
35:BA:1719:G:C6	35:BA:1720:U:C4	3.09	0.41
35:BA:2281:C:O4'	35:BA:2388:A:C2	2.74	0.41
35:BA:251:A:C5	35:BA:252:G:H1'	2.56	0.41
35:BA:2593:U:C2	35:BA:2594:C:C5	3.08	0.41
35:BA:2686:G:C2	35:BA:2724:C:O2	2.73	0.41
35:BA:2715:C:H2'	35:BA:2716:U:C6	2.56	0.41
35:BA:513:A:N1	35:BA:514:A:C5	2.88	0.41
35:BA:542:C:C2'	35:BA:543:C:OP1	2.69	0.41
35:BA:569:U:C4	35:BA:570:G:C6	3.09	0.41
35:BA:601:C:O2	35:BA:605:C:H4'	2.21	0.41
36:BB:114:C:H4'	49:BS:46:VAL:HG22	2.02	0.41
36:BB:54:G:O2'	36:BB:55:U:H5'	2.21	0.41
36:BB:87:G:H3'	36:BB:88:C:C5'	2.48	0.41
37:BC:36:LYS:CD	37:BC:37:PHE:H	2.33	0.41
38:BD:105:ILE:O	38:BD:107:ALA:N	2.53	0.41
38:BD:16:MET:HE2	38:BD:208:LYS:HD2	2.02	0.41
38:BD:65:ILE:N	38:BD:65:ILE:CD1	2.81	0.41
40:BF:157:VAL:HA	40:BF:176:LEU:O	2.20	0.41
46:BP:47:ASP:CB	46:BP:51:PHE:HB2	2.50	0.41
35:BA:911:A:C6	47:BQ:9:TYR:CD1	3.09	0.41
53:BW:62:HIS:O	53:BW:63:ASP:C	2.58	0.41
55:BY:2:ARG:N	55:BY:5:MET:CE	2.83	0.41
56:BZ:99:TYR:HB3	56:BZ:123:ASP:OD1	2.21	0.41
1:CA:590:C:H2'	1:CA:591:U:C6	2.56	0.41
1:CA:59:A:H1'	1:CA:354:G:C2	2.55	0.41
1:CA:689:C:H2'	1:CA:690:G:O4'	2.20	0.41
1:CA:923:A:C2	1:CA:924:C:C2	3.09	0.41
2:CB:74:LYS:NZ	2:CB:76:GLN:HB2	2.35	0.41
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	2.02	0.41
4:CD:170:VAL:CG2	4:CD:171:GLY:N	2.79	0.41
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.20	0.41
5:CE:144:THR:C	5:CE:146:ALA:N	2.72	0.41
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HE3	2.55	0.41
13:CM:108:ARG:HG3	13:CM:108:ARG:HH11	1.84	0.41
14:CN:9:LYS:HA	14:CN:12:ARG:NH1	2.36	0.41
18:CR:56:THR:O	18:CR:58:LEU:N	2.53	0.41
24:CX:16:U:H2'	24:CX:17:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:70:GLN:HE21	25:D0:70:GLN:HB3	1.50	0.41
26:D1:5:CYS:O	26:D1:9:GLY:HA2	2.21	0.41
27:D2:13:ALA:O	27:D2:16:LEU:HB2	2.20	0.41
33:D8:61:LEU:CD1	33:D8:62:LEU:N	2.83	0.41
35:DA:1336:A:O2'	35:DA:1337:G:H5'	2.21	0.41
35:DA:1448:G:H5'	35:DA:1449:A:P	2.61	0.41
35:DA:1509(B):A:H2'	35:DA:1510:G:C8	2.55	0.41
35:DA:142:A:H8	35:DA:1595:G:H21	1.64	0.41
35:DA:1773:A:H2'	35:DA:1774:C:H5'	2.03	0.41
35:DA:2190:G:C8	35:DA:2190:G:H5'	2.55	0.41
35:DA:2576:G:H3'	35:DA:2576:G:OP1	2.21	0.41
35:DA:2704:C:H2'	35:DA:2705:A:O4'	2.20	0.41
35:DA:2732:G:H3'	35:DA:2733:A:C5'	2.50	0.41
35:DA:2770:G:H5'	35:DA:2771:C:OP2	2.21	0.41
35:DA:443:A:OP1	40:DF:46:ARG:HB2	2.21	0.41
35:DA:594:U:H2'	35:DA:595:C:C6	2.56	0.41
35:DA:741:G:H2'	35:DA:742:G:C8	2.56	0.41
35:DA:893:C:O2'	35:DA:894:C:H5'	2.21	0.41
35:DA:949:C:O2'	35:DA:950:G:H5'	2.20	0.41
36:DB:15:A:H5'	36:DB:16:G:C8	2.55	0.41
37:DC:45:ALA:O	37:DC:46:LYS:CB	2.64	0.41
37:DC:83:ILE:HD11	37:DC:95:GLY:O	2.20	0.41
35:DA:2303:G:O2'	41:DG:132:ASN:HB2	2.20	0.41
41:DG:125:PHE:HZ	41:DG:180:PHE:CE1	2.38	0.41
41:DG:91:ARG:C	41:DG:91:ARG:CD	2.89	0.41
42:DH:18:GLU:HG3	42:DH:25:LYS:CG	2.50	0.41
42:DH:85:LYS:HE2	42:DH:145:ALA:N	2.36	0.41
43:DI:114:LEU:O	43:DI:115:ALA:HB3	2.20	0.41
45:DO:1:MET:CE	45:DO:67:LYS:HE2	2.50	0.41
46:DP:144:GLU:O	46:DP:145:PRO:C	2.58	0.41
46:DP:86:LYS:HG2	46:DP:86:LYS:O	2.20	0.41
47:DQ:111:GLU:OE2	47:DQ:133:ARG:NH2	2.54	0.41
47:DQ:72:LYS:HA	47:DQ:73:PRO:HD3	1.78	0.41
49:DS:71:ARG:O	49:DS:74:ALA:HB3	2.20	0.41
51:DU:102:GLU:HG3	52:DV:2:PHE:HE1	1.81	0.41
51:DU:21:ALA:HB2	51:DU:35:ALA:HB1	2.03	0.41
52:DV:6:LYS:HB3	52:DV:37:VAL:HB	2.03	0.41
52:DV:17:GLY:HA2	52:DV:96:ILE:O	2.21	0.41
53:DW:68:ARG:HA	53:DW:68:ARG:HD3	1.93	0.41
54:DX:64:LYS:HB2	54:DX:64:LYS:NZ	2.36	0.41
56:DZ:128:VAL:HG22	56:DZ:129:SER:H	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:17:ALA:HA	56:DZ:20:ARG:HB2	2.02	0.41
56:DZ:98:MET:O	56:DZ:100:VAL:HG23	2.21	0.41
1:AA:1071:C:H5''	5:AE:49:PRO:HG2	2.02	0.41
1:AA:1288:A:O4'	1:AA:1353:G:H4'	2.21	0.41
1:AA:696:A:O2'	1:AA:697:U:H5'	2.20	0.41
1:AA:586:C:H1'	1:AA:878:G:O2'	2.21	0.41
1:AA:884:U:H4'	1:AA:885:G:H5''	2.03	0.41
3:AC:113:ALA:CA	3:AC:116:VAL:HG23	2.46	0.41
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.20	0.41
4:AD:16:GLY:O	4:AD:18:LYS:N	2.54	0.41
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.21	0.41
1:AA:1378:C:H5''	7:AG:6:ARG:HE	1.85	0.41
8:AH:45:ILE:HB	8:AH:62:TYR:O	2.21	0.41
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.36	0.41
11:AK:13:GLN:HG2	11:AK:75:TYR:HA	2.02	0.41
12:AL:8:ASN:O	12:AL:12:ARG:HG3	2.21	0.41
13:AM:91:ARG:NH2	13:AM:103:THR:HG21	2.35	0.41
16:AP:2:VAL:HG22	16:AP:3:LYS:N	2.36	0.41
19:AS:41:VAL:HB	19:AS:44:MET:SD	2.60	0.41
22:AV:41:C:C3'	22:AV:42:C:C5'	2.93	0.41
22:AV:44:G:O2'	22:AV:45:U:H5'	2.20	0.41
23:AW:56:C:C2	23:AW:57:G:H8	2.39	0.41
26:B1:86:SER:O	26:B1:90:ILE:HG12	2.20	0.41
27:B2:47:ASN:ND2	35:BA:94(A):G:N3	2.69	0.41
32:B7:31:LEU:HD23	32:B7:42:LEU:HB3	2.02	0.41
35:BA:1127:A:H2'	35:BA:1128:A:H5''	2.03	0.41
35:BA:13:A:H61	35:BA:525:U:H3'	1.85	0.41
35:BA:271(D):G:C6	35:BA:271(E):U:C4	3.09	0.41
35:BA:511:U:C5	35:BA:512:G:C5	3.08	0.41
35:BA:827:U:H2'	35:BA:2068:U:C2	2.55	0.41
35:BA:8:A:H2	35:BA:2896:C:O2	2.04	0.41
37:BC:24:GLU:OE1	37:BC:24:GLU:N	2.54	0.41
38:BD:159:ALA:HB1	38:BD:198:ASN:O	2.20	0.41
39:BE:57:LYS:O	39:BE:59:VAL:N	2.53	0.41
40:BF:17:ARG:CG	40:BF:17:ARG:NH1	2.78	0.41
40:BF:45:ARG:NH1	40:BF:97:TYR:CE1	2.89	0.41
42:BH:67:LEU:O	42:BH:71:LEU:HB2	2.20	0.41
43:BI:78:THR:CB	43:BI:141:LYS:HB2	2.51	0.41
48:BR:74:LYS:CD	48:BR:77:ARG:NH2	2.84	0.41
49:BS:46:VAL:HG12	49:BS:47:THR:N	2.36	0.41
49:BS:95:HIS:O	49:BS:96:GLY:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:108:ARG:O	50:BT:112:ARG:HG3	2.21	0.41
50:BT:48:ILE:HD12	50:BT:48:ILE:H	1.85	0.41
51:BU:5:LYS:O	51:BU:6:THR:C	2.59	0.41
51:BU:83:LEU:CG	51:BU:88:ILE:HD11	2.41	0.41
53:BW:19:LEU:CD1	53:BW:19:LEU:N	2.84	0.41
54:BX:32:PRO:HA	54:BX:77:LYS:CB	2.50	0.41
1:CA:1133:G:C4	1:CA:1142:G:N2	2.86	0.41
1:CA:1206:G:O4'	3:CC:194:GLY:HA2	2.21	0.41
1:CA:1351:U:H2'	1:CA:1352:C:H6	1.86	0.41
1:CA:255:G:H2'	1:CA:256:U:H6	1.83	0.41
3:CC:101:LEU:HD23	3:CC:101:LEU:C	2.41	0.41
3:CC:78:GLY:HA3	3:CC:83:ARG:HB3	2.02	0.41
7:CG:30:ILE:HD13	7:CG:105:VAL:HG22	2.02	0.41
9:CI:48:GLU:HA	9:CI:51:ARG:HD2	2.02	0.41
10:CJ:52:GLY:O	14:CN:41:ARG:NH2	2.53	0.41
12:CL:25:PRO:O	12:CL:27:LEU:N	2.53	0.41
13:CM:76:ALA:HA	13:CM:79:LYS:NZ	2.36	0.41
13:CM:7:VAL:HG21	41:DG:115:ARG:CG	2.50	0.41
14:CN:26:ARG:HD2	14:CN:47:LEU:HD11	2.02	0.41
15:CO:10:LYS:NZ	15:CO:14:GLU:HG2	2.36	0.41
15:CO:74:ASP:O	15:CO:76:GLU:N	2.54	0.41
15:CO:82:ILE:HG23	15:CO:83:GLU:N	2.35	0.41
16:CP:4:ILE:CG2	16:CP:36:ILE:HD11	2.47	0.41
17:CQ:91:ARG:O	17:CQ:94:ASN:HB2	2.20	0.41
18:CR:85:LEU:CG	18:CR:86:VAL:N	2.84	0.41
20:CT:13:LEU:CD1	20:CT:13:LEU:C	2.88	0.41
23:CW:28:G:H2'	23:CW:29:G:H8	1.86	0.41
26:D1:78:LYS:HB2	26:D1:78:LYS:HE3	1.80	0.41
27:D2:61:LEU:O	27:D2:62:THR:C	2.59	0.41
28:D3:17:LYS:HA	28:D3:17:LYS:HD2	1.79	0.41
29:D4:48:ILE:H	29:D4:48:ILE:CD1	2.29	0.41
30:D5:49:CYS:O	30:D5:50:GLY:C	2.58	0.41
35:DA:118:A:H1'	35:DA:178:G:O4'	2.21	0.41
35:DA:2198:A:OP1	43:DI:33:ARG:NH2	2.54	0.41
35:DA:2516:G:C6	35:DA:2517:C:C4	3.08	0.41
35:DA:2592:G:O5'	35:DA:2592:G:H8	2.04	0.41
35:DA:2696:U:H2'	35:DA:2697:G:H8	1.86	0.41
35:DA:2732:G:C3'	35:DA:2733:A:C5'	2.99	0.41
26:D1:65:SER:O	35:DA:372:G:H8	2.03	0.41
35:DA:462:C:O2'	35:DA:463:G:H5'	2.21	0.41
35:DA:703:U:H2'	35:DA:704:G:H5'	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:911:A:H2'	47:DQ:9:TYR:OH	2.20	0.41
36:DB:6:C:C2	36:DB:116:G:N2	2.89	0.41
36:DB:39:A:N3	36:DB:39:A:H2'	2.35	0.41
35:DA:919:G:H5'	36:DB:81:G:H1'	2.02	0.41
37:DC:188:ASN:C	37:DC:190:ARG:H	2.23	0.41
38:DD:122:ASP:OD1	38:DD:123:ALA:N	2.54	0.41
38:DD:35:LYS:CA	38:DD:63:ARG:HA	2.46	0.41
39:DE:48:GLN:O	39:DE:48:GLN:HG2	2.21	0.41
40:DF:117:ARG:HA	40:DF:117:ARG:HD3	1.75	0.41
40:DF:28:ILE:HG12	40:DF:119:ARG:HH21	1.86	0.41
41:DG:7:LEU:HD11	41:DG:104:GLU:N	2.35	0.41
44:DN:3:THR:HG22	44:DN:5:VAL:HB	2.03	0.41
47:DQ:45:GLN:O	47:DQ:49:ALA:CB	2.67	0.41
49:DS:54:LEU:CD2	49:DS:54:LEU:H	2.32	0.41
49:DS:64:GLU:N	49:DS:64:GLU:OE2	2.53	0.41
50:DT:57:PHE:CG	50:DT:58:ASN:N	2.88	0.41
39:DE:15:PHE:CE2	50:DT:80:SER:HB2	2.56	0.41
51:DU:92:ARG:CB	51:DU:92:ARG:CZ	2.95	0.41
53:DW:12:ILE:HD13	53:DW:17:VAL:CG1	2.49	0.41
53:DW:50:VAL:HG13	53:DW:51:LEU:N	2.36	0.41
56:DZ:121:HIS:CG	56:DZ:171:ILE:HA	2.56	0.41
56:DZ:7:ALA:HB2	56:DZ:39:VAL:HG12	2.02	0.41
56:DZ:71:VAL:HA	56:DZ:87:ASP:O	2.20	0.41
56:DZ:96:VAL:HG12	56:DZ:97:GLU:N	2.35	0.41
1:AA:1065:U:H6	1:AA:1190:G:H21	1.67	0.41
1:AA:161:A:H2'	1:AA:162:A:O4'	2.20	0.41
2:AB:114:ARG:CG	2:AB:114:ARG:HH11	2.34	0.41
2:AB:124:SER:C	2:AB:126:GLU:H	2.24	0.41
5:AE:103:GLY:O	5:AE:104:ALA:C	2.58	0.41
1:AA:921:U:O2'	5:AE:19:MET:O	2.31	0.41
9:AI:20:ARG:HH11	9:AI:20:ARG:CG	2.32	0.41
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.56	0.41
11:AK:91:ARG:HG2	11:AK:91:ARG:HH11	1.85	0.41
12:AL:90:VAL:C	12:AL:92:ASP:H	2.17	0.41
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.69	0.41
19:AS:5:LEU:HA	19:AS:6:LYS:HZ2	1.85	0.41
23:AW:43:C:H2'	23:AW:43:C:O2	2.21	0.41
25:B0:18:ALA:O	25:B0:20:ARG:HD3	2.21	0.41
25:B0:46:LYS:HD2	25:B0:78:TYR:CE1	2.55	0.41
27:B2:38:GLN:O	27:B2:39:ALA:C	2.58	0.41
29:B4:39:ARG:HG2	29:B4:39:ARG:HH11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:13:ARG:HD2	46:BP:61:ARG:NH1	2.34	0.41
33:B8:5:LYS:HG2	35:BA:254:G:O6	2.20	0.41
35:BA:1127:A:C2'	35:BA:1128:A:H5''	2.50	0.41
32:B7:9:ARG:CZ	35:BA:1310:G:OP2	2.69	0.41
35:BA:1503:U:C4	35:BA:1504:C:N4	2.86	0.41
35:BA:1686:C:O2'	35:BA:1687:G:H5'	2.21	0.41
35:BA:1788:C:O2'	35:BA:1789:A:H5'	2.20	0.41
35:BA:2291:U:O2'	35:BA:2374:C:O2	2.33	0.41
35:BA:2491:U:C2'	35:BA:2492:U:H5'	2.50	0.41
35:BA:2867:G:HO2'	35:BA:2868:A:P	2.44	0.41
35:BA:2884:U:C2'	35:BA:2885:C:H5'	2.50	0.41
35:BA:611:C:H2'	35:BA:612:C:C6	2.56	0.41
35:BA:741:G:O2'	35:BA:742:G:H5'	2.21	0.41
38:BD:117:VAL:HG22	38:BD:118:VAL:N	2.36	0.41
38:BD:123:ALA:HB3	38:BD:131:LEU:HG	2.03	0.41
38:BD:43:ARG:NH1	38:BD:49:ILE:HG22	2.35	0.41
35:BA:1568:G:H5''	38:BD:61:LEU:HB2	2.03	0.41
38:BD:64:ILE:HG13	38:BD:64:ILE:O	2.21	0.41
38:BD:70:TRP:O	38:BD:73:VAL:HG22	2.19	0.41
35:BA:2619:C:O2'	39:BE:156:MET:HE3	2.20	0.41
39:BE:4:ILE:C	39:BE:5:LEU:HD23	2.41	0.41
41:BG:41:GLN:OE1	41:BG:60:LEU:HD23	2.21	0.41
43:BI:2:LYS:O	43:BI:39:ALA:HB3	2.20	0.41
45:BO:34:THR:HG23	45:BO:35:VAL:N	2.35	0.41
46:BP:102:ARG:O	46:BP:103:ALA:HB2	2.20	0.41
35:BA:955:C:OP1	47:BQ:13:GLN:HA	2.21	0.41
47:BQ:141:GLN:H	56:BZ:99:TYR:CB	2.29	0.41
47:BQ:39:PRO:HD3	47:BQ:99:PRO:HG3	2.02	0.41
49:BS:101:LEU:C	49:BS:101:LEU:HD22	2.41	0.41
49:BS:71:ARG:O	49:BS:74:ALA:HB3	2.21	0.41
49:BS:80:LEU:CD1	49:BS:80:LEU:N	2.84	0.41
50:BT:89:VAL:HB	50:BT:91:ARG:CD	2.50	0.41
52:BV:35:LEU:O	52:BV:37:VAL:N	2.54	0.41
56:BZ:128:VAL:HG22	56:BZ:129:SER:O	2.20	0.41
56:BZ:15:PRO:O	56:BZ:16:SER:C	2.59	0.41
36:BB:105:A:OP1	56:BZ:72:ARG:NH1	2.54	0.41
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.43	0.41
1:CA:189(C):C:C2'	1:CA:189(D):C:H5'	2.51	0.41
1:CA:254:G:O2'	1:CA:255:G:H5'	2.20	0.41
1:CA:130:A:H1'	1:CA:263:A:HO2'	1.85	0.41
1:CA:283:C:H2'	1:CA:284:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:327:A:C4	1:CA:329:A:C8	3.08	0.41
1:CA:321:A:C2	1:CA:333:G:C2	3.09	0.41
1:CA:333:G:N2	1:CA:334:C:C2	2.88	0.41
1:CA:835:U:OP1	18:CR:61:LYS:HB2	2.21	0.41
2:CB:116:GLU:HB3	2:CB:153:ARG:NH2	2.36	0.41
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.21	0.41
3:CC:113:ALA:CA	3:CC:116:VAL:HG23	2.47	0.41
3:CC:22:TRP:CH2	3:CC:32:LEU:HB3	2.56	0.41
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.51	0.41
3:CC:72:LYS:O	3:CC:72:LYS:HG2	2.20	0.41
9:CI:33:PHE:CZ	9:CI:47:LEU:HD11	2.55	0.41
11:CK:29:ILE:HB	11:CK:44:SER:CB	2.48	0.41
11:CK:29:ILE:HD12	11:CK:30:VAL:N	2.35	0.41
11:CK:58:PRO:HG2	11:CK:59:TYR:H	1.86	0.41
11:CK:74:ALA:C	11:CK:76:GLY:N	2.71	0.41
13:CM:108:ARG:HH12	13:CM:112:GLY:CA	2.33	0.41
13:CM:56:LEU:HD13	13:CM:60:VAL:HG21	2.02	0.41
3:CC:30:ARG:NH2	14:CN:35:ARG:C	2.74	0.41
14:CN:55:GLY:O	14:CN:56:VAL:C	2.59	0.41
16:CP:21:VAL:O	16:CP:21:VAL:HG13	2.21	0.41
17:CQ:67:LYS:HG2	17:CQ:68:ARG:N	2.36	0.41
23:CW:59:U:H2'	23:CW:60:U:H5'	2.03	0.41
22:CV:36:A:C2	24:CX:17:U:O2	2.74	0.41
28:D3:46:ASN:O	28:D3:49:LYS:N	2.53	0.41
33:D8:60:LEU:O	33:D8:63:PRO:HG2	2.20	0.41
35:DA:1051:G:N3	35:DA:1052:C:H5	2.19	0.41
35:DA:1186:G:O5'	35:DA:1186:G:H8	2.04	0.41
35:DA:2172:U:H1'	35:DA:2173:A:OP1	2.21	0.41
35:DA:2281:C:O4'	35:DA:2388:A:C2	2.74	0.41
35:DA:2309:A:C2	35:DA:2310:A:C2	3.09	0.41
35:DA:614(C):A:O2'	35:DA:615:G:C4'	2.69	0.41
35:DA:741:G:H2'	35:DA:742:G:H8	1.86	0.41
35:DA:955:C:OP1	47:DQ:13:GLN:HA	2.19	0.41
36:DB:56:G:H4'	36:DB:57:A:C8	2.56	0.41
37:DC:49:ILE:O	37:DC:50:ASP:C	2.59	0.41
37:DC:56:GLN:NE2	37:DC:168:THR:CB	2.84	0.41
38:DD:45:ASN:CG	38:DD:46:GLN:H	2.24	0.41
38:DD:65:ILE:CD1	38:DD:65:ILE:N	2.79	0.41
35:DA:2632:A:N3	39:DE:61:ARG:HD3	2.35	0.41
39:DE:32:PRO:HB3	39:DE:69:LYS:HB3	2.01	0.41
39:DE:86:PRO:C	39:DE:88:GLY:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:113:ALA:HB1	40:DF:186:ILE:HG21	2.02	0.41
40:DF:192:LEU:C	40:DF:192:LEU:CD2	2.89	0.41
40:DF:62:ARG:HG2	40:DF:63:LYS:N	2.36	0.41
41:DG:111:LEU:N	41:DG:112:PRO:CD	2.84	0.41
42:DH:38:SER:HA	42:DH:39:PRO:HD3	1.91	0.41
35:DA:271(K):U:N3	43:DI:50:ARG:NH1	2.68	0.41
43:DI:84:GLY:O	43:DI:85:GLU:CB	2.67	0.41
44:DN:58:ASP:C	44:DN:60:ILE:N	2.72	0.41
44:DN:59:LYS:O	44:DN:60:ILE:C	2.59	0.41
45:DO:24:VAL:HG21	45:DO:32:TYR:O	2.20	0.41
46:DP:33:ARG:O	46:DP:35:HIS:N	2.52	0.41
46:DP:47:ASP:CB	46:DP:51:PHE:HB2	2.50	0.41
48:DR:7:GLY:O	48:DR:8:ARG:HB2	2.21	0.41
49:DS:97:ARG:O	49:DS:97:ARG:NE	2.53	0.41
50:DT:125:ARG:HH11	50:DT:125:ARG:HA	1.79	0.41
52:DV:19:LYS:HZ3	52:DV:20:LEU:HB2	1.84	0.41
54:DX:32:PRO:HA	54:DX:77:LYS:HB2	2.02	0.41
55:DY:31:LEU:HD23	55:DY:36:ALA:C	2.41	0.41
55:DY:50:ARG:HG3	55:DY:58:GLY:CA	2.51	0.41
56:DZ:30:ASN:CG	56:DZ:33:LEU:HB3	2.39	0.41
1:AA:1100:C:HO2'	1:AA:1102:A:P	2.43	0.41
1:AA:232:G:H2'	1:AA:233:C:O4'	2.20	0.41
1:AA:262:A:C6	1:AA:263:A:C6	3.09	0.41
1:AA:316:G:H2'	1:AA:317:G:H8	1.85	0.41
1:AA:327:A:C4	1:AA:329:A:C8	3.09	0.41
1:AA:80:G:N7	1:AA:81:U:H5	2.19	0.41
1:AA:959:A:H2'	1:AA:960:U:H4'	2.02	0.41
1:AA:986:A:H2'	1:AA:987:G:H8	1.85	0.41
2:AB:19:HIS:CD2	2:AB:20:GLU:H	2.38	0.41
2:AB:46:LYS:O	2:AB:50:GLU:HG2	2.21	0.41
3:AC:69:HIS:CD2	3:AC:69:HIS:N	2.88	0.41
5:AE:110:LEU:HA	5:AE:113:ALA:HB3	2.03	0.41
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.86	0.41
1:AA:1373:G:H5''	7:AG:36:LYS:HB3	2.03	0.41
8:AH:134:ILE:O	8:AH:135:CYS:CB	2.62	0.41
9:AI:116:LYS:HZ2	9:AI:116:LYS:HB3	1.81	0.41
10:AJ:4:ILE:HD11	10:AJ:77:PRO:HB3	2.03	0.41
11:AK:29:ILE:HB	11:AK:44:SER:CB	2.47	0.41
15:AO:19:PRO:C	15:AO:21:ASP:H	2.23	0.41
16:AP:25:ARG:NH1	16:AP:25:ARG:HG3	2.35	0.41
16:AP:76:GLN:O	16:AP:76:GLN:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:83:ASP:CG	17:AQ:84:LEU:N	2.74	0.41
20:AT:28:ALA:C	20:AT:30:LYS:H	2.24	0.41
22:AV:67:C:H2'	22:AV:68:C:H6	1.81	0.41
25:B0:23:VAL:HG12	25:B0:25:ARG:O	2.21	0.41
29:B4:50:THR:C	29:B4:51:TYR:CG	2.94	0.41
29:B4:37:PRO:O	29:B4:55:PRO:HG3	2.21	0.41
35:BA:1188:U:HO2'	35:BA:1189:A:H5'	1.84	0.41
35:BA:1204:A:C2	35:BA:1206:G:C2	3.09	0.41
35:BA:1286:A:N6	35:BA:1289:C:C2	2.89	0.41
35:BA:1313:U:C2'	35:BA:1313:U:O2	2.68	0.41
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.21	0.41
35:BA:1593:G:C3'	35:BA:1594:G:C5'	2.96	0.41
35:BA:1614:A:H61	53:BW:88:ARG:H	1.67	0.41
35:BA:2065:C:O2'	35:BA:2066:C:H5'	2.20	0.41
35:BA:2306:C:H5	35:BA:2307:G:H1'	1.83	0.41
35:BA:2310:A:O2'	35:BA:2311:A:H5'	2.20	0.41
35:BA:315:G:H2'	35:BA:316:C:H6	1.86	0.41
35:BA:523:C:C5	35:BA:524:U:C5	3.09	0.41
35:BA:543:C:O2	35:BA:549:G:N2	2.53	0.41
36:BB:37:C:H2'	36:BB:38:C:O4'	2.21	0.41
37:BC:188:ASN:C	37:BC:190:ARG:H	2.23	0.41
38:BD:205:VAL:O	38:BD:206:LEU:C	2.59	0.41
38:BD:30:GLU:CD	38:BD:63:ARG:NE	2.72	0.41
35:BA:1568:G:O5'	38:BD:61:LEU:HB2	2.20	0.41
38:BD:6:PHE:CD1	38:BD:6:PHE:N	2.88	0.41
39:BE:52:LEU:HD12	39:BE:52:LEU:HA	1.95	0.41
35:BA:2632:A:N3	39:BE:61:ARG:HD3	2.36	0.41
40:BF:192:LEU:CD2	40:BF:192:LEU:C	2.89	0.41
40:BF:57:VAL:CG1	40:BF:59:TYR:CD1	3.04	0.41
41:BG:133:LEU:CD1	41:BG:135:LEU:CD1	2.98	0.41
41:BG:139:LEU:HB3	41:BG:149:VAL:HG11	2.03	0.41
41:BG:94:LEU:HD23	41:BG:94:LEU:HA	1.90	0.41
42:BH:137:ASP:O	42:BH:138:LYS:HB2	2.20	0.41
42:BH:150:ALA:O	42:BH:151:ILE:C	2.59	0.41
44:BN:115:ARG:O	44:BN:118:LYS:HB2	2.21	0.41
47:BQ:141:GLN:HB2	56:BZ:99:TYR:HD2	1.82	0.41
48:BR:99:LYS:CD	48:BR:99:LYS:N	2.84	0.41
50:BT:101:PHE:HE2	50:BT:113:LYS:HG2	1.85	0.41
51:BU:91:ASP:O	51:BU:95:LEU:HB2	2.21	0.41
52:BV:5:VAL:HG23	52:BV:37:VAL:O	2.21	0.41
54:BX:31:HIS:HA	54:BX:32:PRO:HD2	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:13:GLU:HA	56:BZ:13:GLU:OE2	2.21	0.41
1:CA:1060:C:H2'	1:CA:1061:G:C8	2.50	0.41
1:CA:1179:A:OP2	9:CI:93:ARG:NH2	2.54	0.41
1:CA:1403:C:O2	1:CA:1403:C:H2'	2.20	0.41
1:CA:1522:U:H2'	1:CA:1523:G:C8	2.56	0.41
1:CA:186:C:H2'	1:CA:187:C:H6	1.85	0.41
1:CA:302:G:O2'	1:CA:556:C:H5''	2.20	0.41
1:CA:644:G:H2'	1:CA:645:C:C5'	2.49	0.41
1:CA:658:G:O2'	1:CA:659:U:H5'	2.21	0.41
1:CA:737:A:H2'	1:CA:738:C:H6	1.81	0.41
1:CA:779:C:C2'	1:CA:780:A:H5'	2.50	0.41
1:CA:947:G:H2'	1:CA:948:C:C6	2.55	0.41
2:CB:154:LEU:O	2:CB:155:LEU:C	2.58	0.41
2:CB:178:ARG:HA	2:CB:178:ARG:HD3	1.93	0.41
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	2.03	0.41
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.19	0.41
9:CI:92:TYR:N	9:CI:92:TYR:CD1	2.89	0.41
10:CJ:24:VAL:CG2	10:CJ:37:PRO:HG3	2.51	0.41
1:CA:963:G:N2	10:CJ:55:LYS:HZ2	2.19	0.41
1:CA:1228:C:H4'	13:CM:116:THR:HA	2.03	0.41
13:CM:65:LYS:HG2	13:CM:66:LEU:N	2.35	0.41
13:CM:73:GLU:C	13:CM:76:ALA:H	2.23	0.41
3:CC:30:ARG:NH2	14:CN:35:ARG:CA	2.83	0.41
15:CO:41:GLU:O	15:CO:45:VAL:HG23	2.21	0.41
16:CP:4:ILE:O	16:CP:66:PRO:HA	2.20	0.41
18:CR:53:ARG:C	18:CR:55:ARG:H	2.24	0.41
22:CY:11:C:H2'	22:CY:12:U:C6	2.55	0.41
27:D2:4:SER:HA	27:D2:7:ARG:HH11	1.86	0.41
28:D3:39:ASP:OD2	28:D3:44:ARG:NH2	2.47	0.41
35:DA:149:A:H2'	35:DA:150:C:C6	2.56	0.41
35:DA:1790:C:H5''	35:DA:1791:A:OP1	2.20	0.41
35:DA:1824:G:OP1	38:DD:52:ARG:HD3	2.21	0.41
35:DA:2584:U:O5'	35:DA:2584:U:H6	2.04	0.41
35:DA:2880:C:H1'	48:DR:92:GLY:O	2.20	0.41
35:DA:292:C:H2'	35:DA:293:U:H5'	2.03	0.41
35:DA:466:A:H2'	35:DA:467:G:H5'	2.03	0.41
35:DA:721:C:H3'	35:DA:722:A:H8	1.85	0.41
35:DA:962:G:O2'	35:DA:963:U:H5'	2.20	0.41
35:DA:917:A:N1	36:DB:80:U:H4'	2.35	0.41
37:DC:71:GLN:HG2	37:DC:73:ARG:NH2	2.34	0.41
38:DD:176:ARG:HA	38:DD:182:LEU:HD23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:270:ILE:C	38:DD:271:ILE:CG1	2.85	0.41
38:DD:270:ILE:O	38:DD:270:ILE:HD12	2.20	0.41
39:DE:161:GLY:O	39:DE:162:ALA:C	2.58	0.41
39:DE:186:GLY:C	39:DE:188:VAL:N	2.73	0.41
40:DF:96:ASP:C	40:DF:96:ASP:OD1	2.59	0.41
42:DH:41:MET:SD	42:DH:55:PRO:HG3	2.61	0.41
43:DI:78:THR:CB	43:DI:141:LYS:HB2	2.51	0.41
43:DI:12:LEU:HB2	43:DI:19:VAL:HG11	2.01	0.41
44:DN:32:THR:HG22	44:DN:37:LYS:HB3	2.01	0.41
46:DP:146:VAL:O	46:DP:148:LEU:N	2.54	0.41
47:DQ:30:GLY:N	47:DQ:105:GLU:OE2	2.53	0.41
47:DQ:135:ASP:CG	47:DQ:136:ALA:H	2.24	0.41
47:DQ:26:TYR:CE1	47:DQ:28:ALA:HB3	2.56	0.41
48:DR:100:LEU:HD22	48:DR:100:LEU:N	2.33	0.41
48:DR:24:GLN:HB2	48:DR:44:LEU:HD23	2.03	0.41
49:DS:99:LYS:O	49:DS:101:LEU:N	2.45	0.41
50:DT:98:LYS:HB3	50:DT:100:TYR:CE1	2.56	0.41
54:DX:12:VAL:HB	54:DX:17:ALA:CB	2.50	0.41
54:DX:37:THR:O	54:DX:38:GLU:C	2.59	0.41
1:AA:1396:A:O4'	1:AA:1398:A:H1'	2.21	0.41
1:AA:149:A:O2'	1:AA:150:C:C6	2.74	0.41
1:AA:189(C):C:C2'	1:AA:189(D):C:H5'	2.51	0.41
1:AA:192:U:O2'	1:AA:193:C:H5'	2.21	0.41
1:AA:542:G:P	4:AD:10:ARG:NH2	2.94	0.41
1:AA:19:C:O2	1:AA:572:A:H2	2.03	0.41
1:AA:5:U:C2	4:AD:86:LYS:HE2	2.56	0.41
2:AB:154:LEU:O	2:AB:155:LEU:C	2.58	0.41
2:AB:167:PRO:HG2	2:AB:168:THR:H	1.83	0.41
2:AB:77:ALA:CB	2:AB:211:ILE:HG21	2.51	0.41
2:AB:84:GLU:O	2:AB:219:VAL:HG11	2.21	0.41
3:AC:178:LEU:N	3:AC:178:LEU:HD22	2.36	0.41
4:AD:108:LEU:CB	4:AD:110:PHE:CE1	3.04	0.41
6:AF:12:PRO:HB3	6:AF:45:LEU:HD13	2.03	0.41
6:AF:53:ALA:O	6:AF:54:LYS:HB2	2.21	0.41
8:AH:137:VAL:CG1	8:AH:138:TRP:N	2.84	0.41
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.21	0.41
12:AL:27:LEU:HD11	12:AL:64:TYR:CE2	2.55	0.41
12:AL:37:CYS:CA	12:AL:58:VAL:HG22	2.51	0.41
12:AL:6:THR:HG22	12:AL:9:GLN:CD	2.41	0.41
13:AM:99:ARG:C	13:AM:101:GLN:HE21	2.24	0.41
13:AM:89:GLY:C	13:AM:90:LEU:O	2.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.53	0.41
18:AR:53:ARG:C	18:AR:55:ARG:H	2.25	0.41
19:AS:5:LEU:C	19:AS:6:LYS:HE3	2.41	0.41
24:AX:13:A:N3	24:AX:13:A:H2'	2.35	0.41
22:AY:71:G:N3	22:AY:71:G:H2'	2.36	0.41
27:B2:38:GLN:HB3	27:B2:44:LEU:O	2.21	0.41
31:B6:51:GLU:O	31:B6:52:VAL:CG2	2.68	0.41
34:B9:26:ILE:HD12	34:B9:26:ILE:N	2.26	0.41
35:BA:1493:C:C2'	35:BA:1493:C:O2	2.68	0.41
35:BA:1515:G:O2'	35:BA:1516:C:H5'	2.21	0.41
35:BA:1756:G:H4'	35:BA:1758:G:O4'	2.21	0.41
35:BA:2019:A:N6	35:BA:2020:A:C5	2.88	0.41
35:BA:530:G:C5	35:BA:2022:U:H5''	2.56	0.41
35:BA:2171:A:O2'	35:BA:2172:U:H6	2.04	0.41
35:BA:2821:A:OP2	39:BE:110:GLY:O	2.39	0.41
35:BA:564:C:C2'	35:BA:565:C:H5'	2.51	0.41
35:BA:613:G:H8	35:BA:613:G:C5'	2.29	0.41
35:BA:614(C):A:HO2'	35:BA:615:G:P	2.42	0.41
27:B2:47:ASN:OD1	35:BA:61:G:C4	2.73	0.41
35:BA:196:A:H61	35:BA:831:G:H21	1.69	0.41
35:BA:869:G:C2'	35:BA:870:A:H5'	2.50	0.41
35:BA:962:G:O2'	35:BA:963:U:H5'	2.20	0.41
38:BD:206:LEU:HD22	38:BD:211:ARG:HG3	2.03	0.41
42:BH:46:GLU:HG3	42:BH:50:VAL:HG13	2.03	0.41
43:BI:130:TYR:O	43:BI:135:GLU:HG2	2.21	0.41
43:BI:28:ASN:HA	43:BI:32:PRO:HG2	2.03	0.41
43:BI:76:THR:O	43:BI:77:LEU:HB2	2.21	0.41
49:BS:88:ASP:CG	49:BS:89:ARG:N	2.73	0.41
52:BV:17:GLY:HA2	52:BV:96:ILE:O	2.20	0.41
52:BV:6:LYS:HB3	52:BV:37:VAL:HB	2.03	0.41
56:BZ:124:ILE:O	56:BZ:126:VAL:HG13	2.21	0.41
56:BZ:95:PRO:O	56:BZ:127:LYS:HG3	2.20	0.41
56:BZ:18:LEU:HB3	56:BZ:23:LYS:HB2	2.02	0.41
56:BZ:25:PRO:O	56:BZ:85:HIS:HA	2.21	0.41
56:BZ:9:TYR:HE2	56:BZ:35:ARG:NE	2.16	0.41
1:CA:1053:G:N7	1:CA:1200:C:C5'	2.83	0.41
1:CA:271:C:H2'	1:CA:272:C:H6	1.86	0.41
1:CA:123:C:H5''	1:CA:311:C:O2'	2.21	0.41
1:CA:311:C:O2'	1:CA:312:C:H5'	2.21	0.41
1:CA:542:G:P	4:CD:10:ARG:NH2	2.93	0.41
1:CA:728:A:H2'	1:CA:729:A:H8	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:20:GLU:OE2	2:CB:23:ARG:NH2	2.53	0.41
2:CB:77:ALA:CB	2:CB:211:ILE:HG21	2.51	0.41
3:CC:150:LYS:CG	3:CC:169:ALA:HB2	2.46	0.41
3:CC:152:ILE:CG1	3:CC:199:LYS:HB2	2.51	0.41
4:CD:22:LYS:CB	4:CD:26:CYS:HB2	2.47	0.41
4:CD:30:LYS:O	4:CD:32:ALA:N	2.53	0.41
8:CH:75:ARG:HA	8:CH:76:PRO:HD2	1.86	0.41
1:CA:1347:G:H5''	9:CI:107:ARG:HB3	2.03	0.41
9:CI:63:ILE:CG2	9:CI:64:THR:N	2.84	0.41
1:CA:1280:A:C8	10:CJ:41:PRO:HD2	2.56	0.41
11:CK:104:GLN:C	11:CK:106:LYS:H	2.24	0.41
1:CA:1320:C:O4'	19:CS:73:GLU:HG3	2.20	0.41
22:CY:35:A:O2'	22:CY:36:A:H5'	2.20	0.41
25:D0:43:THR:CG2	35:DA:2336:A:H61	2.34	0.41
26:D1:57:GLU:O	26:D1:58:ILE:O	2.38	0.41
26:D1:80:LEU:HD23	26:D1:80:LEU:HA	1.85	0.41
26:D1:86:SER:HB2	26:D1:89:GLU:CG	2.50	0.41
27:D2:55:ARG:HH21	27:D2:55:ARG:HG3	1.86	0.41
30:D5:6:VAL:HG22	30:D5:7:PRO:CD	2.49	0.41
31:D6:10:LEU:C	31:D6:11:LEU:HD22	2.42	0.41
35:DA:1161:C:H1'	52:DV:8:GLY:O	2.21	0.41
35:DA:1299:G:O5'	35:DA:1299:G:H8	2.03	0.41
35:DA:1332:G:N1	35:DA:1609:A:C4	2.89	0.41
35:DA:1876:A:H2'	35:DA:1877:A:H8	1.82	0.41
35:DA:2081:C:H2'	35:DA:2082:A:H8	1.86	0.41
35:DA:1854:A:C2	35:DA:2087:G:N3	2.88	0.41
35:DA:2177:C:O2'	35:DA:2178:C:H5'	2.21	0.41
35:DA:2403:C:N3	35:DA:2415:G:C2	2.89	0.41
35:DA:2641:G:P	44:DN:74:ARG:HE	2.43	0.41
35:DA:2816:C:O2'	35:DA:2817:G:H5'	2.20	0.41
35:DA:2862:G:H2'	35:DA:2863:C:H6	1.84	0.41
35:DA:320:A:C8	40:DF:136:THR:HG21	2.56	0.41
35:DA:32:C:H2'	35:DA:33:U:H5'	2.02	0.41
35:DA:614(C):A:C4	40:DF:180:GLY:HA2	2.55	0.41
35:DA:640:C:H2'	35:DA:641:C:C6	2.56	0.41
35:DA:709:U:C2	35:DA:723:G:N2	2.89	0.41
36:DB:37:C:H2'	36:DB:38:C:O4'	2.20	0.41
37:DC:66:HIS:NE2	37:DC:187:ASP:HA	2.36	0.41
35:DA:1568:G:C5'	38:DD:61:LEU:HB2	2.51	0.41
39:DE:101:ARG:HB3	39:DE:201:THR:HG21	2.01	0.41
40:DF:160:ASN:ND2	40:DF:162:LEU:H	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DN:19:GLU:HG3	44:DN:20:GLY:H	1.85	0.41
46:DP:113:LYS:HE2	46:DP:115:LEU:HD13	2.02	0.41
49:DS:101:LEU:HD22	49:DS:101:LEU:C	2.41	0.41
50:DT:128:GLU:OE1	50:DT:128:GLU:C	2.59	0.41
51:DU:100:VAL:O	51:DU:103:PRO:HD3	2.21	0.41
51:DU:108:GLU:OE2	52:DV:44:LYS:HG2	2.20	0.41
51:DU:27:LEU:HD23	51:DU:27:LEU:HA	1.71	0.41
51:DU:31:SER:HB3	51:DU:34:LYS:HB2	2.03	0.41
56:DZ:48:PHE:C	56:DZ:48:PHE:CD1	2.94	0.41
56:DZ:80:ARG:NH1	56:DZ:80:ARG:HG3	2.34	0.41
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.86	0.41
1:AA:1346:A:N6	1:AA:1375:A:OP2	2.53	0.41
1:AA:137:C:H1'	16:AP:62:VAL:O	2.21	0.41
1:AA:328:C:O2'	1:AA:329:A:P	2.79	0.41
1:AA:895:G:H2'	1:AA:896:C:H6	1.84	0.41
1:AA:959:A:H2'	1:AA:960:U:C4'	2.51	0.41
2:AB:59:GLU:HB2	2:AB:221:LEU:HD11	2.00	0.41
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.35	0.41
6:AF:43:LEU:H	6:AF:43:LEU:CD1	2.34	0.41
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	2.02	0.41
13:AM:51:ALA:O	13:AM:55:ARG:N	2.51	0.41
13:AM:54:VAL:O	13:AM:58:GLU:HG2	2.20	0.41
15:AO:10:LYS:C	15:AO:10:LYS:HD2	2.41	0.41
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.47	0.41
17:AQ:78:GLU:OE1	17:AQ:81:ARG:HD2	2.21	0.41
18:AR:82:THR:OG1	18:AR:83:GLU:N	2.52	0.41
19:AS:5:LEU:N	19:AS:6:LYS:NZ	2.69	0.41
22:AV:75:C:OP1	35:BA:2602:A:O5'	2.39	0.41
22:AY:43:C:C2'	22:AY:44:G:H5'	2.50	0.41
33:B8:32:LEU:HB2	33:B8:36:LYS:HZ1	1.84	0.41
35:BA:1286:A:O2'	35:BA:1288:U:OP2	2.35	0.41
35:BA:1485:G:C8	35:BA:1486:A:N7	2.88	0.41
35:BA:1669:A:H2'	35:BA:1670:C:H5'	2.03	0.41
35:BA:2038:G:H2'	35:BA:2039:C:O4'	2.20	0.41
35:BA:2131:G:OP2	35:BA:2131:G:H3'	2.21	0.41
35:BA:229:A:H3'	35:BA:230:U:C5'	2.50	0.41
35:BA:2532:G:H8	35:BA:2532:G:O5'	2.04	0.41
35:BA:2652:C:H42	35:BA:2668:G:H1	1.69	0.41
35:BA:2689:U:P	35:BA:2719:G:H22	2.44	0.41
35:BA:394:A:C6	35:BA:395:U:C4	3.09	0.41
35:BA:572:A:H2'	35:BA:573:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:604:G:O2'	35:BA:605:C:H5'	2.21	0.41
35:BA:665:C:O2'	35:BA:666:G:H5'	2.20	0.41
35:BA:58:G:H1	35:BA:69:C:H42	1.69	0.41
35:BA:858:U:O2	35:BA:2268:A:N3	2.54	0.41
39:BE:179:GLU:O	39:BE:180:ASN:CB	2.69	0.41
40:BF:8:GLN:CB	40:BF:126:VAL:HA	2.49	0.41
40:BF:129:PHE:HE1	40:BF:142:TRP:CH2	2.39	0.41
44:BN:68:GLU:HG2	44:BN:88:GLU:OE1	2.21	0.41
46:BP:126:VAL:O	46:BP:127:ALA:HB2	2.21	0.41
47:BQ:111:GLU:CD	47:BQ:133:ARG:NH2	2.74	0.41
47:BQ:79:LEU:O	47:BQ:80:GLU:HB3	2.20	0.41
48:BR:10:LEU:HD13	48:BR:17:ARG:CZ	2.51	0.41
48:BR:17:ARG:O	48:BR:20:LEU:HB3	2.21	0.41
50:BT:76:PHE:HA	50:BT:77:PRO:HD3	1.78	0.41
52:BV:95:LEU:C	52:BV:95:LEU:CD2	2.90	0.41
55:BY:23:ARG:NH2	55:BY:41:GLY:HA2	2.36	0.41
1:CA:1053:G:O2'	1:CA:1199:U:H5	2.03	0.41
1:CA:1203:C:OP1	14:CN:3:ARG:CD	2.69	0.41
1:CA:1261:A:H2'	1:CA:1262:C:H5'	2.02	0.41
1:CA:1310:G:C2'	1:CA:1311:G:H5'	2.51	0.41
1:CA:623:C:C4	1:CA:624:C:C5	3.09	0.41
1:CA:676:A:H2'	1:CA:677:U:C6	2.55	0.41
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.24	0.41
3:CC:3:ASN:CG	3:CC:4:LYS:H	2.25	0.41
4:CD:58:LEU:HD23	4:CD:206:PHE:CE1	2.56	0.41
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.86	0.41
9:CI:103:THR:HG22	9:CI:105:ASP:N	2.36	0.41
9:CI:116:LYS:O	9:CI:117:HIS:C	2.59	0.41
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.39	0.41
12:CL:18:VAL:CG2	12:CL:19:ARG:N	2.82	0.41
13:CM:93:ARG:C	13:CM:94:ARG:HD2	2.42	0.41
15:CO:19:PRO:C	15:CO:21:ASP:H	2.25	0.41
1:CA:191:G:N3	20:CT:105:SER:HB3	2.35	0.41
22:CV:74:C:H2'	22:CV:75:C:H5'	2.01	0.41
26:D1:92:LYS:NZ	35:DA:153:C:H5'	2.36	0.41
27:D2:69:ARG:HH21	35:DA:111:A:H4'	1.86	0.41
27:D2:7:ARG:CG	27:D2:7:ARG:HH11	2.30	0.41
34:D9:16:VAL:O	35:DA:1033:U:H5	2.04	0.41
35:DA:1464:C:O2'	35:DA:1528:A:H8	2.04	0.41
35:DA:153:C:H42	35:DA:173:G:H1	1.69	0.41
35:DA:1896:G:O2'	35:DA:1897:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1987:G:C8	35:DA:1987:G:C5'	3.00	0.41
35:DA:2131:G:H3'	35:DA:2131:G:OP2	2.20	0.41
35:DA:2166:G:H2'	35:DA:2167:U:C6	2.56	0.41
35:DA:2322:A:H2'	35:DA:2323:G:O4'	2.21	0.41
35:DA:2422:A:O2'	35:DA:2423:U:H5''	2.21	0.41
35:DA:2492:U:H2'	35:DA:2493:U:H6	1.86	0.41
35:DA:27:G:O2'	35:DA:28:A:P	2.79	0.41
35:DA:511:U:O4	35:DA:512:G:C2	2.74	0.41
35:DA:611:C:H2'	35:DA:612:C:C6	2.55	0.41
36:DB:111:G:HO2'	36:DB:112:U:H5'	1.86	0.41
38:DD:126:GLN:HG3	38:DD:129:ASN:HD21	1.84	0.41
40:DF:192:LEU:HD21	40:DF:194:MET:CE	2.50	0.41
41:DG:115:ARG:CZ	41:DG:136:ARG:HB2	2.51	0.41
42:DH:150:ALA:O	42:DH:151:ILE:C	2.59	0.41
43:DI:28:ASN:HA	43:DI:32:PRO:HG2	2.03	0.41
46:DP:115:LEU:HD23	46:DP:115:LEU:O	2.20	0.41
48:DR:101:ALA:O	48:DR:102:GLU:CB	2.69	0.41
48:DR:17:ARG:O	48:DR:20:LEU:HB3	2.21	0.41
49:DS:33:LYS:HA	49:DS:33:LYS:HD3	1.83	0.41
50:DT:129:ARG:NH2	50:DT:131:ALA:HB3	2.35	0.41
50:DT:28:VAL:HG21	50:DT:88:ILE:HD11	2.03	0.41
50:DT:48:ILE:HD12	50:DT:48:ILE:H	1.85	0.41
50:DT:3:ARG:HB2	50:DT:6:LEU:HB3	1.98	0.41
50:DT:91:ARG:C	50:DT:93:ARG:N	2.74	0.41
51:DU:92:ARG:NH1	52:DV:11:GLN:HB2	2.32	0.41
52:DV:2:PHE:CZ	52:DV:13:ARG:HD2	2.55	0.41
55:DY:23:ARG:NH2	55:DY:41:GLY:HA2	2.36	0.41
56:DZ:102:LEU:HD12	56:DZ:123:ASP:HA	2.01	0.41
56:DZ:99:TYR:HA	56:DZ:124:ILE:O	2.21	0.41
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.22	0.40
1:AA:15:G:H2'	1:AA:16:A:H8	1.86	0.40
1:AA:606:G:H21	1:AA:631:G:H2'	1.85	0.40
1:AA:738:C:H2'	1:AA:739:C:H6	1.86	0.40
1:AA:825:G:O2'	8:AH:12:ARG:NH2	2.52	0.40
1:AA:826:C:H2'	1:AA:827:U:H6	1.86	0.40
1:AA:832:C:O2'	1:AA:833:U:P	2.79	0.40
2:AB:127:ILE:O	2:AB:127:ILE:HG22	2.20	0.40
2:AB:129:GLU:HB2	2:AB:130:ARG:H	1.66	0.40
2:AB:141:GLU:C	2:AB:143:GLU:H	2.24	0.40
2:AB:170:GLU:O	2:AB:173:ALA:HB3	2.22	0.40
2:AB:32:ILE:HD11	2:AB:40:HIS:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:107:ARG:O	5:AE:111:GLU:HG3	2.21	0.40
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	2.03	0.40
5:AE:9:LYS:CB	5:AE:112:LEU:HD11	2.46	0.40
5:AE:18:ARG:HH21	5:AE:25:ARG:HD2	1.85	0.40
9:AI:23:ASN:N	9:AI:23:ASN:HD22	2.19	0.40
12:AL:18:VAL:CG2	12:AL:19:ARG:H	2.27	0.40
12:AL:18:VAL:CG2	12:AL:19:ARG:N	2.81	0.40
16:AP:39:TYR:CD1	16:AP:73:LEU:HD13	2.56	0.40
17:AQ:10:VAL:CG2	17:AQ:55:ASP:HB2	2.52	0.40
17:AQ:27:PHE:HA	17:AQ:28:PRO:HD3	1.95	0.40
18:AR:44:LEU:O	18:AR:45:SER:O	2.39	0.40
20:AT:51:GLU:O	20:AT:55:ILE:HG12	2.21	0.40
24:AX:19:U:H3	22:AY:36:A:H2	1.67	0.40
26:B1:66:HIS:C	26:B1:68:PRO:HD2	2.41	0.40
27:B2:18:PRO:O	27:B2:19:VAL:C	2.59	0.40
27:B2:6:VAL:O	27:B2:9:GLN:N	2.54	0.40
30:B5:36:CYS:HB3	30:B5:38:ALA:N	2.34	0.40
31:B6:9:LEU:HD22	31:B6:11:LEU:HD22	2.03	0.40
31:B6:15:GLU:CG	31:B6:41:PRO:HG3	2.52	0.40
35:BA:1441:G:H2'	35:BA:1442:G:H8	1.86	0.40
35:BA:1502:C:H6	35:BA:1502:C:H5''	1.86	0.40
35:BA:1771:C:H2'	35:BA:1772:G:C8	2.56	0.40
35:BA:19:C:H2'	35:BA:20:C:H6	1.86	0.40
31:B6:45:LYS:NZ	35:BA:2370:G:H21	2.12	0.40
35:BA:826:U:OP1	35:BA:2428:G:H3'	2.21	0.40
35:BA:2472:G:H2'	35:BA:2475:C:H42	1.86	0.40
35:BA:2517:C:N3	35:BA:2542:A:N6	2.69	0.40
35:BA:61:G:H1	35:BA:94:C:N4	2.12	0.40
35:BA:643:A:H2'	35:BA:644:A:C8	2.56	0.40
35:BA:828:U:H4'	35:BA:831:G:N1	2.36	0.40
35:BA:907:U:O2'	47:BQ:101:ARG:NH2	2.54	0.40
37:BC:71:GLN:HG2	37:BC:73:ARG:HE	1.84	0.40
38:BD:186:HIS:HD2	38:BD:188:GLU:N	2.06	0.40
38:BD:9:TYR:CD2	38:BD:10:THR:HG22	2.57	0.40
39:BE:186:GLY:C	39:BE:188:VAL:N	2.70	0.40
39:BE:199:ARG:HG3	39:BE:199:ARG:NH1	2.35	0.40
39:BE:75:VAL:C	39:BE:77:ILE:H	2.21	0.40
40:BF:2:LYS:H	40:BF:2:LYS:HD3	1.87	0.40
40:BF:66:PRO:O	40:BF:67:GLN:CB	2.57	0.40
42:BH:158:HIS:CE1	42:BH:169:VAL:O	2.74	0.40
42:BH:149:ARG:HA	42:BH:162:ILE:CG2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:85:LYS:HD2	42:BH:141:VAL:CG2	2.49	0.40
43:BI:12:LEU:HB2	43:BI:19:VAL:HG11	2.03	0.40
47:BQ:62:GLY:HA3	47:BQ:107:ALA:O	2.20	0.40
47:BQ:1:MET:O	47:BQ:2:LEU:HB2	2.21	0.40
35:BA:2840:C:H5''	48:BR:53:HIS:CD2	2.56	0.40
49:BS:92:TYR:O	49:BS:93:LYS:HB3	2.21	0.40
51:BU:21:ALA:HB2	51:BU:35:ALA:HB1	2.02	0.40
56:BZ:117:LEU:HA	56:BZ:174:VAL:CG2	2.48	0.40
1:CA:1004:A:H5''	1:CA:1025:U:H3	1.86	0.40
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.85	0.40
1:CA:1507:A:C2	1:CA:1508:G:C4	3.09	0.40
1:CA:562:C:H5''	1:CA:563:A:C4	2.56	0.40
1:CA:757:U:O2'	1:CA:758:G:H5'	2.21	0.40
2:CB:141:GLU:C	2:CB:143:GLU:H	2.24	0.40
2:CB:17:PHE:HD1	2:CB:44:LEU:HG	1.86	0.40
3:CC:180:ALA:O	3:CC:181:ASN:HB3	2.22	0.40
5:CE:15:ARG:HD2	5:CE:26:PHE:CD2	2.56	0.40
5:CE:76:ILE:HD12	5:CE:118:ILE:HD13	2.02	0.40
6:CF:77:ARG:NH1	6:CF:77:ARG:CB	2.84	0.40
8:CH:137:VAL:CG1	8:CH:138:TRP:N	2.84	0.40
10:CJ:3:LYS:HZ2	10:CJ:77:PRO:HD2	1.87	0.40
10:CJ:30:SER:CA	10:CJ:80:LYS:HB3	2.51	0.40
11:CK:33:THR:HG22	11:CK:39:PRO:CA	2.50	0.40
12:CL:27:LEU:C	12:CL:29:GLY:H	2.25	0.40
12:CL:37:CYS:CA	12:CL:58:VAL:HG22	2.50	0.40
13:CM:58:GLU:HA	13:CM:58:GLU:OE1	2.21	0.40
18:CR:36:ASN:HB2	18:CR:39:VAL:CG2	2.51	0.40
20:CT:30:LYS:O	20:CT:33:ILE:N	2.53	0.40
22:CY:43:C:H2'	22:CY:44:G:O4'	2.22	0.40
22:CY:4:C:H6	22:CY:4:C:OP2	2.04	0.40
25:D0:43:THR:CG2	25:D0:43:THR:O	2.61	0.40
26:D1:82:LEU:N	26:D1:83:GLU:OE2	2.53	0.40
35:DA:1164:G:C2	35:DA:1165:U:C2	3.09	0.40
35:DA:1485:G:N2	35:DA:1505:C:C6	2.87	0.40
35:DA:1827:C:C2'	35:DA:1828:G:H5'	2.51	0.40
35:DA:1887:C:C3'	35:DA:1888:G:C5'	2.97	0.40
35:DA:2771:C:H2'	35:DA:2772:C:H6	1.84	0.40
35:DA:493:G:H2'	35:DA:494:G:O4'	2.22	0.40
35:DA:675:A:C4	35:DA:804:A:C2	3.10	0.40
38:DD:53:PHE:CD1	38:DD:219:PRO:O	2.74	0.40
38:DD:34:VAL:C	38:DD:36:PRO:HD2	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:63:ARG:HD2	38:DD:86:PRO:HD2	2.03	0.40
40:DF:123:LEU:CD1	40:DF:124:LEU:N	2.82	0.40
40:DF:117:ARG:HH21	40:DF:187:VAL:HA	1.86	0.40
40:DF:65:TRP:C	40:DF:67:GLN:H	2.24	0.40
40:DF:68:LYS:HB3	40:DF:69:HIS:H	1.66	0.40
41:DG:133:LEU:C	41:DG:133:LEU:HD12	2.41	0.40
42:DH:149:ARG:HA	42:DH:162:ILE:CG2	2.51	0.40
43:DI:85:GLU:OE2	43:DI:85:GLU:HA	2.21	0.40
35:DA:6:A:HO2'	44:DN:130:HIS:HB3	1.81	0.40
50:DT:96:ARG:CG	50:DT:96:ARG:HH11	2.30	0.40
51:DU:108:GLU:OE1	52:DV:44:LYS:HD3	2.20	0.40
52:DV:1:MET:CE	52:DV:43:GLU:OE2	2.69	0.40
54:DX:32:PRO:HA	54:DX:77:LYS:CB	2.51	0.40
55:DY:50:ARG:HB2	55:DY:53:PRO:HA	2.03	0.40
55:DY:42:VAL:HG11	55:DY:65:ALA:HB3	2.00	0.40
56:DZ:133:ILE:O	56:DZ:133:ILE:HG22	2.21	0.40
56:DZ:33:LEU:CG	56:DZ:34:ASN:N	2.84	0.40
1:AA:1053:G:N7	1:AA:1200:C:C5'	2.84	0.40
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.56	0.40
1:AA:1133:G:C4	1:AA:1142:G:N2	2.86	0.40
1:AA:1133:G:N2	1:AA:1143:G:H1'	2.36	0.40
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.56	0.40
1:AA:1348:U:H4'	9:AI:120:ARG:CD	2.20	0.40
1:AA:1367:C:OP1	9:AI:115:GLY:N	2.41	0.40
1:AA:218:C:O2'	1:AA:219:C:H5'	2.21	0.40
1:AA:243:A:C2	1:AA:246:A:C8	3.09	0.40
1:AA:62:U:O2'	1:AA:379:C:H1'	2.21	0.40
1:AA:634:C:H2'	1:AA:635:G:C8	2.45	0.40
1:AA:655:A:H2'	1:AA:656:C:C6	2.55	0.40
1:AA:942:G:C2	1:AA:943:U:C2	3.09	0.40
2:AB:157:ARG:HE	2:AB:157:ARG:HB3	1.70	0.40
2:AB:89:GLY:O	2:AB:154:LEU:HD13	2.20	0.40
3:AC:110:ASN:C	3:AC:112:SER:N	2.73	0.40
3:AC:19:GLU:HG2	3:AC:19:GLU:O	2.21	0.40
1:AA:406:G:C5'	4:AD:5:ILE:HD13	2.51	0.40
5:AE:144:THR:C	5:AE:146:ALA:N	2.74	0.40
6:AF:55:ASP:CB	6:AF:86:ARG:HH12	2.32	0.40
9:AI:10:ARG:HG2	9:AI:104:ARG:O	2.21	0.40
10:AJ:28:ARG:NH1	10:AJ:34:VAL:H	2.15	0.40
11:AK:106:LYS:O	11:AK:107:SER:HB2	2.20	0.40
11:AK:54:ARG:HH12	23:AW:40:C:C5'	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:73:MET:SD	11:AK:103:LEU:CD2	3.09	0.40
12:AL:100:ILE:CG2	12:AL:101:VAL:N	2.84	0.40
14:AN:27:CYS:O	14:AN:29:ARG:N	2.50	0.40
22:AV:41:C:O2	22:AV:41:C:C2'	2.69	0.40
22:AY:69:G:N2	22:AY:70:G:C6	2.89	0.40
33:B8:12:LYS:HD3	46:BP:68:GLN:HE22	1.86	0.40
33:B8:37:SER:O	33:B8:38:GLY:C	2.58	0.40
35:BA:1153:C:O2'	35:BA:1154:G:H5'	2.21	0.40
35:BA:1316:U:O2'	35:BA:1317:A:H5'	2.21	0.40
35:BA:1766:U:H2'	35:BA:1767:C:H6	1.86	0.40
35:BA:1824:G:O2'	35:BA:1825:A:H5'	2.22	0.40
35:BA:2056:G:H2'	35:BA:2056:G:N3	2.36	0.40
35:BA:2143:C:H2'	35:BA:2144:U:O4'	2.22	0.40
35:BA:2183:C:H2'	35:BA:2184:G:H8	1.85	0.40
35:BA:2291:U:H1'	35:BA:2374:C:H1'	2.04	0.40
35:BA:2536:G:C6	35:BA:2537:U:C4	3.10	0.40
35:BA:2605:U:H2'	35:BA:2606:C:C6	2.56	0.40
35:BA:2726:U:O2'	35:BA:2727:G:H5'	2.20	0.40
35:BA:296:C:H2'	35:BA:297:C:H6	1.86	0.40
33:B8:18:ALA:HB3	35:BA:651:G:H4'	2.03	0.40
36:BB:15:A:H5'	36:BB:16:G:C8	2.57	0.40
36:BB:60:C:H2'	36:BB:61:G:C8	2.52	0.40
35:BA:2175:C:O4'	37:BC:215:THR:HA	2.22	0.40
38:BD:8:PRO:HB3	38:BD:14:ARG:HB3	2.03	0.40
40:BF:21:ALA:C	40:BF:23:ASP:N	2.71	0.40
40:BF:62:ARG:HG2	40:BF:63:LYS:N	2.35	0.40
40:BF:65:TRP:C	40:BF:67:GLN:H	2.25	0.40
41:BG:125:PHE:HE2	41:BG:173:LEU:HD12	1.85	0.40
43:BI:28:ASN:C	43:BI:32:PRO:HG2	2.41	0.40
44:BN:39:ARG:C	44:BN:41:ASP:H	2.24	0.40
47:BQ:134:ARG:HE	56:BZ:122:ARG:NH2	2.18	0.40
47:BQ:26:TYR:CD1	47:BQ:26:TYR:C	2.94	0.40
50:BT:8:LYS:CA	50:BT:11:GLU:OE1	2.64	0.40
52:BV:95:LEU:C	52:BV:95:LEU:HD23	2.40	0.40
53:BW:64:MET:O	53:BW:65:LEU:CB	2.68	0.40
56:BZ:13:GLU:OE2	56:BZ:13:GLU:CA	2.69	0.40
56:BZ:108:PRO:HB2	56:BZ:144:LEU:O	2.21	0.40
1:CA:1125:U:H2'	1:CA:1126:U:OP2	2.21	0.40
1:CA:1133:G:N3	1:CA:1142:G:N2	2.68	0.40
1:CA:1199:U:H4'	10:CJ:54:PHE:CE2	2.56	0.40
1:CA:1415:G:O2'	1:CA:1416:G:H5'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:418:C:H2'	1:CA:419:C:C6	2.56	0.40
1:CA:893:C:O2'	1:CA:894:G:H5'	2.22	0.40
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.20	0.40
4:CD:114:ARG:NH1	4:CD:114:ARG:CG	2.78	0.40
7:CG:46:ALA:O	7:CG:49:ILE:N	2.54	0.40
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.21	0.40
10:CJ:4:ILE:HD11	10:CJ:77:PRO:HB3	2.03	0.40
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.85	0.40
12:CL:127:GLU:HA	12:CL:127:GLU:OE1	2.20	0.40
14:CN:12:ARG:HD3	14:CN:12:ARG:H	1.85	0.40
15:CO:63:ARG:O	15:CO:67:LEU:HB2	2.21	0.40
22:CY:76:8AN:H2	35:DA:2583:G:N3	2.37	0.40
31:D6:9:LEU:HD22	31:D6:11:LEU:HD22	2.03	0.40
35:DA:1042:G:N2	35:DA:1043:C:H4'	2.36	0.40
35:DA:1138:G:H2'	35:DA:1139:G:O4'	2.20	0.40
35:DA:1208:C:C4	35:DA:1209:G:N7	2.89	0.40
35:DA:1258:C:O2'	35:DA:1259:G:H5'	2.22	0.40
35:DA:1554:A:H3'	35:DA:1555:G:H8	1.86	0.40
35:DA:2468:G:C2'	35:DA:2469:A:OP2	2.69	0.40
35:DA:633:A:C2'	35:DA:634:C:H5'	2.50	0.40
36:DB:69:G:H2'	36:DB:70:C:H6	1.86	0.40
37:DC:54:SER:O	37:DC:55:ASP:HB3	2.21	0.40
40:DF:200:GLU:O	40:DF:203:GLN:HB2	2.22	0.40
40:DF:21:ALA:C	40:DF:23:ASP:N	2.71	0.40
40:DF:25:PRO:HG3	40:DF:119:ARG:CG	2.51	0.40
41:DG:9:ARG:C	41:DG:11:TYR:N	2.75	0.40
42:DH:158:HIS:CE1	42:DH:168:PRO:HB2	2.56	0.40
44:DN:25:ARG:HG3	44:DN:25:ARG:NH1	2.15	0.40
35:DA:995:C:O2	44:DN:4:TYR:OH	2.40	0.40
48:DR:2:ARG:HD2	48:DR:2:ARG:O	2.20	0.40
52:DV:95:LEU:C	52:DV:95:LEU:CD2	2.89	0.40
54:DX:12:VAL:HG13	54:DX:27:THR:C	2.41	0.40
56:DZ:150:LEU:CD2	56:DZ:172:ALA:HB3	2.48	0.40
56:DZ:85:HIS:O	56:DZ:86:VAL:HG13	2.21	0.40
56:DZ:99:TYR:HA	56:DZ:124:ILE:C	2.41	0.40
1:AA:1126:U:H6	1:AA:1126:U:P	2.44	0.40
1:AA:1198:G:H2'	1:AA:1199:U:O4'	2.21	0.40
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.39	0.40
1:AA:1358:U:H6	1:AA:1359:C:C5	2.40	0.40
1:AA:346:G:H5'	50:BT:41:ARG:CG	2.50	0.40
1:AA:35:G:H2'	1:AA:36:C:H6	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:398:C:H6	1:AA:398:C:O5'	2.03	0.40
1:AA:403:C:H2'	1:AA:404:U:C6	2.56	0.40
1:AA:475:G:O2'	1:AA:476:G:H5'	2.20	0.40
1:AA:812:C:OP1	1:AA:903:G:H1'	2.22	0.40
2:AB:175:ARG:O	2:AB:176:GLU:C	2.59	0.40
2:AB:223:ILE:H	2:AB:223:ILE:HG12	1.66	0.40
3:AC:95:THR:C	3:AC:97:LYS:H	2.24	0.40
3:AC:131:ARG:NH1	5:AE:50:GLU:HG2	2.37	0.40
7:AG:69:VAL:CA	7:AG:138:LYS:HD2	2.51	0.40
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.21	0.40
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.36	0.40
9:AI:66:ARG:NH1	9:AI:66:ARG:CB	2.83	0.40
9:AI:7:THR:HG21	9:AI:9:ARG:HH21	1.86	0.40
1:AA:1124:G:C5'	10:AJ:35:SER:HB2	2.52	0.40
10:AJ:35:SER:O	10:AJ:36:GLY:C	2.58	0.40
10:AJ:24:VAL:CG2	10:AJ:37:PRO:HG3	2.51	0.40
11:AK:67:ASP:CG	11:AK:71:LYS:HE3	2.41	0.40
11:AK:21:ILE:CG1	11:AK:94:ALA:HB1	2.50	0.40
13:AM:110:ARG:NH1	13:AM:110:ARG:HG2	2.34	0.40
13:AM:3:ARG:HB3	13:AM:9:ILE:HD11	2.03	0.40
3:AC:33:LEU:HD21	14:AN:53:LEU:CD2	2.51	0.40
17:AQ:13:ASP:C	17:AQ:15:MET:H	2.24	0.40
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	2.03	0.40
17:AQ:18:THR:HG23	17:AQ:44:ALA:O	2.21	0.40
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	2.03	0.40
19:AS:66:MET:H	19:AS:66:MET:HG2	1.47	0.40
20:AT:14:LYS:HB2	20:AT:17:ARG:NH2	2.37	0.40
22:AY:42:C:H3'	22:AY:43:C:C5'	2.50	0.40
26:B1:29:GLY:O	26:B1:30:VAL:CG2	2.69	0.40
30:B5:40:LYS:NZ	30:B5:46:CYS:O	2.46	0.40
33:B8:60:LEU:O	33:B8:63:PRO:HG2	2.22	0.40
35:BA:1301:A:C8	35:BA:1303:G:C8	3.09	0.40
35:BA:1572:A:O2'	35:BA:1573:G:H5'	2.21	0.40
32:B7:7:PRO:HG3	35:BA:1612:C:H5'	2.02	0.40
35:BA:1932:A:H2'	35:BA:1933:G:O4'	2.21	0.40
35:BA:1968:G:H2'	35:BA:1969:A:H5''	2.04	0.40
35:BA:2160:G:C2'	35:BA:2161:C:H5'	2.52	0.40
35:BA:2584:U:O2	35:BA:2585:U:C4	2.75	0.40
35:BA:2629:A:N3	35:BA:2629:A:H2'	2.37	0.40
35:BA:2770:G:H5'	35:BA:2771:C:OP2	2.22	0.40
35:BA:675:A:C6	35:BA:676:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:675:A:C4	35:BA:804:A:C2	3.09	0.40
35:BA:832:G:N3	46:BP:53:GLY:HA2	2.36	0.40
36:BB:56:G:H4'	36:BB:57:A:C8	2.56	0.40
37:BC:128:GLY:O	37:BC:130:ILE:N	2.52	0.40
38:BD:136:ILE:HA	38:BD:137:PRO:HD3	1.78	0.40
39:BE:181:LEU:HD13	39:BE:181:LEU:HA	1.74	0.40
40:BF:28:ILE:HG12	40:BF:119:ARG:HH21	1.86	0.40
42:BH:85:LYS:CE	42:BH:145:ALA:HB2	2.50	0.40
42:BH:48:GLY:O	42:BH:49:VAL:CG1	2.61	0.40
48:BR:107:ASP:O	48:BR:108:GLY:C	2.59	0.40
48:BR:38:VAL:HB	48:BR:39:PRO:CD	2.39	0.40
50:BT:78:LEU:CD2	50:BT:79:HIS:CE1	3.04	0.40
51:BU:108:GLU:HA	51:BU:111:GLU:HG2	2.03	0.40
51:BU:85:LYS:C	51:BU:87:GLY:H	2.25	0.40
52:BV:85:LYS:HB2	52:BV:85:LYS:NZ	2.35	0.40
54:BX:72:LYS:N	54:BX:72:LYS:HD2	2.37	0.40
55:BY:29:GLU:HB2	55:BY:38:ILE:HG13	2.04	0.40
56:BZ:131:ARG:CG	56:BZ:132:ASN:N	2.85	0.40
56:BZ:4:ARG:NH1	56:BZ:58:VAL:HG11	2.36	0.40
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.57	0.40
1:CA:1181:G:O2'	1:CA:1184:G:H5'	2.22	0.40
1:CA:1291:G:HO2'	1:CA:1292:U:H5'	1.84	0.40
1:CA:1503:A:O2'	24:CX:13:A:N6	2.54	0.40
1:CA:264:U:H2'	1:CA:265:G:O4'	2.20	0.40
1:CA:403:C:H2'	1:CA:404:U:C6	2.57	0.40
1:CA:425:G:O2'	1:CA:426:G:H5'	2.21	0.40
1:CA:491:G:C4	1:CA:492:G:C8	3.10	0.40
1:CA:594:G:C2'	1:CA:595:G:H5'	2.51	0.40
1:CA:80:G:N7	1:CA:81:U:H5	2.19	0.40
1:CA:867:G:O2'	1:CA:868:C:H5'	2.20	0.40
2:CB:168:THR:HG21	2:CB:192:SER:HA	2.04	0.40
2:CB:46:LYS:O	2:CB:50:GLU:HG2	2.21	0.40
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.20	0.40
1:CA:406:G:H5''	4:CD:5:ILE:HD13	2.04	0.40
11:CK:84:VAL:HG11	11:CK:95:ILE:HD12	2.04	0.40
12:CL:100:ILE:CG2	12:CL:101:VAL:N	2.85	0.40
13:CM:107:ALA:O	13:CM:109:THR:N	2.55	0.40
17:CQ:27:PHE:HA	17:CQ:28:PRO:HD3	1.96	0.40
26:D1:53:VAL:HB	26:D1:58:ILE:HG21	2.03	0.40
29:D4:37:PRO:O	29:D4:55:PRO:HG3	2.22	0.40
30:D5:44:THR:C	30:D5:45:VAL:CG2	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1048:A:P	35:DA:1048:A:N3	2.94	0.40
35:DA:1441:G:H2'	35:DA:1442:G:H8	1.86	0.40
35:DA:1665:A:H2'	35:DA:1666:G:O4'	2.20	0.40
22:CV:75:C:OP1	35:DA:2602:A:P	2.80	0.40
35:DA:2741:A:H2'	35:DA:2742:C:O4'	2.21	0.40
35:DA:523:C:C5	35:DA:524:U:C5	3.10	0.40
35:DA:604:G:O2'	35:DA:605:C:H5'	2.21	0.40
37:DC:158:ALA:C	37:DC:160:ARG:H	2.24	0.40
35:DA:1797:C:O3'	38:DD:259:THR:HG22	2.21	0.40
39:DE:31:CYS:HA	39:DE:32:PRO:HD3	1.90	0.40
41:DG:137:GLU:HG2	41:DG:152:LEU:CD1	2.50	0.40
42:DH:70:THR:HA	42:DH:73:ALA:HB3	2.04	0.40
43:DI:37:VAL:CG1	43:DI:38:LEU:N	2.84	0.40
43:DI:69:LYS:HE3	43:DI:73:GLU:OE2	2.21	0.40
46:DP:85:LEU:CD2	46:DP:85:LEU:H	2.15	0.40
47:DQ:55:VAL:HG12	47:DQ:64:ILE:CD1	2.51	0.40
48:DR:87:TYR:O	48:DR:89:ASP:N	2.54	0.40
50:DT:35:LYS:NZ	50:DT:41:ARG:HE	2.19	0.40
51:DU:92:ARG:HH21	51:DU:95:LEU:CD1	2.34	0.40
56:DZ:93:ASP:CA	56:DZ:130:PRO:HG2	2.40	0.40
56:DZ:61:LEU:CB	56:DZ:65:GLN:HB2	2.48	0.40
56:DZ:99:TYR:HA	56:DZ:125:LEU:CA	2.47	0.40
1:AA:1072:G:O2'	1:AA:1073:U:H5'	2.21	0.40
1:AA:1310:G:C2'	1:AA:1311:G:H5'	2.50	0.40
1:AA:1502:A:H2	1:AA:1505:G:N1	2.20	0.40
1:AA:302:G:O2'	1:AA:556:C:H5''	2.21	0.40
1:AA:728:A:H2'	1:AA:729:A:H8	1.86	0.40
2:AB:168:THR:HG21	2:AB:192:SER:HA	2.02	0.40
2:AB:28:PHE:CZ	2:AB:189:ASP:HA	2.56	0.40
4:AD:114:ARG:NH1	4:AD:114:ARG:CG	2.76	0.40
10:AJ:28:ARG:CZ	10:AJ:34:VAL:HB	2.52	0.40
10:AJ:90:LEU:H	10:AJ:91:PRO:HD3	1.85	0.40
11:AK:33:THR:HA	11:AK:40:ILE:HG12	2.02	0.40
13:AM:14:ARG:NH2	13:AM:42:ALA:HA	2.36	0.40
14:AN:36:PHE:C	14:AN:36:PHE:CD1	2.95	0.40
18:AR:53:ARG:CD	18:AR:63:GLN:HB2	2.52	0.40
18:AR:85:LEU:CG	18:AR:86:VAL:N	2.84	0.40
13:AM:84:ILE:HG12	19:AS:66:MET:CE	2.52	0.40
22:AV:48:C:H2'	22:AV:59:U:C1'	2.51	0.40
23:AW:67:C:C4	23:AW:68:C:N4	2.89	0.40
22:AY:28:G:N2	22:AY:43:C:C6	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:40:LYS:CE	30:B5:46:CYS:N	2.85	0.40
33:B8:62:LEU:HD13	35:BA:242:G:C5'	2.37	0.40
35:BA:1412:A:H2'	35:BA:1413:G:H8	1.86	0.40
35:BA:1665:A:H5''	45:BO:66:LYS:HG3	2.03	0.40
35:BA:1719:G:H2'	35:BA:1720:U:O4'	2.21	0.40
35:BA:2165:G:H2'	35:BA:2166:G:O4'	2.21	0.40
35:BA:2168:G:N2	35:BA:2171:A:C8	2.89	0.40
35:BA:2125:G:N2	35:BA:2172:U:H5'	2.34	0.40
35:BA:2172:U:O3'	35:BA:2173:A:H8	2.04	0.40
35:BA:2228:G:C6	35:BA:2229:C:C4	3.10	0.40
35:BA:2241:A:H2'	35:BA:2242:G:C8	2.56	0.40
35:BA:257:A:C2'	35:BA:258:G:H5'	2.51	0.40
35:BA:2681:C:C5	35:BA:2725:A:N6	2.82	0.40
35:BA:271(P):C:H5''	43:BI:45:LYS:HE3	2.02	0.40
35:BA:62:C:O2	35:BA:93:G:N2	2.50	0.40
35:BA:746:A:H2'	35:BA:2612:C:H5''	2.03	0.40
36:BB:15:A:C3'	36:BB:16:G:H5'	2.51	0.40
35:BA:1789:A:P	38:BD:222:ARG:HE	2.45	0.40
39:BE:93:VAL:C	39:BE:95:ILE:H	2.25	0.40
40:BF:38:ARG:HH12	46:BP:16:ARG:NH2	2.19	0.40
41:BG:161:THR:CG2	41:BG:163:ALA:HB3	2.51	0.40
41:BG:165:THR:OG1	41:BG:168:GLU:HG3	2.21	0.40
43:BI:55:ALA:O	43:BI:58:LEU:HB3	2.21	0.40
44:BN:30:ILE:HG23	44:BN:52:VAL:HG11	2.04	0.40
44:BN:57:ALA:C	44:BN:58:ASP:O	2.60	0.40
45:BO:43:VAL:H	45:BO:43:VAL:HG23	1.66	0.40
46:BP:16:ARG:CB	46:BP:16:ARG:NH1	2.83	0.40
46:BP:46:LYS:O	46:BP:47:ASP:HB2	2.20	0.40
35:BA:832:G:H21	46:BP:53:GLY:CA	2.35	0.40
48:BR:41:ALA:O	48:BR:44:LEU:N	2.54	0.40
49:BS:54:LEU:O	49:BS:57:LYS:N	2.40	0.40
49:BS:85:VAL:HG22	49:BS:106:ARG:CG	2.52	0.40
50:BT:106:SER:HB2	50:BT:110:ILE:CD1	2.51	0.40
50:BT:112:ARG:HB2	50:BT:112:ARG:HH11	1.86	0.40
51:BU:13:LYS:O	51:BU:16:LYS:HB3	2.21	0.40
53:BW:92:ARG:NH1	53:BW:94:ASP:OD2	2.53	0.40
56:BZ:127:LYS:O	56:BZ:128:VAL:HB	2.22	0.40
1:CA:1053:G:H3'	1:CA:1054:C:C5'	2.50	0.40
1:CA:1065:U:O2'	1:CA:1066:C:P	2.80	0.40
1:CA:1374:A:C4	1:CA:1375:A:C8	3.10	0.40
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:763:G:H2'	1:CA:764:C:C6	2.56	0.40
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	2.02	0.40
2:CB:74:LYS:HZ1	2:CB:76:GLN:HB2	1.87	0.40
3:CC:173:VAL:HG12	3:CC:175:LEU:HD21	2.03	0.40
3:CC:20:SER:OG	3:CC:36:ASP:OD1	2.40	0.40
5:CE:10:MET:SD	5:CE:13:ILE:HD11	2.62	0.40
10:CJ:33:GLN:HB2	10:CJ:75:ILE:HD13	2.03	0.40
15:CO:15:PHE:CE2	15:CO:85:LEU:HD21	2.56	0.40
23:CW:39:U:O4'	23:CW:39:U:O2	2.38	0.40
34:D9:30:PRO:HB2	35:DA:2527:C:C5'	2.52	0.40
35:DA:1242:A:C5'	35:DA:1243:G:OP2	2.69	0.40
35:DA:143:G:H5''	35:DA:1598:C:O2'	2.21	0.40
35:DA:2160:G:C2'	35:DA:2161:C:H5'	2.52	0.40
35:DA:2172:U:O2'	35:DA:2173:A:OP1	2.28	0.40
35:DA:829:A:C8	35:DA:2248:C:H5'	2.57	0.40
35:DA:2478:A:H2'	35:DA:2479:G:O4'	2.22	0.40
35:DA:271(S):G:C3'	35:DA:271(T):C:H5''	2.49	0.40
35:DA:419:C:C2'	35:DA:420:C:H5'	2.52	0.40
35:DA:449:A:H2'	35:DA:450:G:C5'	2.51	0.40
35:DA:960:A:C4'	35:DA:2457:U:H4'	2.51	0.40
37:DC:46:LYS:O	37:DC:208:PHE:O	2.39	0.40
38:DD:268:ARG:NH1	38:DD:268:ARG:HB3	2.37	0.40
39:DE:69:LYS:HE3	39:DE:90:THR:N	2.37	0.40
40:DF:157:VAL:HA	40:DF:176:LEU:O	2.22	0.40
40:DF:89:VAL:C	40:DF:91:GLY:H	2.25	0.40
41:DG:39:ILE:HD12	41:DG:40:ASN:N	2.36	0.40
42:DH:17:VAL:O	42:DH:45:VAL:HG22	2.22	0.40
42:DH:28:GLY:HA3	42:DH:79:VAL:CG2	2.52	0.40
42:DH:70:THR:HA	42:DH:73:ALA:CB	2.52	0.40
45:DO:14:THR:O	45:DO:14:THR:HG22	2.22	0.40
45:DO:86:ILE:N	45:DO:86:ILE:CD1	2.83	0.40
46:DP:83:VAL:HG13	46:DP:114:ILE:HA	2.03	0.40
46:DP:6:LEU:HD21	46:DP:9:ASN:HB3	2.02	0.40
47:DQ:50:ALA:HB3	47:DQ:104:PHE:HE1	1.86	0.40
47:DQ:56:ARG:NE	47:DQ:56:ARG:HA	2.23	0.40
49:DS:57:LYS:HG2	49:DS:58:LEU:H	1.85	0.40
49:DS:63:THR:O	49:DS:66:ALA:HB3	2.21	0.40
50:DT:98:LYS:CG	50:DT:100:TYR:HE1	2.34	0.40
55:DY:76:CYS:CB	55:DY:96:ILE:HD11	2.23	0.40
56:DZ:127:LYS:CD	56:DZ:127:LYS:C	2.90	0.40
1:AA:197:A:C6	1:AA:221:C:H5'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:294:U:H2'	1:AA:295:C:H6	1.85	0.40
1:AA:333:G:N2	1:AA:334:C:C2	2.89	0.40
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.84	0.40
3:AC:30:ARG:NH2	14:AN:35:ARG:C	2.75	0.40
3:AC:37:GLN:C	3:AC:39:ILE:N	2.75	0.40
3:AC:78:GLY:HA3	3:AC:83:ARG:HB2	2.03	0.40
4:AD:58:LEU:HD23	4:AD:206:PHE:CE1	2.56	0.40
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	2.02	0.40
6:AF:50:TYR:CE2	6:AF:52:ILE:HD11	2.57	0.40
7:AG:40:ALA:O	7:AG:41:ARG:C	2.59	0.40
8:AH:11:THR:CG2	8:AH:14:ARG:HH12	2.29	0.40
9:AI:89:ASN:C	9:AI:91:ASP:N	2.73	0.40
11:AK:27:ASN:CG	11:AK:28:THR:N	2.75	0.40
11:AK:29:ILE:HD12	11:AK:30:VAL:N	2.37	0.40
1:AA:1047:G:H5''	14:AN:4:LYS:HG2	2.03	0.40
19:AS:45:VAL:HA	19:AS:62:ILE:CG2	2.47	0.40
22:AV:59:U:O2'	22:AV:60:U:H5'	2.21	0.40
22:AY:4:C:H42	22:AY:69:G:H1	1.68	0.40
27:B2:64:LEU:O	27:B2:67:LYS:HB2	2.21	0.40
28:B3:52:HIS:CD2	36:BB:83:G:H4'	2.57	0.40
33:B8:50:LEU:CG	33:B8:51:ALA:N	2.85	0.40
35:BA:1857:G:N2	35:BA:1886:C:N4	2.69	0.40
35:BA:198:C:O5'	35:BA:198:C:H6	2.05	0.40
35:BA:2402:C:H5'	35:BA:2403:C:OP2	2.22	0.40
35:BA:2529:G:OP2	35:BA:2530:A:H5''	2.21	0.40
35:BA:1786:A:H2	35:BA:2606:C:H1'	1.83	0.40
35:BA:2732:G:H3'	35:BA:2733:A:C5'	2.51	0.40
35:BA:2765:A:H2	35:BA:2766:G:O4'	2.04	0.40
35:BA:2845:G:OP1	50:BT:56:GLY:N	2.54	0.40
35:BA:2892:A:C3'	35:BA:2893:G:H4'	2.52	0.40
35:BA:633:A:C2'	35:BA:634:C:H5'	2.51	0.40
35:BA:809:G:H2'	35:BA:810:U:C6	2.56	0.40
35:BA:812:C:O2'	35:BA:813:U:H5'	2.22	0.40
35:BA:876:C:H2'	35:BA:877:U:O4'	2.22	0.40
35:BA:94:C:O2	35:BA:94:C:H2'	2.21	0.40
37:BC:68:LEU:HD11	37:BC:179:SER:HA	2.03	0.40
37:BC:49:ILE:HG22	37:BC:50:ASP:N	2.37	0.40
38:BD:177:LEU:O	38:BD:180:GLY:N	2.51	0.40
38:BD:206:LEU:HA	38:BD:206:LEU:HD23	1.84	0.40
38:BD:25:THR:O	38:BD:26:LYS:HB3	2.22	0.40
39:BE:33:VAL:HA	39:BE:49:LEU:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:113:ALA:HB1	40:BF:186:ILE:HG21	2.03	0.40
40:BF:96:ASP:OD1	40:BF:96:ASP:C	2.59	0.40
35:BA:2313:C:C4'	41:BG:40:ASN:ND2	2.84	0.40
41:BG:67:LYS:H	41:BG:67:LYS:HD2	1.87	0.40
43:BI:2:LYS:N	43:BI:2:LYS:HD2	2.36	0.40
43:BI:84:GLY:O	43:BI:85:GLU:CB	2.69	0.40
46:BP:124:LYS:HD2	46:BP:124:LYS:HA	1.83	0.40
46:BP:16:ARG:HG3	46:BP:17:LYS:N	2.37	0.40
40:BF:116:ASP:OD2	46:BP:5:ASP:HB2	2.22	0.40
47:BQ:55:VAL:O	47:BQ:56:ARG:C	2.60	0.40
48:BR:12:ARG:CG	48:BR:12:ARG:NH1	2.83	0.40
49:BS:18:ILE:C	49:BS:20:ARG:N	2.74	0.40
52:BV:39:LEU:HB3	52:BV:47:VAL:HG11	2.03	0.40
56:BZ:42:VAL:CG1	56:BZ:43:GLU:N	2.84	0.40
1:CA:1248:A:C2'	1:CA:1249:C:H5'	2.50	0.40
1:CA:1334:G:H3'	1:CA:1335:C:H5''	2.03	0.40
1:CA:1371:G:OP2	9:CI:11:LYS:HD2	2.22	0.40
1:CA:1346:A:N6	1:CA:1375:A:OP2	2.50	0.40
1:CA:66:G:C4'	1:CA:173:U:C4	3.05	0.40
1:CA:328:C:HO2'	1:CA:329:A:P	2.44	0.40
1:CA:806:C:H2'	1:CA:807:A:C8	2.56	0.40
1:CA:908:A:H2'	1:CA:909:A:H8	1.85	0.40
2:CB:120:ALA:C	2:CB:122:PHE:N	2.75	0.40
2:CB:14:GLY:O	2:CB:15:VAL:CG1	2.66	0.40
2:CB:84:GLU:O	2:CB:219:VAL:HG11	2.21	0.40
2:CB:70:PHE:HA	2:CB:163:PHE:O	2.22	0.40
3:CC:125:GLU:CD	3:CC:189:ALA:HA	2.41	0.40
4:CD:98:GLU:HA	4:CD:103:ASN:ND2	2.37	0.40
7:CG:113:GLU:HG3	7:CG:119:ARG:HG2	2.04	0.40
7:CG:50:ILE:O	7:CG:54:THR:CG2	2.70	0.40
7:CG:70:LYS:HB3	7:CG:96:GLN:HG2	2.03	0.40
9:CI:5:TYR:CG	9:CI:6:GLY:N	2.90	0.40
10:CJ:90:LEU:H	10:CJ:91:PRO:HD3	1.86	0.40
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.21	0.40
11:CK:21:ILE:HG21	11:CK:94:ALA:CB	2.52	0.40
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	2.03	0.40
12:CL:102:ARG:NH1	12:CL:102:ARG:CG	2.81	0.40
13:CM:97:PRO:C	13:CM:98:VAL:HA	2.42	0.40
16:CP:20:VAL:CG2	16:CP:32:TYR:HB3	2.51	0.40
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.48	0.40
19:CS:15:LEU:O	19:CS:18:LYS:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.48	0.40
1:CA:1267:C:O2	21:CU:20:LYS:HD2	2.21	0.40
23:CW:21:A:H2'	23:CW:22:G:H8	1.87	0.40
26:D1:3:LYS:HG3	26:D1:4:VAL:N	2.24	0.40
26:D1:7:ILE:HB	26:D1:62:VAL:HG21	2.04	0.40
32:D7:34:ARG:HD3	32:D7:42:LEU:HA	2.03	0.40
35:DA:2402:C:C3'	35:DA:2403:C:H5'	2.51	0.40
35:DA:2531:A:H2'	35:DA:2532:G:C8	2.57	0.40
35:DA:1669:A:O3'	35:DA:2549:G:H5'	2.20	0.40
35:DA:2850:A:N7	35:DA:2868:A:O2'	2.48	0.40
35:DA:464:U:H2'	35:DA:465:G:O4'	2.22	0.40
35:DA:542:C:C2'	35:DA:543:C:OP1	2.69	0.40
35:DA:643:A:H2'	35:DA:644:A:C8	2.57	0.40
35:DA:78:A:O2'	35:DA:79:G:H5'	2.22	0.40
38:DD:155:LEU:N	38:DD:155:LEU:HD12	2.35	0.40
38:DD:2:ALA:O	38:DD:3:VAL:CB	2.69	0.40
38:DD:35:LYS:HE3	38:DD:36:PRO:N	2.35	0.40
38:DD:31:LYS:O	38:DD:36:PRO:HD3	2.22	0.40
39:DE:3:GLY:O	39:DE:4:ILE:HB	2.22	0.40
40:DF:160:ASN:C	40:DF:160:ASN:HD22	2.24	0.40
41:DG:114:ILE:O	41:DG:114:ILE:HG22	2.21	0.40
41:DG:63:ILE:HG22	41:DG:143:GLU:HB2	2.03	0.40
41:DG:15:VAL:HG22	41:DG:175:LEU:HB3	2.03	0.40
41:DG:72:ARG:HG2	41:DG:86:MET:HA	2.03	0.40
41:DG:80:PHE:O	41:DG:81:LYS:C	2.60	0.40
41:DG:83:ARG:CZ	41:DG:84:LYS:NZ	2.84	0.40
43:DI:61:ARG:HB3	43:DI:133:HIS:CE1	2.56	0.40
43:DI:83:ALA:HB1	43:DI:87:LYS:O	2.21	0.40
45:DO:13:ASN:C	45:DO:15:GLY:H	2.25	0.40
45:DO:9:GLU:HA	45:DO:9:GLU:OE2	2.22	0.40
40:DF:117:ARG:CZ	46:DP:5:ASP:N	2.84	0.40
48:DR:29:LEU:HB3	48:DR:75:LEU:HD11	2.03	0.40
50:DT:106:SER:C	50:DT:107:ASP:OD1	2.60	0.40
50:DT:89:VAL:HB	50:DT:91:ARG:CD	2.52	0.40
51:DU:31:SER:C	51:DU:33:ARG:N	2.75	0.40
51:DU:89:GLU:HG2	52:DV:50:PRO:HG3	2.01	0.40
54:DX:35:THR:HB	54:DX:38:GLU:H	1.87	0.40
55:DY:17:SER:HB2	55:DY:71:LYS:HZ3	1.86	0.40
55:DY:49:VAL:HG12	55:DY:53:PRO:HG3	2.03	0.40
56:DZ:120:ILE:O	56:DZ:121:HIS:CB	2.69	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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%)	138 (59%)	63 (27%)	32 (14%)	0	4
2	CB	233/256 (91%)	138 (59%)	62 (27%)	33 (14%)	0	3
3	AC	205/239 (86%)	130 (63%)	55 (27%)	20 (10%)	0	7
3	CC	205/239 (86%)	128 (62%)	56 (27%)	21 (10%)	0	7
4	AD	206/209 (99%)	149 (72%)	39 (19%)	18 (9%)	1	9
4	CD	206/209 (99%)	150 (73%)	38 (18%)	18 (9%)	1	9
5	AE	149/162 (92%)	115 (77%)	23 (15%)	11 (7%)	1	11
5	CE	149/162 (92%)	115 (77%)	22 (15%)	12 (8%)	1	9
6	AF	99/101 (98%)	78 (79%)	16 (16%)	5 (5%)	2	19
6	CF	99/101 (98%)	79 (80%)	15 (15%)	5 (5%)	2	19
7	AG	153/156 (98%)	111 (72%)	36 (24%)	6 (4%)	3	25
7	CG	153/156 (98%)	111 (72%)	36 (24%)	6 (4%)	3	25
8	AH	136/138 (99%)	107 (79%)	25 (18%)	4 (3%)	4	31
8	CH	136/138 (99%)	108 (79%)	24 (18%)	4 (3%)	4	31
9	AI	121/128 (94%)	85 (70%)	23 (19%)	13 (11%)	0	6
9	CI	121/128 (94%)	83 (69%)	26 (22%)	12 (10%)	0	7
10	AJ	97/105 (92%)	62 (64%)	25 (26%)	10 (10%)	0	7
10	CJ	97/105 (92%)	63 (65%)	24 (25%)	10 (10%)	0	7
11	AK	117/129 (91%)	86 (74%)	26 (22%)	5 (4%)	2	22
11	CK	117/129 (91%)	88 (75%)	24 (20%)	5 (4%)	2	22
12	AL	123/135 (91%)	82 (67%)	27 (22%)	14 (11%)	0	6
12	CL	123/135 (91%)	83 (68%)	26 (21%)	14 (11%)	0	6
13	AM	117/126 (93%)	67 (57%)	30 (26%)	20 (17%)	0	2
13	CM	117/126 (93%)	67 (57%)	31 (26%)	19 (16%)	0	2
14	AN	58/61 (95%)	34 (59%)	16 (28%)	8 (14%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/61 (95%)	34 (59%)	16 (28%)	8 (14%)	0	3
15	AO	86/89 (97%)	58 (67%)	20 (23%)	8 (9%)	0	8
15	CO	86/89 (97%)	57 (66%)	21 (24%)	8 (9%)	0	8
16	AP	82/88 (93%)	60 (73%)	20 (24%)	2 (2%)	6	35
16	CP	82/88 (93%)	59 (72%)	21 (26%)	2 (2%)	6	35
17	AQ	98/105 (93%)	74 (76%)	20 (20%)	4 (4%)	3	23
17	CQ	98/105 (93%)	76 (78%)	19 (19%)	3 (3%)	4	30
18	AR	68/88 (77%)	41 (60%)	14 (21%)	13 (19%)	0	2
18	CR	68/88 (77%)	41 (60%)	13 (19%)	14 (21%)	0	1
19	AS	77/93 (83%)	49 (64%)	16 (21%)	12 (16%)	0	2
19	CS	77/93 (83%)	49 (64%)	15 (20%)	13 (17%)	0	2
20	AT	97/106 (92%)	69 (71%)	18 (19%)	10 (10%)	0	7
20	CT	97/106 (92%)	71 (73%)	16 (16%)	10 (10%)	0	7
21	AU	23/27 (85%)	13 (56%)	8 (35%)	2 (9%)	1	9
21	CU	23/27 (85%)	13 (56%)	8 (35%)	2 (9%)	1	9
25	B0	82/85 (96%)	65 (79%)	14 (17%)	3 (4%)	3	26
25	D0	82/85 (96%)	61 (74%)	17 (21%)	4 (5%)	2	19
26	B1	92/98 (94%)	65 (71%)	17 (18%)	10 (11%)	0	6
26	D1	92/98 (94%)	66 (72%)	18 (20%)	8 (9%)	1	9
27	B2	69/72 (96%)	43 (62%)	19 (28%)	7 (10%)	0	7
27	D2	69/72 (96%)	37 (54%)	23 (33%)	9 (13%)	0	4
28	B3	58/60 (97%)	48 (83%)	7 (12%)	3 (5%)	2	18
28	D3	58/60 (97%)	48 (83%)	7 (12%)	3 (5%)	2	18
29	B4	29/71 (41%)	16 (55%)	7 (24%)	6 (21%)	0	1
29	D4	29/71 (41%)	16 (55%)	7 (24%)	6 (21%)	0	1
30	B5	57/60 (95%)	38 (67%)	8 (14%)	11 (19%)	0	2
30	D5	57/60 (95%)	39 (68%)	6 (10%)	12 (21%)	0	1
31	B6	41/54 (76%)	17 (42%)	15 (37%)	9 (22%)	0	1
31	D6	41/54 (76%)	17 (42%)	15 (37%)	9 (22%)	0	1
32	B7	47/49 (96%)	44 (94%)	3 (6%)	0	100	100
32	D7	47/49 (96%)	44 (94%)	3 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	B8	62/65 (95%)	44 (71%)	9 (14%)	9 (14%)	0	3
33	D8	62/65 (95%)	43 (69%)	10 (16%)	9 (14%)	0	3
34	B9	34/37 (92%)	29 (85%)	5 (15%)	0	100	100
34	D9	34/37 (92%)	29 (85%)	5 (15%)	0	100	100
37	BC	183/229 (80%)	81 (44%)	47 (26%)	55 (30%)	0	0
37	DC	183/229 (80%)	82 (45%)	47 (26%)	54 (30%)	0	0
38	BD	270/276 (98%)	208 (77%)	38 (14%)	24 (9%)	1	8
38	DD	270/276 (98%)	205 (76%)	38 (14%)	27 (10%)	0	7
39	BE	203/206 (98%)	130 (64%)	40 (20%)	33 (16%)	0	2
39	DE	203/206 (98%)	127 (63%)	44 (22%)	32 (16%)	0	2
40	BF	206/210 (98%)	142 (69%)	35 (17%)	29 (14%)	0	3
40	DF	206/210 (98%)	143 (69%)	35 (17%)	28 (14%)	0	4
41	BG	177/182 (97%)	107 (60%)	50 (28%)	20 (11%)	0	6
41	DG	177/182 (97%)	108 (61%)	45 (25%)	24 (14%)	0	4
42	BH	158/180 (88%)	99 (63%)	32 (20%)	27 (17%)	0	2
42	DH	158/180 (88%)	99 (63%)	32 (20%)	27 (17%)	0	2
43	BI	144/148 (97%)	87 (60%)	35 (24%)	22 (15%)	0	3
43	DI	144/148 (97%)	85 (59%)	37 (26%)	22 (15%)	0	3
44	BN	137/140 (98%)	90 (66%)	30 (22%)	17 (12%)	0	5
44	DN	137/140 (98%)	91 (66%)	29 (21%)	17 (12%)	0	5
45	BO	120/122 (98%)	91 (76%)	21 (18%)	8 (7%)	1	13
45	DO	120/122 (98%)	88 (73%)	24 (20%)	8 (7%)	1	13
46	BP	144/150 (96%)	73 (51%)	30 (21%)	41 (28%)	0	0
46	DP	144/150 (96%)	73 (51%)	30 (21%)	41 (28%)	0	0
47	BQ	139/141 (99%)	107 (77%)	24 (17%)	8 (6%)	1	16
47	DQ	139/141 (99%)	106 (76%)	23 (16%)	10 (7%)	1	11
48	BR	115/118 (98%)	83 (72%)	18 (16%)	14 (12%)	0	5
48	DR	115/118 (98%)	83 (72%)	18 (16%)	14 (12%)	0	5
49	BS	97/112 (87%)	47 (48%)	25 (26%)	25 (26%)	0	0
49	DS	97/112 (87%)	47 (48%)	25 (26%)	25 (26%)	0	0
50	BT	136/146 (93%)	82 (60%)	26 (19%)	28 (21%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	DT	136/146 (93%)	81 (60%)	27 (20%)	28 (21%)	0	1
51	BU	115/118 (98%)	86 (75%)	22 (19%)	7 (6%)	1	15
51	DU	115/118 (98%)	86 (75%)	20 (17%)	9 (8%)	1	10
52	BV	99/101 (98%)	62 (63%)	22 (22%)	15 (15%)	0	3
52	DV	99/101 (98%)	63 (64%)	21 (21%)	15 (15%)	0	3
53	BW	111/113 (98%)	87 (78%)	15 (14%)	9 (8%)	1	9
53	DW	111/113 (98%)	88 (79%)	15 (14%)	8 (7%)	1	11
54	BX	91/96 (95%)	74 (81%)	14 (15%)	3 (3%)	4	28
54	DX	91/96 (95%)	74 (81%)	13 (14%)	4 (4%)	2	21
55	BY	99/110 (90%)	37 (37%)	30 (30%)	32 (32%)	0	0
55	DY	99/110 (90%)	35 (35%)	32 (32%)	32 (32%)	0	0
56	BZ	175/206 (85%)	113 (65%)	38 (22%)	24 (14%)	0	4
56	DZ	175/206 (85%)	103 (59%)	45 (26%)	27 (15%)	0	3
All	All	11670/12592 (93%)	7783 (67%)	2440 (21%)	1447 (12%)	0	5

All (1447) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	15	VAL
2	AB	88	ALA
2	AB	154	LEU
2	AB	165	VAL
2	AB	195	ASP
2	AB	236	TYR
2	AB	240	GLN
3	AC	12	LEU
3	AC	15	THR
3	AC	20	SER
3	AC	207	VAL
4	AD	3	ARG
4	AD	17	VAL
4	AD	40	PRO
5	AE	8	GLU
5	AE	104	ALA
6	AF	40	VAL
6	AF	43	LEU

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Mol	Chain	Res	Type
7	AG	7	ALA
7	AG	54	THR
7	AG	155	ARG
8	AH	82	HIS
9	AI	89	ASN
9	AI	103	THR
9	AI	117	HIS
10	AJ	32	ALA
10	AJ	51	ARG
10	AJ	52	GLY
10	AJ	57	LYS
11	AK	106	LYS
12	AL	23	LYS
12	AL	47	LYS
12	AL	91	LYS
13	AM	12	ASN
13	AM	83	ASP
13	AM	107	ALA
13	AM	117	VAL
14	AN	56	VAL
17	AQ	34	LYS
18	AR	20	ALA
18	AR	37	VAL
18	AR	45	SER
18	AR	83	GLU
18	AR	87	ARG
19	AS	10	PHE
19	AS	14	HIS
19	AS	28	LYS
19	AS	30	LEU
19	AS	80	TYR
20	AT	9	ASN
21	AU	6	ARG
21	AU	7	ARG
25	B0	9	SER
26	B1	58	ILE
27	B2	47	ASN
28	B3	3	ARG
29	B4	46	ASN
29	B4	52	SER
29	B4	64	LYS
30	B5	4	HIS

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Mol	Chain	Res	Type
30	B5	36	CYS
30	B5	38	ALA
30	B5	47	PRO
30	B5	49	CYS
30	B5	56	LYS
30	B5	58	LEU
31	B6	17	LYS
31	B6	20	ASN
31	B6	31	PRO
31	B6	52	VAL
33	B8	31	HIS
33	B8	34	TRP
33	B8	35	GLN
33	B8	61	LEU
37	BC	19	VAL
37	BC	55	ASP
37	BC	58	VAL
37	BC	63	SER
37	BC	125	SER
37	BC	140	PRO
37	BC	148	ASN
37	BC	153	ILE
37	BC	172	HIS
37	BC	173	ALA
37	BC	174	PRO
37	BC	182	PRO
37	BC	183	GLU
37	BC	201	PRO
37	BC	216	THR
37	BC	220	PRO
37	BC	222	VAL
38	BD	25	THR
38	BD	26	LYS
38	BD	127	VAL
38	BD	169	GLU
38	BD	225	ALA
38	BD	271	ILE
38	BD	272	ALA
39	BE	4	ILE
39	BE	18	ASP
39	BE	40	GLU
39	BE	53	PRO

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Mol	Chain	Res	Type
39	BE	54	GLN
39	BE	71	GLY
39	BE	77	ILE
39	BE	88	GLY
39	BE	132	HIS
39	BE	187	ALA
39	BE	201	THR
40	BF	2	LYS
40	BF	11	VAL
40	BF	14	PRO
40	BF	21	ALA
40	BF	22	ALA
40	BF	26	ALA
40	BF	69	HIS
41	BG	14	GLU
41	BG	47	LYS
41	BG	81	LYS
41	BG	82	LEU
41	BG	86	MET
41	BG	87	PRO
41	BG	110	ALA
41	BG	115	ARG
42	BH	46	GLU
42	BH	49	VAL
42	BH	83	TYR
42	BH	89	ILE
42	BH	98	LEU
42	BH	127	GLU
42	BH	137	ASP
42	BH	138	LYS
42	BH	155	SER
42	BH	156	ALA
42	BH	159	GLU
42	BH	160	LYS
43	BI	15	VAL
43	BI	81	VAL
43	BI	82	ARG
43	BI	93	THR
43	BI	120	ILE
43	BI	121	LYS
43	BI	133	HIS
43	BI	145	VAL

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Mol	Chain	Res	Type
44	BN	4	TYR
44	BN	19	GLU
44	BN	42	TRP
44	BN	57	ALA
44	BN	58	ASP
44	BN	134	ARG
45	BO	48	PRO
46	BP	9	ASN
46	BP	14	LYS
46	BP	17	LYS
46	BP	31	ALA
46	BP	34	GLY
46	BP	35	HIS
46	BP	47	ASP
46	BP	48	PRO
46	BP	83	VAL
46	BP	103	ALA
46	BP	104	GLY
46	BP	107	LYS
46	BP	108	LYS
46	BP	111	ARG
47	BQ	21	THR
48	BR	4	LEU
48	BR	8	ARG
48	BR	14	SER
48	BR	82	GLU
48	BR	107	ASP
49	BS	23	ARG
49	BS	53	SER
49	BS	54	LEU
49	BS	56	LEU
49	BS	59	LYS
49	BS	62	LYS
49	BS	88	ASP
49	BS	94	TYR
49	BS	97	ARG
49	BS	102	ALA
50	BT	24	PRO
50	BT	28	VAL
50	BT	29	ARG
50	BT	30	VAL
50	BT	33	LYS

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Mol	Chain	Res	Type
50	BT	55	ASN
50	BT	58	ASN
50	BT	80	SER
50	BT	83	ILE
50	BT	84	GLN
50	BT	85	LYS
50	BT	88	ILE
50	BT	103	ARG
50	BT	107	ASP
50	BT	115	ARG
50	BT	129	ARG
51	BU	9	VAL
51	BU	32	PHE
51	BU	90	VAL
51	BU	91	ASP
51	BU	93	LYS
52	BV	19	LYS
52	BV	49	THR
52	BV	53	GLU
53	BW	11	ARG
55	BY	7	VAL
55	BY	17	SER
55	BY	27	VAL
55	BY	30	VAL
55	BY	44	ILE
55	BY	48	ALA
55	BY	52	SER
55	BY	53	PRO
55	BY	56	PRO
55	BY	66	PRO
55	BY	77	PRO
55	BY	78	ALA
55	BY	81	LYS
55	BY	90	LEU
55	BY	96	ILE
55	BY	101	LYS
56	BZ	51	ALA
56	BZ	53	ILE
56	BZ	93	ASP
56	BZ	96	VAL
56	BZ	108	PRO
56	BZ	118	GLN

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Mol	Chain	Res	Type
56	BZ	166	SER
56	BZ	168	GLU
56	BZ	177	PRO
2	CB	9	GLU
2	CB	15	VAL
2	CB	88	ALA
2	CB	154	LEU
2	CB	165	VAL
2	CB	195	ASP
2	CB	236	TYR
2	CB	240	GLN
3	CC	12	LEU
3	CC	15	THR
3	CC	20	SER
3	CC	111	LEU
3	CC	207	VAL
4	CD	3	ARG
4	CD	17	VAL
4	CD	40	PRO
5	CE	8	GLU
5	CE	104	ALA
6	CF	40	VAL
6	CF	43	LEU
7	CG	7	ALA
7	CG	54	THR
7	CG	155	ARG
8	CH	82	HIS
9	CI	89	ASN
9	CI	103	THR
9	CI	117	HIS
10	CJ	32	ALA
10	CJ	51	ARG
10	CJ	52	GLY
10	CJ	57	LYS
11	CK	106	LYS
12	CL	23	LYS
12	CL	47	LYS
12	CL	91	LYS
12	CL	115	LYS
13	CM	12	ASN
13	CM	83	ASP
13	CM	95	GLY

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Mol	Chain	Res	Type
13	CM	107	ALA
13	CM	117	VAL
14	CN	56	VAL
17	CQ	34	LYS
18	CR	20	ALA
18	CR	37	VAL
18	CR	45	SER
18	CR	83	GLU
18	CR	87	ARG
19	CS	10	PHE
19	CS	14	HIS
19	CS	28	LYS
19	CS	30	LEU
19	CS	80	TYR
20	CT	9	ASN
21	CU	6	ARG
21	CU	7	ARG
25	D0	9	SER
26	D1	58	ILE
27	D2	18	PRO
27	D2	44	LEU
27	D2	47	ASN
27	D2	70	GLN
28	D3	3	ARG
29	D4	46	ASN
29	D4	52	SER
29	D4	64	LYS
30	D5	4	HIS
30	D5	36	CYS
30	D5	38	ALA
30	D5	47	PRO
30	D5	49	CYS
30	D5	56	LYS
30	D5	58	LEU
31	D6	17	LYS
31	D6	20	ASN
31	D6	31	PRO
31	D6	52	VAL
33	D8	31	HIS
33	D8	34	TRP
33	D8	35	GLN
33	D8	61	LEU

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Mol	Chain	Res	Type
37	DC	19	VAL
37	DC	55	ASP
37	DC	58	VAL
37	DC	63	SER
37	DC	125	SER
37	DC	140	PRO
37	DC	148	ASN
37	DC	153	ILE
37	DC	172	HIS
37	DC	173	ALA
37	DC	174	PRO
37	DC	182	PRO
37	DC	183	GLU
37	DC	201	PRO
37	DC	216	THR
37	DC	220	PRO
37	DC	222	VAL
38	DD	25	THR
38	DD	26	LYS
38	DD	127	VAL
38	DD	169	GLU
38	DD	225	ALA
38	DD	271	ILE
38	DD	272	ALA
39	DE	4	ILE
39	DE	18	ASP
39	DE	40	GLU
39	DE	53	PRO
39	DE	54	GLN
39	DE	57	LYS
39	DE	71	GLY
39	DE	77	ILE
39	DE	88	GLY
39	DE	132	HIS
39	DE	187	ALA
39	DE	201	THR
40	DF	2	LYS
40	DF	11	VAL
40	DF	21	ALA
40	DF	22	ALA
40	DF	26	ALA
40	DF	69	HIS

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Mol	Chain	Res	Type
41	DG	14	GLU
41	DG	81	LYS
41	DG	82	LEU
41	DG	87	PRO
41	DG	115	ARG
42	DH	46	GLU
42	DH	49	VAL
42	DH	83	TYR
42	DH	89	ILE
42	DH	98	LEU
42	DH	127	GLU
42	DH	137	ASP
42	DH	138	LYS
42	DH	155	SER
42	DH	156	ALA
42	DH	159	GLU
42	DH	160	LYS
43	DI	15	VAL
43	DI	81	VAL
43	DI	82	ARG
43	DI	93	THR
43	DI	120	ILE
43	DI	121	LYS
43	DI	133	HIS
43	DI	145	VAL
44	DN	4	TYR
44	DN	19	GLU
44	DN	42	TRP
44	DN	57	ALA
44	DN	58	ASP
44	DN	134	ARG
45	DO	48	PRO
46	DP	9	ASN
46	DP	14	LYS
46	DP	17	LYS
46	DP	31	ALA
46	DP	34	GLY
46	DP	35	HIS
46	DP	47	ASP
46	DP	48	PRO
46	DP	83	VAL
46	DP	103	ALA

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Mol	Chain	Res	Type
46	DP	104	GLY
46	DP	107	LYS
46	DP	108	LYS
46	DP	111	ARG
47	DQ	21	THR
48	DR	4	LEU
48	DR	8	ARG
48	DR	14	SER
48	DR	82	GLU
48	DR	107	ASP
49	DS	23	ARG
49	DS	53	SER
49	DS	54	LEU
49	DS	56	LEU
49	DS	59	LYS
49	DS	62	LYS
49	DS	88	ASP
49	DS	94	TYR
49	DS	97	ARG
49	DS	102	ALA
50	DT	24	PRO
50	DT	28	VAL
50	DT	30	VAL
50	DT	33	LYS
50	DT	55	ASN
50	DT	58	ASN
50	DT	80	SER
50	DT	83	ILE
50	DT	84	GLN
50	DT	85	LYS
50	DT	88	ILE
50	DT	103	ARG
50	DT	107	ASP
50	DT	115	ARG
50	DT	129	ARG
51	DU	9	VAL
51	DU	90	VAL
51	DU	91	ASP
51	DU	93	LYS
52	DV	19	LYS
52	DV	49	THR
52	DV	53	GLU

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Mol	Chain	Res	Type
53	DW	6	ILE
53	DW	11	ARG
55	DY	7	VAL
55	DY	17	SER
55	DY	27	VAL
55	DY	30	VAL
55	DY	44	ILE
55	DY	48	ALA
55	DY	52	SER
55	DY	53	PRO
55	DY	56	PRO
55	DY	66	PRO
55	DY	77	PRO
55	DY	78	ALA
55	DY	81	LYS
55	DY	90	LEU
55	DY	96	ILE
55	DY	101	LYS
56	DZ	9	TYR
56	DZ	107	THR
56	DZ	109	ALA
56	DZ	149	SER
56	DZ	151	HIS
56	DZ	163	LEU
56	DZ	165	VAL
2	AB	83	MET
2	AB	150	SER
2	AB	230	VAL
2	AB	239	VAL
3	AC	4	LYS
3	AC	29	TYR
3	AC	47	LEU
3	AC	61	ALA
3	AC	81	GLY
3	AC	111	LEU
3	AC	145	GLY
3	AC	189	ALA
4	AD	4	TYR
4	AD	5	ILE
4	AD	7	PRO
4	AD	41	GLY
4	AD	43	HIS

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Mol	Chain	Res	Type
4	AD	44	GLY
4	AD	109	GLY
4	AD	129	ASN
5	AE	21	ALA
5	AE	146	ALA
5	AE	153	LYS
6	AF	71	ARG
7	AG	19	GLY
7	AG	131	LYS
8	AH	133	LEU
8	AH	135	CYS
9	AI	100	GLY
10	AJ	36	GLY
10	AJ	86	MET
12	AL	28	LYS
12	AL	64	TYR
12	AL	76	ASN
12	AL	115	LYS
12	AL	121	GLY
13	AM	46	LYS
13	AM	81	LEU
13	AM	95	GLY
13	AM	100	GLY
13	AM	108	ARG
14	AN	16	PHE
15	AO	77	ARG
16	AP	52	ASP
18	AR	25	THR
18	AR	38	GLU
18	AR	51	LEU
18	AR	57	GLY
19	AS	6	LYS
19	AS	27	GLU
19	AS	67	VAL
20	AT	47	GLY
20	AT	71	THR
26	B1	28	GLY
26	B1	53	VAL
26	B1	69	LYS
26	B1	84	GLY
26	B1	85	LEU
27	B2	44	LEU

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Mol	Chain	Res	Type
27	B2	45	SER
27	B2	70	GLN
30	B5	32	PRO
31	B6	23	THR
31	B6	49	HIS
37	BC	35	ALA
37	BC	46	LYS
37	BC	57	ASN
37	BC	89	ALA
37	BC	129	ARG
37	BC	142	ALA
37	BC	154	ARG
37	BC	162	GLU
37	BC	167	LYS
37	BC	207	THR
37	BC	213	TYR
38	BD	3	VAL
38	BD	58	HIS
38	BD	237	GLU
38	BD	239	ARG
38	BD	246	PRO
39	BE	2	LYS
39	BE	57	LYS
39	BE	60	ASN
39	BE	69	LYS
39	BE	76	ARG
39	BE	90	THR
39	BE	131	ALA
40	BF	10	PRO
40	BF	84	VAL
40	BF	89	VAL
40	BF	165	ARG
41	BG	117	PHE
41	BG	146	TYR
41	BG	172	LEU
42	BH	14	GLY
42	BH	24	VAL
42	BH	55	PRO
42	BH	81	GLU
42	BH	84	SER
42	BH	97	ARG
42	BH	165	ALA

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Mol	Chain	Res	Type
43	BI	51	ILE
43	BI	53	ALA
43	BI	59	ALA
43	BI	85	GLU
43	BI	92	VAL
43	BI	117	GLU
43	BI	144	VAL
44	BN	17	ASP
44	BN	77	GLY
45	BO	5	GLN
45	BO	27	GLY
46	BP	11	GLY
46	BP	19	VAL
46	BP	52	GLU
46	BP	140	ALA
46	BP	147	LEU
47	BQ	20	ALA
47	BQ	29	PHE
47	BQ	135	ASP
48	BR	3	HIS
48	BR	6	SER
48	BR	42	LYS
48	BR	88	ARG
49	BS	14	VAL
49	BS	24	LEU
49	BS	57	LYS
49	BS	66	ALA
49	BS	87	PHE
49	BS	90	GLY
49	BS	96	GLY
49	BS	107	GLU
50	BT	131	ALA
52	BV	16	PRO
52	BV	18	LEU
52	BV	24	LYS
52	BV	46	VAL
52	BV	48	GLY
52	BV	79	VAL
53	BW	6	ILE
53	BW	63	ASP
55	BY	22	GLY
55	BY	23	ARG

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Mol	Chain	Res	Type
55	BY	42	VAL
55	BY	58	GLY
55	BY	91	GLU
56	BZ	16	SER
56	BZ	31	ARG
56	BZ	146	ILE
56	BZ	152	ALA
2	CB	83	MET
2	CB	150	SER
2	CB	230	VAL
2	CB	239	VAL
3	CC	4	LYS
3	CC	29	TYR
3	CC	47	LEU
3	CC	61	ALA
3	CC	81	GLY
3	CC	145	GLY
3	CC	189	ALA
4	CD	4	TYR
4	CD	5	ILE
4	CD	7	PRO
4	CD	41	GLY
4	CD	43	HIS
4	CD	44	GLY
4	CD	109	GLY
4	CD	129	ASN
5	CE	21	ALA
5	CE	146	ALA
5	CE	153	LYS
6	CF	69	GLU
6	CF	71	ARG
7	CG	19	GLY
7	CG	131	LYS
8	CH	133	LEU
8	CH	135	CYS
9	CI	100	GLY
10	CJ	36	GLY
10	CJ	86	MET
12	CL	28	LYS
12	CL	64	TYR
12	CL	76	ASN
12	CL	121	GLY

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Mol	Chain	Res	Type
13	CM	46	LYS
13	CM	81	LEU
13	CM	100	GLY
13	CM	108	ARG
14	CN	16	PHE
15	CO	77	ARG
16	CP	52	ASP
18	CR	38	GLU
18	CR	51	LEU
18	CR	57	GLY
19	CS	6	LYS
19	CS	27	GLU
19	CS	67	VAL
20	CT	47	GLY
20	CT	71	THR
26	D1	24	ALA
26	D1	28	GLY
26	D1	30	VAL
26	D1	84	GLY
26	D1	85	LEU
27	D2	17	SER
27	D2	51	ARG
30	D5	32	PRO
31	D6	23	THR
31	D6	49	HIS
37	DC	35	ALA
37	DC	46	LYS
37	DC	57	ASN
37	DC	89	ALA
37	DC	129	ARG
37	DC	142	ALA
37	DC	151	GLU
37	DC	154	ARG
37	DC	162	GLU
37	DC	167	LYS
37	DC	207	THR
37	DC	213	TYR
38	DD	3	VAL
38	DD	51	VAL
38	DD	237	GLU
38	DD	239	ARG
39	DE	2	LYS

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Mol	Chain	Res	Type
39	DE	60	ASN
39	DE	69	LYS
39	DE	76	ARG
39	DE	90	THR
39	DE	131	ALA
40	DF	10	PRO
40	DF	14	PRO
40	DF	84	VAL
40	DF	89	VAL
40	DF	165	ARG
41	DG	3	LEU
41	DG	50	ALA
41	DG	52	ILE
41	DG	84	LYS
41	DG	96	ARG
41	DG	145	THR
41	DG	147	ASP
41	DG	179	PRO
42	DH	14	GLY
42	DH	24	VAL
42	DH	55	PRO
42	DH	81	GLU
42	DH	84	SER
42	DH	97	ARG
43	DI	51	ILE
43	DI	53	ALA
43	DI	59	ALA
43	DI	85	GLU
43	DI	92	VAL
43	DI	117	GLU
44	DN	5	VAL
44	DN	17	ASP
44	DN	77	GLY
44	DN	127	ASP
44	DN	136	GLU
45	DO	5	GLN
45	DO	27	GLY
46	DP	11	GLY
46	DP	19	VAL
46	DP	52	GLU
46	DP	140	ALA
46	DP	147	LEU

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Mol	Chain	Res	Type
47	DQ	20	ALA
47	DQ	29	PHE
48	DR	3	HIS
48	DR	6	SER
48	DR	42	LYS
48	DR	88	ARG
49	DS	14	VAL
49	DS	24	LEU
49	DS	57	LYS
49	DS	66	ALA
49	DS	83	LYS
49	DS	87	PHE
49	DS	90	GLY
49	DS	96	GLY
49	DS	107	GLU
50	DT	29	ARG
50	DT	131	ALA
51	DU	32	PHE
52	DV	16	PRO
52	DV	18	LEU
52	DV	24	LYS
52	DV	46	VAL
52	DV	48	GLY
52	DV	79	VAL
53	DW	63	ASP
55	DY	22	GLY
55	DY	23	ARG
55	DY	42	VAL
55	DY	58	GLY
55	DY	91	GLU
56	DZ	34	ASN
56	DZ	65	GLN
56	DZ	112	ARG
56	DZ	117	LEU
56	DZ	121	HIS
2	AB	20	GLU
2	AB	36	ARG
2	AB	98	LEU
2	AB	132	LYS
2	AB	155	LEU
2	AB	161	ALA
2	AB	204	ASN

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Mol	Chain	Res	Type
3	AC	3	ASN
3	AC	24	ALA
3	AC	154	SER
3	AC	168	ALA
3	AC	191	THR
4	AD	32	ALA
4	AD	47	ARG
4	AD	155	LEU
5	AE	17	ALA
5	AE	137	GLU
6	AF	69	GLU
6	AF	70	ASP
8	AH	41	ARG
9	AI	34	ASN
11	AK	39	PRO
11	AK	101	SER
11	AK	117	ASN
12	AL	12	ARG
12	AL	19	ARG
12	AL	65	GLU
13	AM	3	ARG
13	AM	28	ALA
13	AM	29	ARG
13	AM	90	LEU
13	AM	119	GLY
14	AN	50	LYS
14	AN	51	GLY
14	AN	58	LYS
18	AR	41	LYS
18	AR	49	LYS
18	AR	52	PRO
20	AT	11	SER
20	AT	99	LEU
26	B1	24	ALA
26	B1	27	GLU
26	B1	95	LEU
28	B3	38	GLU
30	B5	34	PRO
31	B6	33	LYS
31	B6	44	ARG
33	B8	43	GLN
33	B8	46	ARG

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Mol	Chain	Res	Type
33	B8	47	LYS
33	B8	64	TYR
37	BC	20	TYR
37	BC	52	ARG
37	BC	67	GLY
37	BC	151	GLU
37	BC	161	ILE
38	BD	27	THR
38	BD	51	VAL
38	BD	268	ARG
39	BE	39	PRO
39	BE	89	ASP
39	BE	169	ASN
39	BE	186	GLY
40	BF	16	GLY
40	BF	24	LEU
40	BF	28	ILE
40	BF	66	PRO
40	BF	71	GLY
40	BF	128	ALA
40	BF	133	ASN
41	BG	43	LEU
41	BG	49	ASP
41	BG	98	ARG
41	BG	147	ASP
42	BH	45	VAL
42	BH	119	GLU
42	BH	153	LYS
42	BH	154	PRO
43	BI	6	LEU
43	BI	75	LEU
43	BI	78	THR
44	BN	5	VAL
44	BN	127	ASP
44	BN	135	PRO
44	BN	136	GLU
45	BO	13	ASN
46	BP	18	ARG
46	BP	25	SER
46	BP	39	LYS
46	BP	40	SER
46	BP	49	ARG

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Mol	Chain	Res	Type
46	BP	55	ARG
46	BP	58	THR
46	BP	76	LYS
46	BP	106	LEU
47	BQ	40	ALA
47	BQ	105	GLU
47	BQ	134	ARG
48	BR	45	ARG
49	BS	58	LEU
49	BS	74	ALA
49	BS	83	LYS
50	BT	17	THR
50	BT	27	THR
50	BT	36	GLU
50	BT	42	ILE
50	BT	90	GLN
50	BT	94	ALA
50	BT	104	ASN
52	BV	3	ALA
52	BV	35	LEU
55	BY	3	VAL
55	BY	31	LEU
55	BY	37	VAL
55	BY	38	ILE
55	BY	99	CYS
56	BZ	149	SER
2	CB	20	GLU
2	CB	36	ARG
2	CB	98	LEU
2	CB	132	LYS
2	CB	155	LEU
2	CB	161	ALA
2	CB	167	PRO
2	CB	177	ALA
2	CB	204	ASN
3	CC	3	ASN
3	CC	24	ALA
3	CC	154	SER
3	CC	168	ALA
3	CC	191	THR
4	CD	32	ALA
4	CD	47	ARG

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Mol	Chain	Res	Type
4	CD	155	LEU
6	CF	70	ASP
9	CI	34	ASN
11	CK	39	PRO
11	CK	101	SER
11	CK	117	ASN
12	CL	12	ARG
12	CL	19	ARG
12	CL	65	GLU
13	CM	3	ARG
13	CM	28	ALA
13	CM	29	ARG
13	CM	90	LEU
13	CM	119	GLY
14	CN	50	LYS
14	CN	51	GLY
14	CN	58	LYS
18	CR	25	THR
18	CR	41	LYS
18	CR	49	LYS
18	CR	52	PRO
20	CT	11	SER
20	CT	99	LEU
28	D3	38	GLU
30	D5	34	PRO
31	D6	33	LYS
31	D6	44	ARG
33	D8	43	GLN
33	D8	46	ARG
33	D8	47	LYS
33	D8	64	TYR
37	DC	20	TYR
37	DC	49	ILE
37	DC	52	ARG
37	DC	67	GLY
37	DC	161	ILE
38	DD	27	THR
38	DD	32	SER
38	DD	52	ARG
38	DD	58	HIS
38	DD	246	PRO
38	DD	268	ARG

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Mol	Chain	Res	Type
39	DE	39	PRO
39	DE	66	HIS
39	DE	135	HIS
39	DE	169	ASN
39	DE	186	GLY
40	DF	16	GLY
40	DF	24	LEU
40	DF	28	ILE
40	DF	66	PRO
40	DF	71	GLY
40	DF	128	ALA
40	DF	133	ASN
41	DG	10	LYS
41	DG	18	GLU
41	DG	22	ARG
41	DG	117	PHE
41	DG	153	ARG
42	DH	45	VAL
42	DH	153	LYS
42	DH	154	PRO
42	DH	165	ALA
43	DI	6	LEU
43	DI	78	THR
43	DI	144	VAL
44	DN	129	PRO
44	DN	135	PRO
46	DP	25	SER
46	DP	39	LYS
46	DP	40	SER
46	DP	42	SER
46	DP	49	ARG
46	DP	55	ARG
46	DP	76	LYS
46	DP	106	LEU
47	DQ	40	ALA
47	DQ	105	GLU
47	DQ	134	ARG
47	DQ	135	ASP
48	DR	45	ARG
49	DS	42	ASP
49	DS	58	LEU
49	DS	74	ALA

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Mol	Chain	Res	Type
50	DT	17	THR
50	DT	27	THR
50	DT	36	GLU
50	DT	104	ASN
51	DU	77	SER
52	DV	3	ALA
55	DY	3	VAL
55	DY	31	LEU
55	DY	38	ILE
55	DY	99	CYS
56	DZ	21	ALA
56	DZ	66	SER
56	DZ	81	ARG
56	DZ	95	PRO
56	DZ	146	ILE
56	DZ	177	PRO
2	AB	66	GLY
2	AB	159	PRO
2	AB	167	PRO
2	AB	174	VAL
2	AB	177	ALA
2	AB	178	ARG
2	AB	229	VAL
2	AB	237	ALA
4	AD	30	LYS
5	AE	20	GLN
5	AE	140	ARG
9	AI	11	LYS
9	AI	12	GLU
10	AJ	46	ARG
10	AJ	47	PHE
10	AJ	60	ARG
11	AK	105	VAL
12	AL	27	LEU
13	AM	5	ALA
13	AM	21	TYR
13	AM	43	THR
14	AN	52	GLN
14	AN	60	SER
20	AT	46	GLU
27	B2	17	SER
29	B4	55	PRO

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Mol	Chain	Res	Type
29	B4	61	VAL
31	B6	19	ARG
37	BC	49	ILE
37	BC	64	LEU
37	BC	79	LYS
37	BC	175	VAL
37	BC	198	ALA
38	BD	34	VAL
39	BE	45	THR
39	BE	66	HIS
39	BE	68	ALA
39	BE	72	VAL
40	BF	67	GLN
40	BF	127	GLU
40	BF	132	VAL
41	BG	97	ASP
42	BH	158	HIS
43	BI	14	ASP
43	BI	112	LYS
44	BN	56	ASN
44	BN	129	PRO
46	BP	33	ARG
46	BP	42	SER
46	BP	98	GLU
46	BP	110	TYR
46	BP	141	ALA
46	BP	146	VAL
47	BQ	28	ALA
48	BR	86	ARG
49	BS	42	ASP
49	BS	72	ALA
50	BT	31	SER
50	BT	35	LYS
51	BU	77	SER
51	BU	92	ARG
52	BV	23	GLU
53	BW	66	GLU
55	BY	39	VAL
55	BY	51	VAL
55	BY	67	LEU
56	BZ	80	ARG
56	BZ	142	SER

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Mol	Chain	Res	Type
56	BZ	157	LEU
2	CB	66	GLY
2	CB	159	PRO
2	CB	174	VAL
2	CB	178	ARG
2	CB	229	VAL
2	CB	237	ALA
4	CD	30	LYS
5	CE	17	ALA
5	CE	20	GLN
5	CE	137	GLU
8	CH	41	ARG
9	CI	11	LYS
10	CJ	47	PHE
10	CJ	60	ARG
11	CK	105	VAL
12	CL	26	ALA
12	CL	27	LEU
13	CM	5	ALA
13	CM	21	TYR
13	CM	43	THR
14	CN	52	GLN
14	CN	60	SER
15	CO	13	GLN
15	CO	26	GLU
18	CR	28	GLU
20	CT	46	GLU
29	D4	55	PRO
29	D4	61	VAL
31	D6	19	ARG
37	DC	64	LEU
37	DC	79	LYS
37	DC	175	VAL
37	DC	198	ALA
38	DD	202	LYS
39	DE	45	THR
39	DE	68	ALA
39	DE	89	ASP
39	DE	144	ARG
40	DF	67	GLN
40	DF	127	GLU
40	DF	132	VAL

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Mol	Chain	Res	Type
41	DG	43	LEU
41	DG	86	MET
41	DG	97	ASP
42	DH	119	GLU
42	DH	158	HIS
43	DI	14	ASP
43	DI	75	LEU
43	DI	112	LYS
45	DO	13	ASN
46	DP	33	ARG
46	DP	58	THR
46	DP	98	GLU
46	DP	110	TYR
46	DP	141	ALA
46	DP	146	VAL
49	DS	72	ALA
49	DS	77	ALA
50	DT	31	SER
50	DT	35	LYS
50	DT	42	ILE
50	DT	90	GLN
50	DT	94	ALA
51	DU	92	ARG
52	DV	23	GLU
52	DV	35	LEU
53	DW	93	ALA
54	DX	21	PHE
55	DY	37	VAL
55	DY	39	VAL
55	DY	51	VAL
55	DY	67	LEU
56	DZ	78	LYS
56	DZ	106	GLY
56	DZ	142	SER
56	DZ	154	ASP
2	AB	26	PRO
3	AC	55	VAL
3	AC	71	ALA
5	AE	128	PRO
9	AI	46	ALA
12	AL	26	ALA
14	AN	59	ALA

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Mol	Chain	Res	Type
15	AO	17	ARG
15	AO	26	GLU
15	AO	86	GLY
17	AQ	14	LYS
17	AQ	73	VAL
18	AR	28	GLU
19	AS	53	ASN
20	AT	28	ALA
20	AT	29	LYS
25	B0	5	LYS
25	B0	57	PHE
28	B3	2	PRO
30	B5	50	GLY
33	B8	3	LYS
37	BC	133	PRO
37	BC	188	ASN
37	BC	204	ALA
37	BC	209	LEU
38	BD	32	SER
38	BD	202	LYS
38	BD	244	ARG
39	BE	29	GLY
39	BE	30	PRO
39	BE	49	LEU
39	BE	135	HIS
39	BE	144	ARG
40	BF	102	PRO
41	BG	6	ALA
41	BG	171	ALA
42	BH	13	LYS
43	BI	55	ALA
44	BN	8	GLN
45	BO	72	PRO
45	BO	113	LYS
46	BP	118	GLY
46	BP	149	GLU
48	BR	117	VAL
49	BS	77	ALA
52	BV	26	ASP
53	BW	71	VAL
53	BW	93	ALA
54	BX	21	PHE

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Mol	Chain	Res	Type
55	BY	55	TYR
56	BZ	15	PRO
2	CB	26	PRO
2	CB	39	ILE
2	CB	217	ARG
3	CC	55	VAL
3	CC	70	VAL
3	CC	71	ALA
5	CE	128	PRO
5	CE	140	ARG
9	CI	12	GLU
10	CJ	46	ARG
13	CM	60	VAL
14	CN	59	ALA
15	CO	17	ARG
15	CO	86	GLY
17	CQ	73	VAL
18	CR	36	ASN
20	CT	28	ALA
25	D0	5	LYS
25	D0	57	PHE
25	D0	74	ARG
26	D1	76	ARG
27	D2	43	GLN
28	D3	2	PRO
30	D5	48	GLU
37	DC	133	PRO
37	DC	188	ASN
37	DC	204	ALA
37	DC	209	LEU
38	DD	34	VAL
38	DD	244	ARG
39	DE	29	GLY
39	DE	30	PRO
39	DE	72	VAL
40	DF	78	ILE
41	DG	126	ASP
42	DH	13	LYS
43	DI	55	ALA
44	DN	8	GLN
44	DN	56	ASN
44	DN	64	GLY

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Mol	Chain	Res	Type
45	DO	72	PRO
46	DP	18	ARG
46	DP	63	PRO
46	DP	118	GLY
46	DP	149	GLU
47	DQ	28	ALA
48	DR	86	ARG
48	DR	117	VAL
52	DV	26	ASP
53	DW	66	GLU
54	DX	87	GLN
55	DY	55	TYR
2	AB	39	ILE
2	AB	217	ARG
2	AB	234	PRO
3	AC	70	VAL
4	AD	63	LYS
9	AI	40	LEU
9	AI	44	VAL
9	AI	98	PRO
12	AL	48	PRO
13	AM	42	ALA
13	AM	60	VAL
15	AO	13	GLN
15	AO	19	PRO
20	AT	96	GLY
27	B2	19	VAL
30	B5	48	GLU
37	BC	26	ALA
37	BC	50	ASP
37	BC	90	GLY
37	BC	150	GLY
37	BC	152	ILE
37	BC	170	ALA
37	BC	217	THR
40	BF	9	ILE
40	BF	13	SER
40	BF	56	GLU
40	BF	78	ILE
42	BH	47	GLU
44	BN	64	GLY
46	BP	36	LYS

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Mol	Chain	Res	Type
48	BR	102	GLU
48	BR	106	GLY
56	BZ	73	GLN
2	CB	175	ARG
4	CD	14	ARG
9	CI	44	VAL
9	CI	46	ALA
9	CI	98	PRO
12	CL	48	PRO
19	CS	5	LEU
19	CS	53	ASN
20	CT	29	LYS
20	CT	96	GLY
26	D1	53	VAL
27	D2	6	VAL
29	D4	45	GLY
30	D5	14	ALA
33	D8	3	LYS
37	DC	26	ALA
37	DC	90	GLY
37	DC	150	GLY
37	DC	152	ILE
37	DC	170	ALA
37	DC	217	THR
38	DD	106	ILE
40	DF	9	ILE
40	DF	13	SER
40	DF	102	PRO
42	DH	47	GLU
45	DO	4	PRO
45	DO	98	VAL
45	DO	113	LYS
46	DP	23	PRO
48	DR	102	GLU
48	DR	106	GLY
51	DU	33	ARG
52	DV	29	PRO
53	DW	71	VAL
56	DZ	62	PRO
5	AE	70	PRO
13	AM	4	ILE
17	AQ	64	PRO

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Mol	Chain	Res	Type
20	AT	97	ALA
27	B2	18	PRO
29	B4	45	GLY
38	BD	106	ILE
40	BF	126	VAL
45	BO	98	VAL
46	BP	23	PRO
46	BP	63	PRO
52	BV	28	GLU
52	BV	29	PRO
53	BW	112	GLY
56	BZ	101	PRO
56	BZ	115	GLY
56	BZ	159	PRO
2	CB	234	PRO
13	CM	4	ILE
15	CO	19	PRO
20	CT	97	ALA
37	DC	50	ASP
46	DP	122	PRO
50	DT	86	ILE
52	DV	28	GLU
53	DW	59	VAL
53	DW	112	GLY
56	DZ	174	VAL
4	AD	28	SER
7	AG	61	VAL
15	AO	74	ASP
15	AO	75	PRO
16	AP	51	VAL
26	B1	30	VAL
37	BC	123	VAL
37	BC	130	ILE
38	BD	228	PRO
38	BD	238	GLY
39	BE	75	VAL
42	BH	44	VAL
45	BO	4	PRO
46	BP	122	PRO
49	BS	108	GLY
50	BT	56	GLY
53	BW	59	VAL

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Mol	Chain	Res	Type
56	BZ	105	VAL
4	CD	178	VAL
5	CE	70	PRO
7	CG	61	VAL
15	CO	74	ASP
30	D5	50	GLY
37	DC	22	ILE
37	DC	123	VAL
37	DC	130	ILE
38	DD	243	GLY
40	DF	126	VAL
41	DG	101	ILE
42	DH	44	VAL
50	DT	56	GLY
56	DZ	39	VAL
56	DZ	137	ILE
2	AB	130	ARG
4	AD	178	VAL
10	AJ	90	LEU
19	AS	9	VAL
19	AS	45	VAL
37	BC	22	ILE
37	BC	135	GLY
38	BD	243	GLY
43	BI	137	PRO
50	BT	86	ILE
54	BX	85	PRO
56	BZ	147	GLY
2	CB	130	ARG
15	CO	75	PRO
16	CP	51	VAL
19	CS	45	VAL
37	DC	135	GLY
39	DE	75	VAL
41	DG	17	PRO
43	DI	137	PRO
49	DS	108	GLY
51	DU	105	VAL
54	DX	12	VAL
54	DX	85	PRO
9	AI	41	VAL
19	AS	26	GLY

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Mol	Chain	Res	Type
40	BF	206	ILE
41	BG	24	GLY
46	BP	10	PRO
54	BX	12	VAL
55	BY	15	VAL
3	CC	157	ILE
4	CD	28	SER
9	CI	41	VAL
10	CJ	90	LEU
17	CQ	64	PRO
19	CS	9	VAL
27	D2	41	ILE
38	DD	10	THR
38	DD	228	PRO
38	DD	238	GLY
40	DF	206	ILE
46	DP	10	PRO
47	DQ	15	GLY
55	DY	15	VAL
9	AI	90	PRO
37	BC	65	PRO
37	BC	143	GLY
39	BE	52	LEU
40	BF	81	PRO
41	BG	179	PRO
53	BW	10	VAL
55	BY	98	VAL
5	CE	51	VAL
9	CI	90	PRO
19	CS	26	GLY
37	DC	143	GLY
38	DD	123	ALA
39	DE	52	LEU
40	DF	25	PRO
46	DP	144	GLU
47	DQ	126	PRO
55	DY	98	VAL
38	BD	245	PRO
38	DD	245	PRO
56	DZ	167	PRO
44	BN	126	PRO
44	DN	126	PRO

5.3.2 Protein sidechains ⓘ

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%)	181 (90%)	21 (10%)	7	31
2	CB	202/220 (92%)	181 (90%)	21 (10%)	7	31
3	AC	160/188 (85%)	152 (95%)	8 (5%)	24	58
3	CC	160/188 (85%)	151 (94%)	9 (6%)	21	54
4	AD	180/181 (99%)	161 (89%)	19 (11%)	6	30
4	CD	180/181 (99%)	159 (88%)	21 (12%)	5	26
5	AE	115/123 (94%)	106 (92%)	9 (8%)	12	42
5	CE	115/123 (94%)	107 (93%)	8 (7%)	15	46
6	AF	90/90 (100%)	85 (94%)	5 (6%)	21	54
6	CF	90/90 (100%)	85 (94%)	5 (6%)	21	54
7	AG	126/127 (99%)	118 (94%)	8 (6%)	18	51
7	CG	126/127 (99%)	117 (93%)	9 (7%)	14	46
8	AH	119/119 (100%)	111 (93%)	8 (7%)	16	48
8	CH	119/119 (100%)	111 (93%)	8 (7%)	16	48
9	AI	98/99 (99%)	88 (90%)	10 (10%)	7	32
9	CI	98/99 (99%)	88 (90%)	10 (10%)	7	32
10	AJ	88/92 (96%)	76 (86%)	12 (14%)	3	20
10	CJ	88/92 (96%)	77 (88%)	11 (12%)	4	23
11	AK	90/99 (91%)	84 (93%)	6 (7%)	16	48
11	CK	90/99 (91%)	84 (93%)	6 (7%)	16	48
12	AL	104/111 (94%)	93 (89%)	11 (11%)	6	30
12	CL	104/111 (94%)	92 (88%)	12 (12%)	5	26
13	AM	99/101 (98%)	90 (91%)	9 (9%)	9	36
13	CM	99/101 (98%)	90 (91%)	9 (9%)	9	36
14	AN	49/50 (98%)	46 (94%)	3 (6%)	18	51
14	CN	49/50 (98%)	46 (94%)	3 (6%)	18	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	AO	79/80 (99%)	70 (89%)	9 (11%)	5	26
15	CO	79/80 (99%)	70 (89%)	9 (11%)	5	26
16	AP	72/74 (97%)	61 (85%)	11 (15%)	2	17
16	CP	72/74 (97%)	61 (85%)	11 (15%)	2	17
17	AQ	94/97 (97%)	89 (95%)	5 (5%)	22	55
17	CQ	94/97 (97%)	89 (95%)	5 (5%)	22	55
18	AR	61/77 (79%)	53 (87%)	8 (13%)	4	21
18	CR	61/77 (79%)	52 (85%)	9 (15%)	3	17
19	AS	69/80 (86%)	60 (87%)	9 (13%)	4	21
19	CS	69/80 (86%)	60 (87%)	9 (13%)	4	21
20	AT	76/82 (93%)	71 (93%)	5 (7%)	16	49
20	CT	76/82 (93%)	71 (93%)	5 (7%)	16	49
21	AU	19/22 (86%)	18 (95%)	1 (5%)	22	55
21	CU	19/22 (86%)	18 (95%)	1 (5%)	22	55
25	B0	66/67 (98%)	59 (89%)	7 (11%)	6	30
25	D0	66/67 (98%)	59 (89%)	7 (11%)	6	30
26	B1	78/83 (94%)	65 (83%)	13 (17%)	2	12
26	D1	78/83 (94%)	66 (85%)	12 (15%)	2	16
27	B2	66/67 (98%)	57 (86%)	9 (14%)	3	20
27	D2	66/67 (98%)	57 (86%)	9 (14%)	3	20
28	B3	51/52 (98%)	49 (96%)	2 (4%)	32	64
28	D3	51/52 (98%)	49 (96%)	2 (4%)	32	64
29	B4	27/63 (43%)	23 (85%)	4 (15%)	3	17
29	D4	27/63 (43%)	23 (85%)	4 (15%)	3	17
30	B5	51/52 (98%)	42 (82%)	9 (18%)	2	10
30	D5	51/52 (98%)	41 (80%)	10 (20%)	1	7
31	B6	43/52 (83%)	34 (79%)	9 (21%)	1	6
31	D6	43/52 (83%)	34 (79%)	9 (21%)	1	6
32	B7	41/42 (98%)	36 (88%)	5 (12%)	5	23
32	D7	41/42 (98%)	36 (88%)	5 (12%)	5	23
33	B8	53/55 (96%)	42 (79%)	11 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	D8	53/55 (96%)	42 (79%)	11 (21%)	1	6
34	B9	33/34 (97%)	30 (91%)	3 (9%)	9	36
34	D9	33/34 (97%)	30 (91%)	3 (9%)	9	36
37	BC	61/181 (34%)	53 (87%)	8 (13%)	4	21
37	DC	61/181 (34%)	53 (87%)	8 (13%)	4	21
38	BD	213/218 (98%)	183 (86%)	30 (14%)	3	19
38	DD	213/218 (98%)	183 (86%)	30 (14%)	3	19
39	BE	165/166 (99%)	142 (86%)	23 (14%)	3	20
39	DE	165/166 (99%)	143 (87%)	22 (13%)	4	21
40	BF	165/166 (99%)	150 (91%)	15 (9%)	9	36
40	DF	165/166 (99%)	151 (92%)	14 (8%)	10	39
41	BG	155/156 (99%)	133 (86%)	22 (14%)	3	19
41	DG	155/156 (99%)	129 (83%)	26 (17%)	2	12
42	BH	132/148 (89%)	119 (90%)	13 (10%)	8	33
42	DH	132/148 (89%)	119 (90%)	13 (10%)	8	33
43	BI	122/124 (98%)	113 (93%)	9 (7%)	13	44
43	DI	122/124 (98%)	113 (93%)	9 (7%)	13	44
44	BN	117/119 (98%)	98 (84%)	19 (16%)	2	14
44	DN	117/119 (98%)	100 (86%)	17 (14%)	3	18
45	BO	100/100 (100%)	90 (90%)	10 (10%)	7	32
45	DO	100/100 (100%)	92 (92%)	8 (8%)	12	41
46	BP	112/116 (97%)	92 (82%)	20 (18%)	2	9
46	DP	112/116 (97%)	93 (83%)	19 (17%)	2	12
47	BQ	111/111 (100%)	94 (85%)	17 (15%)	2	17
47	DQ	111/111 (100%)	94 (85%)	17 (15%)	2	17
48	BR	100/101 (99%)	88 (88%)	12 (12%)	5	24
48	DR	100/101 (99%)	88 (88%)	12 (12%)	5	24
49	BS	77/88 (88%)	68 (88%)	9 (12%)	5	26
49	DS	77/88 (88%)	67 (87%)	10 (13%)	4	21
50	BT	120/127 (94%)	101 (84%)	19 (16%)	2	15
50	DT	120/127 (94%)	101 (84%)	19 (16%)	2	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
51	BU	92/94 (98%)	80 (87%)	12 (13%)	4	21
51	DU	92/94 (98%)	80 (87%)	12 (13%)	4	21
52	BV	82/82 (100%)	68 (83%)	14 (17%)	2	12
52	DV	82/82 (100%)	69 (84%)	13 (16%)	2	14
53	BW	91/92 (99%)	83 (91%)	8 (9%)	10	38
53	DW	91/92 (99%)	83 (91%)	8 (9%)	10	38
54	BX	74/78 (95%)	67 (90%)	7 (10%)	8	34
54	DX	74/78 (95%)	67 (90%)	7 (10%)	8	34
55	BY	84/91 (92%)	70 (83%)	14 (17%)	2	12
55	DY	84/91 (92%)	70 (83%)	14 (17%)	2	12
56	BZ	155/179 (87%)	133 (86%)	22 (14%)	3	19
56	DZ	155/179 (87%)	131 (84%)	24 (16%)	2	16
All	All	9654/10432 (92%)	8547 (88%)	1107 (12%)	5	26

All (1107) 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	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	48	MET
2	AB	51	LEU
2	AB	69	LEU
2	AB	80	ILE
2	AB	94	ASN
2	AB	130	ARG
2	AB	137	ARG
2	AB	154	LEU
2	AB	172	ILE
2	AB	178	ARG
2	AB	196	LEU
2	AB	212	GLN
2	AB	217	ARG
2	AB	221	LEU
2	AB	238	LEU

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Mol	Chain	Res	Type
3	AC	16	ARG
3	AC	18	TRP
3	AC	29	TYR
3	AC	34	LEU
3	AC	52	LEU
3	AC	127	ARG
3	AC	190	ARG
3	AC	198	VAL
4	AD	3	ARG
4	AD	7	PRO
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	19	LEU
4	AD	26	CYS
4	AD	36	ARG
4	AD	38	TYR
4	AD	49	ARG
4	AD	96	LEU
4	AD	122	ARG
4	AD	127	THR
4	AD	131	ARG
4	AD	132	ARG
4	AD	138	TYR
4	AD	144	ASP
4	AD	150	GLU
4	AD	162	LEU
5	AE	10	MET
5	AE	20	GLN
5	AE	41	VAL
5	AE	51	VAL
5	AE	73	ASN
5	AE	79	GLU
5	AE	101	ILE
5	AE	116	THR
5	AE	131	ILE
6	AF	16	GLN
6	AF	69	GLU
6	AF	80	ARG
6	AF	94	GLN
6	AF	98	LEU
7	AG	79	ARG

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Mol	Chain	Res	Type
7	AG	111	ARG
7	AG	113	GLU
7	AG	114	ARG
7	AG	124	LEU
7	AG	137	LYS
7	AG	148	ASN
7	AG	151	TYR
8	AH	1	MET
8	AH	34	GLU
8	AH	52	ASP
8	AH	81	HIS
8	AH	84	ARG
8	AH	85	ARG
8	AH	105	ARG
8	AH	119	LEU
9	AI	4	TYR
9	AI	10	ARG
9	AI	20	ARG
9	AI	79	LEU
9	AI	95	LYS
9	AI	99	LEU
9	AI	114	TYR
9	AI	116	LYS
9	AI	121	ARG
9	AI	128	ARG
10	AJ	8	LEU
10	AJ	16	LEU
10	AJ	22	LYS
10	AJ	45	ARG
10	AJ	50	ILE
10	AJ	57	LYS
10	AJ	60	ARG
10	AJ	62	HIS
10	AJ	67	THR
10	AJ	80	LYS
10	AJ	90	LEU
10	AJ	96	ILE
11	AK	29	ILE
11	AK	39	PRO
11	AK	81	ASP
11	AK	91	ARG
11	AK	95	ILE

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Mol	Chain	Res	Type
11	AK	125	PHE
12	AL	6	THR
12	AL	33	ARG
12	AL	41	ARG
12	AL	42	THR
12	AL	43	VAL
12	AL	62	SER
12	AL	73	GLU
12	AL	83	VAL
12	AL	84	LEU
12	AL	89	ARG
12	AL	102	ARG
13	AM	48	LEU
13	AM	50	GLU
13	AM	64	TRP
13	AM	82	MET
13	AM	93	ARG
13	AM	102	ARG
13	AM	108	ARG
13	AM	115	LYS
13	AM	120	LYS
14	AN	3	ARG
14	AN	12	ARG
14	AN	44	LEU
15	AO	3	ILE
15	AO	39	LEU
15	AO	41	GLU
15	AO	46	HIS
15	AO	47	LYS
15	AO	65	ARG
15	AO	71	GLN
15	AO	82	ILE
15	AO	85	LEU
16	AP	1	MET
16	AP	16	HIS
16	AP	20	VAL
16	AP	27	LYS
16	AP	32	TYR
16	AP	45	THR
16	AP	54	GLU
16	AP	58	TYR
16	AP	69	THR

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Mol	Chain	Res	Type
16	AP	80	PHE
16	AP	82	GLN
17	AQ	52	LYS
17	AQ	55	ASP
17	AQ	59	ILE
17	AQ	60	ILE
17	AQ	74	LEU
18	AR	31	LEU
18	AR	40	LEU
18	AR	53	ARG
18	AR	58	LEU
18	AR	65	ILE
18	AR	86	VAL
18	AR	87	ARG
18	AR	88	LYS
19	AS	6	LYS
19	AS	7	LYS
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	43	GLU
19	AS	44	MET
19	AS	67	VAL
19	AS	79	THR
20	AT	24	LEU
20	AT	26	ASN
20	AT	36	LEU
20	AT	73	HIS
20	AT	93	GLU
21	AU	15	ARG
25	B0	10	THR
25	B0	20	ARG
25	B0	36	ILE
25	B0	41	ARG
25	B0	64	ASP
25	B0	70	GLN
25	B0	75	LEU
26	B1	14	VAL
26	B1	39	LYS
26	B1	40	ARG
26	B1	41	ARG
26	B1	45	ASN

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Mol	Chain	Res	Type
26	B1	46	LEU
26	B1	51	VAL
26	B1	58	ILE
26	B1	61	ARG
26	B1	72	GLU
26	B1	73	LEU
26	B1	82	LEU
26	B1	92	LYS
27	B2	2	LYS
27	B2	3	LEU
27	B2	7	ARG
27	B2	9	GLN
27	B2	17	SER
27	B2	34	GLU
27	B2	52	ASP
27	B2	56	GLN
27	B2	64	LEU
28	B3	17	LYS
28	B3	58	VAL
29	B4	46	ASN
29	B4	51	TYR
29	B4	53	THR
29	B4	56	GLU
30	B5	4	HIS
30	B5	25	LEU
30	B5	29	THR
30	B5	36	CYS
30	B5	44	THR
30	B5	47	PRO
30	B5	51	TYR
30	B5	52	TYR
30	B5	56	LYS
31	B6	9	LEU
31	B6	18	ARG
31	B6	19	ARG
31	B6	28	ARG
31	B6	31	PRO
31	B6	37	ARG
31	B6	41	PRO
31	B6	42	TRP
31	B6	48	VAL
32	B7	1	MET

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Mol	Chain	Res	Type
32	B7	4	THR
32	B7	36	GLN
32	B7	41	ARG
32	B7	43	THR
33	B8	6	THR
33	B8	8	LYS
33	B8	30	ARG
33	B8	31	HIS
33	B8	32	LEU
33	B8	34	TRP
33	B8	44	LYS
33	B8	47	LYS
33	B8	49	VAL
33	B8	54	GLU
33	B8	61	LEU
34	B9	2	LYS
34	B9	26	ILE
34	B9	28	GLU
37	BC	24	GLU
37	BC	36	LYS
37	BC	37	PHE
37	BC	47	LEU
37	BC	49	ILE
37	BC	56	GLN
37	BC	92	ASP
37	BC	94	VAL
38	BD	10	THR
38	BD	20	ASP
38	BD	24	ILE
38	BD	26	LYS
38	BD	35	LYS
38	BD	37	LEU
38	BD	48	ARG
38	BD	49	ILE
38	BD	52	ARG
38	BD	61	LEU
38	BD	64	ILE
38	BD	65	ILE
38	BD	87	ASN
38	BD	92	ILE
38	BD	94	LEU
38	BD	103	ARG

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Mol	Chain	Res	Type
38	BD	106	ILE
38	BD	116	GLN
38	BD	122	ASP
38	BD	133	LEU
38	BD	147	LEU
38	BD	166	GLN
38	BD	192	THR
38	BD	198	ASN
38	BD	221	VAL
38	BD	228	PRO
38	BD	229	VAL
38	BD	257	LEU
38	BD	260	ARG
38	BD	271	ILE
39	BE	33	VAL
39	BE	34	VAL
39	BE	36	ARG
39	BE	54	GLN
39	BE	67	PHE
39	BE	73	GLU
39	BE	76	ARG
39	BE	78	LEU
39	BE	79	ARG
39	BE	86	PRO
39	BE	113	PHE
39	BE	118	LYS
39	BE	119	ARG
39	BE	132	HIS
39	BE	134	ILE
39	BE	144	ARG
39	BE	165	VAL
39	BE	180	ASN
39	BE	181	LEU
39	BE	183	LEU
39	BE	184	VAL
39	BE	197	ILE
39	BE	203	LYS
40	BF	2	LYS
40	BF	23	ASP
40	BF	24	LEU
40	BF	38	ARG
40	BF	64	ILE

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Mol	Chain	Res	Type
40	BF	66	PRO
40	BF	78	ILE
40	BF	83	PHE
40	BF	88	VAL
40	BF	102	PRO
40	BF	110	LEU
40	BF	160	ASN
40	BF	170	LEU
40	BF	183	VAL
40	BF	197	ASP
41	BG	4	ASP
41	BG	16	ARG
41	BG	21	ARG
41	BG	28	VAL
41	BG	33	ARG
41	BG	39	ILE
41	BG	43	LEU
41	BG	60	LEU
41	BG	80	PHE
41	BG	87	PRO
41	BG	88	ILE
41	BG	91	ARG
41	BG	96	ARG
41	BG	101	ILE
41	BG	113	ARG
41	BG	115	ARG
41	BG	121	ASN
41	BG	125	PHE
41	BG	128	ARG
41	BG	138	GLN
41	BG	139	LEU
41	BG	164	GLU
42	BH	13	LYS
42	BH	34	GLU
42	BH	41	MET
42	BH	52	VAL
42	BH	89	ILE
42	BH	105	LEU
42	BH	111	HIS
42	BH	123	PHE
42	BH	141	VAL
42	BH	153	LYS

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Mol	Chain	Res	Type
42	BH	157	TYR
42	BH	163	TYR
42	BH	170	ARG
43	BI	3	VAL
43	BI	12	LEU
43	BI	15	VAL
43	BI	38	LEU
43	BI	79	ILE
43	BI	99	GLU
43	BI	118	LYS
43	BI	130	TYR
43	BI	135	GLU
44	BN	4	TYR
44	BN	22	THR
44	BN	23	LEU
44	BN	25	ARG
44	BN	34	LEU
44	BN	39	ARG
44	BN	41	ASP
44	BN	48	MET
44	BN	56	ASN
44	BN	60	ILE
44	BN	63	THR
44	BN	78	TYR
44	BN	87	LEU
44	BN	93	THR
44	BN	99	LEU
44	BN	101	HIS
44	BN	108	PRO
44	BN	119	ARG
44	BN	121	LYS
45	BO	7	TYR
45	BO	17	ARG
45	BO	24	VAL
45	BO	32	TYR
45	BO	47	ILE
45	BO	48	PRO
45	BO	69	ILE
45	BO	80	ASP
45	BO	105	GLU
45	BO	117	LEU
46	BP	6	LEU

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Mol	Chain	Res	Type
46	BP	13	ASN
46	BP	16	ARG
46	BP	18	ARG
46	BP	21	ARG
46	BP	35	HIS
46	BP	39	LYS
46	BP	40	SER
46	BP	41	ARG
46	BP	61	ARG
46	BP	64	LYS
46	BP	70	GLN
46	BP	81	GLN
46	BP	85	LEU
46	BP	90	ARG
46	BP	91	PHE
46	BP	98	GLU
46	BP	105	LEU
46	BP	108	LYS
46	BP	130	PHE
47	BQ	1	MET
47	BQ	5	ARG
47	BQ	17	LEU
47	BQ	26	TYR
47	BQ	29	PHE
47	BQ	45	GLN
47	BQ	56	ARG
47	BQ	58	PHE
47	BQ	63	LYS
47	BQ	66	ILE
47	BQ	81	VAL
47	BQ	89	ASN
47	BQ	103	MET
47	BQ	110	THR
47	BQ	111	GLU
47	BQ	137	TYR
47	BQ	139	GLU
48	BR	2	ARG
48	BR	4	LEU
48	BR	18	LEU
48	BR	35	THR
48	BR	54	LEU
48	BR	60	LEU

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Mol	Chain	Res	Type
48	BR	79	LEU
48	BR	81	ASP
48	BR	99	LYS
48	BR	100	LEU
48	BR	104	ARG
48	BR	113	LEU
49	BS	36	TYR
49	BS	56	LEU
49	BS	73	LEU
49	BS	85	VAL
49	BS	89	ARG
49	BS	92	TYR
49	BS	93	LYS
49	BS	97	ARG
49	BS	101	LEU
50	BT	13	ARG
50	BT	14	TYR
50	BT	17	THR
50	BT	24	PRO
50	BT	32	TYR
50	BT	42	ILE
50	BT	44	ASP
50	BT	51	ARG
50	BT	53	ARG
50	BT	58	ASN
50	BT	59	THR
50	BT	93	ARG
50	BT	96	ARG
50	BT	99	LEU
50	BT	113	LYS
50	BT	115	ARG
50	BT	124	ASP
50	BT	125	ARG
50	BT	128	GLU
51	BU	9	VAL
51	BU	15	LYS
51	BU	27	LEU
51	BU	56	ASP
51	BU	64	ARG
51	BU	74	LEU
51	BU	79	PHE
51	BU	92	ARG

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Mol	Chain	Res	Type
51	BU	102	GLU
51	BU	104	GLN
51	BU	112	ARG
51	BU	114	LYS
52	BV	13	ARG
52	BV	16	PRO
52	BV	18	LEU
52	BV	19	LYS
52	BV	21	ARG
52	BV	39	LEU
52	BV	40	LEU
52	BV	68	LYS
52	BV	79	VAL
52	BV	82	ARG
52	BV	85	LYS
52	BV	91	TYR
52	BV	95	LEU
52	BV	99	ILE
53	BW	11	ARG
53	BW	30	GLU
53	BW	51	LEU
53	BW	65	LEU
53	BW	75	TYR
53	BW	82	LEU
53	BW	99	ARG
53	BW	107	LEU
54	BX	12	VAL
54	BX	27	THR
54	BX	28	PHE
54	BX	57	LEU
54	BX	68	ARG
54	BX	76	ARG
54	BX	80	ILE
55	BY	2	ARG
55	BY	6	HIS
55	BY	7	VAL
55	BY	8	LYS
55	BY	28	LYS
55	BY	29	GLU
55	BY	32	PRO
55	BY	39	VAL
55	BY	47	LYS

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Mol	Chain	Res	Type
55	BY	56	PRO
55	BY	62	GLU
55	BY	66	PRO
55	BY	76	CYS
55	BY	77	PRO
56	BZ	5	LEU
56	BZ	11	GLU
56	BZ	15	PRO
56	BZ	20	ARG
56	BZ	31	ARG
56	BZ	32	HIS
56	BZ	43	GLU
56	BZ	47	VAL
56	BZ	53	ILE
56	BZ	63	ASP
56	BZ	67	LEU
56	BZ	74	VAL
56	BZ	81	ARG
56	BZ	87	ASP
56	BZ	88	PHE
56	BZ	93	ASP
56	BZ	99	TYR
56	BZ	121	HIS
56	BZ	144	LEU
56	BZ	146	ILE
56	BZ	150	LEU
56	BZ	157	LEU
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	24	TRP
2	CB	36	ARG
2	CB	44	LEU
2	CB	48	MET
2	CB	51	LEU
2	CB	69	LEU
2	CB	80	ILE
2	CB	94	ASN
2	CB	130	ARG
2	CB	137	ARG
2	CB	154	LEU
2	CB	172	ILE

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Mol	Chain	Res	Type
2	CB	178	ARG
2	CB	196	LEU
2	CB	212	GLN
2	CB	217	ARG
2	CB	221	LEU
2	CB	238	LEU
3	CC	16	ARG
3	CC	18	TRP
3	CC	29	TYR
3	CC	34	LEU
3	CC	52	LEU
3	CC	62	ASP
3	CC	127	ARG
3	CC	190	ARG
3	CC	198	VAL
4	CD	3	ARG
4	CD	7	PRO
4	CD	9	CYS
4	CD	11	LEU
4	CD	12	CYS
4	CD	19	LEU
4	CD	26	CYS
4	CD	31	CYS
4	CD	36	ARG
4	CD	38	TYR
4	CD	49	ARG
4	CD	96	LEU
4	CD	97	LEU
4	CD	122	ARG
4	CD	127	THR
4	CD	131	ARG
4	CD	132	ARG
4	CD	138	TYR
4	CD	144	ASP
4	CD	150	GLU
4	CD	162	LEU
5	CE	10	MET
5	CE	20	GLN
5	CE	41	VAL
5	CE	73	ASN
5	CE	79	GLU
5	CE	101	ILE

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Mol	Chain	Res	Type
5	CE	116	THR
5	CE	131	ILE
6	CF	16	GLN
6	CF	69	GLU
6	CF	80	ARG
6	CF	94	GLN
6	CF	98	LEU
7	CG	58	PRO
7	CG	79	ARG
7	CG	111	ARG
7	CG	113	GLU
7	CG	114	ARG
7	CG	124	LEU
7	CG	137	LYS
7	CG	148	ASN
7	CG	151	TYR
8	CH	1	MET
8	CH	34	GLU
8	CH	52	ASP
8	CH	81	HIS
8	CH	84	ARG
8	CH	85	ARG
8	CH	105	ARG
8	CH	119	LEU
9	CI	4	TYR
9	CI	10	ARG
9	CI	20	ARG
9	CI	79	LEU
9	CI	95	LYS
9	CI	99	LEU
9	CI	114	TYR
9	CI	116	LYS
9	CI	121	ARG
9	CI	128	ARG
10	CJ	8	LEU
10	CJ	16	LEU
10	CJ	22	LYS
10	CJ	45	ARG
10	CJ	50	ILE
10	CJ	60	ARG
10	CJ	62	HIS
10	CJ	67	THR

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Mol	Chain	Res	Type
10	CJ	80	LYS
10	CJ	90	LEU
10	CJ	96	ILE
11	CK	29	ILE
11	CK	39	PRO
11	CK	81	ASP
11	CK	91	ARG
11	CK	95	ILE
11	CK	125	PHE
12	CL	6	THR
12	CL	33	ARG
12	CL	41	ARG
12	CL	42	THR
12	CL	43	VAL
12	CL	53	ARG
12	CL	62	SER
12	CL	73	GLU
12	CL	83	VAL
12	CL	84	LEU
12	CL	89	ARG
12	CL	102	ARG
13	CM	48	LEU
13	CM	50	GLU
13	CM	64	TRP
13	CM	82	MET
13	CM	93	ARG
13	CM	102	ARG
13	CM	108	ARG
13	CM	115	LYS
13	CM	120	LYS
14	CN	3	ARG
14	CN	12	ARG
14	CN	44	LEU
15	CO	3	ILE
15	CO	39	LEU
15	CO	41	GLU
15	CO	46	HIS
15	CO	47	LYS
15	CO	65	ARG
15	CO	71	GLN
15	CO	82	ILE
15	CO	85	LEU

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Mol	Chain	Res	Type
16	CP	1	MET
16	CP	16	HIS
16	CP	20	VAL
16	CP	27	LYS
16	CP	32	TYR
16	CP	45	THR
16	CP	54	GLU
16	CP	58	TYR
16	CP	69	THR
16	CP	80	PHE
16	CP	82	GLN
17	CQ	52	LYS
17	CQ	55	ASP
17	CQ	59	ILE
17	CQ	60	ILE
17	CQ	74	LEU
18	CR	31	LEU
18	CR	40	LEU
18	CR	47	THR
18	CR	53	ARG
18	CR	58	LEU
18	CR	65	ILE
18	CR	86	VAL
18	CR	87	ARG
18	CR	88	LYS
19	CS	6	LYS
19	CS	7	LYS
19	CS	27	GLU
19	CS	29	ARG
19	CS	37	ARG
19	CS	43	GLU
19	CS	44	MET
19	CS	67	VAL
19	CS	79	THR
20	CT	24	LEU
20	CT	26	ASN
20	CT	36	LEU
20	CT	73	HIS
20	CT	93	GLU
21	CU	15	ARG
25	D0	10	THR
25	D0	20	ARG

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Mol	Chain	Res	Type
25	D0	36	ILE
25	D0	41	ARG
25	D0	64	ASP
25	D0	70	GLN
25	D0	75	LEU
26	D1	40	ARG
26	D1	41	ARG
26	D1	43	TYR
26	D1	45	ASN
26	D1	46	LEU
26	D1	52	ARG
26	D1	56	GLN
26	D1	61	ARG
26	D1	72	GLU
26	D1	80	LEU
26	D1	82	LEU
26	D1	92	LYS
27	D2	2	LYS
27	D2	3	LEU
27	D2	7	ARG
27	D2	32	LEU
27	D2	35	LEU
27	D2	44	LEU
27	D2	47	ASN
27	D2	53	LEU
27	D2	64	LEU
28	D3	17	LYS
28	D3	58	VAL
29	D4	46	ASN
29	D4	51	TYR
29	D4	53	THR
29	D4	56	GLU
30	D5	4	HIS
30	D5	25	LEU
30	D5	29	THR
30	D5	36	CYS
30	D5	44	THR
30	D5	47	PRO
30	D5	49	CYS
30	D5	51	TYR
30	D5	52	TYR
30	D5	56	LYS

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Mol	Chain	Res	Type
31	D6	9	LEU
31	D6	18	ARG
31	D6	19	ARG
31	D6	28	ARG
31	D6	31	PRO
31	D6	37	ARG
31	D6	41	PRO
31	D6	42	TRP
31	D6	48	VAL
32	D7	1	MET
32	D7	4	THR
32	D7	36	GLN
32	D7	41	ARG
32	D7	43	THR
33	D8	6	THR
33	D8	8	LYS
33	D8	30	ARG
33	D8	31	HIS
33	D8	32	LEU
33	D8	34	TRP
33	D8	44	LYS
33	D8	47	LYS
33	D8	49	VAL
33	D8	54	GLU
33	D8	61	LEU
34	D9	2	LYS
34	D9	26	ILE
34	D9	28	GLU
37	DC	24	GLU
37	DC	36	LYS
37	DC	37	PHE
37	DC	47	LEU
37	DC	49	ILE
37	DC	56	GLN
37	DC	92	ASP
37	DC	94	VAL
38	DD	10	THR
38	DD	20	ASP
38	DD	24	ILE
38	DD	26	LYS
38	DD	35	LYS
38	DD	37	LEU

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Mol	Chain	Res	Type
38	DD	48	ARG
38	DD	49	ILE
38	DD	52	ARG
38	DD	61	LEU
38	DD	64	ILE
38	DD	65	ILE
38	DD	87	ASN
38	DD	92	ILE
38	DD	94	LEU
38	DD	103	ARG
38	DD	106	ILE
38	DD	116	GLN
38	DD	122	ASP
38	DD	133	LEU
38	DD	147	LEU
38	DD	166	GLN
38	DD	192	THR
38	DD	198	ASN
38	DD	221	VAL
38	DD	228	PRO
38	DD	229	VAL
38	DD	257	LEU
38	DD	260	ARG
38	DD	271	ILE
39	DE	33	VAL
39	DE	34	VAL
39	DE	36	ARG
39	DE	54	GLN
39	DE	67	PHE
39	DE	73	GLU
39	DE	76	ARG
39	DE	78	LEU
39	DE	79	ARG
39	DE	86	PRO
39	DE	113	PHE
39	DE	118	LYS
39	DE	119	ARG
39	DE	132	HIS
39	DE	134	ILE
39	DE	144	ARG
39	DE	165	VAL
39	DE	181	LEU

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Mol	Chain	Res	Type
39	DE	183	LEU
39	DE	184	VAL
39	DE	197	ILE
39	DE	203	LYS
40	DF	2	LYS
40	DF	23	ASP
40	DF	24	LEU
40	DF	38	ARG
40	DF	64	ILE
40	DF	66	PRO
40	DF	78	ILE
40	DF	83	PHE
40	DF	88	VAL
40	DF	110	LEU
40	DF	160	ASN
40	DF	170	LEU
40	DF	183	VAL
40	DF	197	ASP
41	DG	3	LEU
41	DG	16	ARG
41	DG	21	ARG
41	DG	33	ARG
41	DG	36	LYS
41	DG	39	ILE
41	DG	45	GLU
41	DG	49	ASP
41	DG	53	LEU
41	DG	70	VAL
41	DG	72	ARG
41	DG	80	PHE
41	DG	88	ILE
41	DG	91	ARG
41	DG	101	ILE
41	DG	113	ARG
41	DG	115	ARG
41	DG	123	ASN
41	DG	125	PHE
41	DG	128	ARG
41	DG	130	ASN
41	DG	139	LEU
41	DG	155	MET
41	DG	159	VAL

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Mol	Chain	Res	Type
41	DG	161	THR
41	DG	164	GLU
42	DH	13	LYS
42	DH	34	GLU
42	DH	41	MET
42	DH	52	VAL
42	DH	89	ILE
42	DH	105	LEU
42	DH	111	HIS
42	DH	123	PHE
42	DH	141	VAL
42	DH	153	LYS
42	DH	157	TYR
42	DH	163	TYR
42	DH	170	ARG
43	DI	3	VAL
43	DI	12	LEU
43	DI	15	VAL
43	DI	38	LEU
43	DI	79	ILE
43	DI	99	GLU
43	DI	118	LYS
43	DI	130	TYR
43	DI	135	GLU
44	DN	4	TYR
44	DN	22	THR
44	DN	23	LEU
44	DN	25	ARG
44	DN	34	LEU
44	DN	39	ARG
44	DN	41	ASP
44	DN	48	MET
44	DN	56	ASN
44	DN	60	ILE
44	DN	63	THR
44	DN	87	LEU
44	DN	93	THR
44	DN	101	HIS
44	DN	108	PRO
44	DN	119	ARG
44	DN	121	LYS
45	DO	7	TYR

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Mol	Chain	Res	Type
45	DO	17	ARG
45	DO	32	TYR
45	DO	47	ILE
45	DO	69	ILE
45	DO	80	ASP
45	DO	105	GLU
45	DO	117	LEU
46	DP	6	LEU
46	DP	13	ASN
46	DP	16	ARG
46	DP	18	ARG
46	DP	21	ARG
46	DP	35	HIS
46	DP	39	LYS
46	DP	41	ARG
46	DP	61	ARG
46	DP	64	LYS
46	DP	70	GLN
46	DP	81	GLN
46	DP	85	LEU
46	DP	90	ARG
46	DP	91	PHE
46	DP	98	GLU
46	DP	105	LEU
46	DP	108	LYS
46	DP	130	PHE
47	DQ	1	MET
47	DQ	5	ARG
47	DQ	17	LEU
47	DQ	26	TYR
47	DQ	29	PHE
47	DQ	45	GLN
47	DQ	56	ARG
47	DQ	58	PHE
47	DQ	63	LYS
47	DQ	66	ILE
47	DQ	81	VAL
47	DQ	89	ASN
47	DQ	103	MET
47	DQ	110	THR
47	DQ	111	GLU
47	DQ	137	TYR

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Mol	Chain	Res	Type
47	DQ	139	GLU
48	DR	2	ARG
48	DR	4	LEU
48	DR	18	LEU
48	DR	35	THR
48	DR	54	LEU
48	DR	60	LEU
48	DR	79	LEU
48	DR	81	ASP
48	DR	99	LYS
48	DR	100	LEU
48	DR	104	ARG
48	DR	113	LEU
49	DS	36	TYR
49	DS	56	LEU
49	DS	73	LEU
49	DS	85	VAL
49	DS	89	ARG
49	DS	92	TYR
49	DS	93	LYS
49	DS	97	ARG
49	DS	101	LEU
49	DS	106	ARG
50	DT	13	ARG
50	DT	14	TYR
50	DT	17	THR
50	DT	24	PRO
50	DT	32	TYR
50	DT	42	ILE
50	DT	44	ASP
50	DT	51	ARG
50	DT	53	ARG
50	DT	58	ASN
50	DT	59	THR
50	DT	93	ARG
50	DT	96	ARG
50	DT	99	LEU
50	DT	113	LYS
50	DT	115	ARG
50	DT	124	ASP
50	DT	125	ARG
50	DT	128	GLU

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Mol	Chain	Res	Type
51	DU	9	VAL
51	DU	15	LYS
51	DU	27	LEU
51	DU	56	ASP
51	DU	64	ARG
51	DU	74	LEU
51	DU	79	PHE
51	DU	92	ARG
51	DU	102	GLU
51	DU	104	GLN
51	DU	112	ARG
51	DU	114	LYS
52	DV	13	ARG
52	DV	16	PRO
52	DV	18	LEU
52	DV	19	LYS
52	DV	21	ARG
52	DV	39	LEU
52	DV	40	LEU
52	DV	68	LYS
52	DV	79	VAL
52	DV	82	ARG
52	DV	85	LYS
52	DV	91	TYR
52	DV	99	ILE
53	DW	11	ARG
53	DW	30	GLU
53	DW	51	LEU
53	DW	65	LEU
53	DW	75	TYR
53	DW	82	LEU
53	DW	99	ARG
53	DW	107	LEU
54	DX	12	VAL
54	DX	27	THR
54	DX	28	PHE
54	DX	57	LEU
54	DX	68	ARG
54	DX	76	ARG
54	DX	80	ILE
55	DY	2	ARG
55	DY	6	HIS

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Mol	Chain	Res	Type
55	DY	7	VAL
55	DY	8	LYS
55	DY	28	LYS
55	DY	29	GLU
55	DY	32	PRO
55	DY	39	VAL
55	DY	47	LYS
55	DY	56	PRO
55	DY	62	GLU
55	DY	66	PRO
55	DY	76	CYS
55	DY	77	PRO
56	DZ	8	TYR
56	DZ	11	GLU
56	DZ	23	LYS
56	DZ	29	TYR
56	DZ	44	PHE
56	DZ	53	ILE
56	DZ	70	LEU
56	DZ	74	VAL
56	DZ	79	ARG
56	DZ	87	ASP
56	DZ	93	ASP
56	DZ	117	LEU
56	DZ	119	GLU
56	DZ	127	LYS
56	DZ	129	SER
56	DZ	136	PHE
56	DZ	144	LEU
56	DZ	145	GLU
56	DZ	146	ILE
56	DZ	150	LEU
56	DZ	154	ASP
56	DZ	157	LEU
56	DZ	163	LEU
56	DZ	168	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (306) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	40	HIS
2	AB	110	GLN

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Mol	Chain	Res	Type
2	AB	135	GLN
2	AB	146	GLN
2	AB	212	GLN
2	AB	224	GLN
3	AC	28	GLN
3	AC	37	GLN
3	AC	69	HIS
3	AC	98	ASN
3	AC	170	GLN
3	AC	181	ASN
4	AD	62	GLN
4	AD	74	GLN
4	AD	119	GLN
5	AE	20	GLN
5	AE	72	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	7	ASN
6	AF	27	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	13	GLN
7	AG	28	ASN
7	AG	37	ASN
7	AG	64	GLN
7	AG	68	ASN
7	AG	96	GLN
7	AG	106	GLN
7	AG	148	ASN
8	AH	15	ASN
8	AH	82	HIS
9	AI	23	ASN
9	AI	31	GLN
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	62	HIS
10	AJ	68	HIS
11	AK	13	GLN
11	AK	38	ASN
11	AK	93	GLN
12	AL	8	ASN
12	AL	9	GLN

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Mol	Chain	Res	Type
12	AL	49	ASN
13	AM	12	ASN
13	AM	62	ASN
13	AM	77	ASN
13	AM	101	GLN
14	AN	49	HIS
15	AO	13	GLN
15	AO	37	ASN
15	AO	71	GLN
16	AP	16	HIS
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
17	AQ	93	GLN
17	AQ	94	ASN
20	AT	16	HIS
20	AT	26	ASN
20	AT	42	GLN
25	B0	29	GLN
25	B0	35	ASN
25	B0	70	GLN
25	B0	80	HIS
26	B1	45	ASN
26	B1	47	GLN
27	B2	65	ASN
28	B3	19	GLN
28	B3	46	ASN
28	B3	52	HIS
29	B4	46	ASN
30	B5	43	HIS
31	B6	20	ASN
32	B7	8	ASN
33	B8	31	HIS
33	B8	33	ASN
34	B9	34	GLN
38	BD	58	HIS
38	BD	115	GLN
38	BD	116	GLN
38	BD	126	GLN
38	BD	166	GLN
38	BD	186	HIS
38	BD	198	ASN

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Mol	Chain	Res	Type
38	BD	220	HIS
38	BD	253	GLN
39	BE	48	GLN
39	BE	54	GLN
39	BE	55	ASN
39	BE	129	HIS
39	BE	169	ASN
39	BE	180	ASN
39	BE	192	ASN
40	BF	69	HIS
40	BF	160	ASN
40	BF	169	ASN
41	BG	40	ASN
41	BG	66	GLN
41	BG	121	ASN
41	BG	123	ASN
42	BH	65	HIS
42	BH	74	ASN
42	BH	143	GLN
42	BH	147	ASN
43	BI	43	ASN
43	BI	139	GLN
44	BN	45	ASN
44	BN	56	ASN
45	BO	3	GLN
45	BO	5	GLN
45	BO	29	ASN
45	BO	82	ASN
45	BO	88	ASN
46	BP	13	ASN
46	BP	81	GLN
47	BQ	12	GLN
47	BQ	45	GLN
47	BQ	141	GLN
48	BR	16	HIS
48	BR	23	ASN
48	BR	24	GLN
48	BR	53	HIS
48	BR	71	GLN
49	BS	34	HIS
50	BT	38	ASN
50	BT	43	GLN

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Mol	Chain	Res	Type
50	BT	58	ASN
50	BT	90	GLN
50	BT	123	GLN
51	BU	44	ASN
51	BU	49	HIS
51	BU	81	HIS
52	BV	11	GLN
53	BW	57	ASN
53	BW	60	ASN
53	BW	61	ASN
53	BW	62	HIS
53	BW	102	HIS
54	BX	31	HIS
54	BX	41	ASN
54	BX	55	ASN
56	BZ	73	GLN
56	BZ	118	GLN
56	BZ	121	HIS
56	BZ	132	ASN
56	BZ	151	HIS
2	CB	40	HIS
2	CB	110	GLN
2	CB	135	GLN
2	CB	146	GLN
2	CB	212	GLN
2	CB	224	GLN
3	CC	28	GLN
3	CC	37	GLN
3	CC	69	HIS
3	CC	98	ASN
3	CC	170	GLN
3	CC	181	ASN
4	CD	62	GLN
4	CD	74	GLN
4	CD	119	GLN
5	CE	20	GLN
5	CE	72	GLN
5	CE	73	ASN
5	CE	78	HIS
6	CF	7	ASN
6	CF	18	GLN
6	CF	27	GLN

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Mol	Chain	Res	Type
6	CF	32	ASN
6	CF	100	ASN
7	CG	13	GLN
7	CG	28	ASN
7	CG	37	ASN
7	CG	64	GLN
7	CG	68	ASN
7	CG	86	GLN
7	CG	96	GLN
7	CG	106	GLN
7	CG	148	ASN
8	CH	15	ASN
8	CH	82	HIS
9	CI	23	ASN
9	CI	31	GLN
9	CI	124	GLN
10	CJ	56	HIS
10	CJ	68	HIS
11	CK	13	GLN
11	CK	38	ASN
11	CK	93	GLN
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN
13	CM	12	ASN
13	CM	62	ASN
13	CM	77	ASN
13	CM	101	GLN
14	CN	49	HIS
15	CO	13	GLN
15	CO	37	ASN
15	CO	71	GLN
16	CP	16	HIS
16	CP	76	GLN
16	CP	82	GLN
17	CQ	16	GLN
17	CQ	93	GLN
17	CQ	94	ASN
20	CT	16	HIS
20	CT	26	ASN
20	CT	42	GLN
25	D0	29	GLN

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Mol	Chain	Res	Type
25	D0	35	ASN
25	D0	70	GLN
25	D0	80	HIS
26	D1	45	ASN
26	D1	47	GLN
26	D1	56	GLN
27	D2	9	GLN
27	D2	38	GLN
27	D2	43	GLN
27	D2	46	GLN
27	D2	47	ASN
27	D2	65	ASN
27	D2	71	ASN
28	D3	19	GLN
28	D3	46	ASN
28	D3	52	HIS
29	D4	46	ASN
30	D5	4	HIS
30	D5	43	HIS
31	D6	20	ASN
32	D7	8	ASN
33	D8	31	HIS
33	D8	33	ASN
34	D9	34	GLN
37	DC	56	GLN
38	DD	58	HIS
38	DD	115	GLN
38	DD	116	GLN
38	DD	126	GLN
38	DD	166	GLN
38	DD	186	HIS
38	DD	198	ASN
38	DD	220	HIS
38	DD	253	GLN
39	DE	48	GLN
39	DE	54	GLN
39	DE	55	ASN
39	DE	129	HIS
39	DE	169	ASN
39	DE	180	ASN
39	DE	192	ASN
40	DF	8	GLN

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Mol	Chain	Res	Type
40	DF	69	HIS
40	DF	160	ASN
40	DF	169	ASN
41	DG	40	ASN
41	DG	41	GLN
41	DG	66	GLN
41	DG	79	ASN
41	DG	121	ASN
42	DH	65	HIS
42	DH	74	ASN
42	DH	143	GLN
42	DH	147	ASN
43	DI	43	ASN
43	DI	139	GLN
44	DN	45	ASN
44	DN	56	ASN
45	DO	3	GLN
45	DO	5	GLN
45	DO	82	ASN
45	DO	88	ASN
46	DP	13	ASN
46	DP	81	GLN
47	DQ	12	GLN
47	DQ	45	GLN
47	DQ	141	GLN
48	DR	16	HIS
48	DR	23	ASN
48	DR	24	GLN
48	DR	53	HIS
48	DR	71	GLN
49	DS	34	HIS
50	DT	38	ASN
50	DT	43	GLN
50	DT	58	ASN
50	DT	90	GLN
50	DT	123	GLN
51	DU	44	ASN
51	DU	49	HIS
51	DU	72	HIS
51	DU	81	HIS
52	DV	11	GLN
53	DW	34	ASN

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Mol	Chain	Res	Type
53	DW	57	ASN
53	DW	60	ASN
53	DW	61	ASN
53	DW	62	HIS
53	DW	102	HIS
54	DX	31	HIS
54	DX	41	ASN
54	DX	55	ASN
56	DZ	32	HIS
56	DZ	73	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	215 (14%)	29 (1%)
1	CA	1503/1522 (98%)	216 (14%)	29 (1%)
22	AV	74/77 (96%)	15 (20%)	0
22	AY	74/77 (96%)	20 (27%)	1 (1%)
22	CV	74/77 (96%)	19 (25%)	1 (1%)
22	CY	74/77 (96%)	20 (27%)	1 (1%)
23	AW	75/76 (98%)	13 (17%)	0
23	CW	75/76 (98%)	15 (20%)	0
24	AX	10/11 (90%)	1 (10%)	0
24	CX	10/11 (90%)	2 (20%)	0
35	BA	2806/2822 (99%)	516 (18%)	55 (1%)
35	DA	2806/2822 (99%)	515 (18%)	53 (1%)
36	BB	118/122 (96%)	13 (11%)	1 (0%)
36	DB	118/122 (96%)	13 (11%)	1 (0%)
All	All	9320/9414 (99%)	1593 (17%)	171 (1%)

All (1593) 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	48	C
1	AA	51	A
1	AA	61	G
1	AA	79	G

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Mol	Chain	Res	Type
1	AA	80	G
1	AA	81	U
1	AA	84	U
1	AA	89	C
1	AA	90	U
1	AA	97	G
1	AA	98	G
1	AA	110	C
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	146	G
1	AA	150	C
1	AA	163	C
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	316	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
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

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Mol	Chain	Res	Type
1	AA	414	A
1	AA	422	C
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	452	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	524	G
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
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	607	A
1	AA	630	G
1	AA	631	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

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Mol	Chain	Res	Type
1	AA	731	G
1	AA	749	C
1	AA	755	G
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	885	G
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	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1001(A)	G
1	AA	1009	G
1	AA	1022	G
1	AA	1026	G

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Mol	Chain	Res	Type
1	AA	1030	C
1	AA	1036	G
1	AA	1050	G
1	AA	1054	C
1	AA	1055	A
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	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	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1146	A
1	AA	1147	C
1	AA	1152	A
1	AA	1159	U
1	AA	1196	U
1	AA	1197	G
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
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

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Mol	Chain	Res	Type
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1299	A
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	1335	C
1	AA	1338	G
1	AA	1347	G
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1370	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1447	A
1	AA	1452	C
1	AA	1487	G
1	AA	1492	A
1	AA	1497	G
1	AA	1499	A
1	AA	1503	A
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
1	AA	1530	G
1	AA	1531	A
22	AV	8	U
22	AV	17	C
22	AV	18	G

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Mol	Chain	Res	Type
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	22	G
22	AV	42	C
22	AV	46	G
22	AV	47	U
22	AV	48	C
22	AV	52	G
22	AV	61	C
22	AV	69	G
22	AV	75	C
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	43	C
23	AW	47	U
23	AW	57	G
23	AW	58	A
23	AW	61	C
23	AW	70	G
23	AW	76	A
24	AX	14	A
22	AY	2	C
22	AY	9	A
22	AY	16	U
22	AY	17	C
22	AY	18	G
22	AY	19	G
22	AY	21	A
22	AY	23	A
22	AY	34	G
22	AY	42	C
22	AY	43	C
22	AY	47	U
22	AY	48	C
22	AY	52	G
22	AY	53	G
22	AY	70	G

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Mol	Chain	Res	Type
22	AY	71	G
22	AY	72	C
22	AY	73	A
22	AY	74	C
35	BA	10	G
35	BA	35	G
35	BA	45	C
35	BA	69	C
35	BA	71	A
35	BA	72	U
35	BA	74	A
35	BA	75	G
35	BA	84	A
35	BA	85	G
35	BA	88	G
35	BA	90	U
35	BA	92	A
35	BA	94	C
35	BA	95	G
35	BA	102	G
35	BA	118	A
35	BA	119	A
35	BA	120	U
35	BA	129	C
35	BA	139(A)	G
35	BA	141	A
35	BA	143(A)	C
35	BA	153	C
35	BA	154(A)	C
35	BA	157	U
35	BA	158	U
35	BA	174	C
35	BA	181	A
35	BA	196	A
35	BA	197	A
35	BA	204	A
35	BA	205	G
35	BA	215	G
35	BA	216	A
35	BA	221	A
35	BA	222	A
35	BA	228	A

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Mol	Chain	Res	Type
35	BA	229	A
35	BA	230	U
35	BA	233	A
35	BA	248	G
35	BA	252	G
35	BA	261	G
35	BA	265	A
35	BA	271(I)	G
35	BA	271(K)	U
35	BA	271(L)	U
35	BA	271(O)	C
35	BA	271(R)	G
35	BA	271(T)	C
35	BA	271(Y)	U
35	BA	272(B)	G
35	BA	272(H)	C
35	BA	275	G
35	BA	283	A
35	BA	284	U
35	BA	286	C
35	BA	287	C
35	BA	311	A
35	BA	329	G
35	BA	330	A
35	BA	332	A
35	BA	333	G
35	BA	352	G
35	BA	358	U
35	BA	362	U
35	BA	363(B)	G
35	BA	363(E)	U
35	BA	363(F)	A
35	BA	365	C
35	BA	372	G
35	BA	386	G
35	BA	388	G
35	BA	405	U
35	BA	406	G
35	BA	411	G
35	BA	412	A
35	BA	416	C
35	BA	428	A

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Mol	Chain	Res	Type
35	BA	444	C
35	BA	448	U
35	BA	456	C
35	BA	457	A
35	BA	470	A
35	BA	475	U
35	BA	481	G
35	BA	482	A
35	BA	494	G
35	BA	505	A
35	BA	508	G
35	BA	509	C
35	BA	530	G
35	BA	531	C
35	BA	532	A
35	BA	533	G
35	BA	543	C
35	BA	547	A
35	BA	548	A
35	BA	549	G
35	BA	551	G
35	BA	556	G
35	BA	563	G
35	BA	572	A
35	BA	573	G
35	BA	588	U
35	BA	604	G
35	BA	607	U
35	BA	613	G
35	BA	614(A)	U
35	BA	614(B)	G
35	BA	615	G
35	BA	621	A
35	BA	627	A
35	BA	637	A
35	BA	645	C
35	BA	646	A
35	BA	651	G
35	BA	652	C
35	BA	656	G
35	BA	668	G
35	BA	686	G

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Mol	Chain	Res	Type
35	BA	695	G
35	BA	708	C
35	BA	717	G
35	BA	722	A
35	BA	730	C
35	BA	753	C
35	BA	764	A
35	BA	765	G
35	BA	776	G
35	BA	782	A
35	BA	784	A
35	BA	785	G
35	BA	790	C
35	BA	791	C
35	BA	805	G
35	BA	812	C
35	BA	819	A
35	BA	827	U
35	BA	828	U
35	BA	830	G
35	BA	832	G
35	BA	848	G
35	BA	856	C
35	BA	857	C
35	BA	859	G
35	BA	866	A
35	BA	878	A
35	BA	886	C
35	BA	890	A
35	BA	896	A
35	BA	897	C
35	BA	900	A
35	BA	910	A
35	BA	917	A
35	BA	926	A
35	BA	932	G
35	BA	941	A
35	BA	945	A
35	BA	946	G
35	BA	958	U
35	BA	959	A
35	BA	961	C

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Mol	Chain	Res	Type
35	BA	973	A
35	BA	974	G
35	BA	975	C
35	BA	975(A)	G
35	BA	983	A
35	BA	991	C
35	BA	996	A
35	BA	1000	A
35	BA	1012	U
35	BA	1013	C
35	BA	1022	G
35	BA	1023	U
35	BA	1025	G
35	BA	1026	U
35	BA	1040	C
35	BA	1041	C
35	BA	1043	C
35	BA	1044	G
35	BA	1045	A
35	BA	1047	G
35	BA	1049	C
35	BA	1053	C
35	BA	1106	A
35	BA	1110	G
35	BA	1112	G
35	BA	1113	U
35	BA	1114	G
35	BA	1116	C
35	BA	1135	C
35	BA	1136	G
35	BA	1142	U
35	BA	1143	A
35	BA	1155	A
35	BA	1171	G
35	BA	1173	G
35	BA	1174	A
35	BA	1175	U
35	BA	1176	G
35	BA	1178	C
35	BA	1183	G
35	BA	1195	G
35	BA	1205	U

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Mol	Chain	Res	Type
35	BA	1210	A
35	BA	1211	U
35	BA	1212	G
35	BA	1220	A
35	BA	1221	C
35	BA	1248	G
35	BA	1253	A
35	BA	1256	G
35	BA	1265	A
35	BA	1271	G
35	BA	1272	A
35	BA	1281	G
35	BA	1300	U
35	BA	1301	A
35	BA	1302	A
35	BA	1314	C
35	BA	1319	G
35	BA	1329	U
35	BA	1330	C
35	BA	1332	G
35	BA	1345	C
35	BA	1349	A
35	BA	1359	A
35	BA	1368	G
35	BA	1379	A
35	BA	1380	G
35	BA	1384	A
35	BA	1385	G
35	BA	1386	C
35	BA	1395	A
35	BA	1407	C
35	BA	1416	G
35	BA	1417	C
35	BA	1419	A
35	BA	1420	U
35	BA	1421	G
35	BA	1428	C
35	BA	1437	C
35	BA	1445	A
35	BA	1449	A
35	BA	1450	G
35	BA	1460	A

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Mol	Chain	Res	Type
35	BA	1461	G
35	BA	1467	C
35	BA	1471	A
35	BA	1478	G
35	BA	1480	G
35	BA	1481	U
35	BA	1482	G
35	BA	1484	G
35	BA	1485	G
35	BA	1488	G
35	BA	1490	A
35	BA	1493	C
35	BA	1494	A
35	BA	1495	A
35	BA	1496	A
35	BA	1497	U
35	BA	1498	C
35	BA	1501	C
35	BA	1502	C
35	BA	1505	C
35	BA	1509	C
35	BA	1509(A)	A
35	BA	1520	G
35	BA	1528(A)	A
35	BA	1529	G
35	BA	1530	C
35	BA	1531	C
35	BA	1532	C
35	BA	1543	C
35	BA	1544	A
35	BA	1547	C
35	BA	1554	A
35	BA	1558	A
35	BA	1559	G
35	BA	1569	A
35	BA	1578	U
35	BA	1579	A
35	BA	1581	G
35	BA	1584	C
35	BA	1586	A
35	BA	1588	C
35	BA	1591	G

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Mol	Chain	Res	Type
35	BA	1594	G
35	BA	1598	C
35	BA	1603	A
35	BA	1608	A
35	BA	1610	A
35	BA	1617	C
35	BA	1618	A
35	BA	1640	C
35	BA	1648	C
35	BA	1653	G
35	BA	1654	A
35	BA	1674	G
35	BA	1681	G
35	BA	1686	C
35	BA	1696	G
35	BA	1700	A
35	BA	1722	A
35	BA	1739	U
35	BA	1744	C
35	BA	1748	G
35	BA	1763	G
35	BA	1764	G
35	BA	1773	A
35	BA	1780	A
35	BA	1787	A
35	BA	1791	A
35	BA	1799	G
35	BA	1800	C
35	BA	1816	G
35	BA	1820	U
35	BA	1829	A
35	BA	1835	G
35	BA	1838	C
35	BA	1847	A
35	BA	1858	G
35	BA	1865	G
35	BA	1866	C
35	BA	1878	G
35	BA	1880	C
35	BA	1882	C
35	BA	1885	A
35	BA	1888	G

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Mol	Chain	Res	Type
35	BA	1889	A
35	BA	1900	A
35	BA	1906	G
35	BA	1912	A
35	BA	1913	A
35	BA	1929	G
35	BA	1936	A
35	BA	1938	A
35	BA	1944	U
35	BA	1947	C
35	BA	1955	U
35	BA	1963	U
35	BA	1967	C
35	BA	1969	A
35	BA	1970	A
35	BA	1971	A
35	BA	1972	A
35	BA	1982	C
35	BA	1987	G
35	BA	1991	U
35	BA	1993	U
35	BA	1997	G
35	BA	2020	A
35	BA	2023	G
35	BA	2031	A
35	BA	2032	G
35	BA	2033	A
35	BA	2034	U
35	BA	2036	C
35	BA	2043	C
35	BA	2055	C
35	BA	2056	G
35	BA	2059	A
35	BA	2060	A
35	BA	2061	G
35	BA	2062	A
35	BA	2069	G
35	BA	2093	G
35	BA	2099	U
35	BA	2103	C
35	BA	2104	G
35	BA	2108	C

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Mol	Chain	Res	Type
35	BA	2110	G
35	BA	2112	G
35	BA	2116	G
35	BA	2117	A
35	BA	2118	U
35	BA	2123	G
35	BA	2124	G
35	BA	2126	A
35	BA	2127	G
35	BA	2131	G
35	BA	2133	G
35	BA	2136	C
35	BA	2147	G
35	BA	2170	A
35	BA	2172	U
35	BA	2173	A
35	BA	2174	C
35	BA	2179	C
35	BA	2185	C
35	BA	2187	G
35	BA	2190	G
35	BA	2192	G
35	BA	2193	G
35	BA	2198	A
35	BA	2199	A
35	BA	2200	C
35	BA	2207	G
35	BA	2208	A
35	BA	2219	G
35	BA	2225	A
35	BA	2226	C
35	BA	2238	G
35	BA	2239	G
35	BA	2263	C
35	BA	2275	C
35	BA	2283	C
35	BA	2287	A
35	BA	2288	A
35	BA	2289	G
35	BA	2290	G
35	BA	2305	A
35	BA	2307	G

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Mol	Chain	Res	Type
35	BA	2308	G
35	BA	2309	A
35	BA	2311	A
35	BA	2313	C
35	BA	2319	G
35	BA	2320	A
35	BA	2325	G
35	BA	2334	G
35	BA	2336	A
35	BA	2345	G
35	BA	2347	C
35	BA	2349	G
35	BA	2383	G
35	BA	2385	C
35	BA	2399	G
35	BA	2400	G
35	BA	2402	C
35	BA	2423	U
35	BA	2425	A
35	BA	2429	G
35	BA	2430	A
35	BA	2435	A
35	BA	2439	A
35	BA	2441	C
35	BA	2448	A
35	BA	2465	C
35	BA	2469	A
35	BA	2470	G
35	BA	2476	A
35	BA	2477	C
35	BA	2478	A
35	BA	2482	G
35	BA	2484	G
35	BA	2502	G
35	BA	2505	G
35	BA	2506	U
35	BA	2507	C
35	BA	2518	A
35	BA	2520	C
35	BA	2523	G
35	BA	2529	G
35	BA	2534	A

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Mol	Chain	Res	Type
35	BA	2542	A
35	BA	2543	G
35	BA	2554	U
35	BA	2559	C
35	BA	2566	A
35	BA	2567	G
35	BA	2573	C
35	BA	2582	G
35	BA	2602	A
35	BA	2611	U
35	BA	2612	C
35	BA	2615	U
35	BA	2630	G
35	BA	2673	G
35	BA	2682	U
35	BA	2690	C
35	BA	2691	C
35	BA	2702	U
35	BA	2703	C
35	BA	2712	U
35	BA	2712(A)	A
35	BA	2713	A
35	BA	2714	G
35	BA	2720	U
35	BA	2726	U
35	BA	2733	A
35	BA	2736	G
35	BA	2744	G
35	BA	2752	C
35	BA	2754	U
35	BA	2757	A
35	BA	2759	G
35	BA	2762	G
35	BA	2765	A
35	BA	2766	G
35	BA	2778	A
35	BA	2780	G
35	BA	2787	C
35	BA	2790	A
35	BA	2794	C
35	BA	2802	G
35	BA	2803	C

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Mol	Chain	Res	Type
35	BA	2804	C
35	BA	2808	U
35	BA	2820	A
35	BA	2821	A
35	BA	2823	A
35	BA	2827	C
35	BA	2833	G
35	BA	2834	G
35	BA	2835	A
35	BA	2836	U
35	BA	2849	U
35	BA	2864	G
35	BA	2865	U
35	BA	2872	G
35	BA	2892	A
35	BA	2893	G
36	BB	15	A
36	BB	16	G
36	BB	22	U
36	BB	27	C
36	BB	40	U
36	BB	42	C
36	BB	45	A
36	BB	52	A
36	BB	53	A
36	BB	67	G
36	BB	73	A
36	BB	88	C
36	BB	110	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	48	C
1	CA	51	A
1	CA	61	G
1	CA	79	G
1	CA	80	G
1	CA	81	U
1	CA	84	U
1	CA	89	C
1	CA	90	U

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Mol	Chain	Res	Type
1	CA	97	G
1	CA	98	G
1	CA	110	C
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	150	C
1	CA	163	C
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	289	G
1	CA	316	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
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	422	C
1	CA	429	U
1	CA	430	A
1	CA	435	C

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Mol	Chain	Res	Type
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	452	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	524	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	607	A
1	CA	630	G
1	CA	631	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	755	G
1	CA	793	U
1	CA	794	A

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Mol	Chain	Res	Type
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	885	G
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	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
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	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	1001(A)	G
1	CA	1009	G
1	CA	1022	G
1	CA	1026	G
1	CA	1030	C
1	CA	1036	G
1	CA	1050	G
1	CA	1054	C
1	CA	1055	A

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Mol	Chain	Res	Type
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1081	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
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	1139	G
1	CA	1140	C
1	CA	1145	C
1	CA	1146	A
1	CA	1147	C
1	CA	1152	A
1	CA	1159	U
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
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

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Mol	Chain	Res	Type
1	CA	1299	A
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	1334	G
1	CA	1335	C
1	CA	1338	G
1	CA	1347	G
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1370	G
1	CA	1419	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	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1529	G
1	CA	1530	G
22	CV	17	C
22	CV	18	G
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	22	G
22	CV	23	A

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Mol	Chain	Res	Type
22	CV	32	U
22	CV	34	G
22	CV	35	A
22	CV	41	C
22	CV	42	C
22	CV	46	G
22	CV	47	U
22	CV	48	C
22	CV	52	G
22	CV	61	C
22	CV	69	G
22	CV	75	C
23	CW	16	U
23	CW	17	C
23	CW	18	G
23	CW	19	G
23	CW	21	A
23	CW	22	G
23	CW	39	U
23	CW	41	C
23	CW	43	C
23	CW	47	U
23	CW	57	G
23	CW	58	A
23	CW	59	U
23	CW	61	C
23	CW	70	G
24	CX	13	A
24	CX	14	A
22	CY	2	C
22	CY	4	C
22	CY	9	A
22	CY	16	U
22	CY	17	C
22	CY	18	G
22	CY	19	G
22	CY	21	A
22	CY	23	A
22	CY	34	G
22	CY	42	C
22	CY	43	C
22	CY	47	U

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Mol	Chain	Res	Type
22	CY	48	C
22	CY	52	G
22	CY	53	G
22	CY	57	G
22	CY	61	C
22	CY	74	C
22	CY	75	C
35	DA	10	G
35	DA	35	G
35	DA	45	C
35	DA	69	C
35	DA	71	A
35	DA	72	U
35	DA	74	A
35	DA	75	G
35	DA	84	A
35	DA	85	G
35	DA	88	G
35	DA	90	U
35	DA	92	A
35	DA	94	C
35	DA	95	G
35	DA	102	G
35	DA	118	A
35	DA	119	A
35	DA	120	U
35	DA	129	C
35	DA	139(A)	G
35	DA	141	A
35	DA	143(A)	C
35	DA	153	C
35	DA	154(A)	C
35	DA	157	U
35	DA	158	U
35	DA	174	C
35	DA	196	A
35	DA	197	A
35	DA	204	A
35	DA	205	G
35	DA	215	G
35	DA	216	A
35	DA	221	A

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Mol	Chain	Res	Type
35	DA	222	A
35	DA	228	A
35	DA	229	A
35	DA	230	U
35	DA	233	A
35	DA	248	G
35	DA	252	G
35	DA	261	G
35	DA	265	A
35	DA	271(I)	G
35	DA	271(K)	U
35	DA	271(L)	U
35	DA	271(O)	C
35	DA	271(R)	G
35	DA	271(T)	C
35	DA	271(Y)	U
35	DA	272(B)	G
35	DA	272(H)	C
35	DA	275	G
35	DA	283	A
35	DA	284	U
35	DA	286	C
35	DA	287	C
35	DA	311	A
35	DA	329	G
35	DA	330	A
35	DA	332	A
35	DA	333	G
35	DA	352	G
35	DA	358	U
35	DA	362	U
35	DA	363(B)	G
35	DA	363(E)	U
35	DA	363(F)	A
35	DA	365	C
35	DA	372	G
35	DA	386	G
35	DA	388	G
35	DA	405	U
35	DA	406	G
35	DA	411	G
35	DA	412	A

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Mol	Chain	Res	Type
35	DA	416	C
35	DA	428	A
35	DA	444	C
35	DA	448	U
35	DA	456	C
35	DA	457	A
35	DA	470	A
35	DA	475	U
35	DA	481	G
35	DA	482	A
35	DA	494	G
35	DA	505	A
35	DA	508	G
35	DA	509	C
35	DA	530	G
35	DA	531	C
35	DA	532	A
35	DA	533	G
35	DA	543	C
35	DA	547	A
35	DA	548	A
35	DA	549	G
35	DA	551	G
35	DA	563	G
35	DA	573	G
35	DA	588	U
35	DA	604	G
35	DA	607	U
35	DA	613	G
35	DA	614(A)	U
35	DA	614(B)	G
35	DA	615	G
35	DA	621	A
35	DA	627	A
35	DA	637	A
35	DA	645	C
35	DA	646	A
35	DA	651	G
35	DA	652	C
35	DA	656	G
35	DA	668	G
35	DA	686	G

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Mol	Chain	Res	Type
35	DA	695	G
35	DA	708	C
35	DA	717	G
35	DA	722	A
35	DA	730	C
35	DA	753	C
35	DA	764	A
35	DA	765	G
35	DA	776	G
35	DA	782	A
35	DA	784	A
35	DA	785	G
35	DA	790	C
35	DA	791	C
35	DA	805	G
35	DA	812	C
35	DA	819	A
35	DA	827	U
35	DA	828	U
35	DA	830	G
35	DA	832	G
35	DA	848	G
35	DA	856	C
35	DA	857	C
35	DA	859	G
35	DA	866	A
35	DA	878	A
35	DA	886	C
35	DA	890	A
35	DA	896	A
35	DA	897	C
35	DA	900	A
35	DA	910	A
35	DA	917	A
35	DA	926	A
35	DA	932	G
35	DA	941	A
35	DA	945	A
35	DA	946	G
35	DA	958	U
35	DA	959	A
35	DA	961	C

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Mol	Chain	Res	Type
35	DA	973	A
35	DA	974	G
35	DA	975	C
35	DA	975(A)	G
35	DA	983	A
35	DA	991	C
35	DA	996	A
35	DA	1000	A
35	DA	1012	U
35	DA	1013	C
35	DA	1022	G
35	DA	1023	U
35	DA	1025	G
35	DA	1026	U
35	DA	1040	C
35	DA	1041	C
35	DA	1043	C
35	DA	1044	G
35	DA	1045	A
35	DA	1047	G
35	DA	1049	C
35	DA	1053	C
35	DA	1106	A
35	DA	1110	G
35	DA	1112	G
35	DA	1113	U
35	DA	1114	G
35	DA	1116	C
35	DA	1135	C
35	DA	1136	G
35	DA	1142	U
35	DA	1143	A
35	DA	1155	A
35	DA	1171	G
35	DA	1173	G
35	DA	1174	A
35	DA	1175	U
35	DA	1176	G
35	DA	1178	C
35	DA	1183	G
35	DA	1195	G
35	DA	1205	U

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Mol	Chain	Res	Type
35	DA	1210	A
35	DA	1211	U
35	DA	1212	G
35	DA	1220	A
35	DA	1221	C
35	DA	1248	G
35	DA	1253	A
35	DA	1256	G
35	DA	1265	A
35	DA	1271	G
35	DA	1272	A
35	DA	1281	G
35	DA	1300	U
35	DA	1301	A
35	DA	1302	A
35	DA	1314	C
35	DA	1319	G
35	DA	1329	U
35	DA	1330	C
35	DA	1332	G
35	DA	1345	C
35	DA	1349	A
35	DA	1359	A
35	DA	1368	G
35	DA	1379	A
35	DA	1380	G
35	DA	1384	A
35	DA	1385	G
35	DA	1386	C
35	DA	1395	A
35	DA	1407	C
35	DA	1416	G
35	DA	1417	C
35	DA	1419	A
35	DA	1420	U
35	DA	1421	G
35	DA	1428	C
35	DA	1437	C
35	DA	1445	A
35	DA	1449	A
35	DA	1450	G
35	DA	1460	A

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Mol	Chain	Res	Type
35	DA	1461	G
35	DA	1467	C
35	DA	1471	A
35	DA	1478	G
35	DA	1480	G
35	DA	1481	U
35	DA	1482	G
35	DA	1484	G
35	DA	1485	G
35	DA	1488	G
35	DA	1490	A
35	DA	1493	C
35	DA	1494	A
35	DA	1495	A
35	DA	1496	A
35	DA	1497	U
35	DA	1498	C
35	DA	1501	C
35	DA	1502	C
35	DA	1505	C
35	DA	1509	C
35	DA	1509(A)	A
35	DA	1520	G
35	DA	1528(A)	A
35	DA	1529	G
35	DA	1530	C
35	DA	1531	C
35	DA	1532	C
35	DA	1543	C
35	DA	1544	A
35	DA	1547	C
35	DA	1554	A
35	DA	1558	A
35	DA	1559	G
35	DA	1569	A
35	DA	1578	U
35	DA	1579	A
35	DA	1581	G
35	DA	1584	C
35	DA	1586	A
35	DA	1588	C
35	DA	1591	G

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Mol	Chain	Res	Type
35	DA	1594	G
35	DA	1598	C
35	DA	1603	A
35	DA	1608	A
35	DA	1610	A
35	DA	1617	C
35	DA	1618	A
35	DA	1640	C
35	DA	1648	C
35	DA	1653	G
35	DA	1654	A
35	DA	1674	G
35	DA	1681	G
35	DA	1686	C
35	DA	1696	G
35	DA	1700	A
35	DA	1722	A
35	DA	1739	U
35	DA	1744	C
35	DA	1748	G
35	DA	1763	G
35	DA	1764	G
35	DA	1773	A
35	DA	1780	A
35	DA	1787	A
35	DA	1791	A
35	DA	1799	G
35	DA	1800	C
35	DA	1816	G
35	DA	1820	U
35	DA	1829	A
35	DA	1835	G
35	DA	1838	C
35	DA	1847	A
35	DA	1858	G
35	DA	1865	G
35	DA	1866	C
35	DA	1878	G
35	DA	1880	C
35	DA	1882	C
35	DA	1885	A
35	DA	1888	G

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Mol	Chain	Res	Type
35	DA	1889	A
35	DA	1900	A
35	DA	1906	G
35	DA	1912	A
35	DA	1913	A
35	DA	1929	G
35	DA	1936	A
35	DA	1938	A
35	DA	1944	U
35	DA	1947	C
35	DA	1955	U
35	DA	1963	U
35	DA	1967	C
35	DA	1969	A
35	DA	1970	A
35	DA	1971	A
35	DA	1972	A
35	DA	1982	C
35	DA	1987	G
35	DA	1991	U
35	DA	1993	U
35	DA	1997	G
35	DA	2020	A
35	DA	2023	G
35	DA	2031	A
35	DA	2032	G
35	DA	2033	A
35	DA	2034	U
35	DA	2036	C
35	DA	2043	C
35	DA	2055	C
35	DA	2056	G
35	DA	2059	A
35	DA	2060	A
35	DA	2061	G
35	DA	2062	A
35	DA	2069	G
35	DA	2093	G
35	DA	2099	U
35	DA	2103	C
35	DA	2104	G
35	DA	2108	C

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Mol	Chain	Res	Type
35	DA	2110	G
35	DA	2112	G
35	DA	2116	G
35	DA	2117	A
35	DA	2118	U
35	DA	2123	G
35	DA	2124	G
35	DA	2126	A
35	DA	2127	G
35	DA	2131	G
35	DA	2133	G
35	DA	2136	C
35	DA	2147	G
35	DA	2166	G
35	DA	2170	A
35	DA	2172	U
35	DA	2173	A
35	DA	2174	C
35	DA	2179	C
35	DA	2185	C
35	DA	2187	G
35	DA	2190	G
35	DA	2192	G
35	DA	2193	G
35	DA	2198	A
35	DA	2199	A
35	DA	2200	C
35	DA	2207	G
35	DA	2208	A
35	DA	2219	G
35	DA	2225	A
35	DA	2226	C
35	DA	2238	G
35	DA	2239	G
35	DA	2263	C
35	DA	2275	C
35	DA	2283	C
35	DA	2287	A
35	DA	2288	A
35	DA	2289	G
35	DA	2290	G
35	DA	2305	A

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Mol	Chain	Res	Type
35	DA	2307	G
35	DA	2308	G
35	DA	2309	A
35	DA	2311	A
35	DA	2313	C
35	DA	2319	G
35	DA	2320	A
35	DA	2325	G
35	DA	2334	G
35	DA	2336	A
35	DA	2345	G
35	DA	2347	C
35	DA	2349	G
35	DA	2383	G
35	DA	2385	C
35	DA	2399	G
35	DA	2400	G
35	DA	2402	C
35	DA	2423	U
35	DA	2425	A
35	DA	2429	G
35	DA	2430	A
35	DA	2435	A
35	DA	2439	A
35	DA	2441	C
35	DA	2448	A
35	DA	2465	C
35	DA	2469	A
35	DA	2470	G
35	DA	2476	A
35	DA	2477	C
35	DA	2478	A
35	DA	2482	G
35	DA	2484	G
35	DA	2502	G
35	DA	2505	G
35	DA	2506	U
35	DA	2507	C
35	DA	2518	A
35	DA	2520	C
35	DA	2523	G
35	DA	2529	G

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Mol	Chain	Res	Type
35	DA	2534	A
35	DA	2542	A
35	DA	2543	G
35	DA	2554	U
35	DA	2559	C
35	DA	2566	A
35	DA	2567	G
35	DA	2573	C
35	DA	2574	G
35	DA	2582	G
35	DA	2602	A
35	DA	2611	U
35	DA	2612	C
35	DA	2615	U
35	DA	2630	G
35	DA	2673	G
35	DA	2682	U
35	DA	2690	C
35	DA	2691	C
35	DA	2702	U
35	DA	2703	C
35	DA	2712	U
35	DA	2712(A)	A
35	DA	2713	A
35	DA	2714	G
35	DA	2720	U
35	DA	2726	U
35	DA	2733	A
35	DA	2736	G
35	DA	2744	G
35	DA	2752	C
35	DA	2754	U
35	DA	2757	A
35	DA	2759	G
35	DA	2762	G
35	DA	2765	A
35	DA	2766	G
35	DA	2778	A
35	DA	2780	G
35	DA	2787	C
35	DA	2790	A
35	DA	2794	C

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Mol	Chain	Res	Type
35	DA	2802	G
35	DA	2803	C
35	DA	2804	C
35	DA	2808	U
35	DA	2820	A
35	DA	2821	A
35	DA	2823	A
35	DA	2827	C
35	DA	2833	G
35	DA	2834	G
35	DA	2835	A
35	DA	2836	U
35	DA	2849	U
35	DA	2864	G
35	DA	2865	U
35	DA	2872	G
35	DA	2892	A
35	DA	2893	G
36	DB	15	A
36	DB	16	G
36	DB	22	U
36	DB	27	C
36	DB	40	U
36	DB	42	C
36	DB	45	A
36	DB	52	A
36	DB	53	A
36	DB	67	G
36	DB	73	A
36	DB	88	C
36	DB	110	G

All (171) 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

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Mol	Chain	Res	Type
1	AA	266	G
1	AA	328	C
1	AA	366	C
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	575	G
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
22	AY	15	G
35	BA	71	A
35	BA	74	A
35	BA	128	C
35	BA	221	A
35	BA	272	G
35	BA	283	A
35	BA	331	A
35	BA	332	A
35	BA	387	U
35	BA	474	G
35	BA	481	G
35	BA	542	C
35	BA	587	C
35	BA	603	A
35	BA	614(C)	A
35	BA	752	A
35	BA	790	C
35	BA	856	C
35	BA	1022	G

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Mol	Chain	Res	Type
35	BA	1210	A
35	BA	1286	A
35	BA	1300	U
35	BA	1301	A
35	BA	1378	A
35	BA	1395	A
35	BA	1427	A
35	BA	1532	C
35	BA	1558	A
35	BA	1594	G
35	BA	1607	C
35	BA	1653	G
35	BA	1799	G
35	BA	1819	A
35	BA	1912	A
35	BA	1987	G
35	BA	1992	G
35	BA	2033	A
35	BA	2111	C
35	BA	2116	G
35	BA	2126	A
35	BA	2171	A
35	BA	2172	U
35	BA	2225	A
35	BA	2263	C
35	BA	2282	G
35	BA	2422	A
35	BA	2468	G
35	BA	2481	G
35	BA	2506	U
35	BA	2610	C
35	BA	2689	U
35	BA	2736	G
35	BA	2756	U
35	BA	2820	A
35	BA	2864	G
36	BB	66	A
1	CA	30	U
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A

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Mol	Chain	Res	Type
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	484	G
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	575	G
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	34	G
22	CY	15	G
35	DA	71	A
35	DA	74	A
35	DA	128	C
35	DA	221	A
35	DA	272	G
35	DA	283	A
35	DA	331	A
35	DA	332	A
35	DA	387	U
35	DA	474	G
35	DA	481	G
35	DA	542	C
35	DA	587	C
35	DA	603	A
35	DA	614(C)	A
35	DA	752	A

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Mol	Chain	Res	Type
35	DA	790	C
35	DA	856	C
35	DA	1022	G
35	DA	1210	A
35	DA	1286	A
35	DA	1300	U
35	DA	1301	A
35	DA	1378	A
35	DA	1395	A
35	DA	1427	A
35	DA	1532	C
35	DA	1558	A
35	DA	1594	G
35	DA	1607	C
35	DA	1653	G
35	DA	1799	G
35	DA	1819	A
35	DA	1912	A
35	DA	1987	G
35	DA	1992	G
35	DA	2033	A
35	DA	2111	C
35	DA	2116	G
35	DA	2126	A
35	DA	2171	A
35	DA	2172	U
35	DA	2225	A
35	DA	2282	G
35	DA	2422	A
35	DA	2468	G
35	DA	2481	G
35	DA	2506	U
35	DA	2610	C
35	DA	2689	U
35	DA	2756	U
35	DA	2820	A
35	DA	2864	G
36	DB	66	A

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

8 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
22	PHA	CY	77	22	10,11,11	1.08	0	10,13,13	0.40	0
22	8AN	AY	76	35,22	19,24,25	1.11	1 (5%)	13,35,38	0.95	1 (7%)
22	8AN	CV	76	57,22	19,24,25	1.09	2 (10%)	13,35,38	1.09	2 (15%)
22	8AN	AV	76	57,22	19,24,25	1.03	1 (5%)	13,35,38	1.12	2 (15%)
22	PHA	AV	77	22	10,11,11	0.64	0	10,13,13	0.42	0
22	PHA	CV	77	22	10,11,11	0.65	0	10,13,13	0.36	0
22	8AN	CY	76	35,22	19,24,25	0.94	1 (5%)	13,35,38	0.89	1 (7%)
22	PHA	AY	77	22	10,11,11	0.66	0	10,13,13	0.61	0

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
22	PHA	CY	77	22	-	2/5/6/6	0/1/1/1
22	8AN	AY	76	35,22	-	0/3/25/26	0/3/3/3
22	8AN	CV	76	57,22	-	1/3/25/26	0/3/3/3
22	8AN	AV	76	57,22	-	1/3/25/26	0/3/3/3
22	PHA	AV	77	22	-	0/5/6/6	0/1/1/1
22	PHA	CV	77	22	-	0/5/6/6	0/1/1/1
22	8AN	CY	76	35,22	-	0/3/25/26	0/3/3/3
22	PHA	AY	77	22	-	3/5/6/6	0/1/1/1

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AY	76	8AN	C3'-N3'	-3.68	1.41	1.47
22	AV	76	8AN	C3'-N3'	-3.62	1.41	1.47
22	CV	76	8AN	C3'-N3'	-3.44	1.42	1.47
22	CY	76	8AN	C3'-N3'	-2.77	1.43	1.47
22	CV	76	8AN	C2-N3	2.34	1.35	1.32

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AY	76	8AN	C5-C6-N6	2.54	124.20	120.35
22	AV	76	8AN	C5-C6-N6	2.41	124.02	120.35
22	CV	76	8AN	C5-C6-N6	2.39	123.99	120.35
22	CY	76	8AN	C5-C6-N6	2.35	123.93	120.35
22	AV	76	8AN	O4'-C4'-C3'	2.23	107.35	104.15
22	CV	76	8AN	O4'-C4'-C3'	2.20	107.31	104.15

There are no chirality outliers.

All (7) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	CY	77	PHA	C-CA-CB-CG
22	CV	76	8AN	C4'-C5'-O5'-P
22	AV	76	8AN	C4'-C5'-O5'-P
22	AY	77	PHA	O-C-CA-CB
22	CY	77	PHA	N-CA-CB-CG
22	AY	77	PHA	C-CA-CB-CG
22	AY	77	PHA	N-CA-CB-CG

There are no ring outliers.

8 monomers are involved in 17 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	CY	77	PHA	4	0
22	AY	76	8AN	3	0
22	CV	76	8AN	2	0
22	AV	76	8AN	1	0
22	AV	77	PHA	1	0
22	CV	77	PHA	2	0
22	CY	76	8AN	2	0
22	AY	77	PHA	5	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 1354 ligands modelled in this entry, 1352 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	PAR	AA	1799	-	45,45,45	2.09	14 (31%)	64,67,67	1.39	8 (12%)
58	PAR	CA	1800	-	45,45,45	1.83	11 (24%)	64,67,67	1.30	9 (14%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	PAR	AA	1799	-	-	4/18/94/94	0/4/4/4
58	PAR	CA	1800	-	-	4/18/94/94	0/4/4/4

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	AA	1799	PAR	C64-C54	5.92	1.60	1.52
58	CA	1800	PAR	C64-C54	5.41	1.59	1.52
58	AA	1799	PAR	C31-C21	5.15	1.60	1.53
58	AA	1799	PAR	C11-C21	4.33	1.60	1.52
58	CA	1800	PAR	O54-C14	3.59	1.51	1.41
58	AA	1799	PAR	C34-C24	3.34	1.57	1.53
58	CA	1800	PAR	C34-C24	3.30	1.57	1.53
58	CA	1800	PAR	C11-C21	3.21	1.58	1.52
58	AA	1799	PAR	O54-C14	3.10	1.49	1.41
58	AA	1799	PAR	C52-C42	3.03	1.58	1.52
58	AA	1799	PAR	C62-C52	2.98	1.60	1.52
58	CA	1800	PAR	C52-C42	2.94	1.58	1.52
58	CA	1800	PAR	O51-C11	2.82	1.49	1.41
58	CA	1800	PAR	O54-C54	2.65	1.50	1.44
58	AA	1799	PAR	C42-C32	2.58	1.58	1.53
58	AA	1799	PAR	O51-C11	2.51	1.48	1.41
58	CA	1800	PAR	C44-C54	2.40	1.58	1.53
58	CA	1800	PAR	C14-C24	2.31	1.56	1.52
58	AA	1799	PAR	O54-C54	2.29	1.49	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	AA	1799	PAR	C14-C24	2.25	1.56	1.52
58	CA	1800	PAR	C62-C52	2.22	1.58	1.52
58	AA	1799	PAR	O33-C33	2.11	1.49	1.43
58	CA	1800	PAR	C31-C21	2.03	1.56	1.53
58	AA	1799	PAR	O11-C42	2.02	1.49	1.43
58	AA	1799	PAR	O11-C11	2.01	1.47	1.41

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	AA	1799	PAR	O33-C14-C24	3.94	115.00	108.22
58	AA	1799	PAR	O11-C11-C21	3.87	114.89	108.22
58	AA	1799	PAR	O54-C54-C64	3.86	113.19	106.01
58	CA	1800	PAR	O54-C54-C64	3.80	113.09	106.01
58	CA	1800	PAR	C14-O54-C54	3.72	120.99	113.69
58	AA	1799	PAR	C14-O54-C54	3.47	120.50	113.69
58	AA	1799	PAR	O52-C13-C23	3.33	114.86	107.96
58	CA	1800	PAR	O33-C14-C24	3.24	113.79	108.22
58	CA	1800	PAR	O52-C13-C23	3.23	114.65	107.96
58	AA	1799	PAR	O52-C13-O43	-3.08	108.09	111.43
58	CA	1800	PAR	C22-C32-C42	2.71	116.39	109.53
58	AA	1799	PAR	C11-O51-C51	2.67	118.92	113.69
58	AA	1799	PAR	C22-C32-C42	2.60	116.11	109.53
58	CA	1800	PAR	O11-C11-C21	2.31	112.19	108.22
58	CA	1800	PAR	C11-O51-C51	2.25	118.10	113.69
58	CA	1800	PAR	C22-C12-C62	-2.23	106.66	110.04
58	CA	1800	PAR	O11-C42-C32	-2.06	104.26	109.18

There are no chirality outliers.

All (8) torsion outliers are listed below:

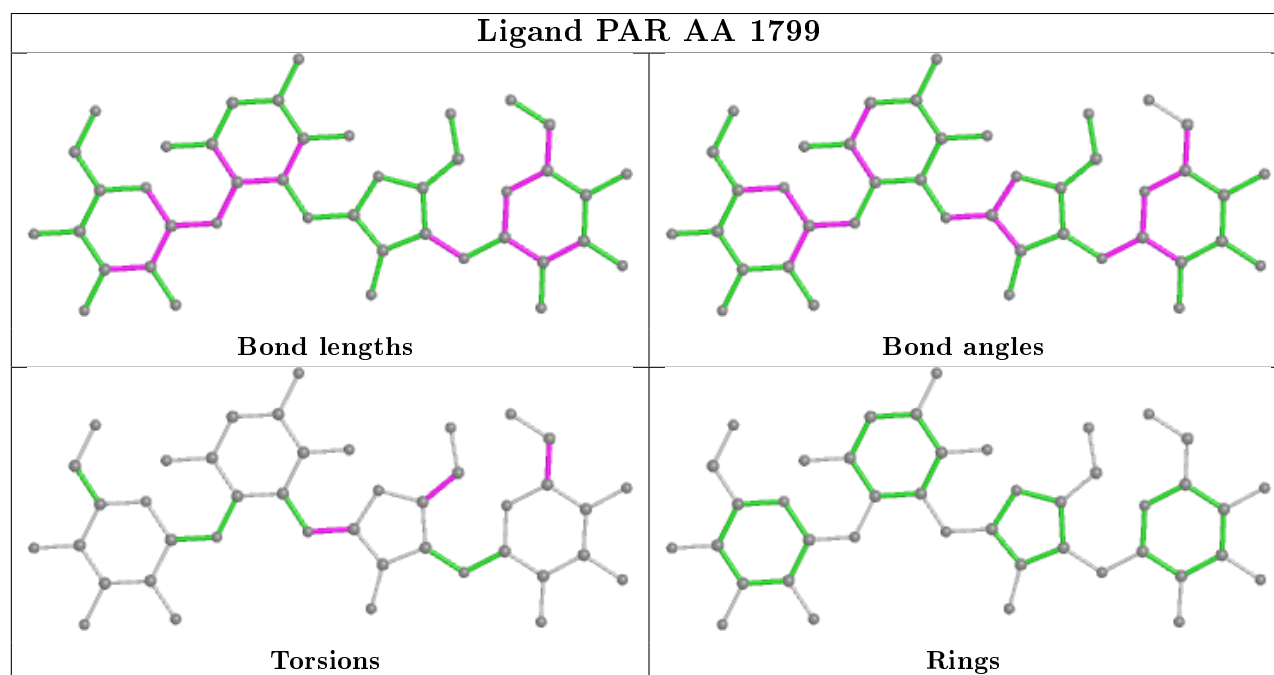
Mol	Chain	Res	Type	Atoms
58	AA	1799	PAR	O43-C43-C53-O53
58	AA	1799	PAR	C44-C54-C64-N64
58	CA	1800	PAR	O43-C43-C53-O53
58	AA	1799	PAR	C33-C43-C53-O53
58	CA	1800	PAR	C33-C43-C53-O53
58	CA	1800	PAR	C43-C33-O33-C14
58	AA	1799	PAR	C23-C13-O52-C52
58	CA	1800	PAR	C44-C54-C64-N64

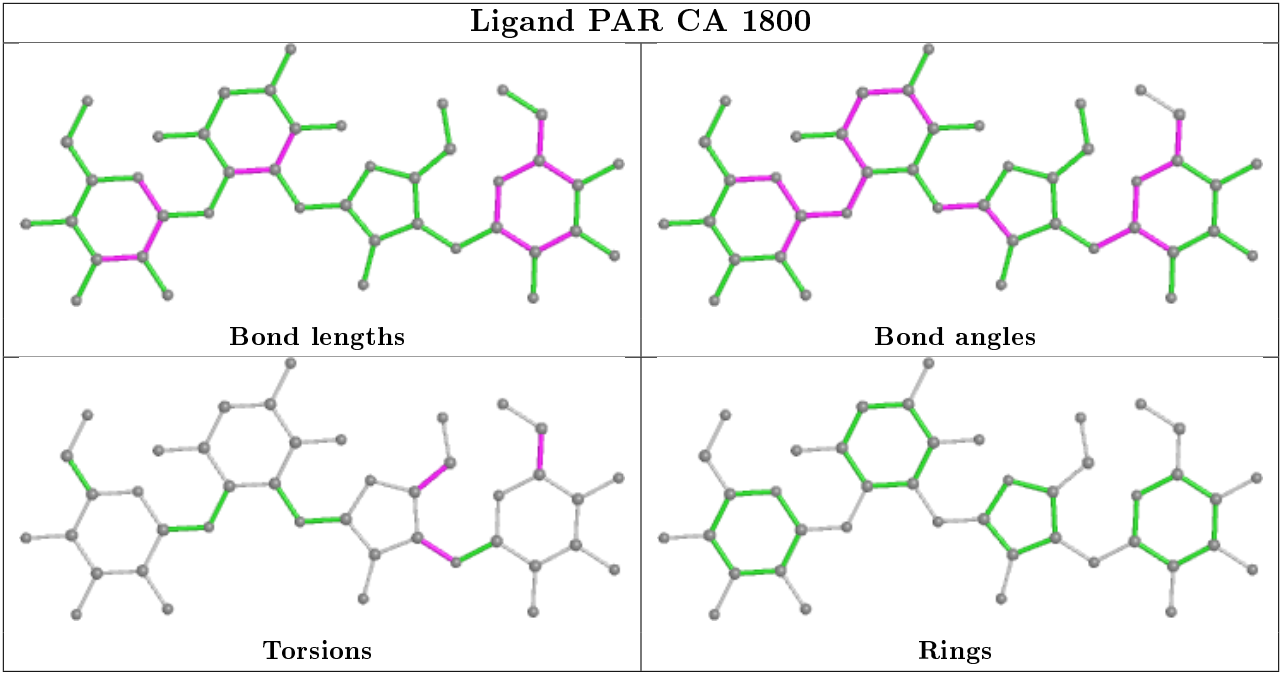
There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	AA	1799	PAR	2	0
58	CA	1800	PAR	2	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 than 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.





5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	3
13	AM	3
9	AI	2
9	CI	2
41	DG	1
41	BG	1
31	D6	1
31	B6	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	D6	46:HIS	C	47:THR	N	4.60
1	B6	46:HIS	C	47:THR	N	4.59
1	BG	112:PRO	C	113:ARG	N	3.80
1	DG	112:PRO	C	113:ARG	N	3.77
1	CM	69:GLU	C	70:LEU	N	3.15

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AM	69:GLU	C	70:LEU	N	3.14
1	AM	97:PRO	C	98:VAL	N	2.96
1	CM	97:PRO	C	98:VAL	N	2.95
1	AI	53:VAL	C	54:ASP	N	2.72
1	CI	53:VAL	C	54:ASP	N	2.71
1	AI	104:ARG	C	105:ASP	N	2.65
1	CI	104:ARG	C	105:ASP	N	2.65
1	AM	65:LYS	C	66:LEU	N	2.55
1	CM	65:LYS	C	66:LEU	N	2.55

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, 95th 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%)	-0.05	27 (1%) 68 62	47, 104, 183, 200	0
1	CA	1504/1522 (98%)	0.07	35 (2%) 60 54	69, 117, 189, 200	0
2	AB	235/256 (91%)	0.04	7 (2%) 50 44	73, 131, 181, 200	0
2	CB	235/256 (91%)	0.18	5 (2%) 63 58	85, 154, 189, 200	0
3	AC	207/239 (86%)	-0.05	1 (0%) 91 88	71, 116, 160, 200	0
3	CC	207/239 (86%)	0.20	7 (3%) 45 40	87, 139, 180, 200	0
4	AD	208/209 (99%)	-0.25	0 100 100	60, 110, 153, 185	0
4	CD	208/209 (99%)	-0.35	0 100 100	58, 101, 142, 181	0
5	AE	151/162 (93%)	-0.18	1 (0%) 87 83	52, 101, 144, 174	0
5	CE	151/162 (93%)	0.19	5 (3%) 46 41	66, 119, 168, 200	0
6	AF	101/101 (100%)	-0.36	1 (0%) 82 77	56, 96, 142, 181	0
6	CF	101/101 (100%)	-0.26	1 (0%) 82 77	51, 107, 147, 196	0
7	AG	155/156 (99%)	0.09	9 (5%) 23 20	65, 117, 166, 200	0
7	CG	155/156 (99%)	0.18	7 (4%) 33 29	80, 129, 161, 182	0
8	AH	138/138 (100%)	-0.06	3 (2%) 62 56	62, 106, 140, 174	0
8	CH	138/138 (100%)	0.22	6 (4%) 35 31	82, 122, 160, 195	0
9	AI	127/128 (99%)	0.22	5 (3%) 39 35	79, 136, 176, 200	0
9	CI	127/128 (99%)	0.51	13 (10%) 6 7	96, 145, 188, 200	0
10	AJ	99/105 (94%)	0.64	17 (17%) 1 1	65, 140, 184, 200	0
10	CJ	99/105 (94%)	0.78	18 (18%) 1 1	70, 153, 195, 200	0
11	AK	119/129 (92%)	-0.01	3 (2%) 57 51	62, 99, 159, 198	0
11	CK	119/129 (92%)	-0.16	4 (3%) 45 40	74, 111, 155, 184	0
12	AL	125/135 (92%)	-0.14	2 (1%) 72 66	51, 91, 144, 190	0
12	CL	125/135 (92%)	0.27	5 (4%) 38 33	59, 113, 161, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	125/126 (99%)	0.15	7 (5%) 24 22	75, 120, 163, 200	0
13	CM	125/126 (99%)	0.63	14 (11%) 5 6	77, 137, 184, 200	0
14	AN	60/61 (98%)	-0.28	0 100 100	50, 109, 147, 200	0
14	CN	60/61 (98%)	0.56	4 (6%) 17 16	89, 135, 183, 200	0
15	AO	88/89 (98%)	-0.19	2 (2%) 60 54	55, 100, 144, 162	0
15	CO	88/89 (98%)	-0.01	2 (2%) 60 54	69, 108, 154, 182	0
16	AP	84/88 (95%)	0.19	1 (1%) 79 73	78, 107, 147, 184	0
16	CP	84/88 (95%)	0.16	0 100 100	61, 100, 150, 179	0
17	AQ	100/105 (95%)	0.01	4 (4%) 38 33	82, 109, 150, 181	0
17	CQ	100/105 (95%)	0.10	4 (4%) 38 33	71, 115, 153, 167	0
18	AR	70/88 (79%)	-0.17	1 (1%) 75 69	59, 96, 139, 169	0
18	CR	70/88 (79%)	0.10	0 100 100	66, 111, 152, 173	0
19	AS	79/93 (84%)	0.38	3 (3%) 40 36	82, 122, 176, 200	0
19	CS	79/93 (84%)	0.80	9 (11%) 5 6	91, 145, 188, 200	0
20	AT	99/106 (93%)	0.14	2 (2%) 65 60	77, 120, 170, 195	0
20	CT	99/106 (93%)	0.19	5 (5%) 28 25	67, 116, 174, 200	0
21	AU	25/27 (92%)	1.08	5 (20%) 1 1	80, 119, 154, 178	0
21	CU	25/27 (92%)	1.72	10 (40%) 0 0	79, 141, 171, 185	0
22	AV	75/77 (97%)	0.17	3 (4%) 38 33	55, 121, 158, 197	0
22	AY	75/77 (97%)	0.76	8 (10%) 6 6	49, 162, 196, 200	0
22	CV	75/77 (97%)	0.03	1 (1%) 77 71	64, 144, 178, 192	0
22	CY	75/77 (97%)	1.16	11 (14%) 2 3	84, 181, 199, 200	0
23	AW	76/76 (100%)	0.57	9 (11%) 4 5	99, 173, 199, 200	0
23	CW	76/76 (100%)	0.58	7 (9%) 9 9	117, 178, 200, 200	0
24	AX	11/11 (100%)	0.52	1 (9%) 9 9	68, 116, 146, 168	0
24	CX	11/11 (100%)	0.78	2 (18%) 1 1	87, 126, 158, 159	0
25	B0	84/85 (98%)	-0.25	0 100 100	30, 62, 111, 143	0
25	D0	84/85 (98%)	0.25	2 (2%) 59 53	58, 106, 148, 178	0
26	B1	94/98 (95%)	-0.18	0 100 100	37, 68, 129, 162	0
26	D1	94/98 (95%)	-0.05	1 (1%) 80 75	38, 79, 131, 166	0
27	B2	71/72 (98%)	-0.27	1 (1%) 75 69	40, 80, 141, 188	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	D2	71/72 (98%)	-0.24	0 100 100	62, 97, 150, 182	0
28	B3	60/60 (100%)	-0.25	1 (1%) 70 64	31, 67, 112, 190	0
28	D3	60/60 (100%)	0.92	6 (10%) 7 8	65, 124, 163, 200	0
29	B4	31/71 (43%)	-0.29	0 100 100	67, 132, 172, 182	0
29	D4	31/71 (43%)	-0.32	0 100 100	105, 142, 184, 197	0
30	B5	59/60 (98%)	-0.30	2 (3%) 45 40	37, 60, 164, 200	0
30	D5	59/60 (98%)	-0.08	4 (6%) 17 16	52, 88, 175, 191	0
31	B6	45/54 (83%)	0.90	5 (11%) 5 6	57, 113, 166, 174	0
31	D6	45/54 (83%)	1.64	15 (33%) 0 0	92, 138, 175, 200	0
32	B7	49/49 (100%)	-0.32	0 100 100	25, 53, 112, 194	0
32	D7	49/49 (100%)	-0.07	0 100 100	41, 67, 119, 181	0
33	B8	64/65 (98%)	-0.08	1 (1%) 72 66	25, 69, 131, 198	0
33	D8	64/65 (98%)	0.08	0 100 100	45, 92, 149, 183	0
34	B9	36/37 (97%)	1.61	11 (30%) 0 0	70, 99, 142, 153	0
34	D9	36/37 (97%)	3.26	27 (75%) 0 0	120, 159, 194, 200	0
35	BA	2807/2822 (99%)	-0.06	49 (1%) 70 64	35, 64, 176, 200	0
35	DA	2807/2822 (99%)	0.02	61 (2%) 62 56	44, 93, 186, 200	0
36	BB	119/122 (97%)	-0.32	1 (0%) 86 81	57, 81, 135, 179	0
36	DB	119/122 (97%)	-0.05	2 (1%) 70 64	90, 129, 183, 197	0
37	BC	191/229 (83%)	2.00	77 (40%) 0 0	115, 175, 200, 200	0
37	DC	191/229 (83%)	1.74	80 (41%) 0 0	113, 172, 200, 200	0
38	BD	272/276 (98%)	-0.40	1 (0%) 92 90	33, 62, 106, 186	0
38	DD	272/276 (98%)	-0.29	0 100 100	40, 76, 114, 158	0
39	BE	205/206 (99%)	-0.22	2 (0%) 82 77	28, 65, 151, 200	0
39	DE	205/206 (99%)	0.14	4 (1%) 65 60	53, 105, 162, 193	0
40	BF	208/210 (99%)	-0.42	5 (2%) 59 53	26, 65, 154, 194	0
40	DF	208/210 (99%)	-0.24	3 (1%) 75 69	41, 91, 166, 200	0
41	BG	181/182 (99%)	-0.14	4 (2%) 62 56	57, 99, 158, 197	0
41	DG	181/182 (99%)	0.09	5 (2%) 53 47	78, 120, 160, 182	0
42	BH	160/180 (88%)	-0.00	6 (3%) 40 36	44, 94, 160, 199	0
42	DH	160/180 (88%)	1.40	46 (28%) 0 0	107, 169, 200, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BI	146/148 (98%)	0.94	32 (21%) 0 0	48, 154, 200, 200	0
43	DI	146/148 (98%)	0.37	10 (6%) 17 16	74, 126, 175, 200	0
44	BN	139/140 (99%)	-0.45	0 100 100	33, 68, 138, 187	0
44	DN	139/140 (99%)	0.28	2 (1%) 75 69	75, 116, 173, 200	0
45	BO	122/122 (100%)	-0.40	0 100 100	30, 69, 107, 139	0
45	DO	122/122 (100%)	-0.19	0 100 100	59, 105, 137, 157	0
46	BP	146/150 (97%)	-0.07	2 (1%) 75 69	25, 84, 158, 188	0
46	DP	146/150 (97%)	0.16	5 (3%) 45 40	51, 108, 169, 200	0
47	BQ	141/141 (100%)	-0.33	2 (1%) 75 69	41, 69, 130, 200	0
47	DQ	141/141 (100%)	0.04	4 (2%) 53 47	66, 115, 166, 200	0
48	BR	117/118 (99%)	-0.39	0 100 100	21, 62, 114, 165	0
48	DR	117/118 (99%)	-0.16	1 (0%) 84 79	37, 89, 131, 173	0
49	BS	99/112 (88%)	-0.00	1 (1%) 82 77	43, 83, 138, 181	0
49	DS	99/112 (88%)	0.54	9 (9%) 9 9	80, 128, 179, 200	0
50	BT	138/146 (94%)	-0.32	3 (2%) 62 56	40, 86, 164, 195	0
50	DT	138/146 (94%)	-0.05	3 (2%) 62 56	74, 116, 173, 200	0
51	BU	117/118 (99%)	-0.58	1 (0%) 84 79	23, 55, 106, 158	0
51	DU	117/118 (99%)	-0.15	4 (3%) 45 40	56, 101, 167, 200	0
52	BV	101/101 (100%)	-0.32	0 100 100	29, 76, 135, 200	0
52	DV	101/101 (100%)	0.46	5 (4%) 28 25	55, 135, 177, 200	0
53	BW	113/113 (100%)	-0.32	2 (1%) 68 62	26, 55, 122, 200	0
53	DW	113/113 (100%)	-0.19	1 (0%) 84 79	50, 80, 140, 194	0
54	BX	93/96 (96%)	-0.53	0 100 100	41, 66, 106, 157	0
54	DX	93/96 (96%)	-0.26	0 100 100	42, 86, 118, 150	0
55	BY	101/110 (91%)	0.29	9 (8%) 9 10	42, 88, 178, 200	0
55	DY	101/110 (91%)	0.77	17 (16%) 1 2	49, 107, 181, 200	0
56	BZ	177/206 (85%)	0.19	19 (10%) 6 6	40, 107, 185, 200	0
56	DZ	177/206 (85%)	0.89	28 (15%) 2 2	96, 152, 198, 200	0
All	All	21244/22006 (96%)	0.07	879 (4%) 37 33	21, 102, 183, 200	0

All (879) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
37	BC	179	SER	14.1
1	CA	83	U	13.3
56	DZ	112	ARG	11.6
35	BA	888	C	10.7
37	BC	51	PRO	10.4
35	DA	888	C	10.1
56	DZ	175	VAL	9.9
37	BC	166	ASP	9.9
22	AY	17	C	9.1
22	CY	17	C	8.9
37	BC	106	GLY	8.8
37	BC	120	MET	8.6
1	AA	89	C	8.5
1	CA	82	U	8.4
56	DZ	115	GLY	8.1
1	CA	81	U	7.8
35	DA	2795	G	7.7
13	CM	84	ILE	7.7
35	DA	652	C	7.6
1	CA	84	U	7.4
1	CA	89	C	7.4
35	DA	2802	G	7.3
47	DQ	140	ALA	7.3
35	BA	896	A	7.2
12	CL	129	ALA	7.2
35	BA	652	C	7.0
37	DC	165	ASN	6.9
43	BI	88	ILE	6.9
1	AA	80	G	6.9
35	BA	2802	G	6.9
1	CA	80	G	6.8
19	CS	82	GLY	6.8
47	BQ	140	ALA	6.8
35	DA	2799	C	6.6
22	CY	16	U	6.5
35	DA	2796	U	6.5
13	CM	123	ALA	6.4
56	DZ	176	PRO	6.4
1	AA	88	A	6.3
55	BY	59	GLY	6.3
1	AA	1001(A)	G	6.3
21	CU	18	TYR	6.2
37	BC	148	ASN	6.2

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Mol	Chain	Res	Type	RSRZ
37	DC	56	GLN	6.2
13	CM	119	GLY	6.2
56	BZ	175	VAL	6.2
34	D9	25	VAL	6.2
37	BC	176	GLY	6.1
34	D9	12	ASP	6.0
42	DH	52	VAL	6.0
7	AG	84	ASN	6.0
30	D5	59	GLU	6.0
35	BA	2116	G	5.9
47	DQ	141	GLN	5.8
42	BH	42	ARG	5.8
10	CJ	29	ARG	5.8
37	DC	166	ASP	5.7
37	BC	45	ALA	5.7
56	BZ	115	GLY	5.7
37	BC	178	ALA	5.6
1	CA	88	A	5.6
13	CM	124	PRO	5.6
37	BC	44	HIS	5.6
37	BC	119	VAL	5.5
35	BA	2799	C	5.5
55	BY	51	VAL	5.5
37	DC	176	GLY	5.5
34	D9	11	CYS	5.5
43	BI	92	VAL	5.5
42	DH	170	ARG	5.5
28	D3	1	MET	5.5
1	CA	1030(B)	C	5.5
19	CS	81	ARG	5.4
37	DC	148	ASN	5.4
35	BA	886	C	5.3
37	DC	72	VAL	5.3
35	BA	884	C	5.3
34	D9	15	LYS	5.2
34	B9	29	ASN	5.2
37	DC	57	ASN	5.2
55	DY	44	ILE	5.2
22	AY	16	U	5.2
13	AM	124	PRO	5.2
13	CM	7	VAL	5.1
13	AM	123	ALA	5.1

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Mol	Chain	Res	Type	RSRZ
42	DH	128	PRO	5.1
37	BC	121	GLY	5.1
37	DC	135	GLY	5.1
37	BC	53	ARG	5.1
13	CM	120	LYS	5.1
30	B5	60	VAL	5.1
1	AA	81	U	5.0
42	DH	103	LEU	5.0
42	DH	56	SER	5.0
17	CQ	101	ARG	5.0
55	BY	52	SER	5.0
42	DH	57	ASP	5.0
37	DC	90	GLY	5.0
34	D9	37	GLY	5.0
1	CA	1002	G	5.0
35	DA	1046	A	4.9
30	B5	59	GLU	4.9
7	AG	156	TRP	4.9
43	BI	130	TYR	4.9
28	B3	1	MET	4.8
34	D9	24	TYR	4.8
35	DA	2803	C	4.8
42	DH	24	VAL	4.8
35	DA	883	G	4.8
34	D9	28	GLU	4.8
35	DA	885	C	4.8
37	BC	109	ASP	4.7
11	AK	129	SER	4.7
35	BA	885	C	4.7
46	BP	149	GLU	4.7
34	D9	34	GLN	4.7
28	D3	60	GLU	4.7
35	BA	883	G	4.7
37	BC	133	PRO	4.7
10	CJ	34	VAL	4.7
35	DA	886	C	4.6
19	CS	38	SER	4.6
37	BC	139	ASN	4.6
43	BI	120	ILE	4.6
37	BC	69	GLY	4.6
17	AQ	101	ARG	4.6
35	DA	884	C	4.6

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Mol	Chain	Res	Type	RSRZ
37	BC	163	PHE	4.6
55	DY	61	ILE	4.5
1	AA	82	U	4.5
12	CL	128	ALA	4.5
31	D6	13	CYS	4.5
20	CT	101	GLY	4.5
55	DY	46	LYS	4.5
37	DC	80	GLY	4.5
37	DC	163	PHE	4.5
35	DA	2801	A	4.5
37	BC	105	ASP	4.5
34	B9	28	GLU	4.4
34	D9	36	GLN	4.4
35	BA	2795	G	4.4
43	DI	72	LEU	4.4
31	D6	31	PRO	4.3
23	CW	17	C	4.3
1	CA	91	C	4.3
37	BC	52	ARG	4.3
37	DC	106	GLY	4.3
1	AA	202	U	4.3
35	BA	1509	C	4.3
37	DC	59	ARG	4.3
56	DZ	170	THR	4.2
35	BA	275	G	4.2
13	CM	121	LYS	4.2
35	DA	2146	C	4.2
37	DC	133	PRO	4.2
42	DH	55	PRO	4.2
37	DC	140	PRO	4.2
56	BZ	114	GLY	4.2
1	CA	1030	C	4.2
34	D9	16	VAL	4.2
43	BI	119	PRO	4.2
34	D9	13	LYS	4.1
37	DC	51	PRO	4.1
10	CJ	33	GLN	4.1
37	DC	164	ARG	4.1
42	DH	129	THR	4.1
13	AM	84	ILE	4.1
34	D9	29	ASN	4.1
47	BQ	141	GLN	4.1

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Mol	Chain	Res	Type	RSRZ
55	DY	56	PRO	4.1
22	CY	73	A	4.1
34	D9	23	VAL	4.1
43	BI	143	SER	4.0
10	AJ	71	LEU	4.0
11	AK	12	ARG	4.0
37	DC	61	THR	4.0
56	BZ	179	ASP	4.0
42	DH	38	SER	4.0
35	DA	275	G	4.0
34	D9	5	ALA	4.0
37	BC	56	GLN	4.0
35	DA	2794	C	4.0
42	BH	44	VAL	4.0
56	BZ	111	VAL	3.9
19	CS	12	ASP	3.9
11	AK	128	ALA	3.9
37	BC	135	GLY	3.9
37	BC	140	PRO	3.9
35	DA	2801(A)	A	3.9
37	DC	63	SER	3.9
56	BZ	149	SER	3.9
43	BI	56	LYS	3.9
56	DZ	116	VAL	3.9
30	D5	58	LEU	3.9
37	BC	107	TRP	3.9
37	DC	78	ALA	3.9
34	D9	19	ARG	3.8
43	BI	134	PRO	3.8
1	AA	1030(B)	C	3.8
55	DY	51	VAL	3.8
35	BA	2796	U	3.8
56	BZ	110	GLY	3.8
43	BI	83	ALA	3.8
46	DP	150	ALA	3.8
56	DZ	113	ALA	3.8
7	AG	78	ARG	3.8
36	BB	88	C	3.8
1	AA	1002	G	3.8
35	BA	2801	A	3.8
34	D9	14	CYS	3.8
37	DC	60	GLY	3.8

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Mol	Chain	Res	Type	RSRZ
35	DA	2147	G	3.8
10	AJ	73	ASP	3.8
37	BC	63	SER	3.8
2	AB	232	PRO	3.8
15	AO	89	GLY	3.7
37	DC	52	ARG	3.7
35	DA	1043	C	3.7
35	DA	1509	C	3.7
53	BW	112	GLY	3.7
37	BC	37	PHE	3.7
42	DH	67	LEU	3.7
22	CY	20	U	3.7
13	CM	6	GLY	3.7
43	BI	125	GLU	3.7
56	BZ	176	PRO	3.7
37	DC	87	GLU	3.7
42	DH	30	LYS	3.7
34	D9	18	ARG	3.7
13	CM	125	ARG	3.7
46	BP	150	ALA	3.7
37	DC	157	LYS	3.6
3	CC	189	ALA	3.6
1	AA	83	U	3.6
55	BY	48	ALA	3.6
35	DA	896	A	3.6
56	DZ	174	VAL	3.6
43	DI	109	ILE	3.6
10	AJ	72	VAL	3.6
1	AA	1030(C)	G	3.6
3	AC	208	ILE	3.6
11	CK	128	ALA	3.6
56	DZ	111	VAL	3.6
37	BC	19	VAL	3.6
39	DE	76	ARG	3.6
37	DC	105	ASP	3.6
37	DC	107	TRP	3.6
37	DC	110	PHE	3.6
35	BA	2141	G	3.5
34	D9	10	ILE	3.5
10	CJ	10	GLY	3.5
35	DA	2154	G	3.5
7	CG	83	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
31	D6	29	ASN	3.5
56	BZ	177	PRO	3.5
35	DA	2894	G	3.5
1	CA	1001(A)	G	3.5
42	DH	53	GLU	3.5
28	D3	5	LYS	3.5
3	CC	206	GLU	3.5
35	BA	887	A	3.5
37	DC	74	VAL	3.5
43	BI	114	LEU	3.5
14	CN	8	GLU	3.5
35	DA	1176	G	3.5
55	DY	58	GLY	3.5
43	BI	116	LEU	3.5
37	DC	108	MET	3.4
7	CG	82	GLY	3.4
2	AB	133	LYS	3.4
37	DC	77	ILE	3.4
24	AX	12	A	3.4
42	DH	33	LEU	3.4
28	D3	2	PRO	3.4
30	D5	60	VAL	3.4
37	BC	213	TYR	3.4
40	DF	1	MET	3.4
42	BH	45	VAL	3.4
3	CC	207	VAL	3.4
37	BC	136	LEU	3.4
9	CI	127	LYS	3.4
37	DC	95	GLY	3.4
31	D6	46	HIS	3.4
37	BC	92	ASP	3.4
23	AW	47	U	3.4
43	BI	108	THR	3.4
19	AS	81	ARG	3.4
31	D6	42	TRP	3.4
56	DZ	177	PRO	3.4
37	DC	69	GLY	3.3
55	DY	48	ALA	3.3
1	AA	204	U	3.3
43	BI	70	GLU	3.3
21	CU	9	ARG	3.3
34	D9	9	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
43	BI	91	SER	3.3
37	DC	38	ASP	3.3
35	BA	897	C	3.3
43	BI	85	GLU	3.3
49	DS	41	ASP	3.3
24	CX	13	A	3.3
42	DH	47	GLU	3.3
37	DC	174	PRO	3.3
35	BA	2140	C	3.3
35	BA	2145	C	3.3
33	B8	65	GLU	3.3
51	DU	91	ASP	3.3
6	CF	101	ALA	3.3
9	AI	4	TYR	3.3
56	DZ	7	ALA	3.3
1	AA	91	C	3.3
31	D6	12	GLU	3.3
1	CA	90	U	3.3
35	DA	2793	G	3.3
43	BI	117	GLU	3.3
50	BT	2	ASN	3.2
56	DZ	118	GLN	3.2
37	DC	39	GLU	3.2
31	D6	32	ASN	3.2
34	D9	4	ARG	3.2
55	DY	65	ALA	3.2
42	DH	34	GLU	3.2
42	DH	43	VAL	3.2
46	DP	90	ARG	3.2
35	DA	2474	C	3.2
55	DY	45	VAL	3.2
1	CA	723	U	3.2
37	BC	150	GLY	3.2
42	DH	35	VAL	3.2
42	DH	96	ALA	3.2
1	AA	1030(D)	A	3.2
37	DC	62	VAL	3.2
34	D9	35	ARG	3.2
37	DC	53	ARG	3.2
37	DC	103	ILE	3.2
41	BG	182	LYS	3.2
35	DA	2893	G	3.1

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Mol	Chain	Res	Type	RSRZ
2	CB	163	PHE	3.1
34	B9	31	LYS	3.1
37	BC	71	GLN	3.1
42	DH	44	VAL	3.1
1	CA	1027	C	3.1
37	BC	108	MET	3.1
14	CN	32	SER	3.1
37	BC	122	ALA	3.1
56	BZ	112	ARG	3.1
37	BC	43	VAL	3.1
23	CW	47	U	3.1
55	BY	55	TYR	3.1
22	CY	19	G	3.1
1	CA	1007	C	3.1
23	AW	20	U	3.1
37	BC	25	ALA	3.1
7	CG	156	TRP	3.1
42	DH	97	ARG	3.1
22	AY	20	U	3.1
37	BC	162	GLU	3.1
42	BH	168	PRO	3.1
42	BH	171	LEU	3.1
9	CI	82	ALA	3.0
56	DZ	114	GLY	3.0
56	BZ	162	GLU	3.0
37	BC	49	ILE	3.0
37	DC	109	ASP	3.0
55	DY	47	LYS	3.0
35	DA	1173	G	3.0
37	DC	37	PHE	3.0
37	DC	173	ALA	3.0
42	DH	40	GLU	3.0
43	BI	144	VAL	3.0
37	DC	91	ALA	3.0
9	AI	30	GLY	3.0
27	B2	72	ALA	3.0
42	DH	66	GLY	3.0
11	CK	12	ARG	3.0
23	CW	56	C	3.0
42	DH	95	ARG	3.0
46	DP	110	TYR	3.0
56	BZ	173	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
19	CS	80	TYR	3.0
35	DA	2139	C	3.0
1	AA	84	U	3.0
37	BC	180	PHE	3.0
50	BT	1	MET	3.0
31	D6	20	ASN	3.0
7	AG	83	ALA	3.0
37	DC	94	VAL	3.0
43	BI	107	VAL	3.0
31	B6	44	ARG	3.0
37	DC	58	VAL	3.0
12	CL	28	LYS	3.0
37	BC	70	LYS	3.0
50	DT	2	ASN	3.0
35	BA	1531	C	2.9
35	DA	887	A	2.9
1	AA	1033	G	2.9
1	CA	1034	G	2.9
8	CH	27	PRO	2.9
35	DA	882	G	2.9
37	DC	134	ARG	2.9
39	BE	76	ARG	2.9
37	DC	192	PHE	2.9
21	CU	8	THR	2.9
35	DA	1174	A	2.9
10	CJ	6	ILE	2.9
22	CY	22	G	2.9
23	CW	19	G	2.9
55	DY	59	GLY	2.9
42	DH	167	GLU	2.9
1	CA	1037	C	2.9
35	BA	2174	C	2.9
23	AW	36	A	2.9
28	D3	57	GLU	2.9
35	DA	1740	G	2.9
55	BY	61	ILE	2.9
37	DC	177	LYS	2.9
52	DV	46	VAL	2.9
22	AV	47	U	2.9
37	DC	55	ASP	2.9
42	DH	85	LYS	2.9
53	BW	113	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
10	CJ	32	ALA	2.9
20	CT	98	PRO	2.9
41	BG	2	PRO	2.9
37	BC	46	LYS	2.9
42	DH	171	LEU	2.9
37	BC	80	GLY	2.8
42	DH	158	HIS	2.8
10	AJ	23	ILE	2.8
35	BA	2793	G	2.8
31	B6	13	CYS	2.8
37	DC	70	LYS	2.8
5	CE	154	GLY	2.8
37	BC	89	ALA	2.8
37	BC	158	ALA	2.8
1	CA	1030(A)	G	2.8
7	AG	82	GLY	2.8
20	CT	106	ALA	2.8
49	DS	108	GLY	2.8
51	DU	89	GLU	2.8
43	DI	118	LYS	2.8
12	AL	128	ALA	2.8
37	BC	134	ARG	2.8
1	CA	1117	G	2.8
8	CH	54	ASP	2.8
56	BZ	113	ALA	2.8
7	CG	84	ASN	2.8
30	D5	2	ALA	2.8
31	D6	50	ARG	2.8
56	DZ	107	THR	2.8
2	AB	240	GLN	2.8
19	AS	82	GLY	2.8
37	BC	57	ASN	2.8
5	CE	78	HIS	2.8
35	DA	2804	C	2.8
6	AF	101	ALA	2.8
35	BA	1174	A	2.8
35	DA	1044	G	2.8
21	AU	24	ARG	2.8
49	DS	58	LEU	2.8
35	BA	895	U	2.8
1	CA	1003	G	2.8
17	AQ	98	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
31	D6	26	ASN	2.8
35	DA	2145	C	2.8
37	DC	47	LEU	2.8
35	BA	2801(A)	A	2.8
56	DZ	4	ARG	2.8
31	B6	42	TRP	2.8
42	DH	45	VAL	2.7
15	CO	30	ALA	2.7
13	CM	85	GLY	2.7
56	DZ	117	LEU	2.7
37	DC	154	ARG	2.7
31	D6	40	CYS	2.7
56	DZ	149	SER	2.7
21	AU	18	TYR	2.7
35	BA	2132	U	2.7
37	BC	157	LYS	2.7
56	DZ	96	VAL	2.7
35	DA	2896	C	2.7
21	AU	21	TYR	2.7
37	BC	65	PRO	2.7
10	AJ	37	PRO	2.7
55	BY	56	PRO	2.7
49	DS	57	LYS	2.7
10	CJ	73	ASP	2.7
35	BA	2897	U	2.7
56	BZ	116	VAL	2.7
55	DY	52	SER	2.7
37	BC	155	GLU	2.7
35	BA	2139	C	2.7
39	DE	204	ALA	2.7
2	AB	70	PHE	2.7
13	AM	125	ARG	2.7
34	D9	2	LYS	2.7
37	DC	81	GLU	2.7
37	BC	95	GLY	2.7
9	CI	53	VAL	2.7
23	AW	16	U	2.7
35	BA	882	G	2.7
28	D3	59	VAL	2.7
7	CG	5	ARG	2.6
21	CU	2	GLY	2.6
34	B9	32	HIS	2.6

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Mol	Chain	Res	Type	RSRZ
56	BZ	107	THR	2.6
22	AV	44	G	2.6
35	BA	2115	G	2.6
43	BI	63	ALA	2.6
49	DS	48	LEU	2.6
46	DP	149	GLU	2.6
1	CA	204	U	2.6
10	CJ	28	ARG	2.6
14	CN	17	LYS	2.6
31	D6	21	TYR	2.6
37	BC	177	LYS	2.6
35	DA	1045	A	2.6
37	DC	68	LEU	2.6
37	BC	42	GLU	2.6
35	DA	508	G	2.6
12	AL	129	ALA	2.6
37	DC	178	ALA	2.6
1	AA	1027	C	2.6
35	BA	2803	C	2.6
37	BC	167	LYS	2.6
37	DC	187	ASP	2.6
43	BI	71	ILE	2.6
43	BI	146	ALA	2.6
42	DH	26	VAL	2.6
23	CW	44	G	2.6
37	DC	86	ALA	2.6
37	BC	165	ASN	2.6
1	AA	90	U	2.6
23	AW	50	U	2.6
56	BZ	145	GLU	2.6
10	AJ	35	SER	2.6
37	BC	67	GLY	2.6
37	DC	41	VAL	2.6
8	CH	28	ALA	2.6
37	BC	203	GLY	2.6
34	B9	30	PRO	2.6
10	AJ	98	ILE	2.6
35	DA	2155	G	2.6
35	DA	2892	A	2.6
37	DC	158	ALA	2.6
21	CU	25	LYS	2.6
22	AY	19	G	2.5

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Mol	Chain	Res	Type	RSRZ
42	DH	105	LEU	2.5
9	CI	30	GLY	2.5
31	B6	26	ASN	2.5
34	B9	12	ASP	2.5
37	DC	150	GLY	2.5
50	DT	115	ARG	2.5
42	DH	54	ARG	2.5
13	CM	126	LYS	2.5
37	BC	76	ALA	2.5
5	CE	11	ILE	2.5
34	D9	17	ILE	2.5
37	DC	64	LEU	2.5
10	CJ	39	PRO	2.5
11	CK	129	SER	2.5
37	DC	71	GLN	2.5
7	AG	79	ARG	2.5
35	DA	2792	G	2.5
9	AI	2	GLU	2.5
2	CB	77	ALA	2.5
8	CH	50	ARG	2.5
35	BA	877	U	2.5
39	BE	17	ASP	2.5
1	CA	993	G	2.5
35	BA	1176	G	2.5
5	CE	43	LEU	2.5
43	BI	90	GLY	2.5
19	AS	40	ILE	2.5
34	D9	26	ILE	2.5
35	DA	2310	A	2.5
10	AJ	77	PRO	2.5
12	CL	61	THR	2.5
35	BA	2807	G	2.5
56	DZ	150	LEU	2.5
35	DA	2790	A	2.5
22	CY	44	G	2.4
43	DI	111	PRO	2.4
22	CY	45	U	2.4
37	BC	74	VAL	2.4
37	BC	77	ILE	2.4
14	CN	39	LEU	2.4
8	AH	131	GLY	2.4
37	DC	139	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
35	BA	508	G	2.4
56	DZ	67	LEU	2.4
21	CU	17	THR	2.4
37	BC	85	GLU	2.4
1	AA	1031	G	2.4
35	DA	2138	C	2.4
37	BC	110	PHE	2.4
10	AJ	38	ILE	2.4
10	AJ	34	VAL	2.4
37	BC	75	LEU	2.4
42	DH	29	PRO	2.4
7	CG	78	ARG	2.4
9	CI	126	SER	2.4
21	CU	22	ARG	2.4
53	DW	113	LYS	2.4
13	AM	6	GLY	2.4
43	DI	65	ALA	2.4
9	CI	128	ARG	2.4
17	CQ	76	LEU	2.4
21	CU	24	ARG	2.4
1	AA	1030	C	2.4
1	CA	344	A	2.4
49	DS	49	VAL	2.4
35	BA	1173	G	2.4
41	DG	47	LYS	2.4
55	DY	2	ARG	2.4
55	DY	49	VAL	2.4
35	BA	2113	U	2.4
35	DA	895	U	2.4
20	CT	92	LEU	2.4
35	BA	2804	C	2.4
35	DA	1048	A	2.4
41	DG	2	PRO	2.4
43	BI	105	HIS	2.4
10	CJ	74	ILE	2.4
43	BI	122	GLU	2.4
43	DI	68	LEU	2.4
7	AG	85	TYR	2.4
21	AU	26	LYS	2.4
56	DZ	62	PRO	2.4
13	CM	8	GLU	2.4
42	DH	124	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
1	CA	1026	G	2.4
22	AY	71	G	2.4
36	DB	69	G	2.4
37	BC	61	THR	2.4
52	DV	92	THR	2.4
1	CA	1286	A	2.4
37	BC	93	TYR	2.4
42	DH	81	GLU	2.4
37	DC	79	LYS	2.4
55	BY	2	ARG	2.4
37	DC	43	VAL	2.4
39	DE	205	ALA	2.4
42	DH	19	VAL	2.4
1	CA	1129	C	2.4
13	CM	122	LYS	2.4
35	DA	897	C	2.4
37	DC	92	ASP	2.4
51	DU	118	GLY	2.3
2	CB	31	TYR	2.3
37	BC	38	ASP	2.3
37	BC	156	ILE	2.3
37	DC	179	SER	2.3
31	D6	51	GLU	2.3
34	D9	22	ARG	2.3
47	DQ	60	ARG	2.3
55	DY	50	ARG	2.3
1	AA	1531	A	2.3
49	DS	24	LEU	2.3
35	BA	271(K)	U	2.3
35	DA	2895	U	2.3
37	DC	200	LYS	2.3
37	DC	93	TYR	2.3
34	D9	8	LYS	2.3
34	D9	3	VAL	2.3
43	BI	86	THR	2.3
9	CI	4	TYR	2.3
12	CL	33	ARG	2.3
26	D1	85	LEU	2.3
35	BA	2896	C	2.3
34	B9	25	VAL	2.3
50	BT	92	GLY	2.3
37	BC	83	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
38	BD	25	THR	2.3
23	CW	55	U	2.3
42	DH	168	PRO	2.3
49	DS	73	LEU	2.3
52	DV	93	GLU	2.3
2	CB	114	ARG	2.3
8	AH	59	LEU	2.3
42	DH	25	LYS	2.3
1	CA	1030(C)	G	2.3
36	DB	88	C	2.3
42	DH	51	ARG	2.3
44	DN	73	THR	2.3
56	DZ	97	GLU	2.3
22	AV	20	U	2.3
31	B6	24	GLU	2.3
1	AA	1030(A)	G	2.3
22	AY	44	G	2.3
42	DH	60	ARG	2.3
43	BI	80	PRO	2.3
7	AG	5	ARG	2.3
10	AJ	6	ILE	2.3
1	AA	1003	G	2.3
17	CQ	75	ARG	2.3
35	DA	2805	G	2.3
40	BF	133	ASN	2.3
43	DI	61	ARG	2.3
9	CI	102	LEU	2.3
37	BC	145	VAL	2.3
10	AJ	5	ARG	2.3
37	DC	73	ARG	2.3
22	CY	3	C	2.3
23	AW	17	C	2.3
35	BA	2402	C	2.3
35	BA	2794	C	2.3
41	BG	49	ASP	2.3
37	DC	42	GLU	2.2
56	DZ	173	ALA	2.2
43	DI	20	ASP	2.2
44	DN	72	TYR	2.2
35	DA	1762	A	2.2
55	DY	6	HIS	2.2
43	BI	145	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
43	DI	4	ILE	2.2
10	CJ	9	ARG	2.2
19	CS	13	ASP	2.2
21	AU	22	ARG	2.2
22	AY	15	G	2.2
37	DC	96	GLY	2.2
10	CJ	59	SER	2.2
37	BC	103	ILE	2.2
50	DT	91	ARG	2.2
5	CE	155	GLU	2.2
19	CS	69	HIS	2.2
40	DF	134	GLY	2.2
37	BC	172	HIS	2.2
11	CK	127	LYS	2.2
10	AJ	97	GLU	2.2
42	DH	64	LEU	2.2
41	DG	50	ALA	2.2
49	DS	39	ILE	2.2
10	CJ	5	ARG	2.2
1	AA	79	G	2.2
19	CS	70	LYS	2.2
35	DA	1047	G	2.2
9	AI	96	LEU	2.2
25	D0	76	GLY	2.2
10	AJ	7	LYS	2.2
34	B9	13	LYS	2.2
51	DU	117	GLN	2.2
35	DA	352	G	2.2
56	BZ	178	GLU	2.2
1	CA	1006	C	2.2
2	AB	7	VAL	2.2
37	DC	83	ILE	2.2
43	BI	106	GLY	2.2
17	AQ	99	SER	2.2
7	CG	85	TYR	2.2
23	AW	51	U	2.2
56	DZ	41	LEU	2.2
13	AM	126	LYS	2.2
22	CY	21	A	2.2
1	CA	1033	G	2.2
9	CI	61	ALA	2.2
23	AW	52	G	2.2

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Mol	Chain	Res	Type	RSRZ
35	DA	2891	G	2.2
35	DA	1049	C	2.2
9	CI	96	LEU	2.2
56	DZ	108	PRO	2.2
8	AH	25	ASP	2.2
3	CC	193	TYR	2.2
9	CI	19	LEU	2.2
17	AQ	100	LYS	2.2
18	AR	32	ARG	2.2
1	CA	1160	G	2.2
40	BF	1	MET	2.2
56	DZ	148	ASP	2.2
37	DC	75	LEU	2.2
3	CC	205	GLY	2.1
1	CA	994	A	2.1
1	CA	1035	A	2.1
5	AE	24	ARG	2.1
31	D6	44	ARG	2.1
37	BC	55	ASP	2.1
52	DV	5	VAL	2.1
42	BH	167	GLU	2.1
9	AI	21	PRO	2.1
51	BU	118	GLY	2.1
13	CM	27	LYS	2.1
41	DG	69	ALA	2.1
34	B9	23	VAL	2.1
37	BC	125	SER	2.1
37	DC	99	ILE	2.1
2	CB	240	GLN	2.1
10	AJ	70	ARG	2.1
1	CA	1225	A	2.1
3	CC	51	GLY	2.1
35	BA	2173	A	2.1
37	DC	125	SER	2.1
48	DR	118	GLU	2.1
10	CJ	80	LYS	2.1
10	CJ	8	LEU	2.1
40	BF	24	LEU	2.1
35	DA	1042	G	2.1
56	DZ	68	PRO	2.1
1	AA	1129	C	2.1
35	DA	1052	C	2.1

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Mol	Chain	Res	Type	RSRZ
49	BS	54	LEU	2.1
55	BY	50	ARG	2.1
42	DH	94	TYR	2.1
35	DA	2156	G	2.1
19	CS	43	GLU	2.1
13	AM	7	VAL	2.1
16	AP	7	ALA	2.1
35	BA	1509(A)	A	2.1
37	BC	72	VAL	2.1
37	DC	19	VAL	2.1
9	CI	62	TYR	2.1
55	DY	60	PHE	2.1
40	DF	12	LEU	2.1
23	AW	44	G	2.1
41	BG	88	ILE	2.1
15	CO	26	GLU	2.1
24	CX	12	A	2.1
35	BA	548	A	2.1
37	DC	162	GLU	2.1
42	DH	104	GLU	2.1
43	BI	94	ALA	2.1
10	AJ	3	LYS	2.1
10	CJ	35	SER	2.1
56	BZ	170	THR	2.1
25	D0	85	ALA	2.1
35	DA	2791	C	2.1
37	DC	76	ALA	2.1
22	AY	70	G	2.1
35	BA	2123	G	2.1
40	BF	128	ALA	2.1
41	DG	86	MET	2.1
43	DI	138	ILE	2.1
2	AB	122	PHE	2.1
42	DH	32	GLU	2.1
20	AT	56	MET	2.1
21	CU	6	ARG	2.1
7	AG	8	GLU	2.1
56	DZ	144	LEU	2.1
3	CC	180	ALA	2.0
22	CY	71	G	2.0
37	BC	78	ALA	2.0
8	CH	107	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
10	AJ	33	GLN	2.0
42	DH	149	ARG	2.0
21	CU	5	ASP	2.0
43	BI	95	LYS	2.0
47	DQ	139	GLU	2.0
1	CA	1042	G	2.0
9	CI	46	ALA	2.0
35	DA	2131	G	2.0
15	AO	2	PRO	2.0
37	DC	122	ALA	2.0
34	B9	7	VAL	2.0
56	BZ	174	VAL	2.0
2	AB	132	LYS	2.0
23	CW	16	U	2.0
37	BC	84	LYS	2.0
46	DP	109	GLY	2.0
35	BA	2135	A	2.0
40	BF	25	PRO	2.0
8	CH	52	ASP	2.0
22	CV	71	G	2.0
31	D6	22	ALA	2.0
35	BA	1505	C	2.0
52	DV	21	ARG	2.0
42	DH	36	PRO	2.0
43	BI	89	TYR	2.0
10	CJ	22	LYS	2.0
39	DE	69	LYS	2.0
20	AT	103	GLY	2.0
34	B9	11	CYS	2.0
37	BC	50	ASP	2.0
20	CT	99	LEU	2.0
1	AA	68	G	2.0
1	AA	1036	G	2.0
35	DA	2473	U	2.0
37	DC	89	ALA	2.0
10	CJ	76	ASN	2.0
37	BC	181	PRO	2.0
17	CQ	58	GLU	2.0

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

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, 95th 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	PHA	CV	77	11/11	0.87	0.28	121,125,131,132	0
22	PHA	AV	77	11/11	0.90	0.37	121,125,131,132	0
22	PHA	CY	77	11/11	0.92	0.39	42,44,48,152	0
22	8AN	CY	76	22/23	0.94	0.24	29,48,67,71	0
22	8AN	CV	76	22/23	0.95	0.18	12,58,100,116	0
22	8AN	AV	76	22/23	0.97	0.22	12,58,100,116	0
22	8AN	AY	76	22/23	0.97	0.24	29,48,67,71	0
22	PHA	AY	77	11/11	0.97	0.39	42,44,47,48	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	AL	202	1/1	-0.37	0.33	165,165,165,165	0
57	MG	CA	1673	1/1	-0.07	0.63	128,128,128,128	1
57	MG	AA	1672	1/1	-0.07	0.98	125,125,125,125	1
57	MG	BA	3101	1/1	0.07	0.77	72,72,72,72	1
57	MG	CV	104	1/1	0.11	0.40	163,163,163,163	0
57	MG	CA	1602	1/1	0.12	0.75	101,101,101,101	0
57	MG	BA	3235	1/1	0.13	0.61	156,156,156,156	0
57	MG	CA	1721	1/1	0.17	0.46	97,97,97,97	0
57	MG	AA	1737	1/1	0.21	1.75	136,136,136,136	0
57	MG	DA	3128	1/1	0.21	1.31	73,73,73,73	1
57	MG	AW	108	1/1	0.22	0.23	82,82,82,82	1
57	MG	CA	1640	1/1	0.22	0.92	121,121,121,121	0
57	MG	AA	1733	1/1	0.23	0.87	141,141,141,141	0
57	MG	AA	1761	1/1	0.24	0.91	122,122,122,122	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AV	104	1/1	0.24	0.41	127,127,127,127	0
57	MG	BA	3177	1/1	0.27	0.40	112,112,112,112	0
57	MG	AA	1657	1/1	0.28	0.56	121,121,121,121	0
57	MG	AA	1783	1/1	0.29	0.34	105,105,105,105	0
57	MG	DX	102	1/1	0.29	1.07	126,126,126,126	0
57	MG	CA	1649	1/1	0.30	0.41	95,95,95,95	0
57	MG	AA	1757	1/1	0.31	0.85	87,87,87,87	1
57	MG	AA	1603	1/1	0.32	0.70	84,84,84,84	0
57	MG	DA	3369	1/1	0.32	0.41	112,112,112,112	0
57	MG	AW	102	1/1	0.33	0.21	135,135,135,135	0
57	MG	BA	3339	1/1	0.35	0.61	125,125,125,125	1
57	MG	AA	1622	1/1	0.37	0.55	135,135,135,135	0
57	MG	DA	3152	1/1	0.38	0.81	82,82,82,82	0
57	MG	AA	1661	1/1	0.38	0.57	84,84,84,84	0
57	MG	CA	1726	1/1	0.38	0.57	104,104,104,104	1
57	MG	AA	1701	1/1	0.40	0.77	92,92,92,92	0
57	MG	CA	1745	1/1	0.40	0.87	115,115,115,115	0
57	MG	CA	1644	1/1	0.40	0.45	102,102,102,102	0
57	MG	CA	1728	1/1	0.40	0.64	101,101,101,101	0
57	MG	BA	3196	1/1	0.40	0.58	130,130,130,130	1
57	MG	CA	1688	1/1	0.41	0.68	15,15,15,15	1
57	MG	DA	3279	1/1	0.43	0.93	49,49,49,49	1
57	MG	AA	1667	1/1	0.43	0.49	72,72,72,72	0
57	MG	DB	203	1/1	0.44	0.96	33,33,33,33	1
57	MG	BA	3312	1/1	0.45	0.36	102,102,102,102	0
57	MG	AA	1741	1/1	0.45	0.73	124,124,124,124	0
57	MG	CW	107	1/1	0.46	0.21	113,113,113,113	1
57	MG	BA	3251	1/1	0.46	0.37	136,136,136,136	1
57	MG	CA	1680	1/1	0.46	1.13	94,94,94,94	0
57	MG	CA	1683	1/1	0.47	0.48	110,110,110,110	0
57	MG	DA	3392	1/1	0.48	0.62	107,107,107,107	0
57	MG	BA	3420	1/1	0.48	0.12	78,78,78,78	0
57	MG	DA	3192	1/1	0.48	0.63	74,74,74,74	0
57	MG	DA	3293	1/1	0.49	0.24	74,74,74,74	0
57	MG	AA	1798	1/1	0.49	0.56	90,90,90,90	0
57	MG	BA	3270	1/1	0.49	0.45	76,76,76,76	0
57	MG	DX	103	1/1	0.50	0.49	102,102,102,102	0
57	MG	CA	1746	1/1	0.50	0.46	91,91,91,91	0
57	MG	CA	1701	1/1	0.50	0.99	93,93,93,93	0
57	MG	DA	3247	1/1	0.50	0.20	61,61,61,61	0
57	MG	BB	214	1/1	0.51	0.59	75,75,75,75	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3157	1/1	0.51	0.62	79,79,79,79	0
57	MG	AA	1743	1/1	0.51	0.61	86,86,86,86	0
57	MG	AA	1744	1/1	0.52	0.55	84,84,84,84	0
57	MG	AA	1776	1/1	0.52	0.28	103,103,103,103	0
57	MG	AA	1651	1/1	0.53	0.68	70,70,70,70	0
57	MG	DA	3228	1/1	0.53	0.28	83,83,83,83	0
57	MG	CA	1761	1/1	0.54	0.61	74,74,74,74	0
57	MG	CA	1625	1/1	0.55	0.42	96,96,96,96	0
57	MG	DA	3405	1/1	0.55	0.65	53,53,53,53	1
57	MG	AD	301	1/1	0.55	0.45	155,155,155,155	0
57	MG	BA	3158	1/1	0.56	0.72	55,55,55,55	0
57	MG	BA	3373	1/1	0.56	0.61	83,83,83,83	1
57	MG	CA	1771	1/1	0.56	0.76	98,98,98,98	0
57	MG	BA	3327	1/1	0.56	0.85	67,67,67,67	0
57	MG	AG	201	1/1	0.57	0.44	80,80,80,80	0
57	MG	DA	3072	1/1	0.57	0.48	94,94,94,94	0
57	MG	DA	3300	1/1	0.57	0.29	95,95,95,95	0
57	MG	DA	3353	1/1	0.57	0.59	107,107,107,107	0
57	MG	AA	1704	1/1	0.57	0.29	103,103,103,103	0
57	MG	CA	1629	1/1	0.58	0.22	59,59,59,59	0
57	MG	AA	1641	1/1	0.58	0.69	83,83,83,83	0
57	MG	DA	3196	1/1	0.58	0.29	96,96,96,96	0
57	MG	DA	3197	1/1	0.59	0.59	106,106,106,106	0
57	MG	BA	3417	1/1	0.59	0.11	72,72,72,72	0
57	MG	DA	3399	1/1	0.59	0.29	119,119,119,119	0
57	MG	DA	3202	1/1	0.59	1.02	73,73,73,73	0
57	MG	DA	3108	1/1	0.60	0.86	83,83,83,83	0
57	MG	DA	3289	1/1	0.60	1.13	74,74,74,74	0
57	MG	BA	3371	1/1	0.60	0.71	101,101,101,101	0
57	MG	DA	3370	1/1	0.60	0.47	92,92,92,92	0
57	MG	DA	3264	1/1	0.60	0.13	96,96,96,96	0
57	MG	CA	1713	1/1	0.60	0.17	73,73,73,73	0
57	MG	DF	302	1/1	0.60	0.57	91,91,91,91	0
57	MG	AW	107	1/1	0.60	0.40	101,101,101,101	0
57	MG	DA	3246	1/1	0.60	0.48	97,97,97,97	0
57	MG	CA	1655	1/1	0.61	0.56	94,94,94,94	1
57	MG	CA	1705	1/1	0.61	0.40	150,150,150,150	0
57	MG	DA	3276	1/1	0.61	0.76	115,115,115,115	0
57	MG	BA	3279	1/1	0.61	0.29	53,53,53,53	0
57	MG	AA	1738	1/1	0.61	0.36	55,55,55,55	1
57	MG	BA	3349	1/1	0.61	0.70	94,94,94,94	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3032	1/1	0.61	0.52	66,66,66,66	0
57	MG	DA	3136	1/1	0.61	0.89	63,63,63,63	0
57	MG	AA	1749	1/1	0.62	0.38	100,100,100,100	1
57	MG	AA	1796	1/1	0.62	0.56	121,121,121,121	0
57	MG	CA	1668	1/1	0.62	0.98	99,99,99,99	0
57	MG	DA	3106	1/1	0.63	0.45	78,78,78,78	0
57	MG	CA	1754	1/1	0.63	0.53	105,105,105,105	1
57	MG	DA	3414	1/1	0.63	0.40	84,84,84,84	0
57	MG	CA	1793	1/1	0.63	0.33	100,100,100,100	1
57	MG	CA	1727	1/1	0.63	0.83	139,139,139,139	0
57	MG	CA	1739	1/1	0.63	0.49	128,128,128,128	0
57	MG	BA	3416	1/1	0.64	0.30	93,93,93,93	0
57	MG	BA	3342	1/1	0.64	0.29	84,84,84,84	0
57	MG	DA	3321	1/1	0.64	0.62	126,126,126,126	0
57	MG	BA	3331	1/1	0.64	0.43	65,65,65,65	1
57	MG	D7	101	1/1	0.65	0.41	73,73,73,73	0
57	MG	DA	3284	1/1	0.65	0.38	74,74,74,74	0
57	MG	DA	3419	1/1	0.65	0.11	115,115,115,115	0
57	MG	BA	3160	1/1	0.65	0.46	74,74,74,74	0
57	MG	CA	1674	1/1	0.65	0.47	63,63,63,63	1
57	MG	DA	3324	1/1	0.65	0.48	64,64,64,64	1
57	MG	AA	1677	1/1	0.65	0.29	89,89,89,89	0
57	MG	DA	3042	1/1	0.65	0.30	89,89,89,89	0
57	MG	DA	3372	1/1	0.65	0.44	120,120,120,120	1
57	MG	DA	3340	1/1	0.65	0.59	98,98,98,98	1
57	MG	CA	1656	1/1	0.65	0.54	120,120,120,120	0
57	MG	AA	1769	1/1	0.65	0.52	80,80,80,80	0
57	MG	DA	3415	1/1	0.65	0.31	96,96,96,96	0
57	MG	BA	3138	1/1	0.66	1.02	124,124,124,124	0
57	MG	DA	3367	1/1	0.66	0.51	108,108,108,108	0
57	MG	DA	3281	1/1	0.66	0.23	52,52,52,52	0
57	MG	BA	3186	1/1	0.66	0.28	144,144,144,144	0
57	MG	BA	3179	1/1	0.66	1.56	117,117,117,117	0
57	MG	CA	1706	1/1	0.66	0.70	80,80,80,80	0
57	MG	DA	3331	1/1	0.66	0.32	155,155,155,155	1
57	MG	BA	3383	1/1	0.66	1.01	101,101,101,101	0
57	MG	BA	3254	1/1	0.66	0.19	44,44,44,44	0
57	MG	DS	201	1/1	0.67	0.26	74,74,74,74	1
57	MG	CA	1623	1/1	0.67	0.50	71,71,71,71	0
57	MG	AA	1764	1/1	0.67	0.34	64,64,64,64	0
57	MG	BA	3237	1/1	0.67	0.58	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3296	1/1	0.67	0.57	138,138,138,138	0
57	MG	CA	1795	1/1	0.67	0.59	78,78,78,78	0
57	MG	DA	3153	1/1	0.67	0.43	60,60,60,60	1
57	MG	DA	3311	1/1	0.67	0.16	65,65,65,65	1
57	MG	BA	3310	1/1	0.67	0.19	102,102,102,102	1
57	MG	AA	1653	1/1	0.67	0.91	82,82,82,82	0
57	MG	CL	201	1/1	0.68	0.74	91,91,91,91	0
57	MG	BA	3155	1/1	0.68	0.85	116,116,116,116	0
57	MG	BA	3419	1/1	0.68	1.19	90,90,90,90	1
57	MG	AA	1763	1/1	0.68	0.18	62,62,62,62	0
57	MG	BA	3311	1/1	0.68	0.24	74,74,74,74	1
57	MG	DA	3170	1/1	0.68	0.62	60,60,60,60	0
57	MG	CA	1716	1/1	0.68	0.76	68,68,68,68	1
57	MG	CA	1676	1/1	0.68	0.45	71,71,71,71	0
57	MG	CA	1691	1/1	0.68	0.24	110,110,110,110	0
57	MG	AA	1635	1/1	0.68	0.26	92,92,92,92	0
57	MG	BA	3230	1/1	0.68	0.48	97,97,97,97	0
57	MG	BA	3247	1/1	0.69	0.34	49,49,49,49	0
57	MG	DA	3012	1/1	0.69	0.28	45,45,45,45	0
57	MG	DN	201	1/1	0.69	2.50	129,129,129,129	0
57	MG	DA	3267	1/1	0.69	0.17	71,71,71,71	0
57	MG	DB	202	1/1	0.69	0.30	113,113,113,113	0
57	MG	BA	3162	1/1	0.69	0.12	79,79,79,79	0
57	MG	DA	3166	1/1	0.69	0.41	75,75,75,75	0
57	MG	BA	3267	1/1	0.70	0.41	56,56,56,56	0
57	MG	CA	1763	1/1	0.70	0.24	98,98,98,98	0
57	MG	DA	3290	1/1	0.70	1.14	73,73,73,73	0
57	MG	DA	3210	1/1	0.70	0.54	96,96,96,96	0
57	MG	AA	1689	1/1	0.70	0.48	118,118,118,118	0
57	MG	AA	1666	1/1	0.70	0.42	93,93,93,93	0
57	MG	DA	3400	1/1	0.70	0.34	77,77,77,77	0
57	MG	AA	1740	1/1	0.70	0.31	87,87,87,87	0
57	MG	BA	3163	1/1	0.70	0.18	42,42,42,42	0
57	MG	AA	1640	1/1	0.70	0.34	76,76,76,76	0
57	MG	CA	1764	1/1	0.71	0.23	68,68,68,68	1
57	MG	DA	3379	1/1	0.71	0.55	105,105,105,105	0
57	MG	AA	1625	1/1	0.71	0.46	65,65,65,65	0
57	MG	BA	3324	1/1	0.71	0.44	39,39,39,39	1
57	MG	CA	1752	1/1	0.71	0.19	112,112,112,112	1
57	MG	AA	1781	1/1	0.71	0.25	63,63,63,63	0
57	MG	AA	1607	1/1	0.71	0.31	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3216	1/1	0.71	0.33	80,80,80,80	0
57	MG	CA	1786	1/1	0.71	0.12	71,71,71,71	1
57	MG	DA	3139	1/1	0.71	1.40	112,112,112,112	0
57	MG	AX	102	1/1	0.71	0.35	83,83,83,83	0
57	MG	BA	3376	1/1	0.71	0.46	81,81,81,81	0
57	MG	AA	1683	1/1	0.71	0.24	101,101,101,101	0
57	MG	DA	3004	1/1	0.71	0.69	86,86,86,86	0
57	MG	DA	3358	1/1	0.71	0.78	94,94,94,94	0
57	MG	DA	3248	1/1	0.71	0.24	90,90,90,90	0
57	MG	CA	1678	1/1	0.71	0.41	94,94,94,94	0
57	MG	CA	1698	1/1	0.72	0.12	86,86,86,86	0
57	MG	BA	3223	1/1	0.72	0.50	64,64,64,64	0
57	MG	CA	1612	1/1	0.72	0.16	91,91,91,91	0
57	MG	CA	1756	1/1	0.72	0.36	53,53,53,53	0
57	MG	CA	1617	1/1	0.72	0.55	81,81,81,81	0
57	MG	AW	106	1/1	0.72	0.27	102,102,102,102	1
57	MG	AW	105	1/1	0.72	0.41	154,154,154,154	1
57	MG	DA	3160	1/1	0.72	0.44	67,67,67,67	0
57	MG	DC	301	1/1	0.72	0.23	91,91,91,91	1
57	MG	AA	1631	1/1	0.72	0.38	54,54,54,54	0
57	MG	AA	1734	1/1	0.72	0.80	102,102,102,102	0
57	MG	DA	3222	1/1	0.72	0.53	95,95,95,95	0
57	MG	AV	103	1/1	0.72	0.44	81,81,81,81	0
57	MG	AA	1601	1/1	0.72	0.26	90,90,90,90	0
57	MG	BB	201	1/1	0.73	0.38	87,87,87,87	0
57	MG	DA	3328	1/1	0.73	0.55	50,50,50,50	0
57	MG	CA	1709	1/1	0.73	0.35	73,73,73,73	0
57	MG	AA	1706	1/1	0.73	0.43	108,108,108,108	0
57	MG	CA	1609	1/1	0.73	0.66	61,61,61,61	0
57	MG	CA	1666	1/1	0.73	0.67	87,87,87,87	0
57	MG	CA	1643	1/1	0.73	0.19	157,157,157,157	0
57	MG	CA	1682	1/1	0.73	0.73	90,90,90,90	0
57	MG	AA	1777	1/1	0.73	0.29	141,141,141,141	0
57	MG	DA	3273	1/1	0.73	0.19	59,59,59,59	0
57	MG	DA	3161	1/1	0.73	0.35	65,65,65,65	0
57	MG	BA	3283	1/1	0.73	0.25	33,33,33,33	0
57	MG	CA	1798	1/1	0.73	0.23	55,55,55,55	0
57	MG	CA	1711	1/1	0.73	0.16	74,74,74,74	0
57	MG	CA	1731	1/1	0.74	0.31	85,85,85,85	0
57	MG	DA	3229	1/1	0.74	0.62	92,92,92,92	0
57	MG	BA	3345	1/1	0.74	0.41	69,69,69,69	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	1657	1/1	0.74	0.35	86,86,86,86	0
57	MG	BU	201	1/1	0.74	0.40	166,166,166,166	1
57	MG	DA	3304	1/1	0.74	0.42	49,49,49,49	0
57	MG	BA	3297	1/1	0.74	0.76	77,77,77,77	0
57	MG	AA	1721	1/1	0.74	0.49	90,90,90,90	0
57	MG	DA	3291	1/1	0.74	0.25	58,58,58,58	0
57	MG	DA	3188	1/1	0.74	1.99	111,111,111,111	0
57	MG	CA	1685	1/1	0.74	0.20	62,62,62,62	0
57	MG	BA	3291	1/1	0.74	0.37	42,42,42,42	0
57	MG	CA	1660	1/1	0.75	0.35	59,59,59,59	0
57	MG	CA	1690	1/1	0.75	0.85	110,110,110,110	0
57	MG	CA	1780	1/1	0.75	0.55	32,32,32,32	1
57	MG	AA	1707	1/1	0.75	0.31	116,116,116,116	0
57	MG	BA	3264	1/1	0.75	0.27	58,58,58,58	0
57	MG	AA	1754	1/1	0.75	0.34	64,64,64,64	0
57	MG	DA	3393	1/1	0.75	0.52	109,109,109,109	1
57	MG	CA	1645	1/1	0.75	0.73	66,66,66,66	0
57	MG	BA	3195	1/1	0.75	1.13	79,79,79,79	0
57	MG	DA	3049	1/1	0.75	0.77	71,71,71,71	0
57	MG	D2	602	1/1	0.75	0.32	99,99,99,99	0
57	MG	DA	3087	1/1	0.75	0.40	84,84,84,84	0
57	MG	DA	3270	1/1	0.75	0.28	87,87,87,87	0
57	MG	AA	1773	1/1	0.75	0.37	72,72,72,72	0
57	MG	DA	3059	1/1	0.76	0.37	46,46,46,46	0
57	MG	BA	3340	1/1	0.76	0.61	90,90,90,90	1
57	MG	AW	104	1/1	0.76	0.11	60,60,60,60	1
57	MG	BA	3151	1/1	0.76	0.45	45,45,45,45	1
57	MG	DA	3389	1/1	0.76	0.94	113,113,113,113	0
57	MG	CA	1622	1/1	0.76	0.46	117,117,117,117	0
57	MG	AA	1679	1/1	0.76	0.48	56,56,56,56	0
57	MG	CA	1665	1/1	0.76	0.35	68,68,68,68	0
57	MG	AA	1715	1/1	0.76	0.67	39,39,39,39	1
57	MG	DA	3090	1/1	0.76	0.88	77,77,77,77	0
57	MG	DA	3282	1/1	0.76	0.21	50,50,50,50	0
57	MG	DA	3119	1/1	0.76	0.36	86,86,86,86	0
57	MG	AA	1726	1/1	0.76	0.26	71,71,71,71	0
57	MG	AA	1793	1/1	0.76	0.34	91,91,91,91	0
57	MG	BA	3127	1/1	0.76	0.33	44,44,44,44	1
57	MG	DA	3319	1/1	0.76	0.54	102,102,102,102	1
57	MG	DA	3373	1/1	0.76	0.18	98,98,98,98	0
57	MG	BA	3224	1/1	0.76	0.34	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3295	1/1	0.76	0.44	64,64,64,64	0
57	MG	BA	3047	1/1	0.76	0.82	72,72,72,72	0
57	MG	AA	1646	1/1	0.76	0.65	82,82,82,82	0
57	MG	DA	3416	1/1	0.76	0.12	81,81,81,81	0
57	MG	AA	1602	1/1	0.76	0.28	97,97,97,97	0
57	MG	DA	3239	1/1	0.77	0.98	79,79,79,79	0
57	MG	AA	1751	1/1	0.77	0.42	72,72,72,72	1
57	MG	DA	3354	1/1	0.77	0.13	84,84,84,84	0
57	MG	BA	3152	1/1	0.77	0.46	93,93,93,93	0
57	MG	AA	1702	1/1	0.77	1.05	126,126,126,126	0
57	MG	BA	3253	1/1	0.77	0.37	87,87,87,87	0
57	MG	BA	3289	1/1	0.77	0.23	79,79,79,79	0
57	MG	BA	3360	1/1	0.77	0.39	140,140,140,140	0
57	MG	DA	3338	1/1	0.77	0.30	74,74,74,74	0
57	MG	CA	1759	1/1	0.77	0.67	67,67,67,67	1
57	MG	CA	1729	1/1	0.77	0.20	70,70,70,70	1
57	MG	CA	1606	1/1	0.77	0.32	78,78,78,78	0
57	MG	CA	1735	1/1	0.77	0.50	90,90,90,90	0
57	MG	AA	1732	1/1	0.77	0.52	61,61,61,61	0
57	MG	CA	1652	1/1	0.77	0.72	52,52,52,52	0
57	MG	AA	1772	1/1	0.77	0.33	85,85,85,85	0
57	MG	DA	3227	1/1	0.77	1.36	136,136,136,136	0
57	MG	AA	1690	1/1	0.78	0.37	81,81,81,81	0
57	MG	AA	1753	1/1	0.78	0.16	103,103,103,103	0
57	MG	DB	213	1/1	0.78	0.51	93,93,93,93	0
57	MG	DA	3307	1/1	0.78	0.44	51,51,51,51	0
57	MG	D7	102	1/1	0.78	0.84	62,62,62,62	1
57	MG	DA	3198	1/1	0.78	0.38	58,58,58,58	1
57	MG	DA	3122	1/1	0.78	0.68	77,77,77,77	0
57	MG	DA	3299	1/1	0.78	0.52	93,93,93,93	0
57	MG	BA	3200	1/1	0.78	0.25	52,52,52,52	0
57	MG	DA	3259	1/1	0.78	0.35	56,56,56,56	0
57	MG	CA	1765	1/1	0.78	0.26	60,60,60,60	0
57	MG	DA	3260	1/1	0.78	0.99	81,81,81,81	0
57	MG	BA	3418	1/1	0.78	0.08	59,59,59,59	0
57	MG	BA	3176	1/1	0.78	0.40	97,97,97,97	0
57	MG	DA	3135	1/1	0.78	0.28	39,39,39,39	0
57	MG	DA	3006	1/1	0.78	0.42	23,23,23,23	0
57	MG	BA	3143	1/1	0.78	0.31	49,49,49,49	1
57	MG	BA	3067	1/1	0.78	0.76	53,53,53,53	0
57	MG	DA	3033	1/1	0.78	0.40	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3225	1/1	0.78	0.67	128,128,128,128	0
57	MG	BN	201	1/1	0.78	0.62	64,64,64,64	0
57	MG	BA	3353	1/1	0.78	0.47	79,79,79,79	0
57	MG	DA	3217	1/1	0.78	0.26	62,62,62,62	0
57	MG	CA	1725	1/1	0.78	0.34	116,116,116,116	1
57	MG	CA	1632	1/1	0.79	0.34	54,54,54,54	1
57	MG	AA	1621	1/1	0.79	0.26	50,50,50,50	0
57	MG	AA	1681	1/1	0.79	1.02	86,86,86,86	0
57	MG	CA	1647	1/1	0.79	0.52	68,68,68,68	0
57	MG	CA	1654	1/1	0.79	0.59	69,69,69,69	0
57	MG	DA	3243	1/1	0.79	0.73	76,76,76,76	0
57	MG	AA	1643	1/1	0.79	0.30	84,84,84,84	0
57	MG	DA	3111	1/1	0.79	1.59	111,111,111,111	0
57	MG	AA	1795	1/1	0.79	0.51	128,128,128,128	0
57	MG	BA	3399	1/1	0.79	0.58	64,64,64,64	0
57	MG	BA	3006	1/1	0.79	0.91	66,66,66,66	0
57	MG	CA	1613	1/1	0.79	0.54	51,51,51,51	0
57	MG	CA	1684	1/1	0.79	0.10	94,94,94,94	0
57	MG	AA	1700	1/1	0.79	0.64	79,79,79,79	0
57	MG	BA	3241	1/1	0.79	0.51	70,70,70,70	0
57	MG	AA	1775	1/1	0.80	0.57	92,92,92,92	0
57	MG	DA	3315	1/1	0.80	0.32	85,85,85,85	1
57	MG	CA	1740	1/1	0.80	0.44	61,61,61,61	1
57	MG	CA	1720	1/1	0.80	0.23	89,89,89,89	0
57	MG	DA	3342	1/1	0.80	0.27	90,90,90,90	0
57	MG	DB	209	1/1	0.80	0.56	7,7,7,7	1
57	MG	BA	3226	1/1	0.80	0.17	58,58,58,58	0
57	MG	AA	1748	1/1	0.80	0.35	144,144,144,144	1
57	MG	AA	1673	1/1	0.80	1.32	76,76,76,76	1
57	MG	BA	3107	1/1	0.80	0.45	44,44,44,44	0
57	MG	AA	1727	1/1	0.80	0.44	54,54,54,54	1
57	MG	AA	1648	1/1	0.80	0.32	87,87,87,87	0
57	MG	BA	3281	1/1	0.80	0.38	53,53,53,53	0
57	MG	DA	3262	1/1	0.80	0.56	73,73,73,73	0
57	MG	BA	3159	1/1	0.80	0.32	37,37,37,37	0
57	MG	AA	1616	1/1	0.80	0.84	70,70,70,70	0
57	MG	CA	1775	1/1	0.80	0.22	79,79,79,79	0
57	MG	DA	3317	1/1	0.80	0.33	55,55,55,55	1
57	MG	CW	106	1/1	0.81	0.17	86,86,86,86	1
57	MG	BA	3415	1/1	0.81	0.37	77,77,77,77	0
57	MG	AA	1770	1/1	0.81	0.39	163,163,163,163	0
57	MG	CA	1733	1/1	0.81	0.52	81,81,81,81	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	1646	1/1	0.81	0.20	81,81,81,81	0
57	MG	DA	3114	1/1	0.81	0.28	29,29,29,29	0
57	MG	AA	1724	1/1	0.81	0.29	68,68,68,68	1
57	MG	CA	1681	1/1	0.81	0.54	49,49,49,49	0
57	MG	DB	208	1/1	0.81	1.57	76,76,76,76	1
57	MG	BA	3248	1/1	0.81	0.28	50,50,50,50	1
57	MG	DA	3070	1/1	0.81	0.72	94,94,94,94	0
57	MG	DA	3253	1/1	0.81	0.52	86,86,86,86	1
57	MG	BA	3150	1/1	0.81	0.43	64,64,64,64	0
57	MG	DA	3101	1/1	0.81	0.36	67,67,67,67	0
57	MG	CA	1648	1/1	0.81	0.55	83,83,83,83	0
57	MG	DA	3412	1/1	0.81	0.36	74,74,74,74	0
57	MG	DA	3190	1/1	0.81	0.26	67,67,67,67	0
57	MG	CA	1671	1/1	0.81	0.30	58,58,58,58	0
57	MG	DA	3285	1/1	0.81	0.21	71,71,71,71	0
57	MG	CA	1779	1/1	0.81	0.26	115,115,115,115	0
57	MG	DA	3376	1/1	0.81	0.46	110,110,110,110	0
57	MG	DA	3118	1/1	0.81	0.62	62,62,62,62	0
57	MG	BA	3393	1/1	0.81	0.38	74,74,74,74	0
57	MG	DA	3098	1/1	0.81	0.59	38,38,38,38	0
57	MG	BA	3367	1/1	0.81	0.36	1,1,1,1	1
57	MG	AA	1708	1/1	0.81	0.41	72,72,72,72	0
57	MG	AA	1742	1/1	0.81	0.42	100,100,100,100	0
57	MG	DA	3205	1/1	0.81	0.25	37,37,37,37	0
57	MG	CA	1615	1/1	0.82	1.52	70,70,70,70	0
57	MG	DA	3238	1/1	0.82	0.33	56,56,56,56	0
57	MG	BA	3368	1/1	0.82	0.22	61,61,61,61	0
57	MG	DA	3349	1/1	0.82	0.32	41,41,41,41	1
57	MG	BA	3285	1/1	0.82	0.54	89,89,89,89	0
57	MG	AA	1617	1/1	0.82	0.71	51,51,51,51	0
57	MG	CA	1742	1/1	0.82	0.21	70,70,70,70	0
57	MG	DA	3147	1/1	0.82	0.32	59,59,59,59	0
57	MG	DA	3406	1/1	0.82	0.18	51,51,51,51	0
57	MG	CA	1788	1/1	0.82	0.24	75,75,75,75	0
57	MG	AA	1705	1/1	0.82	0.51	63,63,63,63	0
57	MG	DA	3138	1/1	0.82	0.28	68,68,68,68	0
57	MG	BA	3041	1/1	0.82	0.29	96,96,96,96	0
57	MG	BA	3366	1/1	0.82	0.46	112,112,112,112	0
57	MG	CW	102	1/1	0.82	0.10	112,112,112,112	0
57	MG	CA	1694	1/1	0.82	0.37	116,116,116,116	0
57	MG	DA	3327	1/1	0.82	0.98	64,64,64,64	1
57	MG	BA	3406	1/1	0.82	0.27	38,38,38,38	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3297	1/1	0.82	0.45	71,71,71,71	0
57	MG	AV	105	1/1	0.82	0.77	89,89,89,89	0
57	MG	BA	3110	1/1	0.82	0.21	44,44,44,44	0
57	MG	DA	3172	1/1	0.82	0.27	58,58,58,58	0
57	MG	DA	3240	1/1	0.82	0.47	56,56,56,56	0
57	MG	BA	3100	1/1	0.82	0.48	49,49,49,49	0
57	MG	DA	3051	1/1	0.82	0.26	75,75,75,75	0
57	MG	AA	1759	1/1	0.82	0.36	96,96,96,96	0
57	MG	AA	1655	1/1	0.82	0.36	74,74,74,74	0
57	MG	AA	1762	1/1	0.82	0.40	80,80,80,80	1
57	MG	DA	3226	1/1	0.82	0.33	88,88,88,88	0
57	MG	DA	3294	1/1	0.82	0.26	54,54,54,54	0
57	MG	AA	1731	1/1	0.82	0.54	73,73,73,73	1
57	MG	B0	101	1/1	0.82	0.31	50,50,50,50	0
57	MG	DA	3398	1/1	0.83	0.61	86,86,86,86	0
57	MG	CA	1736	1/1	0.83	0.53	73,73,73,73	0
57	MG	BA	3188	1/1	0.83	0.24	64,64,64,64	0
57	MG	CA	1669	1/1	0.83	0.33	81,81,81,81	0
57	MG	DA	3341	1/1	0.83	0.27	54,54,54,54	0
57	MG	DA	3195	1/1	0.83	0.16	89,89,89,89	0
57	MG	BA	3014	1/1	0.83	0.23	61,61,61,61	0
57	MG	DA	3144	1/1	0.83	0.38	63,63,63,63	1
57	MG	AA	1710	1/1	0.83	0.27	71,71,71,71	0
57	MG	DA	3225	1/1	0.83	0.57	71,71,71,71	0
57	MG	AA	1623	1/1	0.83	0.54	70,70,70,70	0
57	MG	CA	1664	1/1	0.83	0.54	53,53,53,53	0
57	MG	BA	3080	1/1	0.83	0.29	26,26,26,26	0
57	MG	DA	3154	1/1	0.83	0.32	60,60,60,60	0
57	MG	BA	3305	1/1	0.83	1.33	101,101,101,101	0
57	MG	AA	1682	1/1	0.83	0.40	131,131,131,131	0
57	MG	DA	3019	1/1	0.83	0.50	29,29,29,29	0
57	MG	AA	1758	1/1	0.83	0.30	97,97,97,97	0
57	MG	BA	3250	1/1	0.83	0.23	76,76,76,76	0
57	MG	BA	3211	1/1	0.83	0.17	40,40,40,40	0
57	MG	DA	3214	1/1	0.83	0.26	129,129,129,129	0
57	MG	DA	3365	1/1	0.83	0.26	19,19,19,19	0
57	MG	DA	3123	1/1	0.84	0.40	89,89,89,89	0
57	MG	CA	1630	1/1	0.84	0.29	84,84,84,84	0
57	MG	AA	1684	1/1	0.84	0.19	74,74,74,74	0
57	MG	BA	3282	1/1	0.84	0.51	23,23,23,23	0
57	MG	BA	3290	1/1	0.84	0.62	78,78,78,78	1
57	MG	DA	3212	1/1	0.84	0.94	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3177	1/1	0.84	0.48	77,77,77,77	0
57	MG	CV	105	1/1	0.84	0.14	65,65,65,65	0
57	MG	BA	3394	1/1	0.84	0.41	81,81,81,81	1
57	MG	B5	102	1/1	0.84	0.49	58,58,58,58	1
57	MG	BA	3212	1/1	0.84	0.36	88,88,88,88	0
57	MG	DA	3223	1/1	0.84	0.64	46,46,46,46	1
57	MG	BA	3317	1/1	0.84	0.16	167,167,167,167	0
57	MG	DA	3127	1/1	0.84	0.46	67,67,67,67	0
57	MG	DA	3002	1/1	0.84	0.23	69,69,69,69	0
57	MG	CA	1757	1/1	0.84	0.49	128,128,128,128	0
57	MG	DA	3213	1/1	0.84	0.37	89,89,89,89	0
57	MG	DA	3256	1/1	0.84	0.26	79,79,79,79	0
57	MG	BB	207	1/1	0.84	0.43	29,29,29,29	1
57	MG	BA	3322	1/1	0.84	0.67	42,42,42,42	1
57	MG	AA	1668	1/1	0.84	0.29	51,51,51,51	0
57	MG	CA	1767	1/1	0.84	0.23	97,97,97,97	0
57	MG	BA	3275	1/1	0.84	0.58	98,98,98,98	0
57	MG	CA	1778	1/1	0.84	0.37	66,66,66,66	0
57	MG	CA	1782	1/1	0.84	0.33	77,77,77,77	0
57	MG	DA	3312	1/1	0.84	0.20	56,56,56,56	1
57	MG	DA	3015	1/1	0.84	0.45	79,79,79,79	0
57	MG	D2	601	1/1	0.84	0.30	35,35,35,35	1
57	MG	BA	3228	1/1	0.84	0.41	51,51,51,51	0
57	MG	DA	3221	1/1	0.85	0.52	50,50,50,50	0
57	MG	BA	3338	1/1	0.85	0.35	52,52,52,52	0
57	MG	CV	103	1/1	0.85	0.59	74,74,74,74	0
57	MG	CA	1714	1/1	0.85	0.12	62,62,62,62	0
57	MG	BA	3326	1/1	0.85	0.28	46,46,46,46	1
57	MG	BA	3313	1/1	0.85	0.31	162,162,162,162	0
57	MG	CA	1700	1/1	0.85	0.09	101,101,101,101	0
57	MG	AA	1654	1/1	0.85	0.29	52,52,52,52	1
57	MG	DA	3388	1/1	0.85	0.25	68,68,68,68	0
57	MG	CA	1753	1/1	0.85	0.35	130,130,130,130	1
57	MG	CA	1785	1/1	0.85	0.30	95,95,95,95	0
57	MG	BA	3048	1/1	0.85	0.67	33,33,33,33	0
57	MG	BA	3220	1/1	0.85	0.49	95,95,95,95	0
57	MG	BA	3351	1/1	0.85	0.25	135,135,135,135	0
57	MG	AA	1790	1/1	0.85	0.13	63,63,63,63	0
57	MG	AA	1735	1/1	0.85	0.29	108,108,108,108	0
57	MG	BB	213	1/1	0.85	0.32	87,87,87,87	0
57	MG	DA	3162	1/1	0.85	0.27	77,77,77,77	0
57	MG	DA	3164	1/1	0.85	0.21	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3325	1/1	0.85	0.30	83,83,83,83	1
57	MG	DA	3408	1/1	0.85	0.38	44,44,44,44	0
57	MG	BA	3187	1/1	0.85	0.41	108,108,108,108	0
57	MG	AA	1670	1/1	0.85	0.38	49,49,49,49	0
57	MG	DA	3329	1/1	0.85	0.42	140,140,140,140	0
57	MG	BA	3356	1/1	0.85	0.19	41,41,41,41	0
57	MG	AA	1656	1/1	0.86	0.76	97,97,97,97	0
57	MG	BA	3389	1/1	0.86	0.35	62,62,62,62	0
57	MG	BA	3244	1/1	0.86	0.36	88,88,88,88	0
57	MG	BA	3001	1/1	0.86	0.22	33,33,33,33	0
57	MG	AA	1712	1/1	0.86	0.30	61,61,61,61	0
57	MG	DA	3178	1/1	0.86	0.21	88,88,88,88	0
57	MG	AN	101	1/1	0.86	0.24	50,50,50,50	0
57	MG	DA	3339	1/1	0.86	0.29	57,57,57,57	1
57	MG	BA	3170	1/1	0.86	0.34	61,61,61,61	0
57	MG	DA	3301	1/1	0.86	0.77	84,84,84,84	0
57	MG	DA	3020	1/1	0.86	0.33	59,59,59,59	0
57	MG	BA	3167	1/1	0.86	0.37	32,32,32,32	1
57	MG	CA	1799	1/1	0.86	0.32	75,75,75,75	0
57	MG	CA	1614	1/1	0.86	1.00	89,89,89,89	0
57	MG	AA	1664	1/1	0.86	0.33	47,47,47,47	0
57	MG	BA	3194	1/1	0.86	0.27	42,42,42,42	0
57	MG	CA	1777	1/1	0.86	1.28	135,135,135,135	0
57	MG	BA	3252	1/1	0.86	0.27	79,79,79,79	0
57	MG	CA	1719	1/1	0.86	0.62	93,93,93,93	0
57	MG	CA	1773	1/1	0.86	0.76	55,55,55,55	0
57	MG	CA	1737	1/1	0.86	0.26	87,87,87,87	0
57	MG	BB	202	1/1	0.86	0.38	92,92,92,92	0
57	MG	CA	1686	1/1	0.86	0.33	43,43,43,43	0
57	MG	DA	3249	1/1	0.86	0.37	60,60,60,60	0
57	MG	DA	3001	1/1	0.86	0.18	42,42,42,42	0
57	MG	DA	3383	1/1	0.86	0.39	67,67,67,67	0
57	MG	DA	3255	1/1	0.86	0.27	61,61,61,61	0
57	MG	BA	3384	1/1	0.86	0.35	53,53,53,53	0
57	MG	AA	1771	1/1	0.86	0.53	40,40,40,40	0
57	MG	BA	3010	1/1	0.86	0.40	41,41,41,41	0
57	MG	DA	3146	1/1	0.86	0.31	55,55,55,55	0
57	MG	DA	3182	1/1	0.86	0.59	60,60,60,60	0
57	MG	CA	1677	1/1	0.87	0.14	48,48,48,48	0
57	MG	DB	211	1/1	0.87	0.25	119,119,119,119	0
57	MG	DA	3007	1/1	0.87	0.71	59,59,59,59	0
57	MG	CA	1783	1/1	0.87	0.37	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3252	1/1	0.87	0.12	95,95,95,95	0
57	MG	DA	3179	1/1	0.87	0.18	80,80,80,80	0
57	MG	DA	3218	1/1	0.87	0.40	94,94,94,94	0
57	MG	DA	3086	1/1	0.87	0.29	56,56,56,56	0
57	MG	DA	3132	1/1	0.87	0.34	41,41,41,41	0
57	MG	DA	3175	1/1	0.87	0.20	63,63,63,63	0
57	MG	DA	3121	1/1	0.87	0.41	83,83,83,83	0
57	MG	DV	201	1/1	0.87	0.28	70,70,70,70	0
57	MG	AA	1722	1/1	0.87	0.15	75,75,75,75	0
57	MG	BA	3257	1/1	0.87	0.58	61,61,61,61	0
57	MG	BA	3318	1/1	0.87	0.36	70,70,70,70	1
57	MG	DO	201	1/1	0.87	0.37	85,85,85,85	0
57	MG	D5	101	1/1	0.87	0.24	51,51,51,51	0
57	MG	DA	3216	1/1	0.87	0.50	74,74,74,74	0
57	MG	AW	101	1/1	0.87	0.26	157,157,157,157	0
57	MG	DA	3116	1/1	0.87	0.75	50,50,50,50	0
57	MG	AA	1713	1/1	0.87	0.15	53,53,53,53	0
57	MG	DA	3269	1/1	0.87	0.36	47,47,47,47	0
57	MG	DA	3201	1/1	0.87	1.32	88,88,88,88	0
57	MG	BA	3121	1/1	0.87	0.34	40,40,40,40	0
57	MG	CA	1661	1/1	0.87	0.59	56,56,56,56	0
57	MG	CA	1708	1/1	0.87	0.11	89,89,89,89	0
57	MG	DA	3413	1/1	0.87	0.21	84,84,84,84	0
57	MG	DA	3092	1/1	0.87	0.37	46,46,46,46	0
57	MG	DA	3266	1/1	0.87	0.24	84,84,84,84	0
57	MG	AA	1750	1/1	0.87	0.29	62,62,62,62	1
57	MG	DA	3272	1/1	0.87	0.53	108,108,108,108	0
57	MG	CA	1707	1/1	0.87	0.34	119,119,119,119	0
57	MG	CA	1687	1/1	0.88	0.44	84,84,84,84	0
57	MG	BA	3277	1/1	0.88	0.78	35,35,35,35	1
57	MG	DA	3351	1/1	0.88	0.49	94,94,94,94	0
57	MG	AA	1729	1/1	0.88	0.46	69,69,69,69	0
57	MG	AA	1755	1/1	0.88	0.35	84,84,84,84	0
57	MG	AA	1797	1/1	0.88	0.53	53,53,53,53	0
57	MG	BA	3137	1/1	0.88	0.18	33,33,33,33	0
57	MG	BA	3131	1/1	0.88	0.26	31,31,31,31	0
57	MG	DA	3057	1/1	0.88	0.26	31,31,31,31	0
57	MG	BA	3003	1/1	0.88	0.89	85,85,85,85	0
57	MG	CA	1768	1/1	0.88	0.35	72,72,72,72	0
57	MG	CA	1755	1/1	0.88	0.16	107,107,107,107	0
57	MG	BA	3120	1/1	0.88	0.32	90,90,90,90	0
57	MG	DB	205	1/1	0.88	0.12	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	1766	1/1	0.88	0.15	96,96,96,96	0
57	MG	BA	3135	1/1	0.88	0.67	36,36,36,36	0
57	MG	BA	3403	1/1	0.88	0.23	65,65,65,65	0
57	MG	AA	1644	1/1	0.88	0.32	110,110,110,110	0
57	MG	BA	3118	1/1	0.88	0.24	68,68,68,68	0
57	MG	DA	3141	1/1	0.88	0.43	67,67,67,67	0
57	MG	AA	1611	1/1	0.88	0.20	63,63,63,63	0
57	MG	DA	3277	1/1	0.88	0.67	63,63,63,63	0
57	MG	BA	3334	1/1	0.88	0.35	79,79,79,79	0
57	MG	DA	3047	1/1	0.88	0.34	28,28,28,28	0
57	MG	AA	1720	1/1	0.88	0.28	137,137,137,137	0
57	MG	DA	3346	1/1	0.88	0.23	54,54,54,54	0
57	MG	DB	207	1/1	0.88	0.31	49,49,49,49	1
57	MG	CA	1702	1/1	0.88	0.40	66,66,66,66	0
57	MG	AA	1659	1/1	0.88	0.36	42,42,42,42	0
57	MG	DA	3169	1/1	0.88	0.52	43,43,43,43	1
57	MG	DA	3073	1/1	0.88	0.19	36,36,36,36	0
57	MG	BA	3246	1/1	0.88	0.21	74,74,74,74	0
57	MG	DA	3352	1/1	0.88	0.49	20,20,20,20	1
57	MG	DA	3035	1/1	0.88	0.12	55,55,55,55	0
57	MG	CA	1738	1/1	0.88	0.24	62,62,62,62	0
57	MG	AA	1634	1/1	0.88	0.79	73,73,73,73	0
57	MG	CA	1776	1/1	0.88	0.18	46,46,46,46	0
57	MG	CA	1667	1/1	0.88	0.48	55,55,55,55	0
57	MG	CA	1616	1/1	0.88	0.41	43,43,43,43	0
57	MG	AA	1695	1/1	0.88	0.16	52,52,52,52	0
57	MG	BA	3320	1/1	0.89	0.25	141,141,141,141	0
57	MG	DA	3375	1/1	0.89	0.16	83,83,83,83	0
57	MG	DA	3265	1/1	0.89	0.27	71,71,71,71	0
57	MG	DF	301	1/1	0.89	0.12	56,56,56,56	0
57	MG	CA	1611	1/1	0.89	0.36	110,110,110,110	0
57	MG	BA	3382	1/1	0.89	0.23	31,31,31,31	0
57	MG	DA	3063	1/1	0.89	0.50	32,32,32,32	0
57	MG	BO	201	1/1	0.89	0.23	29,29,29,29	0
57	MG	AA	1739	1/1	0.89	0.29	115,115,115,115	0
57	MG	BA	3153	1/1	0.89	0.40	20,20,20,20	1
57	MG	BA	3071	1/1	0.89	0.30	52,52,52,52	0
57	MG	BA	3242	1/1	0.89	0.49	60,60,60,60	0
57	MG	AA	1645	1/1	0.89	0.53	41,41,41,41	0
57	MG	DA	3263	1/1	0.89	0.86	69,69,69,69	0
57	MG	DA	3183	1/1	0.89	0.29	96,96,96,96	0
57	MG	DA	3387	1/1	0.89	0.52	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3266	1/1	0.89	0.32	50,50,50,50	0
57	MG	BA	3323	1/1	0.89	0.34	86,86,86,86	1
57	MG	BA	3314	1/1	0.89	0.43	92,92,92,92	1
57	MG	AA	1792	1/1	0.89	0.51	58,58,58,58	0
57	MG	CA	1789	1/1	0.89	0.56	64,64,64,64	1
57	MG	AA	1693	1/1	0.89	0.15	54,54,54,54	0
57	MG	DA	3150	1/1	0.89	0.30	65,65,65,65	1
57	MG	AA	1752	1/1	0.89	0.32	120,120,120,120	1
57	MG	BA	3296	1/1	0.89	0.21	66,66,66,66	0
57	MG	CA	1603	1/1	0.89	0.20	68,68,68,68	0
57	MG	DA	3021	1/1	0.89	0.17	35,35,35,35	0
57	MG	DA	3283	1/1	0.89	0.26	77,77,77,77	0
57	MG	CW	101	1/1	0.89	0.41	144,144,144,144	0
57	MG	AA	1703	1/1	0.89	0.14	38,38,38,38	0
57	MG	CA	1634	1/1	0.89	0.59	53,53,53,53	0
57	MG	DA	3165	1/1	0.89	0.20	78,78,78,78	0
57	MG	BA	3288	1/1	0.90	0.74	59,59,59,59	0
57	MG	DA	3401	1/1	0.90	0.15	57,57,57,57	0
57	MG	BA	3375	1/1	0.90	0.22	21,21,21,21	1
57	MG	DX	101	1/1	0.90	0.34	45,45,45,45	0
57	MG	CX	103	1/1	0.90	0.23	108,108,108,108	0
57	MG	D1	101	1/1	0.90	0.21	29,29,29,29	1
57	MG	BA	3164	1/1	0.90	0.18	56,56,56,56	0
57	MG	DA	3292	1/1	0.90	0.89	51,51,51,51	1
57	MG	DA	3306	1/1	0.90	0.17	51,51,51,51	0
57	MG	BA	3380	1/1	0.90	0.69	54,54,54,54	0
57	MG	AA	1620	1/1	0.90	0.15	54,54,54,54	0
57	MG	DA	3335	1/1	0.90	0.26	80,80,80,80	0
57	MG	DA	3054	1/1	0.90	0.46	90,90,90,90	0
57	MG	AA	1728	1/1	0.90	0.30	67,67,67,67	0
57	MG	BA	3201	1/1	0.90	0.11	35,35,35,35	0
57	MG	BA	3180	1/1	0.90	0.38	50,50,50,50	0
57	MG	BA	3215	1/1	0.90	0.31	33,33,33,33	0
57	MG	AA	1671	1/1	0.90	0.30	73,73,73,73	0
57	MG	BA	3004	1/1	0.90	0.33	42,42,42,42	0
57	MG	CA	1750	1/1	0.90	0.37	77,77,77,77	1
57	MG	DA	3224	1/1	0.90	0.17	85,85,85,85	0
57	MG	BA	3387	1/1	0.90	0.65	119,119,119,119	0
57	MG	BA	3301	1/1	0.90	0.37	57,57,57,57	0
57	MG	CA	1604	1/1	0.90	0.18	63,63,63,63	0
57	MG	BA	3243	1/1	0.90	0.16	65,65,65,65	0
57	MG	BA	3236	1/1	0.90	0.19	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	1692	1/1	0.90	0.19	59,59,59,59	0
57	MG	DA	3381	1/1	0.90	0.14	45,45,45,45	0
57	MG	BA	3214	1/1	0.90	0.50	83,83,83,83	0
57	MG	DA	3211	1/1	0.90	0.30	45,45,45,45	0
57	MG	BA	3255	1/1	0.90	0.32	37,37,37,37	0
57	MG	CX	101	1/1	0.90	0.59	123,123,123,123	0
57	MG	CA	1638	1/1	0.90	0.27	42,42,42,42	0
57	MG	BA	3161	1/1	0.90	0.23	86,86,86,86	0
57	MG	BA	3086	1/1	0.90	0.40	32,32,32,32	0
57	MG	DA	3230	1/1	0.90	0.68	71,71,71,71	0
57	MG	BA	3175	1/1	0.90	0.34	46,46,46,46	0
57	MG	BA	3141	1/1	0.90	0.27	56,56,56,56	0
57	MG	DA	3034	1/1	0.90	0.51	52,52,52,52	0
58	PAR	CA	1800	42/42	0.90	0.25	86,91,109,113	0
57	MG	DA	3068	1/1	0.90	0.36	98,98,98,98	0
57	MG	DA	3194	1/1	0.90	0.12	59,59,59,59	0
57	MG	CA	1635	1/1	0.91	0.19	74,74,74,74	0
57	MG	DA	3031	1/1	0.91	0.34	41,41,41,41	0
57	MG	AL	201	1/1	0.91	0.38	81,81,81,81	0
57	MG	AA	1766	1/1	0.91	0.27	67,67,67,67	0
57	MG	BA	3172	1/1	0.91	0.21	52,52,52,52	0
57	MG	BA	3365	1/1	0.91	0.19	1,1,1,1	0
57	MG	DA	3187	1/1	0.91	0.17	55,55,55,55	0
57	MG	DA	3287	1/1	0.91	0.28	148,148,148,148	0
57	MG	CA	1762	1/1	0.91	0.41	84,84,84,84	0
57	MG	AA	1730	1/1	0.91	0.27	107,107,107,107	0
57	MG	DA	3112	1/1	0.91	0.36	39,39,39,39	0
57	MG	BA	3379	1/1	0.91	0.23	36,36,36,36	0
57	MG	AA	1786	1/1	0.91	0.27	108,108,108,108	0
57	MG	BA	3113	1/1	0.91	0.24	3,3,3,3	0
57	MG	DB	206	1/1	0.91	0.11	75,75,75,75	0
57	MG	CA	1675	1/1	0.91	0.19	92,92,92,92	0
57	MG	BA	3341	1/1	0.91	0.20	40,40,40,40	0
57	MG	DA	3199	1/1	0.91	0.99	101,101,101,101	0
57	MG	DA	3318	1/1	0.91	0.19	138,138,138,138	0
57	MG	CA	1770	1/1	0.91	0.42	94,94,94,94	0
57	MG	BE	301	1/1	0.91	0.22	30,30,30,30	0
57	MG	BA	3134	1/1	0.91	0.20	10,10,10,10	0
57	MG	DA	3278	1/1	0.91	0.29	54,54,54,54	0
57	MG	BA	3249	1/1	0.91	0.41	114,114,114,114	0
57	MG	BA	3390	1/1	0.91	0.27	37,37,37,37	0
57	MG	BA	3402	1/1	0.91	0.11	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	1685	1/1	0.91	0.23	42,42,42,42	0
57	MG	DA	3200	1/1	0.91	0.20	59,59,59,59	0
57	MG	DA	3368	1/1	0.91	0.39	45,45,45,45	1
57	MG	DA	3041	1/1	0.91	0.21	46,46,46,46	0
57	MG	BA	3062	1/1	0.91	0.57	31,31,31,31	0
57	MG	BA	3319	1/1	0.91	0.24	3,3,3,3	1
57	MG	CA	1734	1/1	0.91	0.69	67,67,67,67	0
57	MG	DA	3148	1/1	0.91	0.54	46,46,46,46	0
57	MG	AA	1774	1/1	0.91	0.33	88,88,88,88	0
57	MG	AA	1699	1/1	0.91	0.15	78,78,78,78	0
57	MG	DA	3109	1/1	0.91	0.21	29,29,29,29	0
57	MG	BA	3156	1/1	0.91	0.12	20,20,20,20	0
57	MG	CA	1610	1/1	0.91	0.10	88,88,88,88	0
57	MG	AA	1647	1/1	0.91	0.21	74,74,74,74	0
57	MG	D5	102	1/1	0.91	0.31	39,39,39,39	1
57	MG	CE	201	1/1	0.91	0.15	90,90,90,90	0
57	MG	CA	1749	1/1	0.91	0.16	98,98,98,98	0
57	MG	DA	3402	1/1	0.91	0.41	125,125,125,125	0
57	MG	AA	1628	1/1	0.91	0.10	37,37,37,37	0
57	MG	DA	3142	1/1	0.91	0.47	65,65,65,65	0
57	MG	BA	3171	1/1	0.91	0.11	31,31,31,31	0
57	MG	DA	3396	1/1	0.91	0.21	145,145,145,145	0
57	MG	AA	1723	1/1	0.91	0.74	79,79,79,79	1
57	MG	BA	3409	1/1	0.91	0.36	20,20,20,20	0
57	MG	BA	3217	1/1	0.91	0.25	78,78,78,78	0
57	MG	BF	301	1/1	0.91	0.20	41,41,41,41	0
57	MG	BA	3268	1/1	0.91	0.30	34,34,34,34	0
57	MG	AA	1662	1/1	0.91	0.08	95,95,95,95	0
57	MG	BA	3298	1/1	0.91	0.47	69,69,69,69	0
57	MG	BA	3057	1/1	0.91	0.48	85,85,85,85	0
57	MG	DA	3050	1/1	0.91	0.17	69,69,69,69	1
57	MG	CN	101	1/1	0.91	0.15	57,57,57,57	0
57	MG	CA	1704	1/1	0.91	0.34	114,114,114,114	0
57	MG	DA	3334	1/1	0.92	0.24	72,72,72,72	0
57	MG	CA	1697	1/1	0.92	0.16	72,72,72,72	0
57	MG	BA	3033	1/1	0.92	0.37	33,33,33,33	0
57	MG	BA	3352	1/1	0.92	0.73	23,23,23,23	1
57	MG	CA	1747	1/1	0.92	0.49	62,62,62,62	0
57	MG	CA	1662	1/1	0.92	0.69	80,80,80,80	0
57	MG	BA	3265	1/1	0.92	0.18	30,30,30,30	0
57	MG	AA	1665	1/1	0.92	0.43	53,53,53,53	0
57	MG	BA	3105	1/1	0.92	0.46	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3174	1/1	0.92	0.25	55,55,55,55	0
57	MG	DA	3103	1/1	0.92	0.43	34,34,34,34	0
57	MG	CA	1792	1/1	0.92	0.12	95,95,95,95	0
57	MG	AA	1627	1/1	0.92	0.26	54,54,54,54	0
57	MG	DA	3025	1/1	0.92	0.48	13,13,13,13	0
57	MG	BA	3269	1/1	0.92	0.28	38,38,38,38	0
57	MG	BA	3273	1/1	0.92	0.12	75,75,75,75	0
57	MG	BB	212	1/1	0.92	0.23	31,31,31,31	1
57	MG	DA	3140	1/1	0.92	0.26	90,90,90,90	0
57	MG	BA	3005	1/1	0.92	0.42	7,7,7,7	0
57	MG	DA	3345	1/1	0.92	0.43	43,43,43,43	1
57	MG	DA	3155	1/1	0.92	0.41	21,21,21,21	1
57	MG	DA	3310	1/1	0.92	0.41	54,54,54,54	1
57	MG	AA	1612	1/1	0.92	0.31	67,67,67,67	0
57	MG	DA	3257	1/1	0.92	0.14	52,52,52,52	0
57	MG	BB	204	1/1	0.92	0.25	106,106,106,106	0
57	MG	BA	3231	1/1	0.92	0.67	38,38,38,38	0
57	MG	B2	601	1/1	0.92	0.22	55,55,55,55	1
57	MG	DA	3411	1/1	0.92	0.08	46,46,46,46	0
57	MG	DA	3233	1/1	0.92	0.45	36,36,36,36	0
57	MG	DA	3069	1/1	0.92	0.27	75,75,75,75	0
57	MG	BA	3056	1/1	0.92	0.34	17,17,17,17	0
57	MG	DA	3125	1/1	0.92	0.18	53,53,53,53	0
57	MG	BA	3408	1/1	0.92	0.20	43,43,43,43	0
57	MG	AA	1610	1/1	0.92	0.60	49,49,49,49	0
57	MG	BA	3052	1/1	0.92	0.33	13,13,13,13	0
57	MG	BA	3125	1/1	0.92	0.26	62,62,62,62	0
57	MG	CA	1787	1/1	0.92	0.13	66,66,66,66	0
57	MG	CA	1760	1/1	0.92	0.32	145,145,145,145	0
57	MG	DA	3244	1/1	0.92	0.35	62,62,62,62	0
57	MG	DB	212	1/1	0.92	0.50	99,99,99,99	1
57	MG	BA	3330	1/1	0.92	0.24	85,85,85,85	1
57	MG	CA	1794	1/1	0.92	0.61	81,81,81,81	0
57	MG	BA	3404	1/1	0.92	0.19	56,56,56,56	0
57	MG	BA	3422	1/1	0.92	0.30	120,120,120,120	0
57	MG	DA	3288	1/1	0.92	0.66	37,37,37,37	0
57	MG	DA	3314	1/1	0.92	0.20	141,141,141,141	0
57	MG	AA	1698	1/1	0.92	0.14	42,42,42,42	0
57	MG	AA	1680	1/1	0.92	0.58	53,53,53,53	0
57	MG	DA	3380	1/1	0.92	0.41	52,52,52,52	0
57	MG	AA	1660	1/1	0.92	0.38	43,43,43,43	0
57	MG	AA	1658	1/1	0.92	0.19	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	1658	1/1	0.92	0.23	78,78,78,78	0
57	MG	BA	3210	1/1	0.92	1.03	84,84,84,84	0
57	MG	DA	3028	1/1	0.92	0.44	47,47,47,47	0
57	MG	CA	1627	1/1	0.92	0.34	78,78,78,78	0
57	MG	AA	1745	1/1	0.92	0.47	62,62,62,62	0
57	MG	BA	3361	1/1	0.92	0.13	28,28,28,28	0
57	MG	BA	3193	1/1	0.92	0.18	40,40,40,40	0
57	MG	BB	208	1/1	0.92	1.03	61,61,61,61	1
57	MG	CA	1717	1/1	0.92	0.12	82,82,82,82	0
57	MG	BA	3219	1/1	0.92	0.58	30,30,30,30	0
57	MG	BA	3166	1/1	0.92	0.07	31,31,31,31	0
57	MG	BA	3262	1/1	0.92	0.15	100,100,100,100	0
57	MG	CA	1601	1/1	0.92	0.29	140,140,140,140	0
57	MG	AA	1716	1/1	0.93	0.18	86,86,86,86	0
57	MG	BA	3309	1/1	0.93	0.12	112,112,112,112	1
57	MG	BA	3263	1/1	0.93	0.63	77,77,77,77	0
57	MG	BA	3332	1/1	0.93	0.49	29,29,29,29	0
57	MG	DA	3189	1/1	0.93	0.31	69,69,69,69	0
57	MG	AA	1718	1/1	0.93	0.18	72,72,72,72	0
57	MG	BA	3274	1/1	0.93	0.72	85,85,85,85	0
57	MG	DA	3298	1/1	0.93	0.17	56,56,56,56	0
57	MG	AA	1618	1/1	0.93	0.32	38,38,38,38	0
57	MG	DA	3219	1/1	0.93	0.35	99,99,99,99	0
57	MG	DA	3407	1/1	0.93	0.20	45,45,45,45	0
57	MG	DA	3386	1/1	0.93	0.74	115,115,115,115	0
57	MG	DB	210	1/1	0.93	0.27	74,74,74,74	0
57	MG	DA	3275	1/1	0.93	0.10	98,98,98,98	0
57	MG	BA	3346	1/1	0.93	0.38	67,67,67,67	0
57	MG	BA	3190	1/1	0.93	0.29	51,51,51,51	0
57	MG	BA	3146	1/1	0.93	0.22	57,57,57,57	0
57	MG	BA	3122	1/1	0.93	0.51	94,94,94,94	0
57	MG	AI	201	1/1	0.93	0.24	109,109,109,109	0
57	MG	BA	3271	1/1	0.93	0.49	43,43,43,43	0
57	MG	AA	1756	1/1	0.93	0.27	47,47,47,47	1
57	MG	AA	1765	1/1	0.93	0.21	94,94,94,94	0
57	MG	CA	1693	1/1	0.93	0.12	87,87,87,87	0
57	MG	CA	1718	1/1	0.93	0.15	67,67,67,67	0
57	MG	BA	3302	1/1	0.93	0.24	26,26,26,26	0
57	MG	AE	201	1/1	0.93	0.11	101,101,101,101	0
57	MG	BA	3400	1/1	0.93	0.15	47,47,47,47	0
57	MG	BA	3032	1/1	0.93	0.23	45,45,45,45	0
57	MG	CA	1722	1/1	0.93	0.47	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3401	1/1	0.93	0.29	81,81,81,81	0
57	MG	DA	3149	1/1	0.93	0.29	57,57,57,57	0
57	MG	AA	1663	1/1	0.93	0.57	47,47,47,47	0
57	MG	BA	3017	1/1	0.93	0.19	9,9,9,9	0
57	MG	DA	3029	1/1	0.93	0.41	40,40,40,40	0
57	MG	CA	1672	1/1	0.93	0.23	59,59,59,59	0
57	MG	AA	1760	1/1	0.93	0.43	90,90,90,90	0
57	MG	DA	3395	1/1	0.93	0.41	49,49,49,49	0
57	MG	AA	1669	1/1	0.93	0.27	57,57,57,57	0
57	MG	BA	3126	1/1	0.93	0.27	39,39,39,39	0
57	MG	DA	3080	1/1	0.93	0.14	63,63,63,63	0
57	MG	DA	3336	1/1	0.93	0.17	77,77,77,77	1
57	MG	DA	3027	1/1	0.93	0.42	37,37,37,37	0
57	MG	DA	3232	1/1	0.93	0.27	93,93,93,93	0
57	MG	DA	3384	1/1	0.93	0.23	115,115,115,115	0
57	MG	DA	3053	1/1	0.93	0.17	26,26,26,26	0
57	MG	CA	1699	1/1	0.93	0.14	50,50,50,50	0
57	MG	DA	3308	1/1	0.93	0.17	53,53,53,53	0
57	MG	BA	3192	1/1	0.93	0.17	21,21,21,21	0
57	MG	DA	3071	1/1	0.93	0.56	23,23,23,23	0
57	MG	DA	3085	1/1	0.93	0.14	32,32,32,32	0
57	MG	BA	3124	1/1	0.93	0.25	46,46,46,46	0
57	MG	BA	3053	1/1	0.93	0.47	64,64,64,64	0
57	MG	BA	3133	1/1	0.93	0.22	19,19,19,19	0
57	MG	B7	101	1/1	0.93	0.30	45,45,45,45	1
57	MG	DA	3113	1/1	0.93	0.40	27,27,27,27	0
57	MG	CA	1608	1/1	0.93	0.19	39,39,39,39	0
57	MG	CA	1769	1/1	0.93	0.29	27,27,27,27	0
57	MG	CA	1744	1/1	0.93	0.67	63,63,63,63	0
57	MG	DA	3008	1/1	0.93	0.26	36,36,36,36	0
57	MG	BA	3374	1/1	0.93	0.07	92,92,92,92	0
57	MG	DA	3105	1/1	0.93	0.28	54,54,54,54	0
57	MG	BA	3207	1/1	0.93	0.17	45,45,45,45	0
57	MG	BA	3128	1/1	0.93	0.16	27,27,27,27	0
57	MG	DA	3143	1/1	0.94	0.41	18,18,18,18	0
57	MG	BA	3280	1/1	0.94	0.12	28,28,28,28	0
57	MG	DA	3320	1/1	0.94	0.30	34,34,34,34	1
57	MG	CA	1618	1/1	0.94	0.28	53,53,53,53	0
57	MG	CA	1696	1/1	0.94	0.55	108,108,108,108	0
57	MG	AA	1632	1/1	0.94	0.42	34,34,34,34	1
57	MG	AA	1719	1/1	0.94	0.50	52,52,52,52	0
57	MG	DA	3191	1/1	0.94	0.23	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3115	1/1	0.94	0.26	22,22,22,22	0
57	MG	DA	3158	1/1	0.94	0.53	48,48,48,48	0
57	MG	BA	3208	1/1	0.94	0.44	61,61,61,61	0
57	MG	CA	1637	1/1	0.94	0.12	83,83,83,83	0
57	MG	DA	3100	1/1	0.94	0.20	63,63,63,63	0
57	MG	DA	3350	1/1	0.94	0.12	89,89,89,89	1
57	MG	BA	3168	1/1	0.94	0.49	87,87,87,87	0
57	MG	BA	3221	1/1	0.94	0.59	80,80,80,80	1
57	MG	BA	3284	1/1	0.94	0.65	53,53,53,53	0
57	MG	AA	1768	1/1	0.94	0.43	71,71,71,71	0
57	MG	BA	3091	1/1	0.94	0.47	41,41,41,41	0
57	MG	DA	3099	1/1	0.94	0.29	40,40,40,40	0
57	MG	DD	302	1/1	0.94	0.32	46,46,46,46	0
57	MG	B1	101	1/1	0.94	0.11	41,41,41,41	1
57	MG	CW	105	1/1	0.94	0.32	70,70,70,70	1
57	MG	CA	1659	1/1	0.94	0.18	42,42,42,42	0
57	MG	DA	3048	1/1	0.94	0.67	61,61,61,61	0
57	MG	DA	3040	1/1	0.94	0.20	25,25,25,25	0
57	MG	CA	1772	1/1	0.94	0.24	77,77,77,77	0
57	MG	CA	1741	1/1	0.94	0.20	53,53,53,53	0
57	MG	DA	3362	1/1	0.94	0.35	112,112,112,112	0
57	MG	DA	3397	1/1	0.94	0.74	101,101,101,101	0
57	MG	DA	3046	1/1	0.94	0.54	30,30,30,30	0
57	MG	DA	3134	1/1	0.94	0.20	57,57,57,57	0
57	MG	BA	3144	1/1	0.94	0.22	58,58,58,58	0
57	MG	B2	602	1/1	0.94	0.51	55,55,55,55	0
57	MG	BA	3413	1/1	0.94	0.55	33,33,33,33	0
57	MG	BA	3258	1/1	0.94	0.35	32,32,32,32	0
57	MG	AW	103	1/1	0.94	0.10	106,106,106,106	0
57	MG	BA	3378	1/1	0.94	0.41	8,8,8,8	0
57	MG	DD	301	1/1	0.94	0.26	38,38,38,38	0
57	MG	DA	3176	1/1	0.94	0.35	69,69,69,69	0
57	MG	DA	3421	1/1	0.94	0.20	168,168,168,168	0
57	MG	BA	3085	1/1	0.94	0.24	21,21,21,21	0
57	MG	DA	3005	1/1	0.94	0.27	52,52,52,52	0
57	MG	BA	3204	1/1	0.94	0.24	33,33,33,33	0
57	MG	DA	3003	1/1	0.94	0.22	91,91,91,91	0
57	MG	AA	1794	1/1	0.94	0.16	126,126,126,126	0
57	MG	DA	3180	1/1	0.94	0.17	35,35,35,35	0
57	MG	DA	3081	1/1	0.94	0.32	38,38,38,38	0
58	PAR	AA	1799	42/42	0.94	0.23	60,65,83,87	0
57	MG	BA	3016	1/1	0.94	0.46	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3184	1/1	0.94	0.29	36,36,36,36	0
57	MG	DA	3207	1/1	0.94	0.26	67,67,67,67	0
57	MG	DA	3251	1/1	0.94	0.17	96,96,96,96	0
57	MG	BA	3407	1/1	0.94	0.20	52,52,52,52	0
57	MG	DA	3356	1/1	0.94	0.15	57,57,57,57	0
57	MG	BA	3083	1/1	0.94	0.38	30,30,30,30	0
57	MG	DA	3129	1/1	0.94	0.13	22,22,22,22	0
57	MG	DA	3094	1/1	0.94	0.14	22,22,22,22	0
57	MG	BB	206	1/1	0.94	0.15	105,105,105,105	0
57	MG	DA	3096	1/1	0.94	0.23	24,24,24,24	0
57	MG	AA	1696	1/1	0.94	0.09	47,47,47,47	0
57	MG	BA	3027	1/1	0.94	0.19	30,30,30,30	0
57	MG	AA	1736	1/1	0.94	0.24	87,87,87,87	0
57	MG	AA	1650	1/1	0.94	0.22	99,99,99,99	0
57	MG	BA	3157	1/1	0.94	0.38	74,74,74,74	0
57	MG	DA	3337	1/1	0.94	0.10	76,76,76,76	0
57	MG	DA	3102	1/1	0.94	0.46	129,129,129,129	1
57	MG	BA	3245	1/1	0.94	0.12	42,42,42,42	0
57	MG	DA	3361	1/1	0.94	0.15	64,64,64,64	0
57	MG	CA	1620	1/1	0.94	0.28	59,59,59,59	0
57	MG	DA	3332	1/1	0.94	0.43	33,33,33,33	0
57	MG	DA	3110	1/1	0.95	0.19	41,41,41,41	0
57	MG	AA	1619	1/1	0.95	0.50	65,65,65,65	0
57	MG	BA	3240	1/1	0.95	0.12	11,11,11,11	0
57	MG	DA	3126	1/1	0.95	0.14	59,59,59,59	0
57	MG	BA	3007	1/1	0.95	0.26	22,22,22,22	0
57	MG	CA	1791	1/1	0.95	0.11	85,85,85,85	1
57	MG	CA	1641	1/1	0.95	0.43	64,64,64,64	0
57	MG	DE	301	1/1	0.95	0.27	39,39,39,39	0
57	MG	DA	3286	1/1	0.95	0.82	75,75,75,75	0
57	MG	BA	3227	1/1	0.95	0.28	74,74,74,74	0
57	MG	BA	3108	1/1	0.95	0.19	4,4,4,4	0
57	MG	BA	3103	1/1	0.95	0.21	31,31,31,31	0
57	MG	CW	104	1/1	0.95	0.11	130,130,130,130	1
57	MG	CA	1605	1/1	0.95	0.14	47,47,47,47	0
57	MG	AA	1784	1/1	0.95	0.04	81,81,81,81	1
57	MG	DA	3418	1/1	0.95	0.40	47,47,47,47	1
57	MG	BA	3197	1/1	0.95	0.32	46,46,46,46	0
57	MG	DA	3355	1/1	0.95	0.17	95,95,95,95	0
57	MG	CA	1663	1/1	0.95	0.07	53,53,53,53	0
57	MG	AA	1624	1/1	0.95	0.39	52,52,52,52	0
57	MG	BA	3066	1/1	0.95	0.33	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3231	1/1	0.95	0.35	31,31,31,31	0
57	MG	DA	3061	1/1	0.95	0.28	30,30,30,30	0
57	MG	DA	3163	1/1	0.95	0.31	52,52,52,52	0
57	MG	CA	1730	1/1	0.95	0.26	43,43,43,43	0
57	MG	AA	1694	1/1	0.95	0.46	84,84,84,84	0
57	MG	AA	1791	1/1	0.95	0.23	26,26,26,26	1
57	MG	AA	1629	1/1	0.95	0.28	62,62,62,62	0
57	MG	DA	3274	1/1	0.95	0.30	60,60,60,60	0
57	MG	BA	3050	1/1	0.95	0.27	30,30,30,30	0
57	MG	BA	3023	1/1	0.95	0.34	23,23,23,23	0
57	MG	DA	3044	1/1	0.95	0.20	40,40,40,40	0
57	MG	AA	1614	1/1	0.95	0.40	14,14,14,14	0
57	MG	BB	209	1/1	0.95	0.51	1,1,1,1	1
57	MG	AA	1630	1/1	0.95	0.23	55,55,55,55	0
57	MG	BA	3292	1/1	0.95	0.18	23,23,23,23	0
57	MG	BX	102	1/1	0.95	0.32	104,104,104,104	0
57	MG	CA	1695	1/1	0.95	0.36	54,54,54,54	0
57	MG	BA	3276	1/1	0.95	0.30	49,49,49,49	0
57	MG	AA	1709	1/1	0.95	0.06	49,49,49,49	0
57	MG	DA	3093	1/1	0.95	0.23	36,36,36,36	0
57	MG	BA	3370	1/1	0.95	0.40	113,113,113,113	0
57	MG	BA	3369	1/1	0.95	0.33	53,53,53,53	1
57	MG	DA	3206	1/1	0.95	0.20	33,33,33,33	0
57	MG	BA	3104	1/1	0.95	0.29	20,20,20,20	0
57	MG	CA	1774	1/1	0.95	0.19	121,121,121,121	0
57	MG	BA	3082	1/1	0.95	0.30	37,37,37,37	0
57	MG	BA	3037	1/1	0.95	0.25	23,23,23,23	0
57	MG	DA	3258	1/1	0.95	0.39	37,37,37,37	0
57	MG	CA	1784	1/1	0.95	0.17	68,68,68,68	1
57	MG	DA	3026	1/1	0.95	0.24	19,19,19,19	0
57	MG	AA	1717	1/1	0.95	0.32	61,61,61,61	0
57	MG	BA	3015	1/1	0.95	0.35	33,33,33,33	0
57	MG	BA	3102	1/1	0.95	0.38	13,13,13,13	0
57	MG	BA	3199	1/1	0.95	0.68	116,116,116,116	0
57	MG	BA	3098	1/1	0.95	0.20	6,6,6,6	0
57	MG	DA	3254	1/1	0.95	0.13	99,99,99,99	0
57	MG	CI	201	1/1	0.95	0.19	75,75,75,75	0
57	MG	DA	3215	1/1	0.95	0.08	68,68,68,68	1
57	MG	BB	203	1/1	0.95	0.48	14,14,14,14	1
57	MG	BA	3148	1/1	0.95	0.22	57,57,57,57	0
57	MG	AA	1639	1/1	0.95	0.29	99,99,99,99	0
57	MG	CA	1797	1/1	0.95	0.10	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3181	1/1	0.95	0.32	49,49,49,49	0
57	MG	BA	3145	1/1	0.95	0.21	27,27,27,27	0
57	MG	DA	3159	1/1	0.95	0.58	70,70,70,70	0
57	MG	CA	1626	1/1	0.95	0.22	34,34,34,34	0
57	MG	BA	3031	1/1	0.95	0.45	44,44,44,44	0
57	MG	DA	3271	1/1	0.95	0.34	47,47,47,47	0
57	MG	BA	3060	1/1	0.95	0.38	1,1,1,1	0
57	MG	DA	3156	1/1	0.95	0.49	38,38,38,38	0
57	MG	DA	3074	1/1	0.95	0.28	26,26,26,26	0
57	MG	CA	1796	1/1	0.95	0.25	119,119,119,119	0
57	MG	DA	3036	1/1	0.95	0.32	32,32,32,32	0
57	MG	BA	3147	1/1	0.95	0.17	26,26,26,26	0
57	MG	DA	3145	1/1	0.95	0.44	90,90,90,90	0
57	MG	BA	3261	1/1	0.95	0.56	23,23,23,23	0
57	MG	BA	3039	1/1	0.95	0.27	14,14,14,14	0
57	MG	AA	1626	1/1	0.95	0.17	37,37,37,37	0
57	MG	DA	3018	1/1	0.96	0.31	31,31,31,31	0
57	MG	BA	3109	1/1	0.96	0.18	39,39,39,39	0
57	MG	BA	3304	1/1	0.96	0.16	81,81,81,81	0
57	MG	DA	3326	1/1	0.96	0.15	78,78,78,78	1
57	MG	CA	1651	1/1	0.96	0.17	85,85,85,85	0
57	MG	DA	3084	1/1	0.96	0.42	44,44,44,44	0
57	MG	AA	1652	1/1	0.96	0.31	82,82,82,82	0
57	MG	DA	3348	1/1	0.96	0.10	64,64,64,64	0
57	MG	DA	3235	1/1	0.96	0.29	30,30,30,30	0
57	MG	CA	1724	1/1	0.96	0.20	80,80,80,80	0
57	MG	BA	3011	1/1	0.96	0.30	32,32,32,32	0
57	MG	DB	204	1/1	0.96	0.21	90,90,90,90	0
57	MG	DA	3024	1/1	0.96	0.22	49,49,49,49	0
57	MG	AA	1697	1/1	0.96	0.30	78,78,78,78	0
57	MG	DA	3242	1/1	0.96	0.19	18,18,18,18	0
57	MG	BA	3026	1/1	0.96	0.33	8,8,8,8	0
57	MG	DA	3378	1/1	0.96	0.32	72,72,72,72	0
57	MG	BA	3344	1/1	0.96	0.14	57,57,57,57	0
57	MG	DA	3130	1/1	0.96	0.33	41,41,41,41	0
57	MG	DA	3066	1/1	0.96	0.42	43,43,43,43	0
57	MG	DA	3174	1/1	0.96	0.09	53,53,53,53	0
57	MG	AA	1746	1/1	0.96	0.37	95,95,95,95	0
57	MG	BA	3063	1/1	0.96	0.15	1,1,1,1	0
57	MG	BA	3395	1/1	0.96	0.21	113,113,113,113	0
57	MG	BA	3203	1/1	0.96	0.13	30,30,30,30	0
57	MG	BA	3372	1/1	0.96	0.53	57,57,57,57	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	1788	1/1	0.96	0.23	73,73,73,73	0
57	MG	DA	3385	1/1	0.96	0.26	79,79,79,79	0
57	MG	DA	3009	1/1	0.96	0.15	45,45,45,45	0
57	MG	DA	3323	1/1	0.96	0.64	53,53,53,53	1
57	MG	BA	3106	1/1	0.96	0.28	20,20,20,20	0
57	MG	BA	3337	1/1	0.96	0.14	162,162,162,162	0
57	MG	DA	3420	1/1	0.96	0.10	137,137,137,137	1
57	MG	DA	3347	1/1	0.96	0.26	53,53,53,53	0
57	MG	BA	3205	1/1	0.96	0.30	17,17,17,17	0
57	MG	BA	3025	1/1	0.96	0.49	9,9,9,9	0
57	MG	BA	3088	1/1	0.96	0.23	21,21,21,21	0
57	MG	AA	1688	1/1	0.96	0.25	35,35,35,35	0
57	MG	DA	3394	1/1	0.96	0.13	103,103,103,103	0
57	MG	DA	3173	1/1	0.96	0.10	50,50,50,50	0
57	MG	AA	1604	1/1	0.96	0.14	55,55,55,55	0
57	MG	DA	3030	1/1	0.96	0.23	47,47,47,47	0
57	MG	CA	1732	1/1	0.96	0.09	82,82,82,82	0
57	MG	CA	1710	1/1	0.96	0.07	54,54,54,54	0
57	MG	BA	3034	1/1	0.96	0.19	40,40,40,40	0
57	MG	DA	3403	1/1	0.96	0.17	55,55,55,55	0
57	MG	DA	3167	1/1	0.96	0.13	37,37,37,37	0
57	MG	BA	3178	1/1	0.96	0.24	24,24,24,24	0
57	MG	DA	3203	1/1	0.96	0.08	56,56,56,56	0
57	MG	DA	3237	1/1	0.96	0.17	156,156,156,156	0
57	MG	BA	3154	1/1	0.96	0.33	13,13,13,13	0
57	MG	BA	3089	1/1	0.96	0.63	43,43,43,43	0
57	MG	AA	1638	1/1	0.96	0.23	36,36,36,36	0
57	MG	BA	3018	1/1	0.96	0.48	9,9,9,9	0
57	MG	BA	3398	1/1	0.96	0.36	84,84,84,84	0
57	MG	CA	1653	1/1	0.96	0.13	83,83,83,83	0
57	MG	DA	3104	1/1	0.96	0.47	37,37,37,37	0
57	MG	BA	3095	1/1	0.96	0.34	27,27,27,27	0
57	MG	DA	3060	1/1	0.96	0.30	30,30,30,30	0
57	MG	BA	3308	1/1	0.96	0.21	114,114,114,114	1
57	MG	BA	3294	1/1	0.96	0.37	33,33,33,33	0
57	MG	BA	3068	1/1	0.96	0.15	38,38,38,38	0
57	MG	DA	3045	1/1	0.96	0.30	35,35,35,35	0
57	MG	AA	1686	1/1	0.96	0.57	104,104,104,104	0
57	MG	AA	1609	1/1	0.96	0.20	36,36,36,36	0
57	MG	CA	1624	1/1	0.96	0.25	55,55,55,55	0
57	MG	BA	3385	1/1	0.96	0.12	87,87,87,87	0
57	MG	BA	3272	1/1	0.96	0.27	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	D2	603	1/1	0.96	0.29	95,95,95,95	0
57	MG	AA	1636	1/1	0.96	0.51	74,74,74,74	0
57	MG	DA	3107	1/1	0.96	0.09	32,32,32,32	0
57	MG	DA	3124	1/1	0.96	0.62	28,28,28,28	0
57	MG	DA	3013	1/1	0.96	0.36	31,31,31,31	0
57	MG	CA	1607	1/1	0.96	0.16	30,30,30,30	0
57	MG	DA	3185	1/1	0.96	0.30	33,33,33,33	0
57	MG	DA	3280	1/1	0.96	0.35	109,109,109,109	0
57	MG	BA	3092	1/1	0.96	0.27	28,28,28,28	0
57	MG	DA	3137	1/1	0.96	0.18	21,21,21,21	0
57	MG	BA	3333	1/1	0.96	0.21	40,40,40,40	0
57	MG	DA	3377	1/1	0.96	0.33	24,24,24,24	0
57	MG	BV	201	1/1	0.96	0.26	64,64,64,64	0
57	MG	AV	102	1/1	0.96	0.15	93,93,93,93	1
57	MG	AA	1675	1/1	0.96	0.59	63,63,63,63	0
57	MG	BA	3142	1/1	0.96	0.49	20,20,20,20	0
57	MG	AA	1711	1/1	0.96	0.13	73,73,73,73	0
57	MG	DA	3151	1/1	0.96	0.33	57,57,57,57	1
57	MG	BA	3306	1/1	0.96	0.11	18,18,18,18	0
57	MG	AA	1615	1/1	0.96	0.58	65,65,65,65	0
57	MG	DA	3017	1/1	0.96	0.44	31,31,31,31	0
57	MG	DA	3016	1/1	0.96	0.24	51,51,51,51	0
57	MG	AA	1605	1/1	0.96	0.12	120,120,120,120	0
57	MG	DA	3302	1/1	0.96	0.19	43,43,43,43	1
57	MG	BA	3140	1/1	0.96	0.36	66,66,66,66	0
57	MG	AA	1778	1/1	0.96	0.57	65,65,65,65	1
57	MG	BA	3038	1/1	0.96	0.15	41,41,41,41	0
59	ZN	D9	101	1/1	0.96	0.12	136,136,136,136	0
57	MG	BA	3386	1/1	0.96	0.09	76,76,76,76	0
57	MG	BA	3076	1/1	0.96	0.20	25,25,25,25	0
57	MG	DA	3204	1/1	0.96	0.39	39,39,39,39	0
57	MG	DA	3245	1/1	0.96	0.21	69,69,69,69	0
57	MG	CA	1631	1/1	0.97	0.30	65,65,65,65	0
57	MG	BA	3184	1/1	0.97	0.34	38,38,38,38	0
57	MG	DA	3209	1/1	0.97	0.14	73,73,73,73	0
57	MG	DA	3303	1/1	0.97	0.30	30,30,30,30	0
57	MG	CV	102	1/1	0.97	0.19	46,46,46,46	1
57	MG	BA	3355	1/1	0.97	0.16	92,92,92,92	0
57	MG	DA	3089	1/1	0.97	0.29	26,26,26,26	0
57	MG	BA	3079	1/1	0.97	0.21	31,31,31,31	0
57	MG	BA	3405	1/1	0.97	0.34	164,164,164,164	1
57	MG	BA	3260	1/1	0.97	0.50	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3295	1/1	0.97	0.09	78,78,78,78	0
57	MG	BA	3234	1/1	0.97	0.54	56,56,56,56	0
57	MG	AA	1676	1/1	0.97	0.13	48,48,48,48	0
57	MG	AA	1714	1/1	0.97	0.10	29,29,29,29	0
57	MG	CA	1628	1/1	0.97	0.08	81,81,81,81	0
57	MG	CA	1636	1/1	0.97	0.49	50,50,50,50	0
57	MG	CA	1642	1/1	0.97	0.27	74,74,74,74	0
57	MG	DA	3208	1/1	0.97	0.18	32,32,32,32	0
57	MG	DA	3261	1/1	0.97	0.27	95,95,95,95	0
57	MG	CA	1703	1/1	0.97	0.36	87,87,87,87	0
57	MG	BA	3117	1/1	0.97	0.56	59,59,59,59	0
57	MG	CA	1758	1/1	0.97	0.27	64,64,64,64	1
57	MG	BB	211	1/1	0.97	0.15	119,119,119,119	0
57	MG	BA	3209	1/1	0.97	0.39	14,14,14,14	0
57	MG	BA	3396	1/1	0.97	0.28	11,11,11,11	0
57	MG	B5	101	1/1	0.97	0.17	42,42,42,42	0
57	MG	BA	3069	1/1	0.97	0.53	63,63,63,63	0
57	MG	AA	1782	1/1	0.97	0.17	96,96,96,96	1
57	MG	BX	101	1/1	0.97	0.39	58,58,58,58	0
57	MG	BA	3238	1/1	0.97	0.30	51,51,51,51	0
57	MG	BA	3111	1/1	0.97	0.41	23,23,23,23	0
57	MG	DB	201	1/1	0.97	0.24	74,74,74,74	0
57	MG	DA	3082	1/1	0.97	0.28	59,59,59,59	0
57	MG	DA	3095	1/1	0.97	0.10	37,37,37,37	0
57	MG	DA	3075	1/1	0.97	0.21	37,37,37,37	0
57	MG	DA	3343	1/1	0.97	0.19	71,71,71,71	0
57	MG	BA	3354	1/1	0.97	0.14	129,129,129,129	0
57	MG	DA	3305	1/1	0.97	0.56	100,100,100,100	1
57	MG	BA	3329	1/1	0.97	0.16	126,126,126,126	0
57	MG	BA	3123	1/1	0.97	0.57	29,29,29,29	0
57	MG	CW	103	1/1	0.97	0.26	87,87,87,87	0
57	MG	DA	3322	1/1	0.97	0.22	62,62,62,62	0
57	MG	BB	210	1/1	0.97	0.32	27,27,27,27	0
57	MG	BA	3300	1/1	0.97	0.32	3,3,3,3	0
57	MG	BA	3012	1/1	0.97	0.32	16,16,16,16	0
57	MG	AA	1725	1/1	0.97	0.13	104,104,104,104	0
57	MG	DA	3011	1/1	0.97	0.48	52,52,52,52	0
57	MG	BA	3206	1/1	0.97	0.25	22,22,22,22	0
57	MG	BA	3218	1/1	0.97	0.35	6,6,6,6	0
57	MG	DA	3023	1/1	0.97	0.33	20,20,20,20	0
57	MG	DA	3181	1/1	0.97	0.20	100,100,100,100	0
57	MG	CA	1751	1/1	0.97	0.16	66,66,66,66	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3202	1/1	0.97	0.41	16,16,16,16	0
57	MG	AA	1747	1/1	0.97	0.13	135,135,135,135	0
57	MG	DA	3344	1/1	0.97	0.46	64,64,64,64	0
57	MG	BA	3072	1/1	0.97	0.10	3,3,3,3	0
57	MG	CA	1723	1/1	0.97	0.35	86,86,86,86	0
57	MG	BA	3198	1/1	0.97	0.17	51,51,51,51	0
57	MG	BA	3149	1/1	0.97	0.25	13,13,13,13	1
57	MG	BA	3173	1/1	0.97	0.22	33,33,33,33	0
57	MG	CA	1621	1/1	0.97	0.09	58,58,58,58	0
57	MG	BA	3020	1/1	0.97	0.25	28,28,28,28	0
57	MG	BA	3114	1/1	0.97	0.43	3,3,3,3	0
57	MG	DA	3097	1/1	0.97	0.08	25,25,25,25	0
57	MG	AA	1674	1/1	0.97	0.16	42,42,42,42	0
57	MG	DA	3330	1/1	0.97	0.14	51,51,51,51	1
57	MG	BA	3074	1/1	0.97	0.17	24,24,24,24	0
57	MG	DA	3417	1/1	0.97	0.08	37,37,37,37	0
57	MG	DA	3078	1/1	0.97	0.21	20,20,20,20	0
57	MG	DA	3067	1/1	0.97	0.56	46,46,46,46	0
57	MG	BA	3392	1/1	0.97	0.14	139,139,139,139	0
57	MG	DA	3043	1/1	0.97	0.19	51,51,51,51	0
57	MG	DA	3091	1/1	0.97	0.30	39,39,39,39	0
57	MG	BA	3343	1/1	0.97	0.13	37,37,37,37	0
57	MG	AA	1613	1/1	0.97	0.19	81,81,81,81	0
57	MG	BA	3316	1/1	0.97	0.22	55,55,55,55	1
57	MG	DA	3333	1/1	0.97	0.16	108,108,108,108	0
57	MG	DA	3120	1/1	0.97	0.19	39,39,39,39	0
57	MG	DA	3064	1/1	0.97	0.16	32,32,32,32	0
57	MG	CA	1639	1/1	0.97	0.17	62,62,62,62	0
57	MG	BA	3348	1/1	0.97	0.20	79,79,79,79	0
57	MG	BA	3059	1/1	0.97	0.24	9,9,9,9	0
57	MG	DA	3088	1/1	0.97	0.41	37,37,37,37	0
57	MG	BA	3381	1/1	0.97	0.39	29,29,29,29	0
57	MG	BA	3119	1/1	0.97	0.24	35,35,35,35	0
57	MG	DA	3058	1/1	0.97	0.37	88,88,88,88	0
57	MG	BA	3388	1/1	0.97	0.36	12,12,12,12	0
57	MG	BA	3411	1/1	0.97	0.12	51,51,51,51	1
57	MG	BA	3043	1/1	0.97	0.20	20,20,20,20	0
57	MG	AA	1678	1/1	0.97	0.10	166,166,166,166	0
57	MG	AA	1606	1/1	0.97	0.12	34,34,34,34	0
57	MG	BA	3009	1/1	0.97	0.35	17,17,17,17	0
57	MG	BA	3097	1/1	0.98	0.28	7,7,7,7	0
57	MG	BA	3065	1/1	0.98	0.25	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	3117	1/1	0.98	0.09	16,16,16,16	0
57	MG	CA	1689	1/1	0.98	0.16	40,40,40,40	0
57	MG	BA	3303	1/1	0.98	0.18	49,49,49,49	1
57	MG	BA	3008	1/1	0.98	0.26	3,3,3,3	0
57	MG	AA	1649	1/1	0.98	0.13	56,56,56,56	1
57	MG	BA	3350	1/1	0.98	0.18	81,81,81,81	1
57	MG	DA	3079	1/1	0.98	0.14	37,37,37,37	0
57	MG	AA	1608	1/1	0.98	0.20	46,46,46,46	0
57	MG	DA	3404	1/1	0.98	0.07	97,97,97,97	1
57	MG	DA	3391	1/1	0.98	0.10	120,120,120,120	0
57	MG	DA	3077	1/1	0.98	0.13	29,29,29,29	0
57	MG	DA	3055	1/1	0.98	0.15	31,31,31,31	0
57	MG	CA	1790	1/1	0.98	0.18	48,48,48,48	0
57	MG	DA	3220	1/1	0.98	0.38	26,26,26,26	0
57	MG	BA	3191	1/1	0.98	0.19	14,14,14,14	0
57	MG	BA	3070	1/1	0.98	0.44	2,2,2,2	0
57	MG	DA	3366	1/1	0.98	0.08	29,29,29,29	1
57	MG	DA	3313	1/1	0.98	0.32	80,80,80,80	0
57	MG	BA	3412	1/1	0.98	0.10	30,30,30,30	0
57	MG	BA	3099	1/1	0.98	0.20	37,37,37,37	0
57	MG	DA	3065	1/1	0.98	0.19	17,17,17,17	0
57	MG	DA	3309	1/1	0.98	0.22	47,47,47,47	0
57	MG	DA	3037	1/1	0.98	0.22	45,45,45,45	0
57	MG	DA	3083	1/1	0.98	0.29	33,33,33,33	0
57	MG	BA	3096	1/1	0.98	0.15	1,1,1,1	0
57	MG	BA	3036	1/1	0.98	0.22	29,29,29,29	0
57	MG	BA	3064	1/1	0.98	0.34	20,20,20,20	0
57	MG	BA	3094	1/1	0.98	0.18	24,24,24,24	0
57	MG	CA	1712	1/1	0.98	0.12	81,81,81,81	0
57	MG	BA	3259	1/1	0.98	0.18	24,24,24,24	0
57	MG	BA	3410	1/1	0.98	0.45	120,120,120,120	0
57	MG	BA	3315	1/1	0.98	0.06	83,83,83,83	0
57	MG	AA	1637	1/1	0.98	0.11	58,58,58,58	0
57	MG	BD	302	1/1	0.98	0.22	22,22,22,22	0
57	MG	DA	3171	1/1	0.98	0.24	43,43,43,43	0
57	MG	AA	1687	1/1	0.98	0.13	9,9,9,9	1
57	MG	BA	3045	1/1	0.98	0.41	1,1,1,1	0
57	MG	BA	3165	1/1	0.98	0.14	38,38,38,38	0
57	MG	CA	1633	1/1	0.98	0.14	42,42,42,42	0
57	MG	DA	3168	1/1	0.98	0.21	36,36,36,36	0
57	MG	CA	1715	1/1	0.98	0.12	66,66,66,66	0
57	MG	BA	3414	1/1	0.98	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3040	1/1	0.98	0.33	20,20,20,20	0
57	MG	BA	3213	1/1	0.98	0.09	93,93,93,93	1
57	MG	DA	3022	1/1	0.98	0.33	34,34,34,34	0
57	MG	BA	3325	1/1	0.98	0.13	88,88,88,88	1
57	MG	BA	3299	1/1	0.98	0.28	46,46,46,46	1
57	MG	DA	3236	1/1	0.98	0.33	47,47,47,47	0
57	MG	BA	3061	1/1	0.98	0.31	10,10,10,10	0
57	MG	BA	3421	1/1	0.98	0.15	110,110,110,110	1
57	MG	BA	3028	1/1	0.98	0.23	12,12,12,12	0
57	MG	BA	3335	1/1	0.98	0.11	62,62,62,62	0
57	MG	CA	1781	1/1	0.98	0.08	58,58,58,58	0
57	MG	DA	3382	1/1	0.98	0.13	74,74,74,74	0
57	MG	BA	3049	1/1	0.98	0.28	84,84,84,84	1
57	MG	CA	1670	1/1	0.98	0.11	69,69,69,69	0
57	MG	DA	3374	1/1	0.98	0.12	37,37,37,37	1
57	MG	BA	3132	1/1	0.98	0.21	14,14,14,14	0
57	MG	AA	1789	1/1	0.98	0.32	81,81,81,81	1
57	MG	BA	3021	1/1	0.98	0.36	30,30,30,30	0
57	MG	AA	1785	1/1	0.98	0.18	105,105,105,105	0
57	MG	CA	1743	1/1	0.98	0.50	65,65,65,65	0
57	MG	BA	3362	1/1	0.98	0.19	85,85,85,85	0
57	MG	DA	3409	1/1	0.98	0.55	121,121,121,121	0
57	MG	BA	3019	1/1	0.98	0.28	28,28,28,28	0
57	MG	BA	3024	1/1	0.98	0.42	11,11,11,11	0
57	MG	CA	1679	1/1	0.98	0.12	86,86,86,86	0
57	MG	BA	3182	1/1	0.98	0.23	62,62,62,62	0
57	MG	BA	3183	1/1	0.98	0.32	20,20,20,20	0
57	MG	BB	205	1/1	0.98	0.20	25,25,25,25	0
57	MG	BA	3022	1/1	0.98	0.35	20,20,20,20	0
57	MG	BA	3328	1/1	0.98	0.18	168,168,168,168	0
57	MG	AA	1633	1/1	0.98	0.14	40,40,40,40	0
57	MG	AA	1691	1/1	0.98	0.11	27,27,27,27	0
57	MG	BA	3046	1/1	0.98	0.29	4,4,4,4	0
57	MG	BA	3347	1/1	0.98	0.29	42,42,42,42	0
57	MG	DA	3410	1/1	0.98	0.31	87,87,87,87	1
57	MG	BA	3286	1/1	0.98	0.67	16,16,16,16	0
57	MG	DA	3062	1/1	0.98	0.32	33,33,33,33	0
57	MG	CA	1619	1/1	0.98	0.18	80,80,80,80	0
57	MG	BA	3029	1/1	0.98	0.12	40,40,40,40	0
57	MG	DA	3250	1/1	0.98	0.40	63,63,63,63	1
57	MG	BA	3185	1/1	0.98	0.22	1,1,1,1	0
57	MG	BA	3058	1/1	0.98	0.38	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3044	1/1	0.98	0.31	1,1,1,1	0
57	MG	DA	3039	1/1	0.98	0.05	70,70,70,70	0
57	MG	BA	3321	1/1	0.98	0.14	80,80,80,80	0
57	MG	BA	3115	1/1	0.98	0.32	27,27,27,27	0
57	MG	BA	3189	1/1	0.98	0.17	8,8,8,8	0
57	MG	BA	3116	1/1	0.98	0.12	4,4,4,4	0
57	MG	DA	3131	1/1	0.98	0.21	23,23,23,23	0
57	MG	BA	3358	1/1	0.98	0.24	24,24,24,24	0
57	MG	BA	3256	1/1	0.98	0.34	11,11,11,11	0
57	MG	BA	3136	1/1	0.98	0.22	16,16,16,16	0
57	MG	DA	3076	1/1	0.98	0.33	45,45,45,45	0
57	MG	AA	1642	1/1	0.98	0.19	45,45,45,45	0
57	MG	BA	3075	1/1	0.98	0.36	31,31,31,31	0
57	MG	CA	1650	1/1	0.98	0.11	89,89,89,89	1
57	MG	DA	3014	1/1	0.98	0.19	31,31,31,31	0
57	MG	BA	3073	1/1	0.98	0.15	5,5,5,5	0
57	MG	DA	3371	1/1	0.98	0.12	61,61,61,61	1
57	MG	BA	3278	1/1	0.98	0.09	127,127,127,127	0
57	MG	DA	3056	1/1	0.98	0.34	49,49,49,49	0
57	MG	AA	1767	1/1	0.99	0.29	44,44,44,44	0
57	MG	DA	3193	1/1	0.99	0.33	48,48,48,48	0
57	MG	AX	101	1/1	0.99	0.08	118,118,118,118	0
57	MG	CA	1748	1/1	0.99	0.24	63,63,63,63	0
59	ZN	AD	302	1/1	0.99	0.24	55,55,55,55	0
57	MG	AA	1787	1/1	0.99	0.12	41,41,41,41	1
59	ZN	AN	102	1/1	0.99	0.18	109,109,109,109	0
57	MG	BA	3042	1/1	0.99	0.14	36,36,36,36	0
57	MG	BD	301	1/1	0.99	0.21	16,16,16,16	0
59	ZN	CD	301	1/1	0.99	0.23	55,55,55,55	0
57	MG	DA	3316	1/1	0.99	0.09	88,88,88,88	0
57	MG	DA	3133	1/1	0.99	0.22	35,35,35,35	0
57	MG	CV	101	1/1	0.99	0.21	20,20,20,20	0
57	MG	DA	3010	1/1	0.99	0.35	18,18,18,18	0
57	MG	BA	3090	1/1	0.99	0.36	29,29,29,29	0
57	MG	BA	3093	1/1	0.99	0.07	7,7,7,7	0
57	MG	DA	3241	1/1	0.99	0.38	32,32,32,32	0
57	MG	BA	3078	1/1	0.99	0.18	13,13,13,13	0
57	MG	BA	3055	1/1	0.99	0.32	18,18,18,18	0
57	MG	BA	3222	1/1	0.99	0.16	84,84,84,84	0
57	MG	DA	3052	1/1	0.99	0.12	30,30,30,30	0
57	MG	AA	1779	1/1	0.99	0.13	90,90,90,90	0
57	MG	AA	1692	1/1	0.99	0.13	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3391	1/1	0.99	0.20	37,37,37,37	0
57	MG	BA	3336	1/1	0.99	0.09	105,105,105,105	1
59	ZN	B9	101	1/1	0.99	0.04	94,94,94,94	0
57	MG	AA	1780	1/1	0.99	0.35	115,115,115,115	0
57	MG	BA	3139	1/1	0.99	0.16	85,85,85,85	0
57	MG	DA	3390	1/1	0.99	0.17	48,48,48,48	0
57	MG	DA	3360	1/1	0.99	0.10	83,83,83,83	0
57	MG	BA	3087	1/1	0.99	0.21	10,10,10,10	0
57	MG	BA	3307	1/1	0.99	0.31	23,23,23,23	0
57	MG	DA	3359	1/1	0.99	0.08	62,62,62,62	1
57	MG	BA	3030	1/1	0.99	0.23	18,18,18,18	0
57	MG	BA	3081	1/1	0.99	0.20	7,7,7,7	0
57	MG	BA	3051	1/1	0.99	0.17	5,5,5,5	0
57	MG	BA	3239	1/1	0.99	0.32	20,20,20,20	0
57	MG	BA	3077	1/1	0.99	0.15	1,1,1,1	0
57	MG	CX	102	1/1	0.99	0.09	110,110,110,110	0
57	MG	DA	3234	1/1	0.99	0.15	22,22,22,22	0
57	MG	BA	3229	1/1	0.99	0.35	20,20,20,20	0
59	ZN	CN	102	1/1	0.99	0.12	120,120,120,120	0
57	MG	DA	3357	1/1	0.99	0.16	111,111,111,111	0
57	MG	BA	3287	1/1	0.99	0.51	31,31,31,31	0
57	MG	DA	3186	1/1	0.99	0.21	48,48,48,48	0
57	MG	BA	3377	1/1	0.99	0.14	126,126,126,126	0
57	MG	BA	3084	1/1	0.99	0.18	12,12,12,12	0
57	MG	BA	3359	1/1	0.99	0.16	86,86,86,86	1
57	MG	BA	3035	1/1	0.99	0.26	2,2,2,2	0
57	MG	BA	3169	1/1	0.99	0.23	18,18,18,18	0
57	MG	BA	3293	1/1	0.99	0.11	87,87,87,87	0
57	MG	DA	3363	1/1	0.99	0.14	68,68,68,68	0
57	MG	BA	3129	1/1	0.99	0.27	10,10,10,10	0
57	MG	BA	3397	1/1	0.99	0.10	73,73,73,73	0
57	MG	BA	3130	1/1	0.99	0.19	8,8,8,8	0
57	MG	BA	3054	1/1	0.99	0.15	1,1,1,1	0
57	MG	DA	3268	1/1	0.99	0.08	41,41,41,41	0
57	MG	BA	3233	1/1	0.99	0.40	24,24,24,24	0
57	MG	BA	3363	1/1	0.99	0.15	73,73,73,73	0
57	MG	BA	3013	1/1	0.99	0.17	7,7,7,7	0
57	MG	BA	3232	1/1	0.99	0.20	27,27,27,27	0
57	MG	DA	3038	1/1	0.99	0.21	49,49,49,49	0
57	MG	BA	3112	1/1	0.99	0.40	15,15,15,15	0
57	MG	AV	101	1/1	0.99	0.14	36,36,36,36	0
57	MG	BA	3357	1/1	1.00	0.17	84,84,84,84	0

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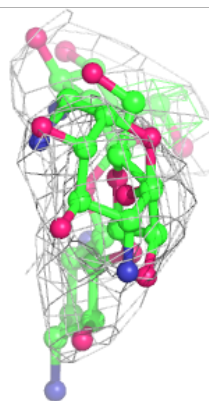
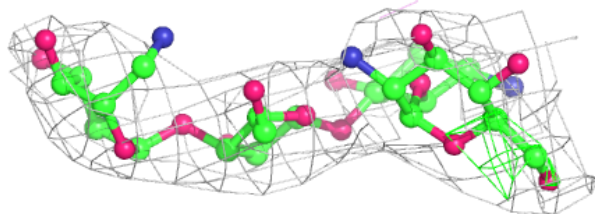
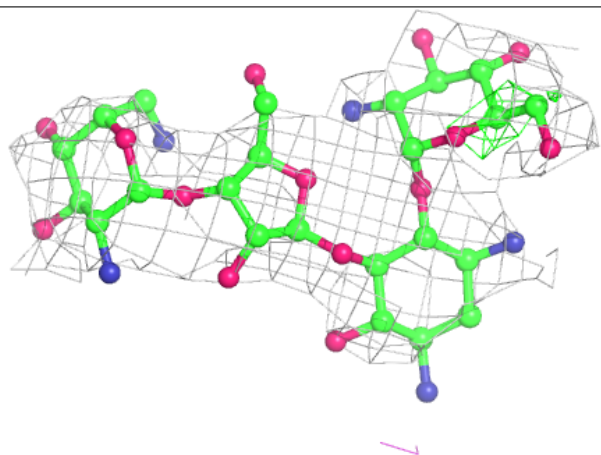
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3364	1/1	1.00	0.17	35,35,35,35	0
57	MG	DA	3364	1/1	1.00	0.22	52,52,52,52	0
57	MG	BA	3002	1/1	1.00	0.16	139,139,139,139	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

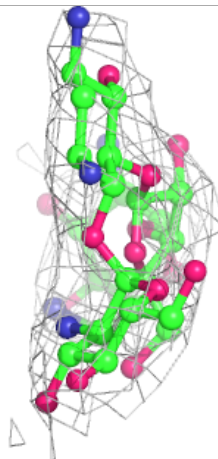
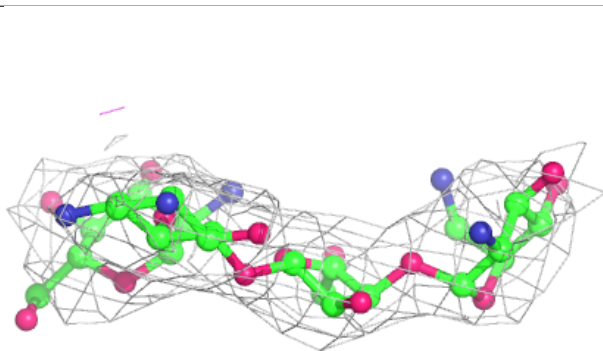
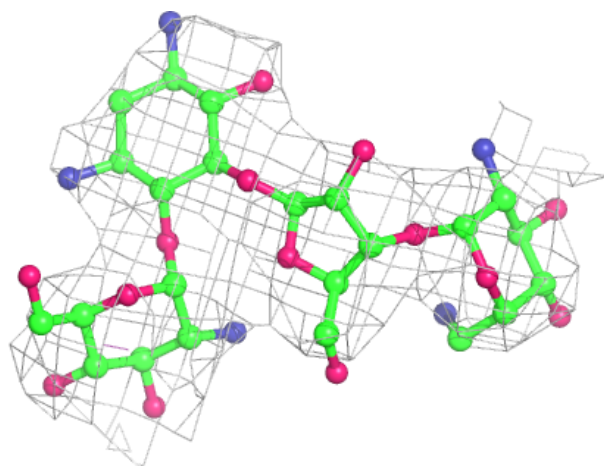
Electron density around PAR CA 1800:

2mF_o-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around PAR AA 1799:

$2mF_o-DF_c$ (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.